20 State Agency Comments

Submission 248 (Janice Yoshioka, California Department of Fish and Wildlife Region 4, June 21, 2019)

Merced - Fresno 2014+; Central Valley Wye - RECORD #248 DETAIL

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Please see the attached letter. The hard copy will follow by mail.

If you have any questions, please contact Primavera Parker, Environmental Scientist, at (559) 243-8139 or Primavera.Parker@wildlife.ca.gov<mailto:Primavera.Parker@wildlife.ca.gov>.

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Attachments : DSEIR_CVWye_SCH-2009091125.pdf (5 mb)

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GAVIN NEWSOM, Governor
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Jure 19, 2019

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, Merced to Fresno Section: Central Valley Wye (Project)
Draft Supplemental Environmental Impact Report (DSEIR)
SCH No. 2009091125

Dear Mr. McLoughlin:

The California Department of Fish and Wildlife (CDFW) received a Notice of Availability of a DSEIR from the High-Speed Rail 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.

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

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & Game 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 & Game 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, their eggs and nests include, sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

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), focusing specifically on project activities that have the potential to adversely affect fish and wildlife resources. CDFW provides recommendations to identify potential impacts and possible measures to avoid or reduce those impacts.

PROJECT DESCRIPTION SUMMARY

Proponent: California High-Speed Rail Authority (Authority)

Objective: As part of the Merced to Fresno Section, an approximate 51- to 55-mile portion, of the statewide high-speed rail system delineated as the Central Valley Wye, would create the high-speed rail connection between the San Jose to Merced Section to the west and the north-south portion of the Merced to Fresno to the east. The DSEIR Central Valley Wye addresses four alternatives, each of which includes electrical interconnections and network. The preferred alternative stated in the DSEIR is State Route (SR) 152 north to Road 11.

Location: The proposed Merced to Fresno Section: Central Valley Wye is located in Merced and Madera Counties near the City of Chowchilla with related electrical facilities extending into Fresno and Stanislaus counties. The Project termini are located at Henry Miller Road/Carlucci Road on the west (latitude 37°5'51.46"N/longitude -120°40'48.84"W). Ranch Road/SR99 on the north (latitude 37°13'21.29"N/longitude -120°22'40.69"W), and Avenue 19 near Madera Acres on the south (latitude 37°1'31.84"N/ longitude -120 4'46.61"W). The nearest major highway intersection is SR 99 and SR 152.

Timeframe: Unspecified.

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.

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248-239 Currently, the DSEIR indicates that the Project's impacts would be less than significant with the implementation of mitigation measures described in the DSEIR. 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. In particular, CDFW is concerned regarding adequacy of mitigation measures for special-status species including, but not limited to, the State Threatened Swainson's hawk (*Buteo swainsoni*), tricolored black bird (*Agelaius tricolor*), State Endangered and fully protected bald eagle (*Haliaeetus leucocephalus*), State and Federal Endangered Fresno kangaroo rat (*Dipodomys nitratoides exilis*), State Threatened and Federal Endangered San Joaquin kit fox (*Vulpes macrotis mutica*), State and Federal Threatened California tiger salamander (*Ambystoma californiense*) and giant garter snake (*Thamnophis gigas*), and State fully protected white-tailed kite (*Elanus leucurus*) and golden eagle (*Aquila chrysaetos*).

248-240 **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)?

COMMENT 1: Tricolored Blackbird (TRBL)

Section 3.7.7.4 Impact BIO#11 Direct impact on Special-Status Wildlife-Birds and Impact BIO#12 Indirect impact on Special-Status Wildlife-Birds pages 75 through 77

Issue: The DSEIR acknowledges that TRBL have the potential to occur within or near the Project (CDFW 2019). The Project contains annual grasslands, dairies, pastures, wetlands, and field crops. Despite this, the DSEIR does not identify TRBL as a State Threatened species and does not include any species-specific measures for evaluating or minimizing impacts to TRBL.

Specific impact: Without appropriate avoidance and minimization measures for TRBL, potential significant impacts include nest and/or colony abandonment, reduced reproductive success, and reduced health and vigor of eggs and/or young.

Evidence impact would be significant: TRBL aggregate and nest colonially, forming colonies of up to 100,000 nests (Meese et al. 2014). Approximately 86% of the global population is found in the San Joaquin Valley (Kelsey 2008, Weintraub et al. 2016). 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

248-240 were distributed among only sixteen colonies in Merced County (Meese 2017). Nesting can occur synchronously, with all eggs laid within one week (Orians 1961). For these reasons, depending on timing, disturbance to nesting colonies can cause abandonment, significantly impacting TRBL populations (Meese et al. 2014).

Recommended Potentially Feasible Mitigation Measure(s)

Because the DSEIR identifies the potential for TRBL to occur within Project, CDFW recommends conducting the following evaluation of the Project, updating the DSEIR 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: TRBL Habitat Assessment

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

Recommended Mitigation Measure 2: TRBL Surveys

CDFW recommends 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 wildlife biologist conduct surveys for nesting TRBL no more than 10 days prior to the start of implementation to evaluate presence/absence of TRBL nesting colonies in proximity to Project activities and to evaluate potential Project-related impacts.

Recommended Mitigation Measure 3: TRBL Avoidance

If an active TRBL nesting colony is found during preconstruction 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 the colony or parental care for survival. It is important to note that TRBL colonies can expand over time and for this reason, the colony may need to be reassessed to determine the extent of the breeding colony within 10 days of Project initiation.

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Recommended Mitigation Measure 4: TRBL Take Authorization

In the event that a TRBL nesting colony is detected during surveys, consultation with CDFW is warranted to discuss how to implement the Project and avoid take, or if avoidance is not feasible, to acquire an Incidental Take Permit (ITP), pursuant to Fish and Game Code section 2081(b), prior to any ground-disturbing activities.

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COMMENT 2: Fully Protected Raptors

Section 3.7.7.4 Impact BIO#11 Direct Impacts on Special-Status Wildlife-Birds and Impact BIO#12 Indirect Impacts on Special-Status Wildlife-Birds pages 75 through 78 and BIO-MM#24 page 127

Issue: The State fully protected white-tailed kite, the State fully protected golden eagle, and State Endangered and fully protected bald eagle are known to occur within the vicinity of the Project (CDFW 2019). The DSEIR acknowledges the presence of suitable habitat for these species within the Project area but does not contain any species-specific measures to minimize the Project's impacts on fully protected raptors. The DSEIR does not describe how the preferred alternative has the least extensive direct impacts in comparison to the other alternatives. The CEQA conclusion for direct and indirect impacts does not address these fully protected species. BIO-MM#24 combines pre-construction surveys and monitoring for all raptors including the State fully protected species, however this mitigation measure should separate out the fully protected species. Without appropriate mitigation measures, Project activities conducted within occupied territories have the potential to significantly impact these species.

Specific Impacts: Potentially significant impacts that may result from new ground disturbing activities include nest abandonment, loss of nest trees, and/or loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young), and direct mortality.

Evidence impact would be significant: 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 fully protected raptors.

Recommended Potentially Feasible Mitigation Measure(s)

Because the DSEIR identifies the potential for fully protected raptors to occur in the Project area, CDFW recommends, updating the DSEIR 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.

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Recommended Mitigation Measure 5: Fully Protected Raptor Habitat Assessment

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 fully protected raptors.

Recommended Mitigation Measure 6: Fully Protected Raptor Surveys

If suitable habitat is present, CDFW recommends that focused surveys be conducted by experienced biologists at individual Project sites prior to Project implementation. To avoid impacts to these species, CDFW recommends conducting these surveys in accordance with protocols developed by CDFW (CDFG 2010) and the USFWS (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 be conducted by a qualified biologist no more than 10 days prior to the start of construction.

Recommended Mitigation Measure 7: Fully Protected Raptor Avoidance

In the event that special-status raptor species are found within ½-mile of Project sites, implementation of avoidance measures is warranted. CDFW recommends that a qualified wildlife biologist be on-site during all ground-disturbing/ construction-related activities and that a ½-mile no-disturbance buffer be put into effect. If the ½-mile no-disturbance buffer cannot feasibly be implemented, contacting CDFW to assist with providing and implementing additional avoidance measures is recommended. Fully addressing mitigation measures for fully protected raptor species in the CEQA document prepared for the Project is recommended.

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COMMENT 3: California Tiger Salamander (CTS)

Section 3.7.8 Biological Resources and Wetlands; Mitigation Measures BIO-MM#11 and #12; pages 121 through 122

Issue: CTS are known to occur in the vicinity of the Project (CDFW 2019). The DSEIR, as currently drafted, includes measures that may not be enforceable or adequate in avoiding, minimizing, or mitigating the impacts to CTS to a level that is less than significant or that may themselves result in take. In addition, there are no details on how avoidance of take would be achieved. For example, BIO-MM#12 requires installation of wildlife exclusion fencing around the Project, which indicates that there is potential for special-status amphibians to be within the Project site. There are no avoidance buffers stated in the measures for potential burrow avoidance within the Project. CDFW recommends that avoidance buffers from potentially occupied burrows be added to BIO-MM#12.

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Specific Impacts: The proposed Project is within the vicinity of both 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.

Evidence impact would be significant: 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). The Project area is within the range of CTS and numerous Project sites are within and surrounded by suitable habitat (i.e., aquatic breeding habitat, grasslands interspersed with burrows). CTS have been determined to be physiologically capable of dispersing up to approximately 1.5 miles from seasonally flooded wetlands (Searcy and Shaffer 2011) and have been documented to occur near the Project sites (CDFW 2019). Given the presence of suitable habitat surrounding the Project sites, Project activities have the potential to significantly impact local populations of CTS.

Recommended Potentially Feasible Mitigation Measure(s)

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

Recommended Mitigation Measure 8: Focused CTS Site Assessment and Survey

CDFW recommends that a qualified biologist assess Project area and vicinity (i.e., up to 1.5 miles, observed CTS dispersal distance) to evaluate the potential for CTS. CDFW recommends site assessments follow 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 the qualified biologist determine the impacts of Project-related activities to all CTS upland and breeding habitat features within and/or adjacent to the construction footprint.

If, following the site assessment, it is determined there is suitable habitat present for breeding or upland refugia on the Project site, protocol-level surveys are advised to be conducted in accordance with the USFWS' Interim Guidance document (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

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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.

Recommended Mitigation Measure 9: CTS Avoidance

CDFW advises that a minimum 50-foot no-disturbance buffer be delineated around all small mammal burrows in suitable habitat and occupied breeding pools within and/or adjacent to the Project sites' construction footprints. CDFW also recommends 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.

Recommended Mitigation Measure 10: CTS Take Authorization

If through 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, acquisition of take authorization would be warranted prior to initiating ground-disturbing activities. Take authorization would occur through issuance of an ITP by CDFW, pursuant to Fish and Game Code section 2081(b). Alternatively, in the absence of protocol surveys, the applicant can assume presence of CTS within the Project area and obtain an ITP from CDFW.

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COMMENT 4: Giant Garter Snake (GGS)

Section 3.7. Biological Resources; Mitigation Measures BIO-MM#19-22; pages 125-126.

Issue: The DSEIR acknowledges that GGS has the potential to be present in or near the Project. As documented in the California Natural Diversity Database (CNDDB), GGS are known to occur in the San Joaquin River and tributaries that feed into the San Joaquin River in Merced County (CDFW 2019). Despite this, the DSEIR, as currently drafted, includes measures that may not be enforceable or adequate in avoiding, minimizing, or mitigating impacts to a level that is less than significant or that may themselves result in take. In addition, BIO-MM#19 requires installation of protective environmental fencing along Project site perimeters, which could result in take, resulting from capture, of GGS within the fenced Project area.

Specific Impacts: Potentially significant impacts associated with bridge or culvert construction/replacement include burrow excavation and collapse, inadvertent entrapment, and direct mortality of individuals.

Evidence impact would be significant: Currently, GGS are isolated to only nine disjunct populations. At the time of the species listing under the Federal

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Endangered Species Act in 1993, the USFWS recognized 13 populations. Since then, two of these populations have been determined to be 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 the summer months, GGS require aquatic habitat for foraging and adjacent upland areas with emergent vegetation for basking sites (USFWS 2017b). During periods of inactivity, GGS require burrows in upland habitat as refugia for summer shelter and burrows in higher elevation uplands for winter hibernation (Hansen et al. 2015). The Project as proposed 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 is are present.

Recommended Potentially Feasible Mitigation Measure(s)

Because the DSEIR identifies the potential for GGS to occur on the Project, CDFW recommends conducting the following evaluation of individual Project area, revising the DSEIR to include the following measures, and that these measures be made Conditions of Approval for the Project.

Recommended Mitigation Measure 11: GGS Habitat Assessment

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

Recommended Mitigation Measure 12: GGS Surveys and Avoidance

If suitable habitat is present, CDFW recommends, no more than 30 days prior to ground disturbing activities, a qualified biologist with GGS experience and knowledge of its ecology, 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.

Recommended Mitigation Measure 13: GGS Take Authorization

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

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an ITP, pursuant to Fish and Game Code section 2081(b) would be necessary to comply with CESA.

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COMMENT 5: Swainson's Hawk (SWHA)

Section 3.7.8 Biological Resources and Wetlands; Mitigation Measures BIO-MM#26-28; pages 128 through 129 and BIO-MM#50 page 138.

Issue: SWHA have the potential to nest within and in the vicinity of the Project. In addition, as described in the DSEIR, foraging habitat for SWHA exists within and in the vicinity of the Project area: The Project area is surrounded by annual grasslands and croplands that may be used for foraging. The CNDDB shows SWHA occurrences throughout Fresno, Madera, and Merced counties (CDFW 2019). CDFW acknowledges that BIO-MM#26 requires a pre-activity survey for suitable SWHA nesting habitat. This measures also requires a no-disturbance buffer in consultation with CDFW should an active nest be found. However, the DSEIR should define the restrictive buffer size, in BIO-MM#27, or provide provisions for consulting with CDFW on whether take avoidance can occur should implementation of the buffer not be feasible. BIO-MM#28 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 provisions described in this measure may not be enforceable or adequate in minimizing impacts to SWHA to a level that is less than significant.

Specific impacts: Without appropriate avoidance and minimization measures for SWHA, potential significant impacts that may result from Project activities include nest abandonment, loss of nest trees, loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young), and direct mortality. Any take of SWHA without appropriate incidental take authorization would be a violation of Fish and Game Code.

Evidence impact is potentially significant: SWHA exhibit high nest-site fidelity year after year and lack of suitable nesting habitat in the San Joaquin 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 from construction workers that could affect nests and has the potential to result in nest abandonment, significantly impacting nesting SWHA in the Project vicinity. The mature trees and agricultural fields in the Project 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.

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Recommended Potentially Feasible Mitigation Measure(s)
Because suitable habitat for SWHA is present throughout the Project area, CDFW recommends revising the DSEIR to include the following measures and that these measures be made Conditions of Approval for the Project.

Recommended Mitigation Measure 14: SWHA Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment of individual Project areas in advance of Project implementation, to determine if the Project area, or in the Project vicinity, contain suitable habitat for SWHA.

Recommended Mitigation Measure 15: Focused SWHA Surveys

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 implementation. 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.

Recommended Mitigation Measure 16: SWHA Avoidance

If an active SWHA nest is found, CDFW recommends implementation of a minimum ½-mile no-disturbance buffer around active nests 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.

Recommended Mitigation Measure 17: SWHA Nest Tree Mitigation

SWHA exhibit high nest-site fidelity year after year and CDFW considers removal of known SWHA nest trees, even outside of the nesting season, a potentially significant impact under CEQA. 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 nesting habitat.

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Recommended Mitigation Measure 18: Compensation for Loss of Foraging Habitat

If SWHA nests occur in the vicinity of 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:

- 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.

Recommended Mitigation Measure 19: SWHA Take Authorization

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 ITP, pursuant to Fish and Game Code section 2081(b) is necessary to comply with CESA.

II. Editorial Comments and/or Suggestions

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Nesting birds: CDFW encourages Project implementation 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.

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To evaluate Project-related impacts on nesting birds, CDFW recommends that a qualified wildlife 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 that could potentially be impacted are detected. CDFW also recommends that surveys cover a sufficient area around the Project site to identify nests and determine their status. A sufficient area means any area potentially affected by the Project. In addition to direct impacts (i.e., nest destruction), 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

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248-246 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 wildlife 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 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.

248-247 **Lake and Streambed Alteration:** Project-related activities have the potential to substantially change the bed, bank, and channel of wetlands and waterways onsite, 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 ephemeral or intermittent as well as those that are perennial. 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. For additional information on notification requirements, please contact our staff in the Lake and Streambed Alteration Program at (559) 243-4593.

248-248 **Wildlife Corridor Movement:** CDFW has provided comments to the Authority in previous comment letters regarding wildlife corridor movement; specifically, the Merced to Fresno DEIR/EIS comment letter and the Fresno to Bakersfield SEIR/EIS comment letter.

As CDFW has discussed in the previous comment letters to the Authority, the single biggest potential biological impact arising from construction of the High-Speed Rail (HSR) project is the impact on regional movements of wildlife and connections between habitat. The HSR has the potential to disrupt wildlife movement corridors that are already hindered with existing obstacles, create long stretches of impediments, and

248-248 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. As CDFW has stated in its previous comment letters, the 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 Central Valley Wye 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 length, narrowing the available space for wildlife passage. This could limit the ability of species such as San Joaquin kit fox to move unimpeded throughout its historic range.

These types of potential future design changes need to be considered in the DSEIR. 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 the proposed wildlife underpasses and overpasses, which are not always effective. Because animals would be more likely to move underneath an elevated rail or over a below ground rail than to use a tunnel or vegetated overpass where the landscape view of the opposite side would be visually obstructed, CDFW advises the inclusion of the at-grade embankment in the DSEIR as an impact to wildlife movement and that this impact be thoroughly analyzed as a barrier to movement, gene flow, reproductive success, loss of colonization opportunities, and to discuss this in the context of planned wildlife crossings.

The DSEIR 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 the additional infrastructure fencing.

If wildlife passage structures will be used instead of elevated 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

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248-248 structures or avoidance should include things such as: 1) track station surveys, 2) ditch 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 and be required to meet specific minimum dimensions for increased probability of wildlife utilizing these structures for crossing opportunities.

248-249 **COMMENT 6: Section 3.7.1 Definition of Resources: California Fish and Game Code Section 1600 et. Seq. Rivers, Lakes and Streams Page 4**

Fish and Game Code section 1602 applies to any river, stream lake including those that are episodic as well as perennial. This includes ephemeral streams, desert washes, watercourses with subsurface flow. It may also apply to work undertaken within the floodplain of a body of water. The definition provided in the DSEIR does not encompass all streams that may be impacted in the Project area; therefore, CDFW advises the definition of stream in the DSEIR be modified to incorporate sufficient parameters that these waterways will be captured by the definition and into analyzing impacts to CDFW jurisdictional waterways.

248-250 **COMMENT 7: Section 3.7.5.3 Special-Status Plant Species Page 20**

The literature review for special-status plant species in the DSEIR stated the California Natural Diversity Database (CNDDB)/Rarefind and California Native Plant Society (CNPS) programs were used to identify potential and known special-status species. CDFW would like to state that while both CNDDB/Rarefind and CNPS programs are excellent tools, the databases are populated through voluntary submittal of positive detections and therefore are only as effective as the information included/submitted. Thus, areas of un-surveyed land may have undocumented occurrences of special-status species and special-status plant communities. As a result, it is expected that the outcome of the query underestimates the locations and probable detections of special-status species and plant communities within and adjacent to the proposed construction footprint.

248-251 **COMMENT 8: Section 3.7.5.3 Special-Status Wildlife-CNDDB Page 20**

The CNDDB species list was generated in 2016 for the DSEIR; however, since then, the species listings have been updated. It should also be noted that while both CNDDB/Rarefind programs are excellent tools, the databases are populated through voluntary submittal of positive detections and therefore are only as effective as the information included/submitted. Thus, areas of un-surveyed land may have

248-251 undocumented occurrences of special-status species. As a result, it is expected that the outcome of the query underestimates the locations and probable detections of special-status species within and adjacent to the proposed construction footprint.

248-252 **COMMENT 9: Section 3.7.5.3 Field Surveys Page 23**

Approximately 13% of the property was surveyed for presence of biological resources. Because much of the area could not be surveyed, the Authority should assume presence in all areas of potential habitat including certain agricultural areas and include avoidance, minimization, and mitigation measures to reduce impacts. Access achieved was insufficient to adequately analyze resource potential and to conclude the quality of the habitat conditions.

248-253 **COMMENT 10: Section 3.7.5.3 Reconnaissance Survey Pages 23-24**

Windshield surveys along existing roads were conducted for wildlife habitat assessments. Please note that this level of surveys, due to the lack of access and the deficiency of discrete timing to ensure maximum detectability, are inadequate to make an effective determination regarding resource presence or absence, particularly in regards to wetlands.

248-254 **COMMENT 11: Section 3.7.5.3 San Joaquin Restoration Program, Page 27**

The DSEIR states, "Prior to interim flows, the reach between Friant Dam and the Mendota Pool rarely sustained flows conducive to the Chinook salmon life cycle (USBR and DWR 2011)". CDFW recommends expanding the statement to include the following: Prior to interim flows, the reach between Friant Dam and the Mendota Pool rarely sustained flows conducive to the Chinook salmon life cycle *following the completion of Friant Dam* (USBR and DWR 2011).

248-255 **COMMENT 12: Section 3.7.6.1 Plant communities and Land Cover Page 30**

The DSEIR indicates that urban areas in the communities of Merced, Chowchilla and Madera have highly disturbed areas that consist of plants such as *Eucalyptus* ssp. Eucalyptus tree species have the potential to provide nesting habitat for SWHA in these urban areas. CDFW recommends that ornamental tree species be carefully considered to effectively analyze the State Threatened SWHA which regularly use eucalyptus ornamentals for nest trees and advises analyzing the impacts to SHWA in these urban areas.

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248-256 **COMMENT 13: Section 3.7.6.2 Native Fauna Page 35**

The DSEIR indicates that the focus of the impact analysis is on special status species. However, CEQA and NEPA[2] requires that the assessment include significant impacts to all biological resources and is not limited to special status species. Please explain if any significant impacts to non-listed species could result from this Project (e.g., impacts restricting the movement of common wildlife species, etc.). There is no identified avoidance, minimization measures for non-listed species within the DSEIR.

248-257 **Comment 14: Section 3.7.6.4 Special Status Plant Communities Page 41**

The DSEIR analysis lacks consideration as to the secondary benefits of plant communities. It should be noted riparian areas help reduce solar input that cause water temperatures to rise as well as adding stability to riverbanks which reduces erosion.

248-258 **COMMENT 15: Section 3.7.6.4 Aquatic Habitats, Non-Wetland Waters Page 44**

The DSEIR indicates that constructed watercourses offer few biological resources to plants and wildlife. However, these areas can, and often do, support wildlife and wildlife use for foraging, dispersal, breeding, and refugia habitat. Impacts to these areas need to be analyzed. It should be noted that the non-wetland waters that are classified as constructed waterways (ditches and canals) also could be subject to Fish and Game Code section 1602.

248-259 **COMMENT 16: Section 3.7.6.4 Habitats of Concern: Essential Fish Habitat (EFH) Page 46**

The DSEIR indicates that restored flows are part of the San Joaquin River Restoration Program (SJRRP); however, there can be surface water flows downstream of Gravelly Ford and Mendota Pool apart from flood flows. It should be noted that the temporary fish barrier in place upstream of the confluence of the San Joaquin River and Merced River does not completely prevent passage/migration of anadromous fish into the San Joaquin River. In fact, CDFW routinely captures salmon upstream of this barrier. This barrier should not be considered as a factor in reducing impacts to less than significant. CDFW advises to consider this in the analysis of impacts to EFH.

248-260 EFH in the habitat study area for all Central Valley Wye alternatives is not only limited to the San Joaquin River, returning adult Chinook salmon as well as out-migrating juveniles could occupy the Chowchilla bypass as well.

The summary of SJRRP fish reintroduction efforts in the DSEIR is incorrect. Adult Broodstock Releases to Reach 1A was not limited to 2016 but continues as a research

[2] See CEQA Guidelines Appendix G, IV, Biological Resources (d), XVIII. Mandatory Findings of Significance (a), and NEPA regulation 40 C.F.R. § 1502.3.

248-260 study and possible reintroduction strategy. In 2016, 25 adult spring-run were released to Reach 1A, 115 adult spring-run in 2017, and 179 in 2018. The first observed spring-run redds from these releases occurred in 2016 with three redds observed. In 2017, 13 redds were observed and in 2018, 42 redds were observed during surveys. Releases of juvenile spring-run Chinook salmon to the San Joaquin have occurred each year since 2014. The statement "In 2017, nearly 90,000 juveniles were released resulting in the first successful spawning of spring-run Chinook salmon in over 60 years" is factually incorrect and implies that the juveniles released from the Salmon Conservation and Research Facility(SCARF) and Satellite Incubation and Rearing Facility(SIRF) were naturally spawned fish.

248-261 **COMMENT 17: Section 3.7.6.4 Wildlife Movement Corridor Page 47**

The Pacific flyway is mentioned as spanning the wildlife movement study area; however there is a lack of analysis of the direct and indirect impacts to the Pacific flyway in the document. CDFW recommends 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.

248-262 **COMMENT 18: Section 3.7.6.6 Condition Assessments and Watershed Profile Page 49-50**

The DSEIR lacks analysis on how the alternatives would impact the function of the watershed. It is unclear if the Project would impact the watershed as a whole. CDFW recommends further analysis of the potential impacts and consideration of potential impacts to Ash Slough-Merced National Wildlife Reserve and the Grasslands Ecological Area (GEA), located to the west of the Project which could have watershed connectivity.

248-263 **COMMENT 19: Section 3.7.7.4 Impact BIO#1 Direct Impacts on Special Status Plant Species Page 52-56**

As stated in the DSEIR, the entire special-status plant study area was not surveyed due to limited permission to enter privileges. This effort is inadequate to effectively draw any final conclusions of the extent where special-status plant communities could occur, whether impacts to these communities have been adequately analyzed, and whether the impacts are potentially significant. It should also be noted that temporary impacts require further analysis since these temporary impacts are significant.

248-264 **COMMENT 20: Section 3.7.7.4 CEQA Conclusion: Analysis of Indirect Impacts and Significance Determination (Impact BIO#4, 6, 8, 10, 12, 14, 18, 20, 22, 29, 30, 38 Pages 68-105 and Table 3.7-19 Pages 151-157)**

Determination of indirect impacts within the CEQA conclusion for BIO Impacts #s 4, 6, 8, 10, 12, 14, 18, 20, 22, 29, 30, and 38 all state that impacts are less than significant

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248-264 due to the design features that provide impact avoidance and minimization measures (IAMF) that are in place. Significance determination must be made independently of the avoidance, minimization, and/or mitigation measures. CEQA Guidelines[3] section 15126.2 *Consideration and Discussion of Significant Environmental Impacts*, does not indicate that determination of significant environmental impact is to be based on the avoidance and minimization measures and/or mitigation.

248-265 **COMMENT 21: Section 3.7.7.4 Impact BIO#5 Direct Impact on Special Status Wildlife-Fish Page 69**

The DSEIR addresses disturbance due to sound levels from pile driving in analyzing direct impacts to special-status fish. It should be noted that if this disturbance occurs during critical fish migration periods and if duration and intensity from pile driving is high enough, migration could be disrupted and possibly prevented as a result. There is insufficient information presented to determine if this impact was appropriately analyzed. There are also no mitigation measures mentioned to reduce scund impacts to fish or other aquatc species during construction. CDFW recommends that this be further analyzed.

248-266 The DSEIR states, "the Authority and the project biologist would consult with the National Marine Fisheries Service (NMFS) and CDFW to identify appropriate work windows for federally listed species, including federally listed fish in the San Joaquin River"; however, the language implies the work window was recognized by NMFS as June 15 to September 15, with an extension to October 15. CDFW recommends implementation of the original shorter work window (June 15 to September 15) for in-river work as adult fall-run Chinook salmon could be migrating through the Project footprint (in some years) as early as October. The referenced October 15 extension was provided to the Authority under the Merced to Fresno ITP, based on real-time survey information collected and conveyed by NMFS and CDFW, specific to the year in which it was provided. Based on annual environmental influences effecting timing of migration, work windows may be as short as 3 to 4 months. The likelihood of construction occurring outside of the identified work window is highly probable; however, this requires analysis and additional measures to reflect these potentially adjusted work windows.

It is unclear in the document what the resource agency standards or Standard Operation Procedures (SOPs) that would be followed in the event of a fish rescue inside the cofferdam, CDFW recommends incorporating them into IAMFs and/or mitigation measures.

[3] 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.

248-266 The DSEIR states, "There would not be a substantial adverse effect from habitat degradation or modification on special-status fish". This assumption is based on anecdotal generalities and fails to consider long-term impacts should migration be prevented or hindered over the course of the construction period. Multiple years of adults or juvenile Chinook salmon not reaching the ocean or spawning grounds could have negative impacts to the restoration of the San Joaquin River population.

248-267 It should also be noted that Kern Brook lamprey are endemic to the San Joaquin River and while they are not federally or state listed; under the International Union for Conservation of Nature (IUCN) Red List category, Kern Brook Lamprey are listed as Vulnerable (NatureServe, 2013) and attributes habitat degradation and loss due to dams and diversions as the leading causes of populations being fragmented. Should only Federal-listed species be considered, Kern Brook Lamprey in the project area could be negatively impacted if overlooked. CDFW recommends that impacts to non-special status fish species be addressed.

248-268 **COMMENT 22: Section 3.7.7.4 Impact BIO#13 Direct Impacts and BIO#14 Indirect Impacts Ringtail Page 79 and 81**

Ringtail is a fully protected mammal under Fish and Game Code and it should be stated in addressing the direct and indirect impacts. The heading for ringtail should indicate that the species is fully protected. CDFW recommends updating the DSEIR to reflect that protected status.

248-269 **COMMENT 23: Section 3.7.7.4 Impact BIO#17 Direct Impacts on Jurisdictional Aquatic Resources Page 86**

The DSEIR indicates the design features of the Central Valley Wye would avoid, minimize or preclude altering impacts. It is unclear how impacts would be precluded in implementing design features and how the implementation would effectively avoid and minimize with the lack of specific enforceable measures.

248-270 **COMMENT 24: Section 3.7.7.4 Impact BIO#17 Direct Impacts on Jurisdictional Aquatic Resources Page 89**

In subsection *California Fish and Game Code Section 1600 et. Seq. Rivers, Lakes and Streams (including riparian areas)*, CDFW advises to include direct impacts to constructed or modified waterways, as Project activities have the potential to be jurisdictional for CDFW.

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248-271 **COMMENT 25: Section 3.7.7.4 Impact BIO#22 Direct Impact on Essential Fish Habitat, Page 92; Impact BIO #43 Direct Impact on Essential Fish Habitat Page 108**

The DSEIR states, "EFH in the San Joaquin River in the habitat study area for the Central Valley Wye alternatives has historically been poor quality". It should be noted that historically the San Joaquin River supported one of the largest populations of spring-run Chinook salmon in the State. CDFW advises to exclude using "historically" and better describe in this analysis the habitat degradation of the San Joaquin River over the last half century.

This CEQA conclusion appears to contradict the CEQA conclusion made for Impact BIO#6 Indirect Special-status fish (less than significant). Here the CEQA conclusion is "significant" for impacts on EFH. The conclusion for both CEQA Conclusions should be significant impact.

248-272 **COMMENT 26: Section 3.7.7.5 Impact BIO#39 and #40 Pages 105-106**

It should be noted, for direct and indirect, and impacts for ongoing maintenance work for activities within waterways, an Agreement may be required per Fish and Game Code section 1602.

248-273 **COMMENT 27: Section 3.7.8 BIO-MM#1: Conduct Protocol Level Pre-Construction Surveys for Special Status Plant Species and Special-Status Plant Communities Page 110**

CDFW advises that the areas where special-status plant surveys were conducted in 2015 (during a drought year) should be resurveyed during appropriate blooming periods prior to construction to ensure impacts to special-status plants will be avoided. 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 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.

248-274 A separate measure for avoidance of special-status plant species is neeced. The avoidance measure should contain an enforceable buffer restriction for special status plants. CDFW advises 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.

248-275 **Comment 28: Section 3.7.8 BIO-MM#2: Prepare and Implement Plan for Salvage, Relocation, and/or Propagation of Special-Status Plants Species page 110 and BIO-MM#45: Compensate for Impacts on Special Status Plant Species page 136**

Both mitigation measures lack the requirement of obtaining an ITP for salvage and relocation efforts for special status plant species. CDFW recommends that if a plant species listed pursuant to CESA or the Native 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. Take authorization would occur through acquisition of an ITP, pursuant to Fish and Game Code section 2081(b).

248-276 **COMMENT 29: Section 3.7.8 BIO-MM#8: Implement Fish Recue Plan inside Cofferdam Page 120**

Only water depth is considered in monitoring for fish rescue. Other water quality parameters should be monitored (e.g., temperature and dissolved oxygen). This measure should address the maximum time that fish wil be kept within the cofferdam before relocation and if the entire channel is dewatered during the migration periods measures that will be taken to move fish above or below the construction area. CDFW advises the Authority to present designs for the San Joaquin River, Chowchilla Bypass, and the Eastside Bypass crossings to NMFS and SJRR[2].

248-277 **COMMENT 30: Section 3.7.8 BIO-MM#18: Implement Western Pond Turtle Avoidance and Relocation Page 127**

The measure lacks any specific avoidance buffers and distance for relocation. The measure should be enforceable.

248-278 **COMMENT 31: Section 3.7.8 BIO-MM#25: Bird Protection Page 127**

BIO-MM#25 will require, prior to construction, the Project biologist to check all final design to ensure features discourage perching and collisions of birds and raptors; however, CDFW advises that this measure include bird strike frequency monitoring as well as monitoring the effectiveness of the deterrent used in the mitigation measure.

248-279 **COMMENT 32: Section 3.7.8 BIO-MM#29: Conduct Protocol Level Surveys for Burrowing Owl and BIO-MM#30: Burrowing Owl Avoidance and Minimization page 129-130**

CDFW recommends including a separate measure for eviction and relocation of burrowing owl (BUOW). BIO-MM#30 describes eviction of burrowing owls outside of nesting season and passive relocation in accordance with CDFW 2012 guidelines. It should also be noted that passively relocating and excluding BUOW in and of itself is an

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248-279 impact. The mitigation measure also doesn't specify at what time of year passive relocation would occur. Potentially significant direct impacts associated with eviction and passive relocation of BUOW includes inadvertent entrapment, nest abandonment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals. Indirect impacts associated with temporary or permanent closure of burrows include increased stress and competition.

248-280 CDFW recommends replacement of occupied burrows with artificial burrows at a ratio of a minimum 1 burrow collapsed to 1 artificial burrow constructed (1:1) as mitigation for the potentially significant impact of evicting BUOW. In addition, CDFW further recommends that burrow closure be employed only where there are adjacent natural burrows and sufficient non-impacted habitat for BUOW to occupy with permanent protection mechanisms in place. In addition, BUOW may attempt to colonize or re-colonize an area that will be impacted; thus, CDFW recommends ongoing surveillance of the Project site during project activities, at a rate that is sufficient to detect BUOW if they return.

248-281 **COMMENT 33: Section 3.7.8 BIO-MM#31: Conduct Pre-Construction Surveys for Special Status Bats Page 131**

CDFW advises that to ensure significant impacts are not overlooked and that the pre-construction surveys be more than one day and one night, and at different times of the year to see what species of bats are present on bridges, abandoned buildings, and trees.

248-282 **COMMENT 34: Section 3.7.8 BIO-MM#34: Conduct Pre-Construction Surveys for American Badger and Ringtail Page 131**

BIO-MM#34 states that the measure would guide future protective avoidance and relocation. Mitigation measure for ringtail, a fully protected species, needs to be for avoidance only. This mitigation measure suggests relocating ringtail; however, any form of take of this species is not permissible and would be a violation of Fish and Game Code. Please note that measures to protect ringtails cannot include relocation. BIO-MM#34 combines pre-construction surveys and monitoring for American badger and ringtail, this measure should separate out ringtail as a fully protected species. It should also be noted, ringtail detection during pre-construction surveys warrants consultation with CDFW to discuss how to avoid take.

248-283 **COMMENT 35: Section 3.7.8 BIO-MM#39: Install Flashing or Slats within Security Fencing Page 133**

BIO-MM#39 will require installation of security fencing enhanced with flashing slates to prevent special-status reptiles and mammals from entering the right-of-way; however,

248-283 CDFW advises that this measure should include mammal strike frequency monitoring as well as monitoring the effectiveness of this fence design as a deterrent.

248-284 **COMMENT 36: Section 3.7.8 BIO-MM#40: Conduct pre-construction Surveys for Giant Kangaroo Rat, Nelson's Antelope Ground Squirrel, and Fresno Kangaroo Rat Pages 133-134**

BIO-MM#40 indicates that live trapping would be used to survey areas within the footprint where these species may occur. If burrow avoidance is not feasible, CDFW recommends that focused protocol-level trapping surveys be conducted by a qualified wildlife biologist that is permitted to do so by both CDFW and USFWS well in advance of any ground-disturbing activities. CDFW also advises that survey results be submitted to CDFW and USFWS for review. Further, if one of these species is detected within the Project area either during protocol-level or preconstruction surveys or during construction activities, all Project activities need to cease and consultation with CDFW is advised to determine if full avoidance can occur. If not, acquisitions of an ITP pursuant to Fish and Game Code section 2081(b) would be warranted. Please be advised that relocation efforts to minimize the impact of the taking would be required and compensatory mitigation would be required to fully mitigate for the species.

248-285 In addition, the Fresno kangaroo rat (*Dipodomys nitratoides exilis, FKR*) has not been observed since 1992, when a single male was captured at CDFW's Alkali Sink Ecological Reserve (USFWS 1998). The Project area is not only considered historical habitat for this species, but much of the remaining grassland, alkali sink and chenopod sink scrub habitat remaining in western Madera County is also thought to have the highest potential for containing an extant population of FKR (USFWS 1998).

Therefore, CDFW recommends that the DSEIR include a specific mitigation measure for this species that requires protocol-level surveys be conducted on portions of any potentially suitable habitat areas that could support the FKR. If this species is detected during surveys, consultation with CDFW is warranted. Any occupied habitat should be completely avoided, and the occupied habitat should be permanently protected with conservation easements. This would be consistent with FKR Recovery Action 6 of the Recovery Plan for Upland Species of the San Joaquin Valley (USFWS 1998) and should be fully discussed in the DSEIR.

248-286 **COMMENT 37: Section 3.7.8 BIO-MM#41: Monitoring, Avoidance and Relocation of Giant Kangaroo Rat, Nelson's Antelope Ground Squirrel, and Fresno Kangaroo Rat Page 134**

When describing trapping, exclusion fencing, vegetation trimming, and relocating CESA-listed species in the mitigation measures, please state that incidental take authorization would be required for this activity for each CESA listed species (e.g., giant kangaroo rat, San Joaquin antelope squirrel). Further note, that prior to trapping the

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248-286 biologist conducting surveys would need to be approved by CDFW. FKR for the reasons stated above should be excluded from the relocation efforts.

248-287 **COMMENT 38: Section 3.7.8 BIO-MM#43: Measure Pile Driving Sound Pressure Page 135**

This measure mentions that sound pressure will be measured; however, there is no mention of frequency and/or levels that will be avoided. Minimizing not only fish mortality but impacts from pile driving to fish migration during constructior should be included in the document.

248-288 **COMMENT 39: Section 3.7.8 BIO-MM#44: Compensate for Permanent and Temporary Impacts on Jurisdictional Aquatic Resources Page 135-136**

CDFW advises that the provided minimum compensatory mitigation may not be sufficient in meeting the standards of the "no net loss policy". The quality of and performance of wetland acreage and value must be considered. This measure should include means to determine the quality and values of the replaced affected aquatic resource.

248-289 **COMMENT 40: Section 3.7.8 BIO-MM#48: Compensate for Impacts on CTS Page137**

The DSEIR states that if compensatory mitigation is required and mitigation could include purchase of credits from an agency-approved mitigation bank. It should be noted that if there are no available CTS credits at a CDFW approved mitigation bank with a service area that overlaps with the Project area. To comply with the fully mitigate standard of CESA, alternative mitigation would be evaluated during the ITP process and would be required by an ITP issued for the Project. Alternative mitigation could include the purchase of land containing known CTS breeding and upland habitat, placing the land under conservation easement, and assuring adequate funding for the perpetual management of the Habitat Management (HM) Land for the conservation of CTS.

248-290 **COMMENT 41: Section 3.7.8 Table 3.7-18 Comparison of the Central Valley Wye Alternative Impacts Page 147**

Table 3.7.18 Impact BIO#43 "Direct Impacts" are noted as being few to no impacts, however, EFH direct impacts would be significant if migration upstream or downstream is prevented.

248-291 **COMMENT 42: Section 3.7.8 BIO-MM#49 BNLL Compensation Pages 137 and 138**

BIO-MM#49, indicates that the Authority, prior to construction, would determine compensatory mitigation for impacts to blunt-nosed leopard lizard (*Gambelia sila*, BNLL). The BNLL is State Endangered but also a fully protected species, and incidental take of the species cannot be authorized by CDFW for any reason and will

248-291 require full avoidance of the species. This compensatory mitigation measure suggests impacts can be compensated, which is not an option. Detection of BNLL during protocol-level surveys warrants consultation with CDFW to discuss implementation of measures to ensure full avoidance.

It is important to 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 blunt-nosed leopard lizard are not synonymous with 30-day "pre-construction surveys" often recommended for other wildlife species. CDFW recommends fully addressing avoidance, minimization, and mitigation measures for BNLL in the document and that these measures be included as enforceable mitigation in the finalized document.

248-292 **COMMENT 43: Section 3.7.8 Table 3.7-19 Significance Conclusions for Biological Resources and Wetlands the Central Valley Wye Alternative Impacts Page 157**

This table indicates both direct and indirect impacts "Less than Significant". The direct and indirect impacts are considered "significant" for Essential Fish Habitat impacts and indirect impacts should be the same based on earlier analysis in the document.

248-293 **COMMENT 44: Appendix 2-A: High-Speed Rail System Infrastructure Pages 12-14**

The DSEIR indicates that the typical designs for wildlife crossing structures end-to-end would be 73 feet, would span a width of approximately 10 feet and must have a minimum 3 feet of vertical clearance, extend no more than 1.5 feet below grade (half the vertical clearance), and meet or exceed the minimum 0.41 openness factor. This design has not been studied in the context of the HSR Project in segments currently under construction nor has a study plan been approved to date to study the effectiveness for wildlife movement specifically for San Joaquin kit fox. BIO-MM#36 indicates that design characters for the Central Valley Wye alternatives include effective measures to reduce impacts on mammals. It should be noted that this wildlife crossing design has not been tested to prove effectiveness.

248-294 **COMMENT 45: Appendix 2-B: California High-Speed Rail: Impact Avoidance and Minimization Features (IAMF) BIO-IAMF#1, 3, 5, 6, 10, 11, 13, 15, 16, 18, 20, 25, 26 and GEO-AMF#1, HYD-IAMF#1 and #3 Pages 5-14 and 26-28**

According to the DSEIR, "IAMFs incorporated into the Central Valley Wye alternatives design and construction would avoid or minimize the environmental or community impacts." However, these avoidance and minimization measure lack specifics, therefore they lack enforceability on the contractor during construction. With recent implementation of the IAMF on current HSR segments they do not effectively minimize impacts during implementation and leads to non-compliance issues with permits and agreements. These IAMFs should be enforceable and specific to be effective.

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248-295

COMMENT 46: Appendix 2-B: California High-Speed Rail: Impact Avoidance and Minimization Features (IAMF) BIO-IAMF#26-Avoidnance of Entrapment Page 10

CDWF recommends adding language to include avoiding entrapment to the design of permanent structures beyond just avoiding entrapment during construction activities.

248-296

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.

248-297

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 & Game 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.

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). If you have any questions, please contact Primavera Parker, Environmental Scientist, at the address provided on this letterhead, by telephone at (559) 243-8139, or by e-mail at Primavera.Parker@wildlife.ca.gov.

Sincerely,

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248-239

The California High-Speed Rail Authority (Authority) appreciates the California Department of Fish and Wildlife's (CDFW) comments on the Draft Supplemental Environmental Impact Report/Environmental Impact Statement (EIR/EIS). In subsequent individual comments, the CDFW provided specific suggestions regarding special-status species, other biological resources, and permitting as well as revisions to specific mitigation measures or additional mitigation measures to avoid, minimize, or mitigate effects. Each of the CDFW's specific comments is addressed below.

248-240

The CDFW noted that the Draft Supplemental EIR/EIS does not identify the tricolored blackbird as a species that has been listed as threatened under the California Endangered Species Act. In fact, Table 3.7-7 of the Draft Supplemental EIR/EIS lists the tricolored blackbird as a candidate for listing under California Endangered Species Act, a status that was accurate at the time the Draft Supplemental EIR/EIS was prepared. The Authority notes that, since that time, the California Fish and Game Commission issued a notice of findings that confirmed that listing the tricolored blackbird was warranted. Rulemaking documents to amend Section 670.5, Title 14, of the California Code of Regulations were subsequently prepared, which became effective on March 18, 2019. The Authority has updated the status of the tricolored blackbird in Table 3.7-7 to indicate that it is now state listed as threatened.

Impact BIO#11 in the Draft Supplemental EIR/EIS acknowledges potential effects on the tricolored blackbird as well as other special-status birds and finds that significant impacts could occur. The 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 establishment of a typical bird breeding season. In response to the CDFW's suggestions, the Authority has added BIO-MM#25a and BIO-MM#25b to the Draft Supplemental EIR/EIS. The substance of the measures follows CDFW guidelines. These measures require 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. Lastly, the measures require the Authority to provide compensatory mitigation to offset effects on the tricolored blackbird. Furthermore, BIO-MM#25a requires the Authority to conduct surveys during the nesting season (i.e., March 15–July 31). The Authority notes that the CDFW recommends consideration of a "typical bird breeding season" of February 1 to September 15; however, the Authority believes the specific timing outlined in MM-BIO#25a is more typical for tricolored blackbird nesting specifically. However, the Authority also notes that MM-BIO#24a requires the Authority to conduct surveys for all nesting birds, starting February 1, consistent with the CDFW's recommendation. Together, the measures in the Final Supplemental EIR/EIS are equally or more protective of tricolored blackbird compared to those recommended by the CDFW and

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248-240

substantially similar to the measures recommended by CDFW.

248-241

The Authority believes that BIO-MM#24 (now BIO-MM#24b in the Final) in the Draft Supplemental EIR/EIS is similar to 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#24b, 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.

CDFW seems concerned that this measure is not sufficiently clear about how it applies to fully protected versus not fully protected. From a usability perspective, it would seem potentially helpful to revise BIO-MM#24 into an "a" and a "b" to make it easy to see what applies to fully protected and what applies to not fully protected.

248-242

The Authority has modified the mitigation measures for California tiger salamander in response to the CDFW's comments. Specifically, BIO-MM#12 (now BIO-MM#11) has been modified to note the required survey guidelines and protocols more specifically, including the Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander (U.S. Fish and Wildlife Service and California Department of Fish and Game 2003). In addition, a new mitigation measure, BIO-MM#12, outlines a clearer implementation procedure for avoidance and minimization measures pertaining to California tiger salamander, including the installation and maintenance/inspection of protective fencing and limitations on construction within 250 feet of occupied California tiger salamander breeding habitat during the rainy season.

The CDFW also suggested that a 50-foot no-disturbance buffer be delineated around all small mammal burrows in suitable habitat within the construction footprint. The Authority has determined that avoidance of small mammal burrows within the project footprint is not feasible. As such, BIO-MM#10 provides for moving California tiger salamander out of the construction footprint.

The CDFW also suggested that a mitigation measure should be included in the Draft Supplemental EIR/EIS that requires take authorization for California tiger salamander protected under the California Endangered Species Act. As noted in Table 2-12 of the Draft Supplemental EIR/EIS, a requirement for an Incidental Take Permit 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 sections. The determination of which species will be covered by the Section 2081 permit will be made in coordination with the CDFW at the time of the permit application.

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248-243

The CDFW's comments focus on three 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 note that BIO-MM#9b indicates that surveys would occur in suitable habitats, which would be determined in an overly conservative manner. Because surveys would include all potentially suitable habitats, the measure would have the same effect as an assessment of suitable habitat, or better.

The CDFW's second suggested measure focuses on pre-construction surveys and avoidance. The Authority has revised BIO-MM#21, to improve clarity, which requires pre-construction surveys for giant garter snake. As described above, surveys would occur in all potentially suitable habitats. The Authority has further refined BIO-MM#21 to focus on additional minimization and avoidance measures. Furthermore, the Draft Supplemental EIR/EIS includes two additional mitigation measures for avoiding and minimizing impacts, BIO-MM#19, which specifies additional avoidance of suitable giant garter snake habitat, and BIO-MM#20, which requires work within giant garter snake habitat during the active season, between May 1 and October 1. Consistent with CDFW recommendations, BIO-MM#21 requires exclusionary fencing and avoidance of locations where special-status reptiles, including giant garter snake, are believed to be present within 200 feet of work areas.

The CDFW also suggested that a mitigation measure should be included in the Draft Supplemental EIR/EIS that requires take authorization under the California Endangered Species Act for giant garter snake. As noted in Table 2-12 of the Draft Supplemental EIR/EIS, a requirement for an Incidental Take Permit 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 sections. The determination of which species will be covered by the Section 2081 permit will be made in coordination with the CDFW at the time of the permit application.

248-244

The CDFW's comments focus on six suggested mitigation measures for Swainson's hawk. The first two suggested measures are a habitat assessment and surveys to determine if the project area or its vicinity contains habitat or nesting individuals. As noted in the Draft Supplemental EIR/EIS, Swainson's hawk is assumed to have potential habitat within all areas of its range that overlap the project area. This assumption most likely overestimates habitat for Swainson's hawk within the project area. Also note that BIO-MM#26 requires the survey protocol of the Swainson's hawk technical advisory committee to be followed. Because this protocol already requires a habitat assessment (survey #1 in the protocol occurring prior to Swainson's hawks returning), the requirement is implicit in the mitigation measure.

The CDFW's third measure suggests avoidance of active Swainson's hawk nests. The Draft Supplemental EIR/EIS already includes BIO-MM#27, which requires Swainson's hawk nest avoidance as well as monitoring of the nests. This measure is consistent with the CDFW's recommendation. No changes to the Draft Supplemental EIR/EIS measure have been made.

The CDFW's fourth and fifth suggested measures focus on compensatory mitigation for the loss of nest trees and foraging habitat. The Authority has modified BIO-MM#48, Provide Compensatory Mitigation for Loss of Swainson's Hawk Nesting Trees and Habitat, to clarify how impacts on Swainson's hawk will be compensated. 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. Lands proposed as compensatory mitigation for Swainson's hawk would meet the following minimum criteria:

- Support at least three mature native riparian trees suitable for Swainson's hawk nesting (i.e., valley oak, Fremont cottonwood, or willow) for each Swainson's hawk nest tree removed by construction of the project extent.
- Support at least one Swainson's hawk nesting territory in the last 5 years.
- Contribute to the project extent's mitigation commitment for Swainson's hawk foraging habitat, which would be based on the following ratios:
  - 1:1 for impacts on active primary foraging habitat
  - 0.75:1 for impacts on active secondary foraging habitat

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248-244

–0.5:1 for impacts on active tertiary foraging habitat
For the context of 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 the CDFW.

The CDFW also suggested that a mitigation measure that requires take authorization under the California Endangered Species Act for Swainson's hawk should be included in the Draft Supplemental EIR/EIS. As noted in Table 2-12 of the Draft Supplemental EIR/EIS, a requirement for an Incidental Take Permit 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 sections. The determination of which species will be covered by the Section 2081 permit will be made in coordination with the CDFW at the time of the permit application.

248-245

Mitigation measure, BIO-MM#24a, Conduct Pre-construction Surveys and Delineate Active Nest Buffers and Exclusion Areas for Breeding Birds, will avoid and minimize potential effects on nesting birds.

248-246

The Authority has included a new mitigation measure, BIO-MM#24a, Conduct Pre-construction Surveys and Delineate Active Nest Buffers and Exclusion Areas for Breeding Birds, which will help avoid and minimize potential effects on nesting birds. BIO-MM#24a requires the Authority to avoid active nests of non-listed and non-raptor bird species, using a no-disturbance buffer determined appropriate for the situation by the project biologist. BIO-MM#24b requires the Authority to survey for and avoid nesting raptors by 500 feet and avoid nesting fully protected raptors by 0.5 mile. Together, these measures are substantially similar to the those recommended by the CDFW and protective of nesting birds.

248-247

Comment noted. The Authority is aware that resources that are subject to the CDFW's regulatory authority under California Fish and Game Code Section 1600 et seq. are located within the project area and, therefore, would be affected by the project. These resources are noted in Table 3.7-16 of the Draft Supplemental EIR/EIS. As noted in Table 2-12 of the Draft Supplemental EIR/EIS, a requirement for a Streambed Alteration Agreement is expected to be required for the project. The Authority has worked with the CDFW to obtain agreements for other HSR sections.

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248-248

The IAMFs are construction design features that are part of the project and distinct from California Environmental Quality Act (CEQA) mitigation measures. The IAMFs represent practices that are standard in the construction industry. When there is a common approach in the construction industry, there is no requirement to consider alternative means to minimize effects. For instance, BIO-IAMF#3 and BIO-IAMF#4 specify standard worker environmental awareness program training, typical for all projects, and BIO-IAMF#15 specifies common construction vehicle speed limits. Such construction design features may be considered a part of the project under CEQA when evaluating effects. The Draft Supplemental EIR/EIS therefore identifies the level of significance of an impact, with consideration of the IAMFs included as part of the project. Where impacts remain significant under CEQA, even with the inclusion of IAMFs, mitigation measures are identified. See Section 3.1 for further explanation.

248-249

The CDFW notes that some stream types may have been omitted in the discussion of areas that are regulated under Section 1600 et. seq. of the California Fish and Game Code. Although not specifically stated, the Authority believes, based on previous Section 1602 permitting efforts with the CDFW, that this is referring to other "constructed watercourses." As the CDFW is aware, the Authority has addressed constructed watercourses in Streambed Alteration Agreements for other HSR sections. In response to the comment, the Authority has modified Table 3.7-16 to include constructed watercourses as a resource that is potentially regulated under Section 1600 et. seq. of the California Fish and Game Code.

The CDFW commented that ephemeral streams, desert washes, and watercourses with subsurface flow may also be regulated under Section 1600; however, these aquatic features have not been identified as occurring in the project area. Lastly, the CDFW notes that work within the floodplain of a body of water may also be subject to regulation. The Authority concurs with this statement to the extent that the floodplain is within the "bank" of a stream (i.e., the land that confines or otherwise defines the boundary of a stream when its water rises to the highest point of confinement to a definite course). This definition is consistent with the Authority's current Streambed Alteration Agreements with the CDFW obtained for other HSR sections.

248-250

The Authority agrees with the CDFW's comment that California Natural Diversity Database/Rarefind and California Native Plant Society programs are not comprehensive databases and, for that reason, will conduct plant surveys after access is obtained. However, the broad approach used to estimate habitat for special-status species most likely overestimates the amount of occupied habitat for species within the project area.

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248-251

The Authority agrees with the CDFW's comment that California Natural Diversity Database/Rarefind and California Native Plant Society programs are not comprehensive databases and, for that reason, will conduct wildlife surveys for numerous species, as outlined under several mitigation measures, after access is obtained. However, the broad approach used to estimate habitat for special-status species most likely overestimates the amount of occupied habitat for species within the project area.

248-252

The comment suggests that the limited access to parcels for biological surveys was inadequate for properly analyzing biological resource potential. 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 Supplemental EIR/EIS in Section 3.7.5.3. Biologists conducted field surveys on approximately 13 percent of the property, by acreage, within or adjacent to the footprints for the alternatives. As noted in Section 3.7.5.3, the majority of the footprints are located near or immediately adjacent to public rights-of-way such as state and county roads; therefore, biologists were able to visually assess the majority of the core habitat resource study area. Where parcel access was unavailable, biologists relied on high-resolution aerial photo interpretation and image processing techniques to map habitat and jurisdiction waters. The assessment assumed that all potential habitat for special-status species could be occupied. This broad land cover–based approach most likely overestimated the amount of occupied habitat for species within the project area. (Note: Not all potentially suitable habitat is occupied.) Consequently, the assessment of impacts on special-status species is most likely overestimated.

248-253

As noted in previous responses, the Authority used a broad approach to estimate habitat for wildlife and other species. However, the Authority notes that wetland surveys were conducted, and the boundaries and locations of wetlands were verified by the U.S. Army Corps of Engineers on April 27, 2018. See Section 3.7.5.3, Field Surveys, in the Draft Supplemental EIR/EIS.

248-254

The sentence noted has been revised to read "Following the completion of Friant Dam, and prior to interim flows, the reach between Friant Dam and the Mendota Pool rarely sustained flows conducive to the Chinook salmon lifecycle (Bureau of Reclamation and DWR 2011)."

248-255

The Authority agrees with the comment and notes that the Draft Supplemental EIR/EIS already assumes that ornamental trees such as eucalyptus species can support nesting habitat for Swainson's hawk and other birds. In addition, the Authority notes that Table 3.7-14 in the Draft Supplemental EIR/EIS already states that eucalyptus is an associated land cover type for Swainson's hawk.

248-256

Additional discussion of potential impacts on native fauna has been added to Section 3.7.7.1 of the Draft Supplemental EIR/EIS. The Authority further notes that the broad range of mitigation measures for other species will serve to avoid and minimize effects on other common wildlife species.

248-257

The Authority agrees that plant communities can provide secondary benefits, such as soil stabilization, reduced erosion, and shading or moisture-retention effects. These secondary benefits would be considered as part of compensatory mitigation planning to provide the most ecological benefits for the mitigation sites.

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248-258

The Authority considered constructed watercourses as potential habitat for some species while noting that, in general, they provide lower quality habitat for most species. Table 3.7-13 in the Draft Supplemental EIR/EIS notes that constructed watercourses are suitable habitat for western burrowing owl, San Joaquin kit fox, and special-status bird species, which are known to use these landscape features.

As noted previously, the Authority has assumed that constructed waterways could be regulated under Section 1600 et. seq. of the California Fish and Game Code.

248-259

Impact BIO#21 discusses potential impacts on essential fish habitat (EFH) within the study area, adding that EFH is increasing habitat quality over time. The presence of a fish barrier at the confluence of the San Joaquin River and Merced River is not cited as justification for why impacts on EFH were deemed to be less than significant. The National Marine Fisheries Service recently issued its September 3, 2019, Biological Opinion for the California High-Speed Rail Merced to Fresno Project Section, including the Central Valley Wye, which includes consultation, as required under the Magnuson-Stevens Fishery Conservation and Management Act, regarding potential adverse effects on EFH. The analysis from the National Marine Fisheries Service documents that implementation of the conservation recommendations, including utilizing alternatives to traditional riprap and hard armoring, enhancing in-stream fish habitat by providing root wads and deflector logs below the stabilized bank, and planting shaded riverine aquatic cover vegetation as part of bank revitalization, would avoid or minimize adverse effects on EFH.

248-260

The Authority has updated the Draft Supplemental EIR/EIS with information provided by the CDFW on fish reintroduction efforts, as outlined in the recent September 3, 2019, Biological Opinion for the California High-Speed Rail Merced to Fresno Project Section, including the Central Valley Wye. However, this information does not change the overall findings or conclusions related to effects on EFH. The Draft Supplemental EIR/EIS already assumes that fish may be present and that habitat quality (and therefore the number of fish) is increasing over time.

248-261

The Authority has added information regarding the Pacific Flyway to the description of the setting for the wildlife movement corridor provided in Section 3.7.6.4 of the Draft Supplemental EIR/EIS. In addition, the Authority has augmented and expanded the analysis of impacts on the Pacific Flyway related to the wildlife movement corridor. However, the conclusions of the Draft Supplemental EIR/EIS remain unchanged. The impacts on the wildlife movement corridor remain significant but can be reduced to less than significant with implementation of mitigation measures.

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248-262

Section 3.8 of the Draft Supplemental EIR/EIS, Hydrology and Water Resources, describes potential effects on surface-water hydrology, surface-water quality, and groundwater quality and volume. The Draft Supplemental EIR/EIS finds that, with implementation of IAMFs, significant impacts would be minimized or avoided. Based on these findings, watershed-level impacts are not expected.

With respect to the Ash Slough-Merced National Wildlife Reserve (CDFW is presumably referring to the Merced National Wildlife Refuge) and the Grasslands Ecological Area (GEA), the majority of the project extent is east of the San Joaquin River, with the refuge and GEA several miles west of the river. The predominant hydrology of the region within the project extent is characterized by generally north–south flows. Consequently, no measurable effects on either the wildlife refuge or the GEA are anticipated. As noted in other responses, the San Jose to Merced Project Section does cross the GEA. The Authority is committed to a full evaluation of the effects of that project section in the future.

248-263

As noted in previous responses, although not all areas were surveyed, the overall approach was land cover based; therefore, it most likely overestimated potential effects on resources. In addition, BIO-MM#1c requires the Authority to conduct presence/absence pre-construction surveys for special-status plants and special-status plant communities. Lastly, Table 3.7-14 in the Draft Supplemental EIR/EIS has been modified to define and quantify temporary impacts further.

248-264

The IAMFs are construction design features that are part of the project and distinct from California Environmental Quality Act (CEQA) mitigation measures. The IAMFs represent practices that are standard in the construction industry. When there is a common approach in the construction industry, there is no requirement to consider alternative means to minimize effects. For instance, BIO-IAMF#10 and BIO-IAMF#26 specify standard seasonal work windows for all projects, and BIO-IAMF#21 specifies common construction vehicle speed limits. Such construction design features may be considered a part of the project under CEQA when evaluating effects. The Draft Supplemental EIR/EIS therefore identifies the level of significance of an impact, with consideration of the IAMFs included as part of the project. Where impacts remain significant under CEQA, even with the inclusion of IAMFs, mitigation measures are identified. See Section 3.1 for further explanation.

248-265

The Authority has added additional analysis to the Draft Supplemental EIR/EIS related to acoustic impacts on special-status fish species from pile driving. The analysis finds that additional measures to avoid and minimize effects are warranted. Therefore, the Authority has added BIO-MM#8a, Work Windows for Fish; BIO-MM#8b, Pile Driving Underwater Sound Pressure Measures; and BIO-MM#8c, Water Diversion Measures for Fish, to the Draft Supplemental EIR/EIS. The pile-driving measure provides several options for attenuating underwater sound as well as monitoring to ensure that underwater sound levels do not exceed thresholds, as outlined in the analysis. Lastly, BIO-MM#8d was modified to further clarify and define the components of a fish rescue plan. Together the analysis in the Final Supplemental EIR/EIS and the additional mitigation measures, as well as clarification for existing measures, continue to support the finding that the impact is less than significant with appropriate mitigation.

Response to Submission 248 (Janice Yoshioka, California Department of Fish and Wildlife Region 4, June 21, 2019) - Continued

248-266

As noted in previous responses, the Authority has added several mitigation measures related to fish, including BIO-MM#8a, Work Windows for Fish. This measure, which is based on consultation with the National Marine Fisheries Service, further refines work windows by considering whether the work would occur "near water" or "in water," as defined by the National Marine Fisheries Service, or during defined water temperatures. For near-water work at the San Joaquin River, the construction work window would be April 30 through December 1. For in-water work, the construction work window would be June 1 through December 1. These work windows, which are acceptable to the National Marine Fisheries Service, would be protective of fish.

Lastly, BIO-MM#8 (now BIO-MM#8d in the Final Supplemental EIR/EIS), Fish Rescue Plan, has been revised to further clarify and refine the contents and guidelines for the required fish rescue plan.

248-267

Table 3.7-7 of the Draft Supplemental EIR/EIS identifies Kern brook lamprey as having moderate to high potential with respect to occurring in the project extent. In addition, other species that are not federally listed are also addressed, including hardhead and San Joaquin roach. All special-status fish are addressed under Impact BIO#5. Although effects on other native fauna, including non-special-status fish species, could occur, the effects would be similar to those on similar special-status species, and mitigation measures would benefit them similarly to mitigation measures for special-status species. Additional discussion regarding native fauna effects has been added to Section 3.7.7.1 of the Draft Supplemental EIR/EIS.

248-268

Table 3.7-7 in the Draft Supplemental EIR/EIS correctly notes that ringtail is a fully protected species in California. The discussions for Impacts BIO#13 and BIO#14 have been revised to note that ringtail is fully protected. Furthermore, BIO-MM#35 has been revised to further describe and clarify requirements for the fully protected ringtail.

248-269

The IAMFs are specific to be effective. Many of the IAMFs incorporate specific technical requirements by referencing regulatory or industry standard guidelines. For instance, the requirement for preparation and implementation of a stormwater pollution prevention plan (SWPPP) in HYD-IAMF#3 specifies that the SWPPP must meet specific requirements of the State Water Resources Control Board Construction General Permit. The IAMFs also set specific requirements. For instance, HYD-IAMF#3 describes specific measures to be included in the SWPPP, such as requiring construction during dry periods to the extent feasible, using drip pans under equipment, conducting daily checks of vehicles to detect leaks, refueling vehicles away from surface waters, and using sediment catchment basins. The IAMFs will be a required part of the project. Many of the IAMFs also have specific mechanisms to ensure full and effective implementation. For instance, HYD-IAMF#3 requires that the SWPPP be implemented under the direction of a qualified SWPPP practitioner.

248-270

As noted in previous responses, constructed waterways have been added to Table 3.7-16 as aquatic resources considered under Section 1600 et. seq. of the California Fish and Game Code.

248-271

The Authority has revised Section 3.7.7.4 to reiterate that the San Joaquin River Restoration Program has begun improving aspects of EFH to reverse and offset the habitat degradation that has occurred in the river system over the last half century.

With regard to Impact BIO#6, Indirect Impacts on Special-status Wildlife-Fish, the Draft Supplemental EIR/EIS finds that the impact would be less than significant, which is the correct determination, based on the effects analysis and evidence presented. The CDFW appears to be equating the conclusion for Impact BIO#6 with later analyses and effects determinations related to EFH. The Draft Supplemental EIR/EIS treats individual fish species and EFH separately. Although they are related, the findings from these two resources do not necessarily need to be the same because one is species specific and one is habitat specific and for a limited number of species. However, in this case, the findings related to indirect effects on fish species and effects on EFH are the same (i.e., less than significant).

Response to Submission 248 (Janice Yoshioka, California Department of Fish and Wildlife Region 4, June 21, 2019) - Continued

248-272

The Authority agrees that a substantial change to streams, lakes, or rivers, as well as other related resources subject to regulation under Section 1600 et. seq. of the California Fish and Game Code, would require a Streambed Alteration Agreement if such impacts would substantially adversely affect an existing fish or wildlife resource.

248-273

The Draft Supplemental EIR/EIS includes BIO-MM#1c, which has been revised to require presence/absence surveys for special-status plants in all areas of suitable habitat for special-status plants, consistent with CDFW's comment.

248-274

The Authority has added BIO-MM#1a, Establish Environmentally Sensitive Areas, Wildlife Exclusion Fencing, and Non-Disturbance Zones, to the Draft Supplemental EIR/EIS. This measure would facilitate the avoidance of special-status plants and other resources, to the extent they are avoidable, by requiring exclusionary fencing and monitoring to ensure compliance. Buffers would be established as appropriate for the particular species and situation by the project biologist.

248-275

The Authority concurs that removal, salvage, and/or relocation of a plant species that has been listed pursuant to the California Endangered Species Act or the Native Plant Protection Act requires compliance with Section 2081 of the California Fish and Game Code and issuance of an Incidental Take Permit. The determination of which species will be covered by the Section 2081 permit will be made in coordination with the CDFW at the time of the permit application.

248-276

As noted in previous responses, the Authority has added several additional fish-related mitigation measures to the Draft Supplemental EIR/EIS, including a revised measure for the Fish Rescue Plan, which clarifies and further defines the contents and guidelines of the plan.

248-277

BIO-MM#18 has been revised slightly to note an avoidance buffer (distance), which would ensure that western pond turtle nesting areas would be at least 50 feet from construction activities. The measure also specifies that relocation, if deemed to be necessary, would be completed in coordination with the CDFW. Eggs or hatchlings would not be moved without concurrence from the CDFW.

248-278

The bird protection measures, such as those identified in BIO-MM#25c, are widely applied to projects throughout the United States and represent standard and acceptable approaches to minimizing potential impacts on birds from electrical infrastructure. Monitoring specific to bird strike is not being proposed because the measures are known to be effective.

248-279

In response to the CDFW's comment, revisions to BIO-MM#30 have been made. In addition, clarification has been added to BIO-MM#30 to note that the relocation of owls would cause effects. The timing for passive relocation of owls is not specified because owls may be passively relocated at any time, provided the birds are not breeding and the project biologist has determined that the juveniles are foraging independently and capable of independent survival.

248-280

BIO-MM#49 in the Draft Supplemental EIR/EIS provides compensation for occupied burrows and habitat. The Authority notes that this measure requires mitigation consistent with the California Department of Fish and Game's Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 2012). In addition, the measure already specifies mitigation at a 1:1 ratio, as suggested by the CDFW.

Response to Submission 248 (Janice Yoshioka, California Department of Fish and Wildlife Region 4, June 21, 2019) - Continued

248-281

The Authority notes that BIO-MM#31 has been modified from the Draft Supplemental EIR/EIS and now requires visual emergence surveys for a minimum of 2 nights, and if bats are present, passive monitoring with full-spectrum bat detectors to determine which species are present. The Authority disagrees with the suggestion to conduct surveys at different times of the year. The mitigation is intended to avoid direct effects on roosting bats. Determining which bats may be present at other times of the year, when construction is not occurring, would not facilitate avoidance.

248-282

BIO-MM#34 and BIO-MM#35 have been revised to clarify the requirements for American badger impact avoidance and minimization as well as avoidance of the fully protected ringtail. As required under BIO-MM#35, pre-construction surveys will be conducted to identify ringtail and ringtail dens, and avoidance measures will be implemented to avoid impacts on this fully protected species.

248-283

The Authority has modified BIO-MM#39 (now BIO-MM#39b) to provide greater clarity regarding security fencing and design features that would prevent animals from entering the right-of-way. Fencing would be monitored and repaired, as needed, for effectiveness; however, the Authority has not adopted the suggestion to monitor mammal strike. The fencing proposed is widely used and known to be effective in restricting access for both humans and animals. Therefore, monitoring is not required.

248-284

BIO-MM#40 already notes that trapping surveys, if required, would be conducted in consultation with the U.S. Fish and Wildlife Service and the CDFW.

The Authority agrees that take of species that have been listed under the California Endangered Species Act would require an Incidental Take Permit. As noted in Table 2-12 of the Draft Supplemental EIR/EIS, an Incidental Take Permit, 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 sections.

248-285

The Draft Supplemental EIR/EIS already includes BIO-MM#40, which requires surveys for Fresno kangaroo rat. The fact that this measure also lists other species with similar survey or ecological requirements is not relevant. A dedicated mitigation measure for only Fresno kangaroo rat is not necessary.

248-286

The Authority agrees that take of species that have been listed under the California Endangered Species Act, through trapping or other activities, would require an Incidental Take Permit. As noted in Table 2-12 of the Draft Supplemental EIR/EIS, an Incidental Take Permit, 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 sections.

The CDFW's comment regarding relocation of Fresno kangaroo rats, if present, is noted; however, BIO-MM#41 already notes that the measure would be implemented in coordination with the U.S. Fish and Wildlife Service and the CDFW. Specific conditions at the time of construction will dictate the approach used.

248-287

BIO-MM#42 has been modified to clarify how underwater sound pressures would be monitored and attenuated.

248-288

Mitigation measure BIO-MM#3a has been added to the Final Supplemental EIR/EIS and states that the mitigation provided could be increased as a result of regulatory authorizations. The specific requirements and final mitigation ratios would be determined in accordance with authorizations issued under the Clean Water Act, which will ensure that the compensatory mitigation for wetlands would meet the "no net loss policy."

Response to Submission 248 (Janice Yoshioka, California Department of Fish and Wildlife Region 4, June 21, 2019) - Continued

248-289

BIO-MM#46 notes that compensatory mitigation for California tiger salamander would be provided using one or more of the methods outlined in the Compensatory Mitigation Plan. The requirements of the Compensatory Mitigation Plan are now outlined in BIO-MM#3b, which describes several options in addition to the purchase of credits at an agency-approved mitigation bank, such as habitat acquisition. The Authority is aware of the limitations related to existing mitigation banks and would work with the CDFW to select appropriate mitigation during the Incidental Take Permit process.

248-290

Impact BIO#43 in the Draft Supplemental EIR/EIS describes direct impacts on EFH from operation of the train. As noted in the impact discussion, maintenance of the bridge, once constructed, would not require activities in EFH. No structures or other measures would be implemented within EFH during operations that would prevent migration upstream or downstream. Consequently, the conclusions related to Impact BIO#43 are correct.

248-291

BIO-MM#47 refers to compensation pertaining to suitable habitat for blunt-nosed leopard lizard. The Authority recognizes that blunt-nosed leopard lizard is fully protected and that take of individuals must be avoided. BIO-MM#42 has been revised to improve clarity and has been renumbered and is now contained in BIO-MM#14 and BIO-MM#15. The measures include pre-construction surveys and measures to avoid take of individuals of the species.

248-292

Table 3.7-19 has been corrected to note that the direct impacts on EFH described under Impact BIO#21 would be significant for all alternatives prior to the implementation of mitigation. The conclusions related to indirect effects on EFH described under Impact BIO#22 are correct, and the impacts would be less than significant.

248-293

The Authority has included a new mitigation measure, BIO-MM#39a, Establish Wildlife Crossings, replacing and updating IAMF#25. This new measure requires the Authority to create dedicated wildlife crossings to accommodate wildlife movement across permanently fenced infrastructure (consistent with the dedicated assessment analysis). The measure also requires the inclusion of various features and design considerations that are known to benefit wildlife movement (i.e., native earthen bottoms, openness, separation from human use areas, etc.).

248-294

The IAMFs contain enough specificity to be effective and enforceable. Examples of such specificity include, but are not limited to, specific details on worker environmental awareness trainings during construction and operations construction work windows (BIO-IAMF#3 and IAMF#4), and specific prohibitions on the use of plastic mono-filament netting (BIO-IAMF#8). The IAMFs are required design features for the project and will be incorporated into the Mitigation Monitoring and Enforcement Plan. The contract with the design-build contractor and the associated implementing manual will ensure common interpretation of the design features so that they are fully and effectively implemented.

248-295

The CDFW is most likely referring to BIO-IAMF#15 in the Draft Supplemental EIR/EIS, which is now BIO-IAMF#9 in the Final Supplemental EIR/EIS, which includes measures to avoid entrapment during construction activities.

The Authority has also included an additional mitigation measure, BIO-MM#25c, to preclude bird use (nesting or perching) on permanent structures during operations.

248-296

Comment noted.

248-297

Comment noted.

Submission 312 (Gavin McCreary, Department of Toxic Substances Control, April 8, 2020)

Merced - Fresno 2014+; Central Valley Wye - RECORD #312 DETAIL

Status :	Action Pending
Record Date :	4/8/2020
Submission Date :	4/8/2020
Interest As :	State Agency
First Name :	Gavin
Last Name :	McCreary
Attachments :	CVY_CBBLR_DeptToxicSubstancesControl_040720.pdf (75 kb)

Submission Content :

Good Morning,

Please see the attached PDF copy of the Revised Draft Supplemental Environmental Impact Report/Second Draft Supplemental Environmental Impact Statement Biological Resources Analysis for Merced to Fresno Section: Central Valley Wye. Hard copies of this letter are available upon request.

If you have any questions please contact Project Manager Gavin McCreary via email at Gavin.McCreary@dtsc.ca.gov<mailto:Gavin.McCreary@dtsc.ca.gov> or via telephone at (916) 255-3710.

Warm Regards,

Stacy Weckesser
Office Assistant
Department of Toxic Substances Control
(916) 255-3698

Jared Blumenfeld
Secretary for
Environmental Protection

Department of Toxic Substances Control

Meredith Williams, Ph.D.
Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Gavin Newsom
Governor

April 7, 2020

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

MERCED TO FRESNO SECTION: CENTRAL VALLEY WYE, REVISED DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT/SECOND DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT BIOLOGICAL RESOURCES ANALYSIS – DATED MARCH 2020 (STATE CLEARINGHOUSE NUMBER: 2009091125)

Dear Mr. McLoughlin:

The Department of Toxic Substances Control (DTSC) received a Revised Draft Supplemental Environmental Impact Report/Second Draft Supplemental Environmental Impact Statement Biological Resources Analysis (EIR/EIS) for Merced to Fresno Section: Central Valley Wye. The California High-Speed Rail Authority proposes to construct and operate the Merced to Fresno: Central Valley Wye as part of the larger, 800-mile California High Speed Rail (HSR) system planned throughout California. The HSR system will connect the major population centers of Sacramento, the San Francisco Bay Area, the Central Valley, Los Angeles, the Inland Empire, Orange County, and San Diego. As part of the Merced to Fresno Section of the statewide HSR system, the Central Valley Wye would create the east-west HSR connection between the San Jose to Merced Section to the west and the north-south Merced to Fresno Section to the east.

312-851

DTSC recommends that the following issues be evaluated in the EIR/EIS Hazards and Hazardous Materials section:

1. The EIR/EIS should acknowledge historic or future activities on or near the project site that may have the potential to result in the release of hazardous wastes/substances on the project site. In instances in which releases have occurred or may occur, further studies should be carried out to delineate the nature and extent of the contamination, and the potential threat to public health and/or the environment should be evaluated. The EIR/EIS should also identify the mechanism(s) to initiate any required investigation and/or remediation and

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Submission 312 (Gavin McCreary, Department of Toxic Substances Control, April 8, 2020) - Continued

312-851 the government agency who will be responsible for providing appropriate regulatory oversight.

312-852 2. Refiners in the United States started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soils still exist along roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities. Due to the potential for ADL-contaminated soil DTSC, recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the project described in the EIR/EIS.

312-853 3. If buildings or other structures are to be demolished on any project sites included in the proposed project, surveys should be conducted for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. Removal, demolition and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's 2006 *Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers* (https://dtsc.ca.gov/wpcontent/uploads/sites/31/2018/09/Guidance_Lead_Contamination_050118.pdf).

312-854 4. If any projects initiated as part of the proposed project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to *DTSC's 2001 Information Advisory Clean Imported Fill Material* (https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/SMP_FS_Cleanfill-Schools.pdf).

312-855 5. If any sites included as part of the proposed project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the EIR/EIS. DTSC recommends the current and former agricultural lands be evaluated in accordance with DTSC's 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)* (https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/Ag-Guidance-Rev-3-August-7-2008-2.pdf).

DTSC appreciates the opportunity to review the EIR/EIS. Should you need any assistance with an environmental investigation, please submit a request for Lead Agency Oversight Application, which can be found at: https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/VCP_App-1460.doc. Additional information regarding voluntary agreements with DTSC can be found at: https://dtsc.ca.gov/brownfields/.

If you have any questions, please contact me at (916) 255-3710 or via email at Gavin.McCreary@dtsc.ca.gov.

Sincerely,

Gavin McCreary
Project Manager
Site Evaluation and Remediation Unit
Site Mitigation and Restoration Program
Department of Toxic Substances Control

cc: (via email)

Governor's Office of Planning and Research
State Clearinghouse
State.Clearinghouse@opr.ca.gov

Ms. Lora Jameson, Chief
Site Evaluation and Remediation Unit
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Response to Submission 312 (Gavin McCreary, Department of Toxic Substances Control, April 8, 2020)

312-851

While this comment is not related to the analysis of the Crotch bumble bee in the Revised Draft Supplemental EIR/Second Draft Supplemental EIS, the Authority appreciates all comments and is responding in full here.

Section 3.10 of the Final Supplemental EIR/EIS provides detailed background, impact, and mitigation information regarding the potential hazardous waste-related impacts of the Wye alternatives.

The Authority recognizes the potential that project construction activities such as ground disturbance and demolition may disturb and release hazardous materials previously used in the disturbance area. Please refer to Section 3.10, Impact HMW#1, Temporary Direct and Indirect Impacts from the Transport, Use, Storage, and Disposal of Hazardous Materials and Wastes, and Impact HMW#2, Temporary Direct Impacts from Inadvertent Disturbance of Hazardous Materials and Wastes, which both evaluate this risk.

In accordance with HMW-IAMF#5, the Authority would require construction contractors to develop a construction management plan prior to construction activities that includes requirements for responding to the disturbance of undocumented contamination. The Authority and its contractors would work with appropriate hazardous material control agencies should undocumented contamination be encountered during construction. These provisions would minimize the potential for hazardous materials to be released into the environment. The Authority would require consistency with hazardous material regulation and conformance to Occupational Safety and Health Administration regulations (HMW-IAMF#1). As such, the potential of impacts on the public and workers in the event of an inadvertent release of hazardous materials would be minimized.

In the event of an inadvertent release of hazardous waste and material, an immediate, informed response can reduce the potential impacts on human health and the environment. The Authority would prepare and maintain a hazardous materials management business plan, which provides emergency responders with emergency contact information, site-specific chemical inventories, and vicinity and facility maps (HMW-IAMF#3). The Authority would also implement measures for the safe dismantling and removal of building components and debris, and prevent the accidental release of

312-851

lead and asbestos, thereby protecting workers and the public from potential exposure to hazardous materials and wastes during demolition (HMW-IAMF#6).

312-852

While this comment is not related to the analysis of the Crotch bumble bee discussed in the Revised Draft Supplemental EIR/Second Draft Supplemental EIS, the Authority appreciates all comments and is responding in full here.

The Authority analyzes the potential for ADL-contaminated soils along road and railway corridors in Impact HMW#2. Through compliance with HMW-IAMF#5, the Authority would require construction contractors to develop a construction management plan prior to construction activities that includes requirements for responding to the disturbance of undocumented contamination. Should undocumented ADL contamination be discovered, the Authority would adhere to appropriate measures including notifying regulatory agencies and complying with the various agencies' laws, regulations, and policies.

Response to Submission 312 (Gavin McCreary, Department of Toxic Substances Control, April 8, 2020) - Continued

312-853

While this comment is not related to the analysis of the Crotch bumble bee discussed in the Revised Draft Supplemental EIR/Second Draft Supplemental EIS, the Authority appreciates all comments and is responding in full here.

The Authority recognizes the potential for existing structures to contain hazardous materials such as lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. The presence of some of these materials may be undocumented.

Impact HMW#3, Temporary Effects from Asbestos or Lead Exposure as a Result of Demolition, identifies that project activities would include the demolition of roadways and structures that contain asbestos fibers or lead. As discussed in the impact analysis, compliance with project design feature HMW-IAMF#6 would minimize the potential exposure of the public and construction workers to asbestos or lead during demolition. Additionally, HMW-IAMF#1 requires development of a hazardous materials and waste plan, which would include strategies that would minimize potential health impacts associated with disturbance of such materials on workers and community members.

In the event that contractors encounter previously undocumented sources of any of these hazardous materials, compliance with project design feature HMW-IAMF#5 would ensure that the construction management plan developed prior to the commencement of construction activities would include requirements for responding to the disturbance of such materials. The Authority would adhere to appropriate measures including notifying regulatory agencies and complying with the various agencies' laws, regulations, and policies.

312-854

While this comment is not related to the analysis of the Crotch bumble bee discussed in the Revised Draft Supplemental EIR/Second Draft Supplemental EIS, the Authority appreciates all comments and is responding in full here.

As described in Section 2.5.2, a design-build contractor would excavate fill material from local, permitted borrow sites and travel from 10 to 40 miles by truck to the HSR alignment.There are many local sites in Merced and Fresno that the contractor could use (California Geological Survey 2012). The contractor would also source railroad ballast from existing, permitted quarries located within the Bay Area. All materials would be suitable for construction purposes and free from toxic pollutants in toxic amounts, in accordance with applicable local, state, and federal regulations.

312-855

While this comment is not related to the analysis of the Crotch bumble bee discussed in the Revised Draft Supplemental EIR/Second Draft Supplemental EIS, the Authority appreciates all comments and is responding in full here.

Impact HMW#2, Temporary Direct Impacts from Inadvertent Disturbance of Hazardous Materials and Wastes, identifies that historical storage and use of pesticides and herbicides may have occurred within land identified for project activities, and these chemicals could be present in soils along each alignment. Pesticide investigation and abatement procedures are outlined in project design features HMW-IAMF#1 and HMW-IAMF#5.

Submission 315 (Nicholas White, Central Valley Regional Water Quality Control Board, April 24, 2020)

Merced - Fresno 2014+; Central Valley Wye - RECORD #315 DETAIL	
Status :	Action Pending
Record Date :	4/26/2020
Submission Date :	4/24/2020
Interest As :	Local Agency
First Name :	Nicholas
Last Name :	White
Submission Content :	
Attachments :	CVY_CBBLR_CVRWQCB_Ltr_042420.pdf (223 kb)

California Water Boards

Gavin Newsom, Governor
Jared Blumenfeld, Secretary for Environmental Protection

Central Valley Regional Water Quality Control Board

24 April 2020

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

COMMENTS TO REQUEST FOR REVIEW FOR THE REVISED DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT, CALIFORNIA HIGH-SPEED RAIL MERCED TO FRESNO SECTION: CENTRAL VALLEY WYE PROJECT, SCH#2009091125, FRESNO, MADERA, MERCED, AND STANISLAUS COUNTIES

Pursuant to the State Clearinghouse's 12 March 2020 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Draft Supplemental Environmental Impact Report* for the California High-Speed Rail Merced to Fresno Section: Central Valley Wye Project, located in Fresno, Madera, Merced, and Stanislaus Counties.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by

Karl E. Longley ScD, P.E., chair | Patrick Pulupa, esq., executive officer

11020 Sun Center Drive #200, Rancho Cordova, CA 95670 | www.waterboards.ca.gov/centralvalley

Submission 315 (Nicholas White, Central Valley Regional Water Quality Control Board, April 24, 2020) - Continued

the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

315-858

Antidegradation Considerations
All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

315-859

II. Permitting Requirements

Construction Storm Water General Permit
Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

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http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]
The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit
Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ. For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml

Clean Water Act Section 404 Permit
If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Submission 315 (Nicholas White, Central Valley Regional Water Quality Control Board, April 24, 2020) - Continued

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Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification
If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State
If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Dewatering Permit
If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

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Limited Threat General NPDES Permit
If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit
If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4856 or Nicholas.White@waterboards.ca.gov.

Nicholas White
Water Resource Control Engineer

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento (via email)

Response to Submission 315 (Nicholas White, Central Valley Regional Water Quality Control Board, April 24, 2020)

315-858

While this comment is not related to the analysis of the Crotch bumble bee discussed in the Revised Draft Supplemental EIR/Second Draft Supplemental EIS, the Authority appreciates all comments and is responding in full here.

As described in Section 3.8, Hydrology and Water Quality, the Authority would comply with all regulatory standards and requirements pertaining to stormwater discharge, including NPDES requirements.

The Final Supplemental EIR/EIS discusses potential project-related impacts on surface water hydrology and water quality in Impact HYD#1, Impact HYD#2, Impact HYD#3, Impact HYD#4, Impact HYD#9, Impact HYD#10, and Impact HYD#11. The Final Supplemental EIR/EIS discusses potential project-related impacts on groundwater hydrology and water quality in Impact HYD#5, Impact HYD#6, and Impact HYD#12.

315-859

While this comment is not related to the analysis of the Crotch bumble bee discussed in the Revised Draft Supplemental EIR/Second Draft Supplemental EIS, the Authority appreciates all comments and is responding in full here.

The Authority acknowledges these permitting requirements.
HYD-IAMF#3 would require preparation and implementation of a construction stormwater pollution prevention plan (SWPPP).

In addition, Impact HYD#3: Temporary Surface Water Quality Impacts, notes that where the discharge of fill is planned in streams or rivers, the Authority would comply with Sections 401 and 404 of the CWA and Section 10 of the Rivers and Harbors Act, which require authorizations for such discharges in specific surface water features. Impact HYD#3 also states that dewatering activities would also comply with the Central Valley RWQCB's General Dewatering Permit, Order No. 5-00-175 [NPDES No. CAG995001], Waste Discharge Requirements General Order for Dewatering and Other Low-Threat Discharges to Surface Waters.

Submission 317 (Primavera Parker, California Dept of Fish & Wildlife, April 27, 2020)

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Merced - Fresno 2014+; Central Valley Wye - RECORD #317 DETAIL	
Status :	Action Pending
Record Date :	4/27/2020
Submission Date :	4/27/2020
Interest As :	State Agency
First Name :	Primavera
Last Name :	Parker
Submission Content :	
Attachments :	CVY_CBBLR_CAfishWildlife_letter_042720.pdf (568 kb)

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

April 27, 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, Merced to Fresno Section: Central Valley Wye (Project)
Revised Draft Supplemental Environmental Impact Report (RDSEIR)/Second Draft Supplemental Environmental Impact Statement (SDSEIS), Biological Resource Analysis
SCH No. 2009091125

Dear Mr. McLoughlin:

The California Department of Fish and Wildlife (CDFW) received a Notice of Availability of a RDSEIR/SDSEIS 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.

[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 317 (Primavera Parker, California Dept of Fish & Wildlife, April 27, 2020) - Continued

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- Draft Supplemental EIR/EIS for the Fresno to Bakersfield Section on January 16, 2018.
- Draft Supplemental EIR for the Merced to Fresno (Central Valley Wye) Section on June 18, 2019.

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 will also be restating comments from the DSEIR (June 18, 2019) comment letter provided to the Authority regarding elements in the RDSEIR/EIS that have remained unchanged and CDFW recommends to be addressed.

CDFW ROLE

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

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), 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, their eggs and nests include, sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

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), focusing specifically on project activities that have the potential to adversely affect fish and wildlife resources. CDFW provides recommendations to identify potential impacts and possible measures to avoid or reduce those impacts.

PROJECT DESCRIPTION SUMMARY

Proponent: California High-Speed Rail Authority (Authority)

Objective: The *California High-Speed Rail, Merced to Fresno Section: Central Valley Wye Revised Draft Supplemental Environmental Impact Report/Second Draft Supplemental Environmental Impact Statement, Biological Resources Analysis* (Revised/Second Draft Supplemental EIR/EIS) considers, describes, and summarizes the environmental impacts of a portion of the Merced to Fresno Section project—the Central Valley Wye, an approximately 51- to 55-mile portion of the larger 800-mile California High-Speed Rail system planned throughout California, would create the high-speed rail connection between the San Jose to Merced Section to the west and the north-south portion of the Merced to Fresno to the east on the Crotch bumble bee (*Bombus crotchii*). On June 18, 2019, the California Fish and Game Commission provided notice that four bumble bee species are candidate species as defined by section 2068 of the Fish and Game Code. One such species, the Crotch bumble bee, is assumed to be present in the resource study area for the Central Valley Wye alternatives based on historic records as well as the presence of suitable habitat for the species. The RDSEIR/SDSEIS addresses four alternatives, each of which includes electrical interconnections and network. The preferred alternative stated in this document is State Route (SR) 152 north to Road 11. Four alternatives were considered in the Draft Supplemental EIR/ EIS as well as this Revised/Second Draft Supplemental EIR/EIS: State Route (SR) 152 (North) to Road 13 Wye, SR 152 (North) to Road 19 Wye, Avenue 21 to Road 13 Wye, SR 152 (North) to Road 11 Wye. In this Revised/Second Draft Supplemental EIR/EIS, the Authority continues to identify the

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Preferred Alternative (CEQA Proposed Project) as the SR 152 (North) to Road 11 Wye Alternative.

Location: The proposed Merced to Fresno Section: Central Valley Wye is located in Merced and Madera Counties near the City of Chowchilla with related electrical facilities extending into Fresno and Stanislaus counties. The Project termini are located at Henry Miller Road/Carlucci Road on the west (latitude 37°5'51.46"N/longitude -120°40'48.84"W). Ranch Road/SR99 on the north (latitude 37°13'21.29"N/longitude -120°22'40.69"W), and Avenue 19 near Madera Acres on the south (latitude 37°1'31.84"N/ longitude -120 4'46.61"W). The nearest major highway intersection is SR 99 and SR 152.

Timeframe: Unspecified.

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.

317-784

Currently, the RDSEIR/SDSEIS indicates that the Project's impacts would be less than significant with the implementation of mitigation measures described in the DSEIR. 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. In particular, CDFW is concerned regarding adequacy of mitigation measures for special-status species including, but not limited to, the State Threatened Swainson's hawk (*Buteo swainsoni*), tricolored black bird (*Agelaius tricolor*), State Endangered and fully protected bald eagle (*Haliaeetus leucocephalus*), State and Federal Endangered Fresno kangaroo rat (*Dipodomys nitratoides exilis*), State Threatened and Federal Endangered San Joaquin kit fox (*Vulpes macrotis mutica*), State and Federal Threatened California tiger salamander (*Ambystoma californiense*) and giant garter snake (*Thamnophis gigas*), and State fully protected white-tailed kite (*Elanus leucurus*) and golden eagle (*Aquila chrysaetos*), and the State Candidate Endangered Crotch Bumble Bee (*Bombus crotchii*).

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)?

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317-785

COMMENT 1: Tricolored Blackbird (TRBL)

Section 3.7.7.4 Impact BIO#11 Direct impact on Special-Status Wildlife-Birds and Impact BIO#12 Indirect impact on Special-Status Wildlife-Birds pages 75 through 77

Issue: The RDSEIR/SDSEIS acknowledges that TRBL have the potential to occur within or near the Project (CDFW 2019). The Project contains annual grasslands, dairies, pastures, wetlands, and field crops. Despite this, the RDSEIR/SDSEIS does not identify TRBL as a State Threatened species and does not include any species-specific measures for evaluating or minimizing impacts to TRBL.

Specific impact: Without appropriate avoidance and minimization measures for TRBL, potential significant impacts include nest and/or colony abandonment, reduced reproductive success, and reduced health and vigor of eggs and/or young.

Evidence impact would be significant: TRBL aggregate and nest colonially, forming colonies of up to 100,000 nests (Meese et al. 2014). Approximately 86% of the global population is found in the San Joaquin Valley (Kelsey 2008, Weintraub et al. 2016). 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, with all eggs laid within one week (Orians 1961). For these reasons, depending on timing, disturbance to nesting colonies can cause abandonment, significantly impacting TRBL populations (Meese et al. 2014).

Recommended Potentially Feasible Mitigation Measure(s)

Because the RDSEIR/SDSEIS identifies the potential for TRBL to occur within Project, CDFW recommends conducting the following evaluation of the Project, updating the RDSEIR/SDSEIS 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: TRBL Habitat Assessment

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

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Recommended Mitigation Measure 2: TRBL Surveys

CDFW recommends 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 implementation to evaluate presence/absence of TRBL nesting colonies in proximity to Project activities and to evaluate potential Project-related impacts.

Recommended Mitigation Measure 3: TRBL Avoidance

If an active TRBL nesting colony is found during preconstruction 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 the colony or parental care for survival. It is important to note that TRBL colonies can expand over time and for this reason, the colony may need to be reassessed to determine the extent of the breeding colony within 10 days of Project initiation.

Recommended Mitigation Measure 4: TRBL Take Authorization

In the event that a TRBL nesting colony is detected during surveys, consultation with CDFW is warranted to discuss how to implement the Project and avoid take. If avoidance as described in the above Mitigation Measure 3 is not feasible, acquisition of an Incidental Take Permit (ITP), pursuant to Fish and Game Code section 2081(b) prior to any ground-disturbing activities may be warranted.

317-786

COMMENT 2: Fully Protected Raptors

Section 3.7.7.4 Impact BIO#11 Direct Impacts on Special-Status Wildlife-Birds and Impact BIO#12 Indirect Impacts on Special-Status Wildlife-Birds pages 75 through 78 and BIO-MM#24 page 127

Issue: The State fully protected (SFP) white-tailed kite, the SFP golden eagle, and State Endangered and SFP bald eagle are known to occur within the vicinity of the Project (CDFW 2019). The RDSEIR/SDSEIS acknowledges the presence of suitable habitat for these species within the Project area but does not contain any species-specific measures to minimize the Project's impacts on fully protected raptors. The RDSEIR/SDSEIS does not describe how the preferred alternative has the least extensive direct impacts in comparison to the other alternatives. BIO-MM#24 combines pre-construction surveys and monitoring for all raptors

Mark McLoughlin
California High-Speed Rail Authority
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including the SFP species; however, this mitigation measure should separate out the SFP species. Without appropriate mitigation measures, Project activities conducted within occupied territories have the potential to significantly impact these species.

Specific Impacts: Potentially significant impacts that may result from new ground disturbing activities include nest abandonment, loss of nest trees, and/or loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young), and direct mortality.

Evidence impact would be significant: 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.

Recommended Potentially Feasible Mitigation Measure(s)

Because the RDSEIR/SDSEIS identifies the potential for SFP raptors to occur in the Project area, CDFW recommends, updating the RDSEIR/SDSEIS 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 5: Fully Protected Raptor Habitat Assessment

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 fully protected raptors.

Recommended Mitigation Measure 6: Fully Protected Raptor Surveys

If suitable habitat is present, CDFW recommends that focused surveys be conducted by qualified biologists at individual Project sites prior to Project implementation. To avoid impacts to these species, CDFW recommends conducting these surveys in accordance with protocols developed by CDFW (CDFG 2010) and the USFWS (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 be conducted by a qualified biologist no more than 10 days prior to the start of construction.

Recommended Mitigation Measure 7: Fully Protected Raptor Avoidance

In the event that special-status raptor species are found within ½-mile of Project sites, implementation of avoidance measures is warranted. CDFW recommends that a qualified wildlife biologist be on-site during all ground-disturbing/

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construction-related activities and that a ½-mile no-disturbance buffer be put into effect. If the ½-mile no-disturbance buffer cannot feasibly be implemented, contacting CDFW to assist with providing and implementing additional avoidance measures is recommended. Completely addressing mitigation measures for SFP protected raptor species in the CEQA document prepared for the Project is recommended.

317-787

COMMENT 3: California Tiger Salamander (CTS)

Section 3.7.8 Biological Resources and Wetlands; Mitigation Measures BIO-MM#11 and #12; pages 121 through 122

Issue: CTS are known to occur in the the Project footprint (CDFW 2019). The RDSEIR/SDSEIS, as currently drafted, includes measures that may not be enforceable or adequate in avoiding, minimizing, or mitigating the impacts to CTS to a level that is less than significant or that may themselves result in take. In addition, there are no details on how avoidance of take would be achieved. For example, BIO-MM#12 requires installation of wildlife exclusion fencing around the Project. This would result in take in the form of capture (as defined in Fish and G. Code, § 86) of CTS within the fenced boundaries of the Project site. There are no avoidance buffers stated in the measures for potential burrow avoidance within the Project. CDFW recommends that avoidance buffers from potentially occupied burrows be added to BIO-MM#12.

Specific Impacts: The proposed Project footprint has both 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.

Evidence impact would be significant: 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). The Project area is within the range of CTS and the Project is within and surrounded by suitable habitat (i.e., aquatic breeding habitat, grasslands interspersed with burrows). CTS have been determined to be physiologically capable of dispersing up to approximately 1.5 miles from seasonally flooded wetlands (Searcy and Shaffer 2011) and have been documented to occur within and adjacent to the Project (CDFW 2019). Given the presence of suitable habitat within and surrounding the Project, Project activities have the potential to significantly impact local populations of CTS.

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Recommended Potentially Feasible Mitigation Measure(s)

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

Recommended Mitigation Measure 8: Focused CTS Site Assessment and Survey

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

If, following the site assessment, it is determined there is suitable habitat present for breeding or upland refugia within the Project area, protocol-level surveys are advised to be conducted in accordance with the USFWS' Interim Guidance document (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.

Recommended Mitigation Measure 9: CTS Avoidance

If surveys cannot be feasibly conducted as recommended in Mitigation Measure 8, 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 delineating a 250-foot no disturbance buffer around potential 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.

Recommended Mitigation Measure 10: CTS Take Authorization

If through 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 in Mitigation Measures 8 and 9, acquisition of take authorization would be warranted prior to initiating ground-disturbing activities. Take authorization would occur through issuance of an ITP by CDFW, pursuant to Fish and Game

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Code section 2081(b). Alternatively, in the absence of protocol surveys, the applicant can assume presence of CTS within the Project area and obtain an ITP from CDFW.

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COMMENT 4: Giant Garter Snake (GGS)

Section 3.7. Biological Resources; Mitigation Measures BIO-MM#19-22; pages 125-126.

Issue: The RDSEIR/SDSEIS acknowledges that GGS has the potential to be present in or near the Project. As documented in the California Natural Diversity Database (CNDDB), GGS are known to occur in the San Joaquin River and tributaries that feed into the San Joaquin River in Merced County (CDFW 2019). Despite this, the RDSEIR/SDSEIS, as currently drafted, includes measures that may not be enforceable or adequate in avoiding, minimizing, or mitigating impacts to a level that is less than significant or that may themselves result in take. In addition, BIO-MM#19 requires installation of protective environmental fencing along Project site perimeters, which could result in take, resulting from capture, of GGS within the fenced Project area.

Specific Impacts: Potentially significant impacts associated with bridge or culvert construction/replacement include burrow excavation and collapse, inadvertent entrapment, and direct mortality of individuals.

Evidence impact would be significant: Currently, GGS are isolated to only nine disjunct populations. At the time of the species listing under the Federal Endangered Species Act in 1993, the USFWS recognized 13 populations. Since then, two of these populations have been determined to be 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 the summer months, GGS require aquatic habitat for foraging and adjacent upland areas with emergent vegetation for basking sites (USFWS 2017b). During periods of inactivity, GGS require burrows in upland habitat as refugia for summer shelter and burrows in higher elevation uplands for winter hibernation (Hansen et al. 2015). The Project as proposed 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.

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Recommended Potentially Feasible Mitigation Measure(s)

Because the RDSEIR/SDSEIS identifies the potential for GGS to occur on the Project, CDFW recommends conducting the following evaluation of the Project area, revising the RDSEIR/SDSEIS to include the following measures, and that these measures be made Conditions of Approval for the Project.

Recommended Mitigation Measure 11: GGS Habitat Assessment

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

Recommended Mitigation Measure 12: GGS Surveys and Avoidance

If suitable habitat is present, CDFW recommends, no more than 30 days prior to ground disturbing activities, a qualified biologist with GGS experience and knowledge of its ecology, 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.

Recommended Mitigation Measure 13: GGS Take Authorization

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(b) would be necessary to comply with CESA.

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COMMENT 5: Swainson's Hawk (SWHA)

Section 3.7.8 Biological Resources and Wetlands; Mitigation Measures BIO-MM#26-28; pages 128 through 129 and BIO-MM#50 page 138.

Issue: SWHA have the potential to nest within and in the vicinity of the Project. In addition, as described in the RDSEIR/SDSEIS, foraging habitat for SWHA exists within and in the vicinity of the Project area: The Project area is surrounded by annual grasslands and croplands that may be used for foraging. The CNDDB shows SWHA occurrences throughout Fresno, Madera, and Merced counties (CDFW 2019). CDFW acknowledges that BIO-MM#26 requires a pre-activity survey for suitable SWHA nesting habitat. This measures also requires a no-disturbance buffer

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in consultation with CDFW should an active nest be found. However, the RDSEIR/SDSEIS should define the restrictive buffer size, in BIO-MM#27, or provide provisions for consulting with CDFW on whether take avoidance can occur should implementation of the buffer not be feasible. BIO-MM#28 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 provisions described in this measure may not be enforceable or adequate in minimizing impacts to SWHA to a level that is less than significant.

Specific impacts: Without appropriate avoidance and minimization measures for SWHA, potential significant impacts that may result from Project activities include nest abandonment, loss of nest trees, loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young), and direct mortality. Any take of SWHA without appropriate incidental take authorization would be a violation of Fish and Game Code.

Evidence impact is potentially significant: SWHA exhibit high nest-site fidelity year after year and lack of suitable nesting habitat in the San Joaquin 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 from construction workers that could affect nests and has the potential to result in nest abandonment, significantly impacting nesting SWHA in the Project vicinity. The mature trees and agricultural fields in the Project 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.

Recommended Potentially Feasible Mitigation Measure(s)

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

Recommended Mitigation Measure 14: SWHA Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment of individual Project areas in advance of Project implementation, to determine if the Project area, or in the Project vicinity, contain suitable habitat for SWHA.

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Recommended Mitigation Measure 15: Focused SWHA Surveys

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 implementation. 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.

Recommended Mitigation Measure 16: SWHA Avoidance

If an active SWHA nest is found, CDFW recommends implementation of a minimum ½-mile no-disturbance buffer around active nests 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.

Recommended Mitigation Measure 17: SWHA Nest Tree Mitigation

SWHA exhibit high nest-site fidelity year after year and CDFW considers removal of known SWHA nest trees, even outside of the nesting season, a potentially significant impact under CEQA. 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 nesting habitat.

Recommended Mitigation Measure 18: Compensation for Loss of Foraging Habitat

If SWHA nests occur in the vicinity of 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:

- 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.

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- 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.

Recommended Mitigation Measure 19: SWHA Take Authorization

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 ITP, pursuant to Fish and Game Code section 2081(b) is necessary to comply with CESA.

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COMMENT 6: Crotch Bumble Bee (CBB)

Section 3.7.7.2 BIO-MM#54: Conduct Surveys and Implement Avoidance Measures for Crotch Bumble Bee and BIO-MM#55: Provide Compensatory Mitigation for Impacts on Crotch Bumble Bee Page 147

Issue: On June 28, 2019, the Fish and Game Commission published findings of its decision to advance CBB 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, pursuant to CESA, is warranted. During the candidacy period, consistent with CEQA Guidelines, section 15380, the status of the CBB as an endangered candidate species under CESA (Fish & G. Code, § 2050 et seq.) qualifies it as an endangered, rare, or threatened species under CEQA. It is unlawful to import into California, export out of California or take, possess, purchase, or sell within California, CBB and any part or product thereof, or attempt any of those acts, except as authorized pursuant to CESA. Under Fish and Game Code section 86, take means to hunt, pursue, catch, capture, or kill, or to attempt to hunt pursue, catch, capture, or kill. Consequently, take of CBB during the status review period is prohibited unless authorization pursuant to CESA is obtained.

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 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.

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The Authority proposes with MM#54 a 20-foot no disturbance buffer around active nests which is not a sufficient avoidance buffer. 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#54 indicate using non-lethal netting method to capture CBB. Netting is a form of capture which is a form of take, therefore an ITP pursuant to Fish and Game Code section 2081(b) is required for conducting surveys under this method.

Specific impact: Without appropriate avoidance and minimization measures for CBB, potentially significant impacts associated with ground- and vegetation-disturbing activities associated with construction of the Project include loss of foraging plants, changes in foraging behavior, burrow collapse, nest abandonment, reduced nest success, reduced health and vigor of eggs, young and/or queens, in addition to direct mortality in violation of Fish and Game Code.

Evidence impact is potentially significant: CBB was once common throughout most of the central and southern California, however, it now appears to be absent from most of it, especially in the central portion of its historic range within California's Central Valley (Hatfield et al. 2014). Analyses by the Xerces Society et al. (2018) suggest there have been sharp declines in relative abundance by 98% and persistence by 80% over the last ten years.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to CBB associated with the Project, CDFW recommends implementing the following mitigation measure as a condition of approval for the Project.

Recommended Mitigation Measure 20: CBB Habitat Assessment

CDFW recommends assessment of all California annual grassland and valley sink scrub at and within 100 feet of the Project footprint for suitable nesting and foraging habitat during the flight season prior to starting construction; mapping and reporting of these assessment findings to CDFW.

Recommended Mitigation Measure 21: CBB Surveys

CDFW recommends surveying suitable habitat for individual CBBs during the flight season preceding Project-related disturbance in accordance with survey methods (a CDFW-approved plan) agreed to between the Authority and CDFW; and submittal of those survey results to CDFW within one-week prior to initiating disturbance supporting: either absence of the species and the Authority's ability to avoid significant effects associated with impacts to the bumble bee; or presence of the species necessitating take authorization under an ITP.

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Recommended Mitigation Measure 22: CBB Take Avoidance

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

317-791

II. Editorial Comments and/or Suggestions

Nesting birds: CDFW encourages Project implementation 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.

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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 that could potentially be impacted are detected. CDFW also recommends that surveys cover a sufficient area around the Project site to identify nests and determine their status. A sufficient area means any area potentially affected by the Project. In addition to direct impacts (i.e., nest destruction), 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 wildlife 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 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.

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Lake and Streambed Alteration: Project-related activities have the potential to substantially change the bed, bank, and channel of wetlands and waterways onsite, 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 ephemeral or intermittent as well as those that are perennial. 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. For additional information on notification requirements, please contact our staff in the Lake and Streambed Alteration Program at (559) 243-4593.

317-794

Wildlife Corridor Movement:

As CDFW has discussed in the previous comment letters to the Authority, the single biggest potential biological impact arising from construction of the High-Speed Rail (HSR) Project is the impact on regional movements of wildlife and connections between habitat. The HSR has the potential 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. As CDFW has stated in its previous comment letters, the 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 Central Valley Wye 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 length, narrowing the available space for wildlife passage. This could limit the ability of species such as San Joaquin kit fox to move unimpeded throughout its historic range.

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317-794 These types of potential future design changes need to be considered in the DSEIR. 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 the proposed wildlife underpasses and overpasses, which are not always effective. Because animals would be more likely to move underneath an elevated rail or over a below ground rail than to use a tunnel or vegetated overpass where the landscape view of the opposite side would be visually obstructed, CDFW advises the inclusion of the at-grade embankment in the DSEIR as an impact to wildlife movement and that this impact be thoroughly analyzed as a barrier to movement, gene flow, reproductive success, loss of colonization opportunities, and to discuss this in the context of planned wildlife crossings.

The RDSEIR/SDSEIS 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 the additional infrastructure fencing.

If wildlife passage structures will be used instead of elevated 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 and be required to meet specific minimum dimensions for increased probability of wildlife utilizing these structures for crossing opportunities.

COMMENT 7: Section 3.7.1 Definition of Resources: California Fish and Game Code section 1600 et. Seq. Rivers, Lakes and Streams Page 4

Fish and Game Code section 1602 applies to any river, stream lake including those that are episodic as well as 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. The definition provided in the RDSEIR/SDSEIS does not encompass all streams that may be impacted in the Project area; therefore, CDFW advises the definition of stream in the RDSEIR/SDSEIS be modified to incorporate sufficient

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317-795 parameters that these waterways will be captured by the definition and into analyzing impacts to features subject CDFW 1602 jurisdiction.

317-796 **COMMENT 8: Section 3.7.4 Coordination with Regulatory Agencies for NEPA and CEQA Compliance Pages 10-12**

This section states the coordination and consultation with USFWS and the National Marine Fisheries Service (NMFS) regarding section 7 of the Federal Endangered Species Act (FESA). There is no mention of a plan for when the Authority will be applying for a 2081(b) ITP for the Central Valley Wye, whether it be an amendment to the current Merced to Fresno ITP or a separate ITP for the Central Valley Wye.

317-797 **COMMENT 9: Section 3.7.5.2 Impact Avoidance and Minimization Features (IAMF) Pages 16-17**

According to the RDSEIR/SDSEIS, "IAMFs incorporated into the Central Valley Wye alternatives design and construction would avoid or minimize the environmental or community impacts." However, these avoidance and minimization measure lack specifics, therefore they lack enforceability on the contractor during construction. With recent implementation of the IAMF on current HSR segments they do not effectively minimize impacts during implementation and leads to non-compliance issues with permits and agreements. CDFW recommends that the IAMFs should be enforceable and specific.

317-798 **COMMENT 10: Section 3.7.5.3 Special-Status Plant Species Page 20**

The literature review for special-status plant species in the RDSEIR/SDSEIS stated the California Natural Diversity Database (CNDDB)/Rarefind and California Native Plant Society (CNPS) programs were used to identify potential and known special-status species. CDFW would like to state that while both CNDDB/Rarefind and CNPS programs are excellent tools, the databases are populated through voluntary submittal of positive detections and therefore are only as effective as the information included/submitted. Thus, areas of un-surveyed land may have undocumented occurrences of special-status species and special-status plant communities. As a result, it is expected that the outcome of the query underestimates the locations and probable detections of special-status species and plant communities within and adjacent to the proposed construction footprint.

317-799 **COMMENT 11: Section 3.7.5.3 Special-Status Wildlife-CNDDB Page 21**

The CNDDB species list was generated in 2016 for the RDSEIR/SDSEIS; however, since then, the species listings have been updated. It should also be noted that while both CNDDB/Rarefind programs are excellent tools, the databases are populated through voluntary submittal of positive detections and therefore are only as effective as

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the information included/submitted. Thus, areas of un-surveyed land may have undocumented occurrences of special-status species. As a result, it is expected that the outcome of the query underestimates the locations and probable detections of special-status species within and adjacent to the proposed construction footprint.

317-800

COMMENT 12: Section 3.7.5.3 Field Surveys Page 24

Approximately 13% of the property was surveyed for presence of biological resources. Because much of the area could not be surveyed, the Authority should assume presence in all areas of potential habitat including certain agricultural areas and include avoidance, minimization, and mitigation measures to reduce impacts. Access achieved was insufficient to adequately analyze resource potential and to conclude the quality of the habitat conditions.

317-801

COMMENT 13: Section 3.7.5.3 Reconnaissance Field Survey Page 25

Windshield surveys along existing roads were conducted for wildlife habitat assessments. Please note that this level of surveys, due to the lack of access and the deficiency of discrete timing to ensure maximum detectability, are inadequate to make an effective determination regarding resource presence or absence, particularly in regards to wetlands.

317-802

COMMENT 14: Section 3.7.5.3 Wildlife Surveys Page 27

Available information on CBB as well as previous field reconnaissance and habitat assessment were used, however it should be noted that updated field reconnaissance or updated habitat assessments were not performed to asses CBB habitat.

317-803

COMMENT 15: Section 3.7.5.3 San Joaquin Restoration Program Page 30

The RDSEIR/SDSEIS states, "Prior to interim flows, the reach between Friant Dam and the Mendota Pool rarely sustained flows conducive to the Chinook salmon life cycle (USBR and DWR 2011)". CDFW recommends expanding the statement to include the following: Prior to interim flows, the reach between Friant Dam and the Mendota Pool rarely sustained flows conducive to the Chinook salmon life cycle *following the completion of Friant Dam* (USBR and DWR 2011).

317-804

COMMENT 16: Section 3.7.6.1 Plant communities and Land Cover Page 32

The RDSEIR/SDSEIS indicates that urban areas in the communities of Merced, Chowchilla and Madera have highly disturbed areas that consist of plants such as *Eucalyptus* ssp. Eucalyptus tree species have the potential to provide nesting habitat for SWHA in these urban areas. CDFW recommends that ornamental tree species be carefully considered to effectively analyze the State Threatened SWHA which regularly

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use eucalyptus ornamentals for nest trees and advises analyzing the impacts to SHWA in these urban areas.

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COMMENT 17: Section 3.7.6.2 Native Fauna Assemblage Page 38

The RDSEIR/SDSEIS indicates that the focus of the impact analysis is on special-status species and anticipates that impacts would also occur on other native fauna in the Project footprint. However, CEQA and NEPA[2] requires that the assessment include significant impacts to all biological resources and is not limited to special-status species. Please explain if any significant impacts to non-listed species could result from this Project (e.g., impacts restricting the movement of common wildlife species, etc.). There is no identified avoidance, minimization measures for non-listed species within the RDSEIR/SDSEIS.

317-806

Comment 18: Section 3.7.6.4 Special-Status Plant Communities Page 44

The RDSEIR/SDSEIS analysis lacks consideration as to the secondary benefits of plant communities. It should be noted riparian areas help reduce solar input that cause water temperatures to rise as well as adding stability to riverbanks which reduces erosion.

317-807

COMMENT 19: Section 3.7.6.4 Aquatic Habitats, Non-Wetland Waters Pages 47-48

The RDSEIR/SDSEIS indicates that constructed watercourses offer few biological resources to plants and wildlife. However, these areas can, and often do, support wildlife and wildlife use for foraging, dispersal, breeding, and refugia habitat. Impacts to these areas need to be analyzed. It should be noted that the non-wetland waters that are classified as constructed waterways (ditches and canals) also could be subject to Fish and Game Code section 1602.

317-808

COMMENT 20: Section 3.7.6.4 Habitats of Concern: Essential Fish Habitat (EFH) Pages 49-50

The RDSEIR/SDSEIS indicates that restored flows are part of the San Joaquin River Restoration Program (SJRRP); however, there can be surface water flows downstream of Gravelly Ford and Mendota Pool apart from flood flows. It should be noted that the temporary fish barrier in place upstream of the confluence of the San Joaquin River and Merced River does not completely prevent passage/migration of anadromous fish into the San Joaquin River. In fact, CDFW routinely captures salmon upstream of this barrier and recently captured green sturgeon (*Acipenser medirostris*). This barrier should not be considered as a factor in reducing impacts to less than significant. CDFW advises to consider this in the analysis of impacts to EFH.

[2] See CEQA Guidelines Appendix G, IV. Biological Resources (d), XVIII. Mandatory Findings of Significance (a), and NEPA regulation 40 C.F.R. § 1502.3.

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EFH in the habitat study area for all Central Valley Wye alternatives is not only limited to the San Joaquin River, returning adult Chinook salmon as well as out-migrating juveniles could occupy the Chowchilla bypass as well.

The summary of SJRRP fish reintroduction efforts in the RDSEIR/SDSEIS is incorrect. Adult Broodstock Releases to Reach 1A was not limited to 2016 but continues as a research study and possible reintroduction strategy. In 2016, 25 adult spring-run were released to Reach 1A, 115 adult spring-run in 2017, and 179 in 2018. The first observed spring-run redds from these releases occurred in 2016 with three redds observed. In 2017, 13 redds were observed and in 2018, 42 redds were observed during surveys. Releases of juvenile spring-run Chinook salmon to the San Joaquin have occurred each year since 2014. The statement "In 2017, nearly 90,000 juveniles were released resulting in the first successful spawning of spring-run Chinook salmon in over 60 years" is factually incorrect and implies that the juveniles released from the Salmon Conservation and Research Facility (SCARF) and Satellite Incubation and Rearing Facility (SIRF) were naturally spawned fish.

317-810

COMMENT 21: Section 3.7.6.5 Wildlife Movement Corridors Page 50

The Pacific flyway is mentioned as spanning the wildlife movement study area; however there is a lack of analysis of the direct and indirect impacts to the Pacific flyway in the document. CDFW recommends 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.

317-811

COMMENT 22: Section 3.7.6.6 Condition Assessments and Watershed Profiles Pages 52-53

The RDSEIR/SDSEIS lacks analysis on how the alternatives would impact the function of the watershed. It is unclear if the Project would impact the watershed as a whole. CDFW recommends further analysis of the potential impacts and consideration of potential impacts to Ash Slough-Merced National Wildlife Reserve and the Grasslands Ecological Area (GEA), located to the west of the Project which could have watershed connectivity.

317-812

COMMENT 23: Section 3.7.7.4 Impact BIO#1 Direct Impacts on Special-Status Plant Species Pages 52-59

As stated in the RDSEIR/SDSEIS, the entire special-status plant study area was not surveyed due to limited permission to enter privileges. This effort is inadequate to effectively draw any final conclusions of the extent where special-status plant communities could occur, whether impacts to these communities have been adequately analyzed, and whether the impacts are potentially significant. It should also be noted

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317-812

that temporary impacts require further analysis since these temporary impacts are significant.

317-813

COMMENT 24: Section 3.7.7.4 Impact BIO#3 Direct Impacts on Special-Status Wildlife Species-Invertebrates Pages 70-71

The RDSEIR/SDSEIS indicates that construction associated with the Project would potentially result in loss of habitat as well as injury and mortality of the CBB. It should be noted that project activities resulting in injury and mortality would require an 2081(b) ITP.

317-814

COMMENT 25: Section 3.7.7.4 CEQA Conclusion: Analysis of Indirect Impacts and Significance Determination (Impact BIO#4, 6, 8, 10, 12, 14, 18, 20, 22, 29, 30, 38 Pages 71-110 and Table 3.7-19 Pages 161-167)

Determination of indirect impacts within the CEQA conclusion for BIO Impacts #s 4, 6, 8, 10, 12, 14, 18, 20, 22, 29, 30, and 38 all state that impacts are less than significant due to Best Management Practices (BMP) and/or the design features and characteristics that are in place. Significance determination must be made independently of the avoidance, minimization, and/or mitigation measures. CEQA Guidelines[3] section 15126.2 *Consideration and Discussion of Significant Environmental Impacts*, does not indicate that determination of significant environmental impact is to be based on the avoidance and minimization measures and/or mitigation.

317-815

COMMENT 26: Section 3.7.7.4 Impact BIO#5 Direct Impact on Special-Status Wildlife-Fish Pages 72-73

The RDSEIR/SDSEIS addresses disturbance due to sound levels from pile driving in analyzing direct impacts to special-status fish. It should be noted that if this disturbance occurs during critical fish migration periods and if duration and intensity from pile driving is high enough, migration could be disrupted and possibly prevented as a result. There is insufficient information presented to determine if this impact was appropriately analyzed.

317-816

The RDSEIR/SDSEIS states, "the Authority and the project biologist would consult with the National Marine Fisheries Service (NMFS) and CDFW to identify appropriate work windows for federally listed species, including federally listed fish in the San Joaquin River"; however, the language implies the work window was recognized by NMFS as June 15 to September 15, with an extension to October 15. CDFW recommends implementation of the original shorter work window (June 15 to September 15) for in-river work as adult fall-run Chinook salmon could be migrating through the Project

[3] 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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317-816 footprint (in some years) as early as October. The referenced October 15 extension was provided to the Authority under the Merced to Fresno ITP, based on real-time survey information collected and conveyed by NMFS and CDFW, specific to the year in which it was provided. Based on annual environmental influences effecting timing of migration, work windows may be as short as 3 to 4 months. The likelihood of construction occurring outside of the identified work window is highly probable; however, this requires analysis and additional measures to reflect these potentially adjusted work windows.

It is unclear in the document what the resource agency standards or Standard Operation Procedures (SOPs) that would be followed in the event of a fish rescue inside the cofferdam, CDFW recommends incorporating them into IAMFs and/or mitigation measures.

The RDSEIR/SDSEIS states, "There would not be a substantial adverse effect from habitat degradation or modification on special-status fish". This assumption is based on anecdotal generalities and fails to consider long-term impacts should migration be prevented or hindered over the course of the construction period. Multiple years of adults or juvenile Chinook salmon not reaching the ocean or spawning grounds could have negative impacts to the restoration of the San Joaquin River population.

317-817 It should also be noted that Kern Brook lamprey are endemic to the San Joaquin River and while they are not federally or state listed; under the International Union for Conservation of Nature (IUCN) Red List category, Kern Brook Lamprey are listed as Vulnerable (NatureServe, 2013) and attributes habitat degradation and loss due to dams and diversions as the leading causes of populations being fragmented. Should only Federal-listed species be considered, Kern Brook Lamprey in the project area could be negatively impacted if overlooked. CDFW recommends that impacts to non-special status fish species be addressed.

317-818 **COMMENT 27: Section 3.7.7.4 Impact BIO#13 Direct Impacts and BIO#14 Indirect Impacts Ringtail Pages 82 and 84**

This section indicates that mortality and injury of ringtail could occur. Ringtail is a fully protected mammal under Fish and Game Code and it should be stated in addressing the direct and indirect impacts. The heading for ringtail should indicate that ringtail is a SFP species. CDFW recommends updating the DSEIR to reflect that protected status.

317-819 **COMMENT 28: Section 3.7.7.4 Impact BIO#17 Direct Impacts on Jurisdictional Aquatic Resources Page 89**

The RDSEIR/SDSEIS indicates the design features of the Central Valley Wye would avoid, minimize or preclude altering impacts. It is unclear how impacts would be precluded in implementing design features and how the implementation would

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317-819 effectively avoid and minimize with the lack of specific enforceable measures. CDFW recommends clarifying this.

317-820 **COMMENT 29: Section 3.7.7.4 Impact BIO#17 Direct Impacts on Jurisdictional Aquatic Resources Page 89-90**

In subsection *California Fish and Game Code section 1600 et. Seq. Rivers, Lakes and Streams (including riparian areas)*, CDFW advises to include direct impacts to constructed or modified waterways, as Project activities have the potential to be subject to CDFW 1602 jurisdiction.

317-821 **COMMENT 30: Section 3.7.7.4 Impact BIO#21 Direct Impact on Essential Fish Habitat, Page 96; Impact BIO #43 Direct Impact on Essential Fish Habitat Page 114**

The RDSEIR/SDSEIS states, "EFH in the San Joaquin River in the habitat study area for the Central Valley Wye alternatives has historically been poor quality". It should be noted that historically the San Joaquin River supported one of the largest populations of spring-run Chinook salmon in the State. CDFW advises to exclude using "historically" and better describe in this analysis the habitat degradation of the San Joaquin River over the last half century.

This CEQA conclusion appears to contradict the CEQA conclusion made for Impact BIO#6 Indirect Special-status fish (less than significant). Here the CEQA conclusion is "significant" for impacts on EFH. The conclusion for both CEQA Conclusions should be significant impacts.

317-822 **COMMENT 31: Section 3.7.7.4 Impact BIO#24 Page 99**

It should be noted that current construction at any given location could go beyond 1-3 years. Current HSR Project construction at the San Joaquin River has been under construction for 5 years and still ongoing. Indirect construction impacts to wildlife movement have the potential to be long-term impacts.

317-823 **COMMENT 32: Section 3.7.7.5 Impact BIO#39 and #40 Pages 110-111**

It should be noted, for direct and indirect, and impacts for ongoing maintenance work for activities within waterways, a Notification and resultant Agreement may be required per Fish and Game Code section 1602.

317-824 **COMMENT 33: Section 3.7.7.5 Impact BIO#45 Indirect Impacts on Wildlife Movement Corridors Page 115**

This section states, "The distance at which effects are considered to affect wildlife are relatedly short (within 50 feet of the HSR right-of-way), and wildlife movement through corridors is expected to be infrequent. Effect would only occur if an animal were within

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317-824 50 feet of the HSR right-of-way at the time the train was passing." This statement along with the CEQA conclusion that the effects would be infrequent and limited in area and duration and thus would not result in a significant impact on wildlife movement is unsupported and is concluded without studies of wildlife movement along the HSR in use or in place.

317-825 **COMMENT 34: Section 3.7.8 BIO-MM#1: Conduct Protocol Level Pre-Construction Surveys for Special-Status Plant Species and Special-Status Plant Communities Pages 115-116**

CDFW advises that the areas where special-status plant surveys were conducted in 2015 (during a drought year) should be resurveyed during appropriate blooming periods prior to construction to ensure impacts to special-status plants will be avoided. 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 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.

317-826 A separate measure for avoidance of special-status plant species is needed. The avoidance measure should contain an enforceable buffer restriction for special-status plants. CDFW advises 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.

317-827 **Comment 35: Section 3.7.8 BIO-MM#2: Prepare and Implement Plan for Salvage, Relocation, and/or Propagation of Special-Status Plants Species page 116 and BIO-MM#45: Compensate for Impacts on Special-Status Plant Species page 144**

Both mitigation measures lack the requirement of obtaining an ITP for salvage and relocation efforts for special-status plant species. CDFW recommends that if a plant species listed pursuant to CESA or the Native 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. Take authorization would occur through acquisition of an ITP, pursuant to Fish and Game Code section 2081(b).

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317-828 **COMMENT 36: Section 3.7.8 BIO-MM#8: Implement Fish Recue Plan inside Cofferdam Pages 126-127**

Only water depth is considered in monitoring for fish rescue. Other water quality parameters should be monitored (e.g., temperature and dissolved oxygen). This measure should address the maximum time that fish will be kept within the cofferdam before relocation and if the entire channel is dewatered during the migration periods measures that will be taken to move fish above or below the construction area. CDFW advises the Authority to present designs for the San Joaquin River, Chowchilla Bypass, and the Eastside Bypass crossings to NMFS and SJRRP.

317-829 **COMMENT 37: Section 3.7.8 BIO-MM#15: Phased Pre-Construction Surveys for Blunt-Nosed Leopard Lizard Page 130**

CDFW recommends using the revised *2019 Approved Survey Methodology for the Blunt-Nosed leopard lizard* for conducting surveys.

317-830 **COMMENT 38: Section 3.7.8 BIO-MM#18: Implement Western Pond Turtle Avoidance and Relocation Pages 130-131**

The measure lacks any specific avoidance buffers and distance for relocation. The measure should be enforceable.

317-831 **COMMENT 39: Section 3.7.8 BIO-MM#25: Bird Protection Page 134**

BIO-MM#25 will require, prior to construction, the Project biologist to check all final design to ensure features discourage perching and collisions of birds and raptors; however, CDFW advises that this measure include bird strike frequency monitoring as well as monitoring the effectiveness of the deterrent used in the mitigation measure.

317-832 **COMMENT 40: Section 3.7.8 BIO-MM#29: Conduct Protocol Level Surveys for Burrowing Owl and BIO-MM#30: Burrowing Owl Avoidance and Minimization page 136-137**

CDFW recommends including a separate measure for eviction and relocation of burrowing owl (BUOW). BIO-MM#30 describes eviction of burrowing owls outside of nesting season and passive relocation in accordance with CDFW 2012 guidelines. It should be noted that passively relocating and excluding BUOW in and of itself is an impact. The mitigation measure also doesn't specify at what time of year passive relocation would occur. Potentially significant direct impacts associated with eviction and passive relocation of BUOW includes inadvertent entrapment, nest abandonment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals. Indirect impacts associated with temporary or permanent closure of burrows include increased stress and competition.

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317-833 CDFW recommends replacement of occupied burrows with artificial burrows at a ratio of a minimum 1 burrow collapsed to 1 artificial burrow constructed (1:1) as mitigation for the potentially significant impact of evicting BUOW. In addition, CDFW further recommends that burrow closure be employed only where there are adjacent natural burrows and sufficient non-impacted habitat for BUOW to occupy with permanent protection mechanisms in place. In addition, BUOW may attempt to colonize or re-colonize an area that will be impacted; thus, CDFW recommends ongoing surveillance of the Project site during project activities, at a rate that is sufficient to detect BUOW if they return.

317-834 **COMMENT 41: Section 3.7.8 BIO-MM#31: Conduct Pre-Construction Surveys for Special Status Bats Page 137**

CDFW advises that to ensure significant impacts are not overlooked and that the pre-construction surveys be more than one day and one night, and at different times of the year to see what species of bats are present on bridges, abandoned buildings, and trees.

317-835 **COMMENT 42: Section 3.7.8 BIO-MM#34: Conduct Pre-Construction Surveys for American Badger and Ringtail Page 139**

BIO-MM#34 states that the measure would guide future protective avoidance and relocation. Mitigation measure for ringtail, a SFP species, needs to be for avoidance only. This mitigation measure suggests relocating ringtail; however, any form of take of this species is not permissible and would be a violation of Fish and Game Code. Please note that measures to protect ringtails cannot include relocation. BIO-MM#34 combines pre-construction surveys and monitoring for American badger and ringtail, this measure should separate out ringtail as a SFP species. It should also be noted, ringtail detection during pre-construction surveys warrants consultation with CDFW to discuss how to avoid take.

317-836 **COMMENT 43: Section 3.7.8 BIO-MM#36: Construction in Wildlife Movement Corridors Page 140**

BIO-MM#36 indicates that design characters for the Central Valley Wye alternatives include effective measures to reduce impacts on mammals. It should be noted that this wildlife crossing design has not been tested to prove effectiveness.

317-837 **COMMENT 44: Section 3.7.8 BIO-MM#39: Install Flashing or Slats within Security Fencing Page 140-141**

BIO-MM#39 will require installation of security fencing enhanced with flashing slates to prevent special-status reptiles and mammals from entering the right-of-way; however,

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California High-Speed Rail Authority
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317-837 CDFW advises that this measure should include mammal strike frequency monitoring as well as monitoring the effectiveness of this fence design as a deterrent.

317-838 **COMMENT 45: Section 3.7.8 BIO-MM#40: Conduct pre-construction Surveys for Giant Kangaroo Rat, Nelson's Antelope Ground Squirrel, and Fresno Kangaroo Rat Pages 141**

BIO-MM#40 indicates that live trapping would be used to survey areas within the footprint where these species may occur. If burrow avoidance is not feasible, CDFW recommends that focused protocol-level trapping surveys be conducted by a qualified biologist that is permitted to do so by both CDFW and USFWS well in advance of any ground-disturbing activities. CDFW also advises that survey results be submitted to CDFW and USFWS for review. Further, if one of these species is detected within the Project area either during protocol-level or pre-construction surveys or during construction activities, all Project activities need to cease and consultation with CDFW is advised to determine if full avoidance can occur. If not, acquisition of an ITP pursuant to Fish and Game Code section 2081(b) would be warranted. Please be advised that relocation efforts to minimize the impact of the taking would be required and compensatory mitigation would be required to fully mitigate for the species.

317-839 In addition, the Fresno kangaroo rat (*Dipodomys nitratoides exilis, FKR*) has not been observed since 1992, when a single male was captured at CDFW's Alkali Sink Ecological Reserve (USFWS 1998). The Project area is not only considered historical habitat for this species, but much of the remaining grassland, alkali sink and chenopod sink scrub habitat remaining in western Madera County is also thought to have the highest potential for containing an extant population of FKR (USFWS 1998).

Therefore, CDFW recommends that the RDSEIR/SDSEIS include a specific mitigation measure for this species that requires protocol-level surveys be conducted on portions of any potential habitat areas that could support the FKR. If this species is detected during surveys, consultation with CDFW is warranted. Any occupied habitat should be completely avoided, and the occupied habitat should be permanently protected with conservation easements. This would be consistent with FKR Recovery Action 6 of the Recovery Plan for Upland Species of the San Joaquin Valley (USFWS 1998) and should be fully discussed in the RDSEIR/SDSEIS.

317-840 **COMMENT 46: Section 3.7.8 BIO-MM#41: Monitoring, Avoidance and Relocation of Giant Kangaroo Rat, Nelson's Antelope Ground Squirrel, and Fresno Kangaroo Rat Pages 141-142**

When describing trapping, exclusion fencing, vegetation trimming, and relocating CESA-listed species in the mitigation measures, please state that incidental take authorization would be required for this activity for each CESA listed species (e.g., giant kangaroo rat, San Joaquin antelope squirrel). Further note, that prior to trapping the

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317-840 biologist conducting surveys would need to be approved by CDFW. FKR for the reasons stated above should be excluded from the relocation efforts.

317-841 **COMMENT 47: Section 3.7.8 BIO-MM#43: Measure Pile Driving Sound Pressure Page 142-143**

This measure mentions that sound pressure will be measured; however, there is no mention of frequency and/or levels that will be avoided. Minimizing not only fish mortality but impacts from pile driving to fish migration during construction should be included in the document. Thus, CDFW recommends including minimization details.

317-842 **COMMENT 48: Section 3.7.8 BIO-MM#44: Compensate for Permanent and Temporary Impacts on Jurisdictional Aquatic Resources Page 143-144**

CDFW advises that the provided minimum compensatory mitigation may not be sufficient in meeting the standards of the "no net loss policy". The quality of and performance of wetland acreage and value must be considered. This measure should include means to determine the quality and values of the replaced affected aquatic resource.

317-843 **COMMENT 49: Section 3.7.8 BIO-MM#48: Compensate for Impacts on CTS Page 145**

The RDSEIR/SDSEIS states that if compensatory mitigation is required and mitigation could include purchase of credits from an agency-approved mitigation bank. It should be noted that if there are no available CTS credits at a CDFW approved mitigation bank with a service area that overlaps with the Project area. To comply with the fully mitigate standard of CESA, alternative mitigation would be evaluated during the ITP process and would be required by an ITP issued for the Project. Alternative mitigation could include the purchase of land containing known CTS breeding and upland habitat, placing the land under conservation easement, and assuring adequate funding for the perpetual management of the Habitat Management (HM) Land for the conservation of CTS.

317-844 **COMMENT 50: Section 3.7.8 Table 3.7-18 Comparison of the Central Valley Wye Alternative Impacts Page 147**

Table 3.7.18 Impact BIO#43 "Direct Impacts" are noted as being few to no impacts, however, EFH direct impacts would be significant if migration upstream or downstream is prevented.

317-845 **COMMENT 51: Section 3.7.8 BIO-MM#49 Compensate for Impacts on Blunt-nosed Leopard Lizard and Nelson's Antelope Squirrel Pages 145**

BIO-MM#49, indicates that the Authority, prior to construction, would determine compensatory mitigation for impacts to blunt-nosed leopard lizard (*Gambelia sila*, BNLL). The BNLL is State Endangered but also a SFP species, and incidental take of

317-845 the species cannot be authorized by CDFW for any reason and will require full avoidance of the species. This compensatory mitigation measure suggests impacts can be compensated, which is not an option. Detection of BNLL during protocol-level surveys warrants consultation with CDFW to discuss implementation of measures to ensure full avoidance.

It is important to 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 blunt-nosed leopard lizard are not synonymous with 30-day "pre-construction surveys" often recommended for other wildlife species. CDFW recommends fully addressing avoidance, minimization, and mitigation measures for BNLL in the document and that these measures be included as enforceable mitigation in the finalized document.

317-846 **COMMENT 52: Section 3.7.8 Table 3.7-19 Significance Conclusions for Biological Resources and Wetlands the Central Valley Wye Alternative Impacts Page 165**

This table indicates both direct and indirect impacts "Less than Significant". The direct and indirect impacts are considered "significant" for Essential Fish Habitat impacts and indirect impacts should be the same based on earlier analysis in the document.

317-847 **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.

317-848 **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). If you have any questions, please contact Primavera Parker, Environmental Scientist, at the address provided on this letterhead, by telephone at (559) 243-8142, or by e-mail at Primavera.Parker@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Julie Vance
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Julie A. Vance
Regional Manager

Attachment

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April 27, 2020

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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, Merced to Fresno Section: Central Valley Wye

SCH No.: 2009091125

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
Before Disturbing Soil or Vegetation	
Mitigation Measure1: TRBL Habitat Assessment	
Mitigation Measure 2: TRBL Surveys	
Mitigation Measure 3: TRBL Avoidance	
Mitigation Measure 4: TRBL Take Authorization	
Mitigation Measure 5: Fully Protected Raptor Habitat Assessment	
Mitigation Measure 6: Fully Protected Raptor Surveys	
Mitigation Measure 7: Fully Protected Raptors Avoidance	
Mitigation Measure 8: CTS Site Assessment and Survey	
Mitigation Measure 10: CTS Take Authorization	
Mitigation Measure 11: GGS Habitat Assessment	
Mitigation Measure 12: GGS Surveys and Avoidance	
Mitigation Measure 13: GGS Take Authorization	
Mitigation Measure 14: SWHA Habitat Assessment	
Mitigation Measure 15: SWHA Surveys	
Mitigation Measure 16: SWHA Avoidance	
Mitigation Measure 17: SWHA Nest Tree Mitigation	

Submission 317 (Primavera Parker, California Dept of Fish & Wildlife, April 27, 2020) - Continued

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Mitigation Measure 18: SWHA Compensation for Loss of Foraging Habitat	
Mitigation Measure 19: SWHA Take Authorization	
Mitigation Measure 20: CBB Habitat Assessment	
Mitigation Measure 21: CBB Surveys	
Mitigation Measure 22: CBB Take Avoidance	
During Construction	
Mitigation Measure 3: TRBL Avoidance	
Mitigation Measure 7: Fully Protected Raptors Avoidance	
Mitigation Measure 9: CTS Avoidance	
Mitigation Measure 12: GGS Surveys and Avoidance	
Mitigation Measure 16: SWHA Avoidance	
Mitigation Measure 22: CBB Take Avoidance	

2 Rev. 2013.1.1

Response to Submission 317 (Primavera Parker, California Dept of Fish & Wildlife, April 27, 2020)

317-784

Please refer to the response to submission MF2-248, comment 239.

317-785

Please refer to the response to submission MF2-248, comment 240.

317-786

Please refer to the response to submission MF2-248, comment 241.

317-787

Please refer to the response to submission MF2-248, comment 242.

317-788

Please refer to the response to submission MF2-248, comment 243.

317-789

Please refer to the response to submission MF2-248, comment 244.

317-790

In this comment, the CDFW provides three recommended measures, focused on habitat assessment, surveys, and take avoidance. Overall, the Authority's mitigation measure BIO-MM#52 is generally consistent with CDFW's recommendations.

Regarding habitat assessment and take avoidance, BIO-MM#52 requires the identification of potentially suitable habitat (i.e., a habitat assessment), followed by surveys conducted consistent with protocols designed for other similar bumble bee species, and the implementation of avoidance measures if active nest colonies are detected.

Regarding surveys, CDFW recommends that surveys extend out to 100 feet from the project footprint, as the survey distances were not stated in BIO-MM#52. In addition, CDFW recommends that buffer distances around active nest colonies and associated floral resources be increased from a minimum of 20 feet to at least 50 feet.

The Authority has considered these recommendations and believes they are reasonable. The Authority has modified BIO-MM#52 in the Final Supplemental EIR/EIS to incorporate these changes.

CDFW also notes that surveys and project activities could result in the take of Crotch bumble bee and that such take would require an Incidental Take Permit under Section 2081 of the California Fish and Game Code. The CDFW notes that consultation with CDFW is warranted to discuss how to implement project activities and to avoid take. The determination of what species will be covered by the Section 2081 permit will be made in coordination with the CDFW at the time of the permit application.

317-791

Please refer to the response to submission MF2-248, comment 245.

317-792

Please refer to the response to submission MF2-248, comment 246.

Response to Submission 317 (Primavera Parker, California Dept of Fish & Wildlife, April 27, 2020) - Continued

317-793

Please refer to the response to submission MF2-248, comment 247.

317-794

Please refer to the response to submission MF2-248, comment 248.

317-795

Please refer to the response to submission MF2-248, comment 249.

317-796

The Authority would begin permit application processes, including for a section 2081 permit, if a decision is made to construct the project upon completion of CEQA and issuance of a Notice of Determination. In such case, the Authority anticipates that it would submit a separate Section 2081 permit application for the Central Valley Wye.

317-797

As noted in other responses, the Authority has revised the IAMFs in the Final Supplemental EIR/EIS, as well as numerous mitigation measures in response to CDFW comments, to clarify the requirements and enforceability. Consistent with CDFW recommendations, several IAMFs from the Draft Supplemental EIR/EIS have been changed to mitigation measures in the Final Supplemental EIR/EIS.

For further information regarding the IAMFs and mitigation measures, please refer to the responses to submission MF2-248, comments 264, 269, 293 and 294.

317-798

Please refer to the response to submission MF2-248, comment 250.

317-799

Please refer to the response to submission MF2-248, comment 251.

317-800

Please refer to the response to submission MF2-248, comment 252.

317-801

Please refer to the response to submission MF2-248, comment 253.

317-802

Comment noted. The Authority has clarified in Section 3.7.5.3, Wildlife Habitat Assessment, of the Final Supplemental EIR/EIS that additional field habitat assessments were not performed to assess Crotch bumble bee habitat.

317-803

Please refer to the response to submission MF2-248, comment 254.

317-804

Please refer to the response to submission MF2-248, comment 255.

317-805

Please refer to the response to submission MF2-248, comment 256.

317-806

Please refer to the response to submission MF2-248, comment 257.

317-807

Please refer to the response to submission MF2-248, comment 258.

317-808

Please refer to the response to submission MF2-248, comment 259.

317-809

Please refer to the response to submission MF2-248, comment 260.

317-810

Please refer to the response to submission MF2-248, comment 261.

Response to Submission 317 (Primavera Parker, California Dept of Fish & Wildlife, April 27, 2020) - Continued

317-811

Please refer to the response to submission MF2-248, comment 262.

317-812

Please refer to the response to submission MF2-248, comment 263.

317-813

Comment noted. Please refer to the response to submission MF2-317, comment 796.

317-814

Please refer to the response to submission MF2-248, comment 264.

317-815

Please refer to the response to submission MF2-248, comment 265.

317-816

Please refer to the response to submission MF2-248, comment 266.

317-817

Please refer to the response to submission MF2-248, comment 267.

317-818

Please refer to the response to submission MF2-248, comment 268.

317-819

Please refer to the response to submission MF2-248, comment 269.

317-820

Please refer to the response to submission MF2-248, comment 270.

317-821

Please refer to the response to submission MF2-248, comment 271.

317-822

The Authority acknowledges that initial construction of portions of the Merced to Fresno section, including the San Joaquin River crossing located north of Fresno, have extended beyond the original planned construction dates. The construction delay has resulted from an array of factors, including procurement issues, design refinements, and unforeseen weather patterns, such as flooding. The flooding event during the 2016-2017 winter prevented active construction at the San Joaquin River crossing for approximately six months (aside from site maintenance activities). Construction at other natural wildlife corridors near the Fresno River and Cottonwood Creek structures were completed within the 1-3 year timeframe. However, the Authority believes that future construction planning and techniques, considering lessons learned from the initial construction, will facilitate project construction remaining within the stated timelines, thus eliminating the potential for indirect construction impacts to become long-term.

317-823

Please refer to the response to submission MF2-248, comment 272.

Response to Submission 317 (Primavera Parker, California Dept of Fish & Wildlife, April 27, 2020) - Continued

317-824

Impact BIO#45 describes indirect impacts on wildlife movement corridors during operations only. As noted in the description of this impact, these effects include noise, motion, and startle effects associated with the passage of trains. Information on known wildlife movement corridors in the Wildlife Movement RSA was obtained by reviewing existing data and by conducting reconnaissance-level surveys to field-check existing data. State and federal agencies as well as independent researchers have defined and described existing wildlife movement corridors. The following data sources were used as a guide to understand the location and species-specific requirements of the wildlife movement corridors that have been identified in the San Joaquin Valley:

- The wildlife movement corridors identified in Missing Linkages: Restoring Connectivity to the California Landscape (Penrod et al. 2001), which was prepared in response to the 2000 Missing Linkages conference
- Recovery Plan for Upland Species of the San Joaquin Valley, California (USFWS 1998); Habitat Suitability and Potential Corridors for San Joaquin Kit Fox in the San Luis Unit—Fresno, Kings, and Merced Counties, California (Cypher et al. 2007); Conservation of San Joaquin Kit Foxes in Western Merced County, California (Constable et al. 2009); and San Joaquin Kit Fox (Vulpes macrotis mutica) 5-Year Review: Summary and Evaluation (USFWS 2010), which identified core, satellite, and linkage areas
- California Essential Habitat Connectivity Project (Spencer et al. 2010), which identifies Natural Landscape Blocks (Rustigian-Rosmos 2010) and Essential Connectivity Areas (ECA) (Gogol-Prokurat 2014)
- Modeled wildlife corridors in the San Joaquin Valley region, prepared by the Information Center for the Environment, University of California, Davis (Huber 2007)
- Merced to Fresno Section Landscape Permeability Analysis (Authority and FRA 2012c), which provided information on the proposed crossing structures for one alternative of the Merced to Fresno Section to facilitate wildlife movement
- Dedicated Wildlife Crossings for the Merced to Fresno Section of the California High-Speed Train System, April 13, 2012 Memorandum (Authority and FRA 2012d), which describes dedicated wildlife crossings proposed for the Merced to Fresno Section
- Biological Opinion on the California High-Speed Train System: Merced to Fresno Section Project, Merced, Madera, and Fresno Counties (USFWS 2012), which provides design measures for proposed dedicated wildlife crossings for the Merced to Fresno

317-824

Section.

Based on the review of existing information, the Authority determined that additional intensive field efforts to identify wildlife movement corridors were unnecessary. The existing information was used to overlay migration corridor datasets onto the Central Valley Wye alternatives in Google Earth Pro and in GIS. The mapped corridors were then ground-truthed in the Wildlife Movement RSA during the reconnaissance field survey to ascertain their utility on both a local- and meta-population level. The field evaluation of potential movement corridors addressed the availability and suitability for the movement of wildlife species and identified changes in corridor quality on a rough landscape level. Data obtained from the field evaluation were supplemented with a review of existing wildlife passages (such as drainage crossings, and automobile and train bridges) in the habitat survey area. Potential movement barriers such as canals and roadways were also noted in the field.

This information, in combination with the FRA guidance manual, High-Speed Ground Transportation Noise and Vibration Impact Assessment (FRA 2005), and the Noise and Vibration Technical Report (Authority and FRA 2016c), provided substantial information upon which to evaluate potential indirect effects on wildlife movement during project operations. Sound exposure levels from individual passing trains that exceed 100 A-weighted decibels are expected to elicit an avoidance response from wildlife moving through nearby habitat. Based on the modeled noise calculations contained within the Noise and Vibration Technical Report (Authority and FRA 2016c), wildlife would have to be within approximately 50 feet of the edge of the HSR right-of-way to experience noise effects above FRA's recommended threshold for limiting avoidance response.

The description of this impact is based upon substantial information and is accurate.

317-825

Please refer to the response to submission MF2-248, comment 272.

Response to Submission 317 (Primavera Parker, California Dept of Fish & Wildlife, April 27, 2020) - Continued

317-826

Please refer to the response to submission MF2-248, comment 274.

317-827

Please refer to the response to submission MF2-248, comment 275.

317-828

Please refer to the response to submission MF2-248, comment 276.

317-829

BIO-MM#14 in the Final Supplemental EIR/EIS, Conduct Protocol-level Surveys for Blunt-Nosed Leopard Lizard, has been revised as suggested to require surveys according to the recently revised methodology. This methodology had not been published prior to the printing of the Draft Supplemental EIR/EIS.

317-830

Please refer to the response to submission MF2-248, comment 277.

317-831

Please refer to the response to submission MF2-248, comment 278.

317-832

Please refer to the response to submission MF2-248, comment 279.

317-833

Please refer to the response to submission MF2-248, comment 280.

317-834

Please refer to the response to submission MF2-248, comment 281.

317-835

Please refer to the response to submission MF2-248, comment 282.

317-836

Comment noted. The Authority notes that the Final Supplemental EIR/EIS now includes BIO-MM#39, Establish Wildlife Crossings, which requires the Authority to create dedicated wildlife crossings. Minimum design specifications are provided in the measure; however the measure also notes that the Project Biologist will confirm appropriate placement and dimensions of the crossings. Additionally, the measure notes that different designs may also be used if specified in authorizations issued under FESA or CESA. The Authority intends to work with CDFW to design crossings which have been demonstrated to be effective.

317-837

Please refer to the response to submission MF2-248, comment 283.

317-838

Please refer to the response to submission MF2-248, comment 284.

317-839

Please refer to the response to submission MF2-248, comment 285.

317-840

Please refer to the response to submission MF2-248, comment 286.

317-841

Please refer to the response to submission MF2-248, comment 287.

317-842

Please refer to the response to submission MF2-248, comment 288.

317-843

Please refer to the response to submission MF2-248, comment 289.

Response to Submission 317 (Primavera Parker, California Dept of Fish & Wildlife, April 27, 2020) - Continued

317-844

Please refer to the response to submission MF2-248, comment 290.

317-845

Please refer to the response to submission MF2-248, comment 291.

317-846

Please refer to the response to submission MF2-248, comment 292.

317-847

Please refer to the response to submission MF2-248, comment 296.

317-848

Please refer to the response to submission MF2-248, comment 297.

Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020)

Merced - Fresno 2014+; Central Valley Wye - RECORD #319 DETAIL

Status :	Action Pending
Record Date :	4/28/2020
Submission Date :	4/27/2020
Interest As :	State Agency
First Name :	Harpreet
Last Name :	Kooner
Attachments :	Participating Agency Letter Response__4_27_2020 .pdf (523 kb)

Submission Content :

Good afternoon,

Caltrans District 6 has the attached comments on the Merced to Fresno Section: Central Valley Wye Revised/Second Draft Supplemental EIR/EIS.

If you have any questions or need additional information, please email at Harpreet.kooner@dot.ca.gov<mailto:Harpreet.kooner@dot.ca.gov>
Regards,

Harpreet Kooner
California Department of Transportation
Program/Project Management
2015 E. Shields Ave, Suite 100
Harpreet.kooner@dot.ca.gov<mailto:Harpreet.kooner@dot.ca.gov>
559-472-3326

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

DEPARTMENT OF TRANSPORTATION
DISTRICT 6
2015 EAST SHIELDS AVENUE, SUITE A-100
FRESNO, CA 93726-5428
PHONE (559) 243-8012
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TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

Date: April 27, 2020

California High-Speed Rail Authority
Attn: Walid Khalife
Central Valley Wye Draft SEIR/SEIS Comments
770 L Street, Suite 800
Sacramento, CA 95814

Dear Mr. Walid Khalife:

RE: Merced to Fresno Section: Central Valley Wye Revised Draft Supplemental Environmental Impact Report/Second Draft Supplemental Environmental Impact Statement, Biological Resources Analysis

The California Department of Transportation (Caltrans) appreciates the opportunity to provide input on the Merced to Fresno – Central Valley Wye revised draft supplemental environmental impact report/second draft supplemental environmental impact statement, biological resources analysis (Draft SEIR/SEIS) as it pertains to the State Highway System (SHS).

319-863 Caltrans has previously reviewed and submitted comments to the California High-Speed Rail Authority (CHSRA) in a letter dated August 12, 2019 (attached). Caltrans has no additional comments and looks forward to a continued partnership with the CHSRA in assisting with the delivery of this High-Speed Rail (HSR) project.

If you have any questions or need additional information, feel free to call me at (559) 243-8012.

Sincerely,

Garth Fernandez

Garth Fernandez, P.E., PMP
Sr. Transportation Engineer - Project Manager
Program/Project Management
2015 E. Shields Avenue, Suite 100
Fresno, CA 93726

319-864 Attachment: Letter to CHSRA dated August 12, 2019

cc: Sharri Bender Ehlert, District 6 Director
Mike Whiteside, Assistant Chief Engineer
Diana Gomez, Central Valley Regional Director

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020) - Continued

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

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Making Conservation a California Way of Life.

Date: August 12, 2019

California High-Speed Rail Authority
Attn: Walid Khalife
Central Valley Wye Draft EIR/EIS Comments
770 L Street, Suite 800
Sacramento, CA 95814

Dear Mr. Walid Khalife:

RE: DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT/STATEMENT: MERCED TO FRESNO SECTION: CENTRAL VALLEY WYE – Independent Quality Assurance (IQA) review

The California Department of Transportation (Caltrans) has performed Independent Quality Assurance review of the Merced to Fresno - Central Valley Wye Section on the Draft Supplemental Environmental Impact Report/Statement (DEIR/EIS) and the 15% Engineering Plans of the Preferred Alignment requested in the letter dated 7/5/2019 as it pertains to the State Highway System (SHS).

Caltrans looks forward to a continued partnership with the California High-Speed Rail Authority (CHSRA) in assisting with the delivery of this High-Speed Rail (HSR) project. While there have been many specific questions and comments related to the Engineering Plans and the DEIR/EIS, Caltrans would like to bring to the HSRA's attention the following:

- The Final EIR/EIS or subsequent re-examinations will need to sufficiently identify any site-specific impacts and mitigation measures proposed for impacts which may occur within the SHS. Caltrans as a Responsible Agency under CEQA is required to complete a Notice of Determination for Capital Improvement Projects with impacts to the SHS. Based on the level of detail contained within the Draft Supplemental EIR/EIS, additional environmental studies may be required to be completed prior to the Final EIR/EIS to ensure the approval of the Project Report and issuance of Notices of Determination and Encroachment Permits, required for work within the SHS.
- The proposed locations of the overcrossings and proposed local roadway closures identified in the Engineering Plans are inconsistent with the existing Freeway Agreement between Caltrans and the County of Madera. Caltrans request that the CHSRA work with the County of Madera and the City of Chowchilla and gain approval for the proposed modified access plan and discuss the impacts of this modification and any mitigations in the transportation section of the Environmental document. The CHSRA will be required to update the Freeway Agreement to be consistent with the proposed access modifications to SR 152.
- The document should identify any right of way needs for drainage basins at locations along the State Route. Furthermore, the need for pumping plants and basins at locations where the SHS is proposed to be depressed should be addressed.

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

The CHSRA team has had many meetings with Caltrans to identify the constraints and potential modifications at locations where the HSR alignment interacts with the SHS. While this communication has helped us better understand the design constraints and provide us the opportunity for input, the concepts included in the document have not been approved. Furthermore, our comments at the various locations do not constitute approval for the concepts presented. A Project Report will be required to obtain Caltrans approval for modification to the SHS. Caltrans will continue to work with the CHSRA to identify and approve the modifications proposed to the SHS.

The attached spreadsheet includes detailed comments from our review that will aid in development of the HSR project. We have previously reviewed and provided comments on the draft plans in September 2013. While a lot of the concerns were resolved there are some outstanding comments that still need to be addressed. Please review those comments and resolve appropriately.

Caltrans is committed to partnering with the CHSRA and their consultant teams to determine the planned mitigation of impacts to the SHS. We look forward to reviewing the revised plans based on these comments and any associated technical reports.

If you have any questions or need additional information, feel free to call me at (559) 243-8012

Sincerely,

Garth Fernandez, P.E., PMP
Sr. Transportation Engineer - Project Manager
District 6

Attachment: Detailed comments sheets

cc: Sharri Bender Ehlert, District 6 Director
Michael Whiteside, Assistant Chief Engineer
Diana Gomez, Central Valley Regional Director

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020) - Continued

			PROJECT: REVIEW DOCUMENT: SUBMITTAL DATE:	High Speed Rail (HSR) Project Merced to Fresno - Central Valley Wye Section Draft Supplemental Environmental Impact Report/Statement (DEIR/EIS) 15% Engineering Plans of the Preferred Alignment 07/05/19			COMMENTS RETURN DATE:				
COMMENT NO. & LOCATION				COMMENT		RESPONSE Response Codes: A=Agree, will revise; D=Disagree, see explanation;				Review (Concurred/Response to Explanation/Additional	
Mtr No.	Cmt No.	Section	Page/Sht	Description	By	Code	Explanation	Org	By		By
Design											
1	1	Typical Section	CV-B0081-D	Median width (106 feet) and median cross slope (4:1 max) are shown for each location. Median width shall be 86 feet to account for Ultimate Transportation Corridor (six-lane freeway with 62 foot median). The Median slope should be 10:1 or flatter; 20:1 being preferred. (*High Design Manual (HDM) Index 305.2*). Refer to *HDM Figure 305.6* for optimal median design.	SP/DV						
2	2	Typical Section	CV-B0081-D CV-B0082-D	Proposed plan does not provide adequate distance from the catch point to the Right of Way line. The minimum clearance from the right of way line to catch point of a cut or fill slope should be 10 feet for all types of cross sections. When feasible, at least 15 feet should be provided. (*HDM Index 304.2*)	SP/DV						
3	3	SR 152/SR 59 OC	ST-K1101-D	Median bent is skewed in relation to State Route 152. Bent shall be realigned consistent with current condition configuration.	SP/DV						
4	4	SR 59 EB loop to SR 152	CV-R1104-D CV-R1105-D CV-R1110-D	The compound curve 101-03 (1200')/104-01 (150') should follow the guidance in HDM 202.6 and 203.5. At a minimum, an incremental improvement to curve 104-01 is needed. It is noted that the provided radii for the proposed eastbound loops at SR 233 and Road 16 equal 200 feet.	SP/DV						
5	5	SR 59 EB loop to SR 152	CV-R1105-D	Proposed horizontal curve 101-03 is located on the backside of a crest vertical curve. The horizontal and vertical alignment should be coordinated such that the horizontal curve is not hidden behind the crest vertical curve. (*HDM 203.3*).	SP/DV						
6	6	Rd 6/Kingwood Rd	CV-S1130-D	Proposed plans identify a cul de sacs at Rd6/Kingwood Rd. The Freeway Agreement indicates an interchange at this location. As proposed, the spacing between the SR 152/59 and SR 152/Rd 9-Hemlock Rd interchanges is 6 miles. Local, regional, and State consensus is required for this concept.	SP/DV						
7	7	Rd 9/Hemlock Rd.	CV-R1160-D	A ponding basin will be required as the outlet to the pumping station. The basin shall be located outside the access control with access from the local road network.							
8	8	Rd 12/Elm Rd	CV-S1190-D	Proposed plans identify undercrossing at Road 12. The Freeway Agreement indicates an interchange at this location. As proposed, the spacing between the SR 152/Rd 9-Hemlock Rd S and SR 152/233 interchanges is 4.75 miles. Local, regional, and State consensus is required for this concept.	SP/DV						
9	9	Rd 12 and Rd 16	general	To accommodate future highway capacity need and minimize impact to the operations of the HST, overcrossing structures are the recommended solution at all interactions with the SHS. Please provide overcrossings in lieu of undercrossings at Road 12 and Road 16.	SP/DV						
10	10	SR 152 interchanges - Local road crossings	General	All structures crossing over SR 152 shall be constructed to accommodate the SR 152 Ultimate Transportation Corridor (UTC)- six-lane freeway with 62-foot wide median. Please provide sections at each bent showing UTC.	SP/DV						
11	11	Local road interchanges	General	City of Chowchilla General Plan classifies arterials as 4 lanes and collectors as 2 lanes. Crossings need to be adjusted accordingly.	SP/DV						
12	12	SR 59/SR 233 interchange	CV-R1214D	It is likely the corner sight distance at the westbound off ramp is insufficient. The preferred solution is to move the freeway and overcrossing further from the ramp intersection. A less desirable solution would be to widen the overcrossing.	SP/DV						

PROJECT:	High Speed Rail (HSR) Project			
COMMENT NO. & LOCATION		COMMENT	RESPONSE Response Codes: A=Agree, will revise; D=Disagree, see explanation; F=Follow up	Review (Concurred/Response to Explanation/Additional Comment)

Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020) - Continued

Mtr No.	Cmt No.	Section	Page/Sht	Description	By	Code	Explanation	Org	By		By
13	13	SR 99/SR 233 interchange	CV-R1214D	The proposed design plan includes a very high retaining wall adjacent to WB SR 152. Caltrans' preferred option would be to move the ramps closer to the HSR R/W and realign SR 233/Robertson to square up to the ramp termini. This would allow the 4:1 slope to catch at the freeway edge of	SP/DV						
14	14	Interchanges	General	Pursuant to HDM index 503.2, the geometric features of all interchanges or modifications to existing interchanges must be approved by the Caltrans Project Delivery Coordinator.	SP/DV						
15	15	SR 152/ SR 99 Freeway-to-Freeway Connector interchange	Provide cross sections	The proposed viaduct at SR 99/SR 152 shall not preclude the UTC interchange of SR 99/SR 152. As part of completing the SR 152-SR 99 freeway-to-freeway movements and as part of maintaining access to the Avenue 24 interchange, auxiliary lanes would be needed between the branch connectors and the local road interchange ramps. Therefore, SR 99 would need 8 lanes with auxiliary lanes in this area. Please provide cross sections at each column/bent to meet this need. Keep in mind the third dimension (profiles) and how it works with the freeway to freeway interchange.	SP/DV						

PROJECT:		High Speed Rail (HSR) Project									
COMMENT NO. & LOCATION				COMMENT		RESPONSE				Review (Concurred/Response to Explanation/Additional	
						Response Codes: A=Agree, will revise; D=Disagree, see explanation;					
Mtr No.	Cmt No.	Section	Page/Sht	Description	By	Code	Explanation	Org	By		By
	Hydraulics										
16	1	General		The profile grade for realigned Route 152 should be set a minimum of 3 feet above original ground to facilitate drainage, not at original ground as shown in the plans.	TF						
17	2	General	Rte. 152	The drainage design concept for the rural areas of Route 152 would entail sheet flow off the pavement into linear drainage ditches parallel and outside the roadway. Ditches should be designed to store the runoff generated from the ultimate design roadway section (6-lane) from a ten year twenty four hour storm event. The maximum depth of the ditches should not exceed three feet and the calculations should not consider any storage within the median. The hydrological data can be found at	GF						
18	3	Various Locations		There are many instances where the profile grade as designed is in a sag within a cut section. Please redesign all profile grades to be out of cut sections.	TF						
19	4	At all depressed crossings		In some of the alternatives the local road is depressed below the original grade. Before this option is used all other options should be addressed. Depressed roadways require investigation of the depth to groundwater for both the roadway and the required drainage basin located outside of the State right of way. Long term maintenance and operation costs will need to be resolved.	TF						
20	5			The northern (north of 152) alignment crossing at Route 99 appears to conflict with the pumping plant. Please provide more detail at this crossing to make a clear determination of the impacts to the freeway facilities.	TF						

PROJECT:		High Speed Rail (HSR) Project									
COMMENT NO. & LOCATION				COMMENT		RESPONSE				Review (Concurred/Response to Explanation/Additional	
						Response Codes: A=Agree, will revise; D=Disagree, see explanation;					
Mtr No.	Cmt No.	Section	Page/Sht	Description	By	Code	Explanation	Org	By		By
21	6	WYE Alignment		St 6285+00 to 6305+00 Toe of slope at CT right of way line. Move alignment north.	TF						
22	7	WYE Alignment		St 5975+00 to 6050+00 HSR right of way encroaches into CT R/W. Move alignment north.	TF						
23	8	WYE Alignment		At station 6050+00 and 6055+00 at the radio towers the HSR R/W is almost at the CT edge of shoulder. Move alignment north.	TF						
24	9	WYE Alignment		St 6453+50 to 6462+00 retaining wall needs room for maintenance and drainage.	TF						
25	10	WYE Alignment		The proposed plans identify Road 16 to be depressed. Need location of proposed pump and drainage basin. Basin located outside access control with access from local road	TF						
26	11	WYE Alignment		Route 233 at Valeta Drive has flooding issues on the local street. Sufficient right of way on the west side of Route 233 should be provided to construct ditches to drain southward.	TF						

PROJECT:		High Speed Rail (HSR) Project									
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Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020) - Continued

Mtr No.	Cmt No.	Section	Page/Sht	Description	By	Code	Explanation	Org	By		By
Landscape											
27	1	WYE Alignment		There is existing highway planting in the Caltrans right of way at the SR152/99 interchange. Vegetation in this area should be preserved to the greatest extent feasible. Any removal of the vegetation will require replacement planting including irrigation and a one-year plant establishment period.	MM						

PROJECT:		High Speed Rail (HSR) Project									
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Mtr No.	Cmt No.	Section	Page/Sht	Description	By	Code	Explanation	Org	By		By
Structures Construction											
28	1	WYE SR 152 - Rd 11	ST-K1100-D ST-K3101-D	Typical section of bridge appears to show girder stems rotated out of plumb. Also, confirm single column is adequate for such wide bridge .	VND						
29	2	WYE SR 152 - Rd 11	STK1101-D ST-K1210-D	A Right of Way Layout line is shown but no wall details provided. Provide Right of way plans for review.	VND						
30	3	WYE SR 152 - Rd 11	ST-K1161-D	Has consideration been given to separating eastbound Loop Ramp bridge from eastbound SR 152 bridge? Appears to show a lot of unused space in gore that could potentially be corrected with an alignment adjustment and separating the structures. Would simplify bridge construction.	VND						
31	4	WYE SR 152 - Rd 11	ST-K1250-D	This location congested with pump station and other utilities. Caltrans in 2020 expected to modify pump station. Verify planned substructure will fit.	VND						
32	5	WYE SR 152 - Rd 11	ST-K1250-D	Confirm that the Balanced Cantilever Construction proposed over SR99 is with False Work and not Cast in Place Segmental. Confirm False Work temporary clearances can be achieved.	VND						

PROJECT:		High Speed Rail (HSR) Project									
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Mtr No.	Cmt No.	Section	Page/Sht	Description	By	Code	Explanation	Org	By		By
Traffic Operations											
33	1	Interchanges	General	Ramp length in excess of 1000 feet should be constructed with passing lane. Refer to HDM section 504.3(5).	WY						
34	2	Typical Cross Sections	General	Provide the distance from the proposed HSR related fixed object to the ultimate Edge of Travel Way of SR 152. Please show this information on the typical cross section sheets.	WY						
35	3	Traffic Volumes	General	Please confirm that the forecast traffic volumes include redirected traffic due to closure of several local roads.	WY						
36	4	ICE	General	An Intersection Control Evaluation (ICE), is required to identify effective intersection traffic control strategy at the proposed ramp termini. The tables 4,5,6 in the submitted ICE report do not reflect interchange ramp termini configuration. An updated memo will be required to be submitted.	WY						
37	5	Interchanges	General	Based on information in the December 2016 Transportation Technical Report, we have determined thst the report does not include specific operation analysis to substantiate the type (L-1/L-9) of interchange at the various locations along SR 152. A supplemental technical report should be prepared to address this deficiency.	WY						

PROJECT:		High Speed Rail (HSR) Project									
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Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020) - Continued

Mtr No.	Cmt No.	Section	Page/Sht	Description	By	Code	Explanation	Org	By		By
HQ/DES Structures-OSFP											
38	1	Merced to Fresno	ST-K1101-D ST-K1210-D	At the SR59/SR152 and SR 233 Interchange, consider combining the overhead and the overcrossing for a more efficient single viaduct.	RE						
39	2	Merced to Fresno	Various	Span lengths/ratios not very efficient as designed. Try balancing the spans if possible, resulting in bridge depth reduction.	RE						
40	3	Merced to Fresno	Various	Please allow min 1'-9" for all bridge barriers such as type 836 or 842 to comply with the new	RE						

PROJECT:		High Speed Rail (HSR) Project									
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Mtr No.	Cmt No.	Section	Page/Sht	Description	By	Code	Explanation	Org	By		By
Technical Planning											
41	1	Volume 1 -10 Section 3.2 Transportation	Section 3.2.6.3 Page 3.2-34	**Impact TR#2 Permanent Impacts on Major Roadways from Permanent Road Closures and Relocations:** **First paragraph,** in addition to affecting LOS the diversion of local roads due to closures will increase VMT.	HM/EO						
42	2	Volume 1 -10 Section 3.2 Transportation	Section 3.2.6.3 Page 3.2-36	**Impact TR#2 Permanent Impacts on Major Roadways from Permanent Road Closures and Relocations: SR 152 (North) to Road 11 Wye Alternative.** The statement "Planned new grade separations along SR 152 at the SR 59/SR 152 Interchange, Road 4/Lincoln Road, Road 12, and Road 17 1/2 would maintain access to SR 152." is inaccurate. The plans show no proposed access to SR 152 at the new grade separations.	HM/EO						
43	3	Volume 2 - 11 Appendix 3.2-A High Speed Rail Grade Separation and Road Closures for Central Valley WYE Alternatives	Page 14 Of 17	Proposed road closures and grade separations do not match Freeway Agreements between Caltrans and Madera County for SR 152 between SR 59 and SR 99.	HM/EO						
44	4	Volume 3 -02d Civil and Grade Separation Plans (Book 4 of 4)	General	Interchange and grade separations should be constructed to not preclude the Ultimate Transporation Concept facility of a 6 lane freeway.							
45	5	Volume 3 -02d Civil and Grade Separation Plans (Book 4 of 4)	CV-S11300-D	Road 6/Kingwood Road is location of potential future interchange. High Speed Rail facilities such as Radio Sites should be located where future construction would not be precluded.	HM/EO						
46	6	Volume 3 -02d Civil and Grade Separation Plans (Book 4 of 4)	CV-S1260-D	Current design does not show how the extension of SR 152 East of SR 99 as shown in Transporation Concept Report 2012 will be accomodated. Please provide exhibit.	HM/EO						
47	7	General		Traffic volumes and forecasts for specific impact locations will need to be provided for final approval of proposed interchange configurations and circulation changes.	HM/EO						

PROJECT:		High Speed Rail (HSR) Project									
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Mtr No.	Cmt No.	Section	Page/Sht	Description	By	Code	Explanation	Org	By		By
Environmental											
48	1	Merced to Fresno		Mitigation measure details that cannot be predicted at this time must be supplied to Caltrans for review and approval, to ensure that Caltrans is meeting its obligations as a Responsible Agency under CEQA, prior to issuance of a Notice of Determination.	KH/ RS						

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Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020) - Continued

49	2	Merced to Fresno		The issuance of an Encroachment Permit to allow work within the SHS right-of-way may include the following comments listed below: (These are examples and not meant to be a comprehensive listing of areas needing resolution prior to Caltrans' issuance of an Encroachment Permit)	KH/ RS						
50	3	Merced to Fresno		Cultural Resources: The Draft Supplemental EIR/EIS references a Programmatic Agreement and Merced Fresno Memorandum of Agreement. All requirements outlined in the PA and/or MOA (in instances where they are being used to comply with CEQA and California State laws and regulations) for work within the SHS must be completed and available for Caltrans review.	KH/ RS						
51	4	Merced to Fresno		If potential is identified for archeological and/or paleontological resources to be unearthed during construction, Standard specifications for work (such as monitoring) required to address these resources in construction should be included in the Plans and Specifications package.	KH/ RS						
52	5	Merced to Fresno		Biological Resources: The Draft Supplemental EIR/EIS references a Biological Opinion and various biological permits. The BO (in instances where it is being used to comply with CEQA and California State laws and regulations) and permits pertaining to work within the SHS must be issued and valid and available for Caltrans review.	KH/ RS						
53	6	Merced to Fresno		Hazardous Waste: Section 3.10 of the Draft Supplemental EIR/EIS states that there is low to high potential for impacts of hazardous waste properties in relation to SHS right-of-way. Prior to incorporation to Caltrans' SHS, properties to be acquired on behalf of Caltrans must be free of any contamination and comply with Chapter 18 of the Caltrans Project Development Procedures Manual as well as Chapter 400 of the Caltrans Encroachment Permit Manual. Hazardous Waste clearance for properties must be conducted to meet Caltrans standards (HMDD Process) before the property is transferred.	KH/ RS						
54	7	Merced to Fresno		Any soil removed from the SHS right-of-way would be subject to an Aerially Deposited Lead (ADL) study, and treatment of the soil would be determined by the study results. When an ADL study is required, review and approval of soil treatment by Caltrans is required. Standard specifications for treatment of the soil should be included in the Plans and Specifications package.	KH/ RS						
55	9	Merced to Fresno		Pre-construction surveys for nesting birds may be required prior to nesting season and prior to the beginning of construction activities. If existing bridge structures in Caltrans right-of-way are involved in the construction project then preconstruction surveys are required to identify if nests from swallows or bats are present. Exclusionary measures may be required. Standard Specifications for preconstruction surveys and exclusionary measures for nesting birds or bats on structures should be included in the Plans and Specifications package submitted to Caltrans.	KH/ RS						

PROJECT:		High Speed Rail (HSR) Project									
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56	10	Merced to Fresno		In review of Section 3.10 of the Draft EIR/EIS it appears there are low to high potential for impacts of hazardous waste properties in relation to Caltrans SHS. Prior to incorporationto Caltrans' SHS, properties to be acquired on behalf of Caltrans shall be free of any contamination and comply with Chapter 18 of the Caltrans Project Development Procedures Manual.	Raychel Skeen/ District 10						

Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020) - Continued

57	11	Merced to Fresno		Caltrans has reviewed the DSEIR/EIS as it pertains to the State Highway System (SHS). While there have been many specific questions and comments related to the DSEIR/EIS, Caltrans wouldlike to bring to the Authority's attention the following key concern - The DSEIR/EIS will need to sufficiently identify any site specific mitigation measures proposed for impacts which may occur within the SHS. Caltrans as a Responsible Agency under CEQAis required to complete a Notice of Determination for Capital Improvement Projects with impacts to the SHS. Based on the level of detail contained within the DSEIR/EIS, additional environmental studies may be required to be completed prior to the final EIR/EISto ensure the approval of the Project Report, required for work within the SHS.	Raychel Skeen/ District 10						

Response to Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020)

319-863

While this comment is not related to the analysis of the Crotch bumble bee discussed in the Revised Draft Supplemental EIR/Second Draft Supplemental EIS, the Authority appreciates all comments and is responding in full here.

The Authority appreciates Caltrans' continued involvements in the CEQA process for the Central Valley Wye. This comment is noted.

319-864

While this comment is not related to the analysis of the Crotch bumble bee discussed in the Revised Draft Supplemental EIR/Second Draft Supplemental EIS, the Authority appreciates all comments and is responding in full here.

In January 2020, the Authority provided responses to these comments. Those responses are reflected in the attached table.

Response to Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020) - Continued

			PROJECT: REVIEW DOCUMENT: SUBMITTAL DATE:	High Speed Rail (HSR) Project Merced to Fresno - Central Valley Wye Section Draft Supplemental Environmental Impact Report/Statement (DEIR/EIS) 15% Engineering Plans of the Preferred Alignment 07/05/19		COMMENTS RETURN DATE:				
COMMENT NO. & LOCATION				COMMENT		RESPONSE				Review (Concurred/Response to Explanation/Additional Comment)
						Response Codes: A=Agree, will revise; D=Disagree, see explanation;				
Mtr No.	Cmt No.	Section	Page/Sht	Description	By	Code	Explanation	Org	By	By
	Design									
1	1	Typical Section	CV-B0081-D	Median width (106 feet) and median cross slope (4:1 max) are shown for each location. Median width shall be 86 feet to account for Ultimate Transportation Corridor (six-lane freeway with 62 foot median). The Median slope should be 10:1 or flatter; 20:1 being preferred. (*High Design Manual (HDM) Index 305.2*). Refer to *HDM Figure 305.6* for optimal median design.	SP/DV	A	The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process.	CL		Further review during final design is necessary to ensure compliance.	SP
2	2	Typical Section	CV-B0081-D CV-B0082-D	Proposed plan does not provide adequate distance from the catch point to the Right of Way line. The minimum clearance from the right of way line to catch point of a cut or fill slope should be 10 feet for all types of cross sections. When feasible, at least 15 feet should be provided. (*HDM Index 304.2*)	SP/DV	A	ROW limits are preliminary. Additional design and Caltrans coordination is needed to define the final ROW. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	SP
3	3	SR 152/SR 59 OC	ST-K1101-D	Median bent is skewed in relation to State Route 152. Bent shall be realigned consistent with current condition configuration.	SP/DV	A	Comment noted. The bent orientation and structure configuration will be refined during final design.	CL		Further review during final design is necessary to ensure compliance.	SP
4	4	SR 59 EB loop to SR 152	CV-R1104-D CV-R1105-D CV-R1110-D	The compound curve 101-03 (1200')/104-01 (150') should follow the guidance in HDM 202.6 and 203.5. At a minimum, an incremental improvement to curve 104-01 is needed. It is noted that the provided radii for the proposed eastbound loops at SR 233 and Road 16 equal 200 feet.	SP/DV	D	Comment noted. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		**Compound curve radii do not meet HDM standard 203.5 as noted. At a minimum, an incremental improvement to curve 104-01 is needed.**	**SP**
5	5	SR 59 EB loop to SR 152	CV-R1105-D	Proposed horizontal curve 101-03 is located on the backside of a crest vertical curve. The horizontal and vertical alignment should be coordinated such that the horizontal curve is not hidden behind the crest vertical curve. (*HDM 203.3*).	SP/DV	D	Ample stopping distance provided based on curve visibility and profile of site distance. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	SP

Response to Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020) - Continued

6	6	Rd 6/Kingwood Rd	CV-S1130-D	Proposed plans identify a cul de sacs at Rd6/Kingwood Rd. The Freeway Agreement indicates an interchange at this location. As proposed, the spacing between the SR 152/59 and SR 152/Rd 9-Hemlock Rd interchanges is 6 miles. Local, regional, and State consensus is required for this concept.	SP/DV	A	Statement addressing the need to update the Freeway Agreement to correspond with the proposed design will be added to the Environmental Document. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		An updated Freeway Agreement is required. Further coordination among all agencies is necessary.	SP
7	7	Rd 9/Hemlock Rd.	CV-R1160-D	A ponding basin will be required as the outlet to the pumping station. The basin shall be located outside the access control with access from the local road network.		A	Noted. The drainage design, including locating pump stations and sizing basins, will be part of final design. The final configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	SP
8	8	Rd 12/Elm Rd	CV-S1190-D	Proposed plans identify undercrossing at Road 12. The Freeway Agreement indicates an interchange at this location. As proposed, the spacing between the SR 152/Rd 9-Hemlock Rd S and SR 152/233 interchanges is 4.75 miles. Local, regional, and State consensus is required for this concept.	SP/DV	D	The CVY design was developed with continuous Caltrans and Madera County coordination. Road 12 is too close to the SR 233 interchange to be an interchange. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		An updated Freeway Agreement is required. Further coordination among all agencies is necessary.	SP
9	9	Rd 12 and Rd 16	general	To accommodate future highway capacity need and minimize impact to the operations of the HST, overcrossing structures are the recommended solution at all interactions with the SHS. Please provide overcrossings in lieu of undercrossings at Road 12 and Road 16.	SP/DV	D	Comment noted. The configuration of the road crossing will be evaluated during final design. Underpasses will only be used where crossing HSR would require extremely tall structures and it is agreed that the underpass is the preferable option. The ultimate roadway widths will be coordinated with the jurisdictional authority during final design. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		The HSR crossing does not appear to preclude Overcrossings at Road 12 and Road 16. Further evaluation/review is necessary during final design.	SP
10	10	SR 152 interchanges - Local road crossings	General	All structures crossing over SR 152 shall be constructed to accommodate the SR 152 Ultimate Transportation Corridor (UTC)- six-lane freeway with 62-foot wide median. Please provide sections at each bent showing UTC.	SP/DV	A	The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	SP

Response to Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020) - Continued

11	11	Local road interchanges	General	City of Chowchilla General Plan classifies arterials as 4 lanes and collectors as 2 lanes. Crossings need to be adjusted accordingly.	SP/DV	A	The ultimate roadway widths will be coordinated with the jurisdictional authority during final design. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	SP
12	12	SR 59/SR 233 interchange	CV-R1214D	It is likely the corner sight distance at the westbound off ramp is insufficient. The preferred solution is to move the freeway and overcrossing further from the ramp intersection. A less desirable solution would be to widen the overcrossing.	SP/DV	D	The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance. See comment #13 for additional information	SP

PROJECT: High Speed Rail (HSR) Project

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Mtr No.	Cmt No.	Section	Page/Sht	Description	By	Code	Explanation	Org	By		By
13	13	SR 59/SR 233 interchange	CV-R1214D	The proposed design plan includes a very high retaining wall adjacent to WB SR 152. Caltrans' preferred option would be to move the ramps closer to the HSR R/W and realign SR 233/Robertson to square up to the ramp termini. This would allow the 4:1 slope to catch at the freeway edge of shoulder.	SP/DV	D	Comment noted. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further evaluation/review is necessary during final design.	SP
14	14	Interchanges	General	Pursuant to HDM index 503.2, the geometric features of all interchanges or modifications to existing interchanges must be approved by the Caltrans Project Delivery Coordinator.	SP/DV	A	Noted. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		**Written approval shall be obtained from the Caltrans Project Delivery Coordinator. Further review/coordination is necessary during final design.**	SP
15	15	SR 152/ SR 99 Freeway-to-Freeway Connector interchange	Provide cross sections	The proposed viaduct at SR 99/SR 152 shall not preclude the UTC interchange of SR 99/SR 152. As part of completing the SR 152-SR 99 freeway-to-freeway movements and as part of maintaining access to the Avenue 24 interchange, auxiliary lanes would be needed between the branch connectors and the local road interchange ramps. Therefore, SR 99 would need 8 lanes with auxiliary lanes in this area. Please provide cross sections at each column/bent to meet this need. Keep in mind the third dimension (profiles) and how it works with the freeway to freeway interchange.	SP/DV	A	The UTC interchange of SR99/SR152, including auxiliary lanes, and access to Avenue 24 was considered for the HSR proposed viaduct crossing. The future concept interchange exhibits, including cross sections, showing the HSR viaduct were provided to Caltrans. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Concur	SP

Response to Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020) - Continued

PROJECT:		High Speed Rail (HSR) Project									
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Mtr No.	Cmt No.	Section	Page/Sht	Description	By	Code	Explanation	Org	By		By
Hydraulics											
16	1	General		The profile grade for realigned Route 152 should be set a minimum of 3 feet above original ground to facilitate drainage, not at original ground as shown in the plans.	TF	A	The profile grades will be revised when more detailed information is available during final design. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	TF
17	2	General	Rte. 152	The drainage design concept for the rural areas of Route 152 would entail sheet flow off the pavement into linear drainage ditches parallel and outside the roadway. Ditches should be designed to store the runoff generated from the ultimate design roadway section (6-lane) from a ten year twenty four hour storm event. The maximum depth of the ditches should not exceed three feet and the calculations should not consider any storage within the median. The hydrological data can be found at http://hdsc.nws.noaa.gov/hdsc/pfds/ .	GF	A	Comment noted. The drainage design will be developed during final design. The final configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	TF
18	3	Various Locations		There are many instances where the profile grade as designed is in a sag within a cut section. Please redesign all profile grades to be out of cut sections.	TF	A	The profile grades will be revised when more detailed information is available during final design. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	TF
19	4	At all depressed crossings		In some of the alternatives the local road is depressed below the original grade. Before this option is used all other options should be addressed. Depressed roadways require investigation of the depth to groundwater for both the roadway and the required drainage basin located outside of the State right of way. Long term maintenance and operation costs will need to be resolved.	TF	A	Comment noted. The local road profile grades will be revised and drainage impacts considered when more detailed information is available during final design. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	TF
20	5			The northern (north of 152) alignment crossing at Route 99 appears to conflict with the pumping plant. Please provide more detail at this crossing to make a clear determination of the impacts to the freeway facilities.	TF	D	Proposed design not near SB SR 99 pump plant. No conflict.	CL		Concur	TF

Response to Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020) - Continued

PROJECT:		High Speed Rail (HSR) Project									
COMMENT NO. & LOCATION				COMMENT		RESPONSE				Review (Concurred/Response to Explanation/Additional Comment)	
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Mtr No.	Cmt No.	Section	Page/Sht	Description	By	Code	Explanation	Org	By		By
21	6	WYE Alignment		St 6285+00 to 6305+00 Toe of slope at CT right of way line. Move alignment north.	TF	D	HSR intends to stay outside of CT property. The slope lines will be revised when more detailed information is available during final design. The final configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	TF
22	7	WYE Alignment		St 5975+00 to 6050+00 HSR right of way encroaches into CT R/W. Move alignment north.	TF	D	HSR intends to stay outside of CT property. The slope lines will be revised when more detailed information is available during final design. The final configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	TF
23	8	WYE Alignment		At station 6050+00 and 6055+00 at the radio towers the HSR R/W is almost at the CT edge of shoulder. Move alignment north.	TF	D	HSR intends to stay outside of CT property. The slope lines will be revised when more detailed information is available during final design. The final configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	TF
24	9	WYE Alignment		St 6453+50 to 6462+00 retaining wall needs room for maintenance and drainage.	TF	A	Comment noted. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	TF
25	10	WYE Alignment		The proposed plans identify Road 16 to be depressed. Need location of proposed pump and drainage basin. Basin located outside access control with access from local road network.	TF	A	Comment noted. The drainage design will be developed during final design. The final configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	TF

Response to Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020) - Continued

26	11	WYE Alignment		Route 233 at Valeta Drive has flooding issues on the local street. Sufficient right of way on the west side of Route 233 should be provided to construct ditches to drain southward.	TF	A	Comment noted. The drainage design will be developed during final design. The final configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	TF

PROJECT: High Speed Rail (HSR) Project

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Mtr No.	Cmt No.	Section	Page/Sht	Description	By	Code	Explanation	Org	By		By
	Landscape										
27	1	WYE Alignment		There is existing highway planting in the Caltrans right of way at the SR152/99 interchange. Vegetation in this area should be preserved to the greatest extent feasible. Any removal of the vegetation will require replacement planting including irrigation and a one-year plant establishment period.	MM	A	Comment noted. Landscaping will be coordinated during final design. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	DV

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	Structures Construction										
28	1	WYE SR 152 - Rd 11	ST-K1100-D ST-K3101-D ST-K1101-D	Typical section of bridge appears to show girder stems rotated out of plumb. Also, confirm single column is adequate for such wide bridge .	VND	A	Comment noted. The structure configuration will be refined during final design. The final configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	VND
29	2	WYE SR 152 - Rd 11	STK1101-D ST-K1210-D	A Right of Way Layout line is shown but no wall details provided. Provide Right of way plans for review.	VND	A	See Alignment and Typical Section Plans for ROW.	CL		Concur	VND
30	3	WYE SR 152 - Rd 11	ST-K1161-D	Has consideration been given to separating eastbound Loop Ramp bridge from eastbound SR 152 bridge? Appears to show a lot of unused space in gore that could potentially be corrected with an alignment adjustment and separating the structures. Would simplify bridge construction.	VND	A	Comment noted. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	VND
31	4	WYE SR 152 - Rd 11	ST-K1250-D	This location congested with pump station and other utilities. Caltrans in 2020 expected to modify pump station. Verify planned substructure will fit.	VND	D	Proposed design not near SB SR 99 pump plant. No conflict.	CL		Concur	VND

Response to Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020) - Continued

32	5	WYE SR 152 - Rd 11	ST-K1250-D	Confirm that the Balanced Cantilever Construction proposed over SR99 is with False Work and not Cast in Place Segmental. Confirm False Work temporary clearances can be achieved.	VND	A	Comment noted. The structure type will be refined and coordinated during final design. The final configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	VND

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	Traffic Operations										
33	1	Interchanges	General	Ramp length in excess of 1000 feet should be constructed with passing lane. Refer to HDM section 504.3(5).	WY	A	Two lanes provided along exit ramps over 1,000'.	CL		Concur	WY
34	2	Typical Cross Sections	General	Provide the distance from the proposed HSR related fixed object to the ultimate Edge of Travel Way of SR 152. Please show this information on the typical cross section sheets.	WY	A	The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination. The fixed object distances can be shown on the typical sections.	CL		Further review during final design is necessary to ensure compliance.	WY
35	3	Traffic Volumes	General	Please confirm that the forecast traffic volumes include redirected traffic due to closure of several local roads.	WY	A	Confirmed. The Transportation Technical Report (see Tables 6-4 through 6-11) presents forecasted traffic volumes with project conditions, inclusive of road closures.	JC		Concur	WY
36	4	ICE	General	An Intersection Control Evaluation (ICE), is required to identify effective intersection traffic control strategy at the proposed ramp termini. The tables 4,5,6 in the submitted ICE report do not reflect interchange ramp termini configuration. An updated memo will be required to be submitted.	WY	A	The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination. The lane geometry will be included in the ICE to show the final configuration evaluated.	CL		Further review during final design is necessary to ensure compliance.	WY

Response to Submission 319 (Harpreet Kooner, Caltrans District 6, April 27, 2020) - Continued

37	5	Interchanges	General	Based on information in the December 2016 Transportation Technical Report, we have determined that the report does not include specific operation analysis to substantiate the type (L-1/L-9) of interchange at the various locations along SR 152. A supplemental technical report should be prepared to address this deficiency.	WY	A	As noted in Section 4.2.1 of the Transportation Technical Report: Due to the low traffic volumes in the local roadway network in the RSA (i.e. most roadways had average daily traffic volumes of less than 500 vehicles, with many having average daily traffic volumes of less than 50 vehicles), an intersection analysis was not required for CEQA/NEPA purposes. At such low volumes, intersection level of service (LOS) would never be worse than the General Plan target LOS. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	JC		Since new interchanges are proposed at various locations and an existing interchange (SR 233) is modified, Traffic analysis should be conducted to ensure the proposed Interchange type are adequate to serve future traffic demand.	WY

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HQ/DES Structures-OSFP											
38	1	Merced to Fresno	ST-K1101-D ST-K1210-D	At the SR59/SR152 and SR 233 Interchange, consider combining the overhead and the overcrossing for a more efficient single viaduct.	RE	A	Comment noted. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	DV
39	2	Merced to Fresno	Various	Span lengths/ratios not very efficient as designed. Try balancing the spans if possible, resulting in bridge depth reduction.	RE	A	Comment noted. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	DV
40	3	Merced to Fresno	Various	Please allow min 1'-9" for all bridge barriers such as type 836 or 842 to comply with the new requirements/slip form construction feasibility.	RE	A	Comment noted. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	CL		Further review during final design is necessary to ensure compliance.	DV

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Technical Planning											
41	1	Volume 1 -10 Section 3.2 Transportation	Section 3.2.6.3 Page 3.2-34	Impact TR#2 Permanent Impacts on Major Roadways from Permanent Road Closures and Relocations: First paragraph, in addition to affecting LOS the diversion of local roads due to closures will increase VMT.	HM/EO	D	Please see Section 3.2.4.3 of the Draft EIR/EIS which describes the methodology used to determine impacts. Given the low traffic volumes on roads in the area and the lack of stations in the Central Valley Wye Alternatives, a simplified traffic analysis was performed using level of service. Even if the requested text edit were made, there would be no substantial change to any of the conclusions in the section. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	JC		Concur - The volumes are low in this area and the project will not generate significant additional VMT that would change the reports conclusions.	EO/HM
42	2	Volume 1 -10 Section 3.2 Transportation	Section 3.2.6.3 Page 3.2-36	Impact TR#2 Permanent Impacts on Major Roadways from Permanent Road Closures and Relocations: SR 152 (North) to Road 11 Wye Alternative. The statement "Planned new grade separations along SR 152 at the SR 59/SR 152 Interchange, Road 4/Lincoln Road, Road 12, and Road 17 1/2 would maintain access to SR 152." is inaccurate. The plans show no proposed access to SR 152 at the new grade separations.	HM/EO	A	The Final Supplemental EIR/EIS will note that planned new grade separations will maintain access across SR 152, not "access to and across SR 152" as was noted in the Draft Supplemental EIR/EIS. Please refer to the following drawings: 1) For SR 152/SR 59 Grade separation: Drawing CV-S1100-D). 2) For Road 4/Lincoln Road grade separation: Drawings CV-R1111-D to CV-R1112-D. 3) For Road 17 1/2 grade separation Drawings CV-R1240-D to CD-R1242-D.	JC		Concur	EO/HM
43	3	Volume 2 - 11 Appendix 3.2-A High Speed Rail Grade Separation and Road Closures for Central Valley WYE Alternatives	Page 14 of 17	Proposed road closures and grade separations do not match Freeway Agreements between Caltrans and Madera County for SR 152 between SR 59 and SR 99.	HM/EO	D	See responses above. The final geometric configuration will be coordinated and approved by Caltrans through the Project Report process. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	JC		Freeway Agreements will need to be negotiated and updated to match what is proposed.	EO/HM
44	4	Volume 3 -02d Civil and Grade Separation Plans (Book 4 of 4)	General	Interchange and grade separations should be constructed to not preclude the Ultimate Transpiration Concept facility of a 6 lane freeway.		A	6-land SR 152 ultimate transportation concept considered with interchange and grade separation design.	CL		Concur	EO/HM
45	5	Volume 3 -02d Civil and Grade Separation Plans (Book 4 of 4)	CV-S11300-D	Road 6/Kingwood Road is location of potential future interchange. High Speed Rail facilities such as Radio Sites should be located where future construction would not be precluded.	HM/EO	A	If Road 6/Kingwood Road is to remain a future interchange, the systems facility will need to be adjusted to accommodate the interchange. If the road is closed, the freeway agreement will need to be updated to match the proposed final design.	CL		HSR facilities should not be planned within potential future IC locations.	EO/HM

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46	6	Volume 3 -02d Civil and Grade Separation Plans (Book 4 of 4)	CV-S1260-D	Current design does not show how the extension of SR 152 East of SR 99 as shown in transportation Concept Report 2012 will be accommodated. Please provide exhibit.	HM/EO	A	The proposed HSR configuration with the conceptual SR 152 extension East of SR 99 was provided as a separate exhibit.	CL		Concur	EO/HM
47	7	General		Traffic volumes and forecasts for specific impact locations will need to be provided for final approval of proposed interchange configurations and circulation changes.	HM/EO	A	Comment noted. No change to the Draft EIR/EIS is merited.	JC		Concur	EO/HM

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	Environmental										
48	1	Merced to Fresno		Mitigation measure details that cannot be predicted at this time must be supplied to Caltrans for review and approval, to ensure that Caltrans is meeting its obligations as a Responsible Agency under CEQA, prior to issuance of a Notice of Determination.	KH/ RS	A	The Final EIR/EIS will include a Mitigation Monitoring and Reporting Program which will identify timing, responsibility, and oversight of all mitigation measures. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	JC		Further review during final design is necessary to ensure compliance.	RS
49	2	Merced to Fresno		The issuance of an Encroachment Permit to allow work within the SHS right-of-way may include the following comments listed below: (These are examples and not meant to be a comprehensive listing of areas needing resolution prior to Caltrans' issuance of an Encroachment Permit)	KH/ RS	A	As a state agency, the Authority will obtain any required permits from fellow state agencies, including Caltrans.	JC		Further review during final design is necessary to ensure compliance.	RS
50	3	Merced to Fresno		Cultural Resources: The Draft Supplemental EIR/EIS references a Programmatic Agreement and Merced Fresno Memorandum of Agreement. All requirements outlined in the PA and/or MOA (in instances where they are being used to comply with CEQA and California State laws and regulations) for work within the SHS must be completed and available for Caltrans review.	KH/ RS	A	The terms of the cited agreements are applicable to the Central Valley Wye alternatives and will be completed as required. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	JC		Further review during final design is necessary to ensure compliance.	RS
51	4	Merced to Fresno		If potential is identified for archeological and/or paleontological resources to be unearthed during construction, Standard specifications for work (such as monitoring) required to address these resources in construction should be included in the Plans and Specifications package.	KH/ RS	A	The comment regarding inclusion of materials in the Construction Procurement package is noted. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	JC		Further review during final design is necessary to ensure compliance.	RS
52	5	Merced to Fresno		Biological Resources: The Draft Supplemental EIR/EIS references a Biological Opinion and various biological permits. The BO (in instances where it is being used to comply with CEQA and California State laws and regulations) and permits pertaining to work within the SHS must be issued and valid and available for Caltrans review.	KH/ RS	A	The Authority will make the Biological Opinion available to Caltrans for review. If any additional environmental studies are required due to modifications, they will be done through a reexamination.	JC		Further review during final design is necessary to ensure compliance.	RS
53	6	Merced to Fresno		Hazardous Waste: Section 3.10 of the Draft Supplemental EIR/EIS states that there is low to high potential for impacts of hazardous waste properties in relation to SHS right-of-way. Prior to incorporation to Caltrans' SHS, properties to be acquired on behalf of Caltrans must be free of any contamination and comply with Chapter 18 of the Caltrans Project Development Procedures Manual as well as Chapter 400 of the Caltrans Encroachment Permit Manual. Hazardous Waste clearance for properties must be conducted to meet Caltrans standards (HMDD Process) before the property is transferred.	KH/ RS	A	The comment is noted but does not pertain to any of the conclusions in the Draft EIR/EIS.	JC		Further review during final design is necessary to ensure compliance.	RS

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54	7	Merced to Fresno		Any soil removed from the SHS right-of-way would be subject to an Aerially Deposited Lead (ADL) study, and treatment of the soil would be determined by the study results. When an ADL study is required, review and approval of soil treatment by Caltrans is required. Standard specifications for treatment of the soil should be included in the Plans and Specifications package.	KH/ RS	A	The comment is noted but does not pertain to any of the conclusions in the Draft EIR/EIS.	JC		Further review during final design is necessary to ensure compliance.	RS
55	9	Merced to Fresno		Pre-construction surveys for nesting birds may be required prior to nesting season and prior to the beginning of construction activities. If existing bridge structures in Caltrans right-of-way are involved in the construction project then preconstruction surveys are required to identify if nests from swallows or bats are present. Exclusionary measures may be required. Standard Specifications for preconstruction surveys and exclusionary measures for nesting birds or bats on structures should be included in the Plans and Specifications package submitted to Caltrans.	KH/ RS	A	A number of mitigation measures call for preconstruction measures regarding protected birds and bats. Please see mitigation measures BIO-MM#24, BIO-MM#25, BIO-MM#26, BIO-MM#31, BIO-MM#32, and BIO-MM#33. The request to include exclusionary measures and standard specifications for preconstruction surveys in Construction Procurement packages submitted to Caltrans is noted.	JC		Further review during final design is necessary to ensure compliance.	RS

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56	10	Merced to Fresno		In review of Section 3.10 of the Draft EIR/EIS it appears there are low to high potential for impacts of hazardous waste properties in relation to Caltrans SHS. Prior to incorporation to Caltrans' SHS, properties to be acquired on behalf of Caltrans shall be free of any contamination and comply with Chapter 18 of the Caltrans Project Development Procedures Manual.	Raychel Skeen/ District 10	A	The comment is noted but does not pertain to any of the conclusions in the Draft EIR/EIS.	JC		Further review during final design is necessary to ensure compliance.	RS
57	11	Merced to Fresno		Caltrans has reviewed the DSEIR/EIS as it pertains to the State Highway System (SHS). While there have been many specific questions and comments related to the DSEIR/EIS, Caltrans would like to bring to the Authority's attention the following key concern - The DSEIR/EIS will need to sufficiently identify any site specific mitigation measures proposed for impacts which may occur within the SHS. Caltrans as a Responsible Agency under CEQAis required to complete a Notice of Determination for Capital Improvement Projects with impacts to the SHS. Based on the level of detail contained within the DSEIR/EIS, additional environmental studies may be required to be completed prior to the final EIR/EIS to ensure the approval of the Project Report, required for work within the SHS.	Raychel Skeen/ District 10	A	The Final EIR/EIS will include a Mitigation Monitoring and Reporting Program which will identify timing, responsibility, and oversight of all mitigation measures.	JC		Further review during final design is necessary to ensure compliance.	RS