



State of California – Natural Resources Agency  
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December 18, 2020

Governor's Office of Planning & Research

**Dec 18 2020**

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## STATE CLEARINGHOUSE

**Subject: Supplemental Comments on California High-Speed Rail Project, Bakersfield to Palmdale Section (Project) Administrative Final Environmental Impact Report/Environmental Impact Study (FEIR/EIS SCH No. 2009082062)**

Dear Mr. McLoughlin:

The California Department of Fish and Wildlife (CDFW) received a notification for review of the administrative FEIR/EIS on November 10, 2020 from the High-Speed Rail Authority (Authority) for the Bakersfield to Palmdale (B-P) section of the High-Speed Rail (HSR) Project (Project). This letter provides additional CDFW comments and is supplemental to the April 28, 2020 comment letter to the Draft Environmental Impact Report/Environmental Impact Study (DEIR/EIS) and the August 25, 2020 supplemental comments on Appendix 3.7-B: Potential Additional Section 1600 Resources Memorandum (Appendix 3.7-B) previously conveyed to the Authority.

### COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the Authority in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources. CDFW has previously commented on applicability and analysis of Fish and Game Code Section 1600 *et seq.* (Lake and Streambed Alteration Agreement), the California Endangered Species Act (CESA; Fish & G. Code § 2050 *et seq.*), and biological issues during environmental consultation for the B-P section. Predominately, those comments remain unchanged and have not been fully addressed by the Authority. The following comments represent an overview of the significant concerns CDFW continues to have with the proposed Project and is supported by the robust recommendations as outlined in Table 1:

#### Overview of Comments

1. Project Design Changes. The Project description includes several design features to avoid or minimize impacts to biological resources for the B-P section. For instance, specific lengths and locations for viaducts, walls, and embankments are identified in the Project description in the FEIR/EIS. These Project design features should not change at the site-level during construction. Changes to design features after the

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CEQA review process is complete (e.g., from viaducts to full embankments, longer embankments reducing viaducts, additional walls, new features) could result in additional significant impacts not identified and analyzed in the current FEIR/EIS (CEQA Guidelines §15162). This may result in the need for additional CEQA review. Additional environmental review should be conducted by the Authority if this occurs. Otherwise, any such changes that may need to be incorporated into the Lake and Streambed Alteration Agreement and/or CESA permitting processes may require CDFW to act as the lead agency and this may result in significant permit issuance delays. The Authority should incorporate site-specific review and consultation before construction to verify the extent/magnitude of impacts and mitigation are consistent with the FEIR/EIS analysis.

2. Mitigating for Impacts within Region. Throughout CDFW consultation on the B-P section, we have continued to emphasize the need to generally mitigate species impacts within the CDFW region or county that they occur when feasible.
3. Wildlife Connectivity. Wildlife connectivity impacts continue to be a significant concern for CDFW considering the length of the Project, the impermeability of the track system, duration of construction activity, and long-term operation. The FEIR/EIS identifies a few undercrossing facilities (e.g., viaducts, culverts, other features) that can be utilized by some wildlife species. However, CDFW continues to believe the Authority needs to address significant wildlife connectivity issues in the FEIR/EIS.
4. Site-specific Surveys. Impacts associated with the Project are primarily estimated using habitat suitability modeling. CDFW continues to recommend that the FEIR/EIS include a measure to require site-specific biological assessments to validate the modeled site-specific potential for impacts to sensitive species. This type of assessment will be needed to support any Lake or Streambed Alteration Agreement and/or CESA Incidental Take Permit required for the Project.
5. Impacts to Streams. CDFW continues to believe the magnitude and scope of impacts to streams may be underestimated due to the lack of access to the Project corridor to conduct field surveys. This lack of current, site-specific information necessary to accurately quantify the extent of impacts to streams may affect the accuracy of a Notification pursuant to the Lake or Streambed Alteration Agreement process. We recommend field evaluations be conducted to confirm impacts to streams for the Project once Right-of-Way is secured by the Authority.
6. CESA-Listing. Since the DEIR/EIS was circulated for public review, the regulatory status for several species known to occur in the Project area have changed. These species include western Joshua tree (*Yucca brevifolia*), mountain lion (*Puma concolor*) and Crotch's bumble bee (*Bombus crotchii*). CDFW recommends the FEIR/EIS include an update to these special status species and include an updated analysis of impacts and proposed mitigation measures for these species similar to the approach taken for the Supplemental Environmental Impact Report for the San Jose to Merced section of HSR currently in progress. If the current document lacks such supporting information,

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subsequent environmental review may be needed to support Lake or Streambed Alteration and/or CESA permitting.

CDFW appreciates the opportunity to provide additional comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife regarding the FEIR/EIS. If you have any questions or comments regarding this letter, please contact Andrew Valand, Environmental Scientist, at (562) 292-6821 or by email at [Andrew.Valand@wildlife.ca.gov](mailto:Andrew.Valand@wildlife.ca.gov).

Sincerely,

DocuSigned by:  
*Erinn Wilson-Olgin*  
B6E58CFE24724F5...

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Attachment

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**Table 1. B-P Project Section – Final EIR/EIS for Agency Review**

Comment #	Section / Page	Comment text
1	3.7.6.5 / 3.7-90	Special-status bird species - 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 State Fully Protected (SFP) birds and raptors. See COMMENT #1 from CDFW comment letter dated April 28, 2020.
2	3.7.7.2 / 3.7-91 + 3.7-120	Special-status bird species - If suitable habitat is present, CDFW recommends that focused surveys be conducted by qualified biologists at individual Project work areas 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 preconstruction surveys for active nests and habitat use be conducted by a qualified biologist no more than 10 days prior to the start of construction. - See COMMENT #1 from CDFW comment letter dated April 28, 2020.
3	3.7.6.5 / 3.7-121	Special-status bird species - In the event that special-status bird and/or raptor species are found within ½ mile of Project sites, implementation of avoidance measures is warranted. CDFW recommends that a qualified 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. Completely addressing mitigation measures for State Fully Protected (SFP) bird and raptor species in the DEIR/EIS for the Project is recommended. - See COMMENT #1 from CDFW comment letter dated April 28, 2020.
4	3.7.6.5 / 3.7-122-123	Swainson's hawk - 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. - See COMMENT #2 from CDFW comment letter dated April 28, 2020.
5	3.7.6.5 / 3.7-123	Swainson's hawk - As stated above, Swainson's hawk (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. Non-native trees are used by SWHA for nesting therefore the value for compensation of a non-native nesting tree is the same as a native nesting tree species. Regardless of nesting status or tree species, if potential or known SWHA nest trees are removed, CDFW recommends they be replaced with an appropriate native tree species, planted at a ratio of 3:1, in an area that will be protected in perpetuity, to reduce impacts to SWHA from the loss of nesting habitat. - See COMMENT #2 from CDFW comment letter dated April 28, 2020.
6	3.7.7.2 / 3.7-150	Desert tortoise - If desert tortoise (DETO) are found within the Project during pre-construction surveys or construction activities, consultation with CDFW is advised to discuss how to implement the Project and avoid take; or if avoidance is not feasible, to acquire an Incidental Take Permit (ITP) prior to any ground disturbing activities, pursuant Fish and Game Code section 2081(b). Alternatively, the applicant can assume presence and acquire an ITP prior to initiating Project implementation as proposed in Mitigation Measure 16. - See COMMENT #5 from CDFW comment letter dated April 28, 2020.

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7	BARTR Section 6.3.17 / 6-49	<p>Mohave ground squirrel - CDFW recommends that a qualified permitted biologist conduct protocol surveys for Mohave ground squirrel (MGS) following the methods described in the "Mohave Ground Squirrel Survey Guidelines" (CDFG 2003) during the appropriate survey season prior to Project implementation, including any vegetation- or ground-disturbing activities. Please note that guidelines indicate that a visual survey and up to three trapping sessions may need to be conducted (CDFG 2003). Results of the MGS surveys are advised to be submitted to CDFW. Please note MGS surveys are valid for one year and should be conducted within a year of the start of ground- or vegetation disturbing activities.</p> <p>If protocol surveys will not be conducted or if surveys detect MGS, in order to implement full avoidance for MGS, CDFW recommends a 50-foot no-disturbance buffer be employed around all burrows that could be used by MGS.</p> <p>If MGS are found within the Project site during protocol surveys, pre-construction surveys, or construction activities, consultation with CDFW is recommended to discuss how to implement the Project and avoid take; or if avoidance is not feasible, to acquire an Incidental Take Permit (ITP) prior to any ground-disturbing activities, pursuant to Fish and Game Code section 2081(b). Alternatively, the applicant can assume presence and acquire an ITP prior to initiating Project implementation as proposed. - See COMMENT #7 from CDFW comment letter dated April 28, 2020.</p>
8	Table 3.7-7 / 3.7-60	<p>California Red-Legged Frog - California Red-Legged Frog (CRLF) are known to occur within and in the vicinity of the Project area (CDFW 2020). CRLF require a variety of habitats including aquatic breeding habitats and upland dispersal habitats. Breeding sites of the CRLF are in aquatic habitats including pools and backwaters within streams and creeks, ponds, marshes, springs, sag ponds, dune ponds and lagoons. Additionally, CRLF frequently breed in artificial impoundments such as stock ponds (USFWS 2002). Breeding sites are generally found in deep, still or slow-moving water (greater than 2.5 feet) and can have a wide range of edge and emergent cover amounts. CRLF can breed at sites with dense shrubby riparian or emergent vegetation, such as cattails or overhanging willows, or can proliferate in ponds devoid of emergent vegetation and any apparent vegetative cover (i.e., stock ponds). CRLF habitat includes nearly any area within one to two miles of a breeding site that stays moist and cool through the summer; this includes non-breeding aquatic habitat in pools of slow-moving streams, perennial or ephemeral ponds, and upland sheltering habitat such as rocks, small mammal burrows, logs, densely vegetated areas, and even man-made structures (i.e., culverts, livestock troughs, spring-boxes, and abandoned sheds) (USFWS 2017c).</p>
9	3.7.6.5 / 3.7- 119	<p>California Red-Legged Frog - Review of aerial imagery indicates that within and in the vicinity of the Project could serve as habitat to CRLF. The FEIR/EIS does not acknowledge the potential for CRLF to occur in the Project area and the potential for impacts. - See COMMENT #8 from CDFW comment letter dated April 28, 2020. CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation, to determine if Project or immediate vicinities contain suitable habitat for California Red-Legged Frog (CRLF). If suitable habitat is present, CDFW recommends that a qualified biologist conduct surveys for CRLF within 48 hours prior to commencing work (i.e., two night surveys immediately prior to construction or as otherwise required by the USFWS) in accordance with the "Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog" (USFWS, 2005) to determine if CRLF are within or adjacent to the Project.</p> <p>If any CRLF are found during pre-construction surveys or at any time during construction, CDFW recommends that construction cease and that CDFW be contacted to discuss a relocation plan for CRLF by a qualified biologist.</p> <p>CDFW recommends that initial ground-disturbing activities be timed to avoid the period when CRLF are most likely to be moving through upland areas (November 1 and March 31). When ground-disturbing activities must take place between November 1 and March 31, CDFW recommends that a qualified biologist conduct construction activity monitoring daily for CRLF. - See COMMENT #8 from CDFW comment letter dated April 28, 2020.</p>

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10	3.7.6.5 / 3.7-119	Southwestern pond turtle - CDFW recommends a Mitigation Measure be incorporated into the FEIR/EIS to require protection for western pond turtle during their breeding season and require a no-disturbance buffer of 475 feet from the outside edge of wetland habitat suitable for the species within the Project site to protect nesting areas. CDFW is recommending a 475-foot buffer since female southwestern pond turtles can move overland for up to 325 feet to find suitable sites for egg-laying. In addition to avoiding a minimum of 325 feet from the edge of a water feature, CDFW recommends an additional 150 foot beyond the 325-foot overland travel range to protect nests and nesting sites from direct and indirect Project disturbance. CDFW also recommends focused surveys for southwestern pond turtles be conducted in all areas of the Project site that provide potential habitat for southwestern pond turtle and survey results be incorporate into a revised FEIR/EIS to allow CDFW to make specific recommendations and comments on additional mitigation measures proposed to minimize impacts to this species. - See COMMENT #9 from CDFW comment letter dated April 28, 2020.
11	Table 3.7-7 / 3.7-62 & 3.7.6.5 / 3.7-90	Western spadefoot toad - Western spadefoot toad may occur within and adjacent to the Project footprint. If potential breeding sites for western spadefoot toad are identified in the Project site during pre-construction surveys, CDFW recommends the consultation with CDFW prior to the implementation of the Project to develop a plan to avoid impacts to western spadefoot toad. - See COMMENT #10 from CDFW comment letter dated April 28, 2020.
12	3.7.7.3 / 3.7-152	Crotch's bumblebee - The Authority proposes using general guidelines and best practices for bumblebee surveys would follow USFWS' "Survey Protocols for the Rusty Patched Bumble Bee ( <i>Bombus affinis</i> )" (USFWS 2019). - See COMMENT #11 from CDFW comment letter dated April 28, 2020.
13	3.7.7.2 / 3.7-116 & Table 3.7-11 / 3.7-87	Joshua tree and oak woodland habitat - The California Fish and Game Commission adopted emergency regulations to protect Joshua tree as a candidate threatened species under CESA on October 9, 2020. Possession or removal of any additional trees, portions or trees, and/or dead trees may require a permit under CESA. The FEIR/EIS lacks analysis and mitigation for the temporal loss off Joshua tree and oak woodland habitat. BIO-MM# 1 does not include a specific and enforceable avoidance buffer for Joshua trees. CDFW notes that the FEIR/EIS does not discuss or propose compensatory mitigation to offset the loss of either habitat type in the implementation of the Project. Therefore, it is unclear how Project impacts would be reduced to less than significant without specific and enforceable avoidance, minimization, or mitigation measures identified in the FEIR/EIS. - See COMMENT #12 from CDFW comment letter dated April 28, 2020.
14	3.7.7.2 / 3.7-117	Oak Woodland Habitat - CDFW recommends the FEIR/EIS be revised to reflect a 4-inch diameter at breast height when considering which oak trees, and trees in general, require mitigation. More importantly, the oak woodland community needs to be considered in its entirety when considering mitigation to replicate the habitat function. Oak trees are a dense, slow growing hardwood requiring decades to mature. CDFW recommends revising the mitigation measures to require monitoring oak trees/oak woodlands for a minimum of 15 years and up to 20 years to determine success. To reestablish the oak woodlands, CDFW recommends three planting seasons. The first planting season, year 0, being the acorn and sun tolerate ground covers; the second planting season occurring at approximately year 5, introducing sun/shade tolerate species; and the third planting season at year 10 with the introduction of more shade tolerate understory species. To determine the appropriate species and density of the oak woodlands, three representative oak woodland sites need to be analyzed for species composition, density, and richness. The created sites, once established, need to reflect the representative sites. - See COMMENT #12 from CDFW comment letter dated April 28, 2020.

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15	3.7.7.2 / 3.7-117	Joshua Tree and Oak Woodland Habitats - These Joshua tree and oak woodland mitigation areas should be protected against anthropogenic impacts for the life of the Project. CDFW recommends mitigation lands be preserved and managed in perpetuity under a conservation easement (CE) and managed by a local land conservancy. The proposed specific mitigation location should be identified in the CEQA document in order to ensure that mitigation is not deferred until some future time; however, the FEIR/EIS document "may specify performance standards which would mitigate the significant effect of the Project and which may be accomplished in more than one specified way" (CEQA Guidelines, § 15126.4(a)(1)(B)). - See COMMENT #12 from CDFW comment letter dated April 28, 2020.
16	3.7.7.2 / 3.7-116-117	Special-status plants - The aerial imagery of the Project area is not robust in depicting native plant communities within the Project footprint and cannot be used to model or infer presence/absence of the special status plant communities. CDFW recommends this mapping be updated with current data and provide a range of mapping and imagery that captures both wet and dry year vegetation community occurrences. - See COMMENT #13 from CDFW comment letter dated April 28, 2020.
17	3.7.5.7 / 3.7-41	Desert Kit Fox - The proposed Project is within desert kit fox ( <i>Vulpes macrotis arsipus</i> ) range and contains suitable habitat for the species. The desert kit fox is protected under Title 14, California Code of Regulations, section 460, which prohibits take of the species at any time. CDFW recommends that the USFWS "Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance" (2011) be followed and that surveys be conducted accordingly and prior to commencing any Project-related activities. If any active or potential dens are found on the Project site during these surveys, consultation with CDFW would be warranted for guidance on take avoidance measures for the desert kit fox. - See COMMENT #14 from CDFW comment letter dated April 28, 2020.
18	3.7.6.4 / 3.7-65	<p>Mountain Lion - On June 25, 2019, a petition to list the mountain lion (<i>Puma concolor</i>), Southern California/Central Coast Evolutionarily Significant Unit (ESU) in Southern and Central California as Threatened or Endangered pursuant to CESA (Fish &amp; G. Code §§ 2050 et seq.) was submitted to the California Fish and Game Commission. Specifically, the petitioners requested listing as a "threatened species" for the ESU comprised of the following recognized mountain lion subpopulations: 1) Santa Ana Mountains; 2) Eastern Peninsular Range; 3) San Gabriel/San Bernardino Mountains; 4) Central Coast South (Santa Monica Mountains); 5) Central Coast North (Santa Cruz Mountains); and 6) Central Coast Central. On April 16, 2020 the Fish and Game Commission determined that the petitioned action "may be warranted" and established mountain lion within the proposed ESU as a candidate species under CESA. As a candidate species, mountain lion within the proposed ESU now has all the protections afforded to an endangered species under CESA.</p> <p>CDFW advises including and referencing recent linkage studies on mountain lion that includes these six subpopulations of mountain lions in California. The Project alignment transects the Southern California ESU and two of the genetically distinct mountain lion subpopulations (San Gabriel/San Bernardino and Eastern Peninsular Range). Therefore, CDFW advises analyzing Project impacts to the subpopulations, including issues with connectivity and fragmentation of habitat. Based on this analysis, CDFW recommends the FEIR/EIS be revised to include robust feasible avoidance, minimization, and mitigation measures to reduce impacts to mountain lion to less than significant. - See COMMENT #15 from CDFW comment letter dated April 28, 2020.</p>
19	3.7.6.5 / 3.7-90	Impacts on special-status wildlife species - This section states that effective mitigation would include the relocation of special-status wildlife species within the Project footprint. This activity is considered take in the form of capture or the attempt to capture the species (as defined under Fish and Game Code Section 86) and warrants the acquisition an Incidental Take Permit (ITP) from CDFW for any species that is State-listed candidate, threatened, or endangered. Take of any State Fully Protected (SFP) species is prohibited, and CDFW cannot authorize their take for any Project-related reason. - See COMMENT #16 from CDFW comment letter dated April 28, 2020.

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20	3.7.6.5 / 3.7-98	<p>Impacts to conservation easements - This section lacks analysis of indirect impacts to conservation plans and conservation easements (CE). The alignment will go through the White Wolf CE and Tejon CE lands purchased for conservation of California condor and other special-status species by the State of California. The impacts to the values set forth in CEs were not evaluated and analyzed. CDFW recommends this be analyzed and included in the FEIR/EIS, including the legal mechanism that the Authority would utilize to condemn or otherwise impact lands permanently conserved by the State of California. As indicated previously during early consultation, CDFW recommends that an alternative location for that portion of the Project alignment be identified to avoid impacts to permanently conserved lands and the associated legal implications. - See COMMENT #17 from CDFW comment letter dated April 28, 2020.</p>
21	3.7.7 / 3.7-99	<p>This section states: "The goal of the habitat mitigation is to ensure the future conservation of affected resources on a regional scale such that the benefits to the affected resources offset the impacts of the narrow, linear project, which would affect a relatively small percentage of the important resources in the region. In some cases, and in consultation with the USFWS and CDFW, the compensatory mitigation may be weighted in favor of resources for which conservation is a higher priority than for more common resources or resources that would experience lesser impacts." It should be noted that the Project is not simply a narrow linear project. The Project spans between two counties (Kern and Los Angeles) for 80 miles (linearly); however, Project estimates do not account for total project acres with important biological and aquatic resources. In an email sent to the Authority on May 26, 2017, CDFW Region 5 provided the Authority with information on potential conservation areas within Los Angeles County (focused on the B-P section) based on five criteria as follows: 1) Existing land use conservation designations; 2) Nine species likely to occur within the B-P Project area based on known occurrences and high suitability; 3) Locations within identified regional wildlife corridors and linkages; 4) Presence of wetlands; and 5) Location adjacent to public-owned lands and public-owned preserve lands. CDFW is willing to provide information on areas that are potentially suitable for general conservation purposes (considering the species included in the B-P Biological Resources Technical Report [BARTR]); however, whether or not these areas will satisfy Project-related mitigation requirements for State permitting will require further review and information. In the case of the B-P section, mitigation for impacts in CDFW Region 4 (Kern County) or CDFW Region 5 (Los Angeles County) should occur in those respective CDFW Regions.</p> <p>The FEIR/EIS also describes the proposed mitigation ratios for special-status species and habitats impacted by the Project. CDFW does not agree that all of the proposed mitigation and associated mitigation ratios proposed will be sufficient to reduce impacts to all special-status species and habitats to less than significant levels. Please note that mitigation ratios, and/or other measures for CESA-listed species will need to meet the fully mitigated= standard pursuant to Section 2081(b)(2) of Fish and Game Code, the details of which will be determined through the Incidental Take Permit (ITP) process. - See COMMENT #18 from CDFW comment letter dated April 28, 2020.</p>
22	3.7.7 / 3.7-124	<p>Nelson's Antelope Squirrel and Tipton Kangaroo Rat - CDFW recommends that protocol level surveys should be conducted prior to any ground disturbing activities. It should also be noted that both trapping and relocation (handling) of State listed species to remove them from harm's way from the Project footprint prior to ground-disturbing activities warrants the acquisition of an Incidental Take Permit (ITP) pursuant to Fish and Game Code section 2081(b). - See COMMENT #19 from CDFW comment letter dated April 28, 2020.</p>



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23	3.7.7.2 / 3.7-125	<p>Pre-construction bat surveys - CDFW recommends the Authority conduct pre-construction surveys to establish areas of occupancy the year prior to the start of construction in each construction area and that surveys be conducted by a minimum of two CDFW qualified biologists and consist of:</p> <ul style="list-style-type: none"> <li>• Two spring surveys (April through June) and two winter surveys (November through January). Each survey consists of one dusk emergence survey (start one hour before sunset and last for three hours), followed by one pre-dawn reentry survey (start one hour before sunrise and last for two hours), and one daytime visual inspection of all potential roosting habitat on the Project site. Conduct each survey within one 24-hour period. Focus visual inspections on the identification of bat sign (i.e., individuals, guano, urine staining, corpses, feeding remains, D28scratch marks and bats squeaking and chattering). Use bat detectors, bat call analysis and visual observations during all dusk emergence and pre-dawn re-entry surveys.</li> <li>• Data collection for each survey (whether bats are, or have been, present on the Project site) would assemblage of species using the site. Frequency of site use (including seasonal changes). Type of roost (i.e., maternity roost, day roost, night roost, feeding perch, mating roost, satellite roost, transitional roost or winter hibernaculum). Location, ambient temperature, internal dimensions and the aspect and orientation of the roost. Spatial and temporal distribution of bat activity. Flight paths, exit and entrance points. Intensity of bat usage (i.e., number of bats, time and duration of use). Identification of any survey constraints. - See COMMENT #20 from CDFW comment letter dated April 28, 2020.</li> </ul>
24	3.7.7.2 / 3.7-126	<p>Ringtails - This measure indicates that it would guide future protective measures and relocation. Ringtail is a State Fully Protected species, and relocation and as such relocation of this species cannot be authorized. CDFW recommends that this mitigation measure be revised. CDFW advises that a monitor be present during ground-disturbing activities at occupied dens. - See COMMENT #23 from CDFW comment letter dated April 28, 2020.</p>
25	3.8.4.3 / 3.8-16	<p>Impacts to Streams- The Methods for NEPA and CEQA Impact Analysis (Section 3.8.4.3) and Methods for Determining Significance under CEQA (Section 3.8.4.4) do not appear to be inclusive of the resources stated in Floodplain Functions and Values (Section 3.8.5.7 page 3.8.37) and potential impacts to the Surface Water Beneficial Uses identified in the Surface Water Quality section (3.8.5.6). Instead of focusing on the lateral extent of the stream to determine the potential impacts to streams for the purpose of identifying and quantifying impacts to streams subject to permitting under Fish and Game code 1600 <i>et seq.</i>, the document instead focuses almost entirely on the Federal Emergency Management Agency (FEMA) definition of Floodplain and Floodway. Potential impacts to important functions, such as habitat and wildlife beneficial uses, and values of groundwater and surface water features should be included in the impact analysis. - See COMMENT #24 from CDFW comment letter dated April 28, 2020.</p>
26	3.8.6.6 / 3.8-92	<p>Streams, Springs, and Seeps - Impact HWR #8 does not adequately address the potential impacts to streams, springs and seeps from alterations to, and interruptions of groundwater flow patterns. The permanent loss of springs and seeps due to Project construction could constitute a significant effect under CEQA and should be included in the FEIR/EIS analysis. – See COMMENT Section 3.8.4.4 Pages 3.8-18 and 38.19 from CDFW comment letter dated April 28, 2020.</p>

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27	BARTR 5.2 / 5-3	<p>Hydrology Report. - The updated Redacted Revised Draft Final BARTR - November 2018. Pages 6-3 through 6-21 appear to be missing. The FEIR/EIS does not contain the suggested updated hydrology reports to reflect wet conditions resulting from the 2017 rainy season and does not contain updated vegetation surveys to better capture on-site vegetation resulting from the 2017 rainy season. The FEIR/DEIS fails to utilize a range of estimates for acreage of impacts to allow for variability in conditions and limited accuracy due to incomplete survey data.</p> <p>Based on a comparison of the BARTR Aquatic Resources Delineation and other data sources, it appears that many features which have been mapped in several state and federal data sets are not included in the BARTR, including riverine, freshwater pond, and lake resources. The current delineation mapping likely underestimates the level of direct/indirect impacts to streams subject to Fish and Game code 1600 <i>et seq.</i> CDFW recommends that the impact analysis should also evaluate the direct and cumulative impact of isolating streams/watercourses by impacting the upper and lower reaches of features which then can affect hydrological functions and values of the entire section or watershed area. - See COMMENT #25 from CDFW comment letter dated April 28, 2020.</p>
28	BARTR 7.2 / 7-1	<p>Palmdale Station - The BARTR discusses the Palmdale station in various sections (e.g., Sections 2.2.2 and 7.2). It is recommended that additional information be provided regarding moving this station to the west to avoid/reduce impacts to Una Lake and State-listed species that are known to occupy the area. CDFW recommends that such an alternative be retained in the Project EIR/EIS as a potentially feasible alternative that would attain most of the basic objectives of the Project and avoid and/or substantially reduce/lessen significant impacts to biological resources (Pub. Resources Code section 21002 and state CEQA Guidelines section 15126.6 [a]). - See COMMENT Palmdale Station from CDFW comment letter dated April 28, 2020.</p>
29	BARTR 6.3.15 / 6-48	<p>Southwestern willow flycatcher - Based on the information provided in the BARTR, CDFW does not concur that the low probability of occurrence concluded for southwestern willow flycatcher also applies to willow flycatcher and little willow flycatcher. Suitable habitat appears to be absent within the Biological Study Area (BSA) so the species is considered to have a low to moderate probability of occurrence. Nevertheless, depending on the chosen alternative, the Project may affect up to 25 acres of potentially suitable southwestern willow flycatcher habitat as summarized in Table 7.3. - See COMMENT Section 6.3.15 Southwestern Willow Flycatcher (<i>Empidonax traillii extimus</i>) Page 6-48 from CDFW comment letter dated April 28, 2020.</p>
30	BARTR 6.3.16 / 6-49	<p>Least Bell's vireo - This section acknowledges that, "sources, including the CDFG and Point Reyes Bird Observatory, indicate the species occurs near aquatic features in the Antelope Valley within the BSA (Point Reyes Bird Observatory 2004)" and that "additional observations reported in eBird come from Piute Ponds (approximately 2.5 miles from the BSA) but then later concludes that "it is considered to have a low probability of being present in suitable portions of the BSA." Based on the information presented in the BARTR, CDFW recommends that probability of occurrence should be identified as at least "moderate". - See COMMENT Section 6.3.16 Least Bell's vireo (<i>Vireo bellii pusillus</i>) Page 6-49 from CDFW comment letter dated April 28, 2020.</p>
31	BARTR 6.3.26 / 6-58 & 3.7.7.2 / 3.7-118	<p>California legless lizard - As indicated in the BARTR, CDFW agrees that there is a high probability of encountering this Species of Special Concern (SSC) in the southern portion of the alignment, particularly the Antelope Valley area. Any proposed impact avoidance and minimization features (IAMFs) for this species should avoid impacts to this species to the maximum extent practicable and include pre-construction surveys to identify and relocate any species to nearby suitable (and conserved) habitat. Relocation of this species would require appropriate permits (e.g., scientific collecting) from the State and is not considered mitigation for impacts to this species. - See COMMENT Section 6.3.26 California Legless Lizard (<i>Anniella pulchra</i>) Page 6-58 from CDFW comment letter dated April 28, 2020.</p>
32	BARTR 6.3.29 / 6-62	<p>Southwestern pond turtle - This section appears to exclude any of the Antelope Valley area as within range of this SSC and concludes that the species is considered to have a low probability of occurrence within the</p>

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	& 3.7.7.2 / 3.7-118	BSA. Areas at in the southern portion of the alignment, near the Palmdale lake and Una Lake areas contain potentially suitable aquatic habitat for this species as well as potential suitable upland habitat for this species may occur in the vicinity of appropriate aquatic habitats. CDFW recommends that the potential for this species to occur within the BSA be reassessed while considering rainfall from 2017 to present date. - See COMMENT Section 6.3.29 Western Pond Turtle ( <i>Actinemys marmorata</i> ) Page 6-62 from CDFW comment letter dated April 28, 2020.
33	BARTR 6.3.30 / 6-63	Mountain plover - As indicated in the BARTR, CDFW agrees that there is suitable foraging habitat and a high probability of encountering this state SSC in the southern portion of the alignment, particularly the Antelope Valley area. Any proposed IAMFs for this species should avoid impacts to this species to the maximum extent practicable and include pre-construction surveys for nesting. - See COMMENT Section 6.3.30 Mountain Plover ( <i>Charadrius montanus</i> ) Page 6-63 from CDFW comment letter dated April 28, 2020.
34	BARTR 8.2.5 / 8-6	Burrowing owl - CDFW considers the loss of occupied BUOW habitat significant, at a project level and cumulatively, without adequate mitigation; CDFW recommends that mitigation land which supports an active BUOW population be required for the Project to address impacts to on-site occupied BUOW habitat. Mitigation lands for any unavoidable impacts to occupied BUOW habitat should include occupied BUOW burrows and be of sufficient acreage and vegetative compendium to support foraging activities. CDFW acknowledges that in section 8.2.5 the FEIR/EIS indicates that the Authority will follow protocol set forth in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). However, additional description regarding the mitigation lands should be provided. - See COMMENT Section 6.3.31 Burrowing Owl ( <i>Athene cunicularia</i> ) Page 6-64 from CDFW comment letter dated April 28, 2020.