Submission 903 (Dustin Downing, Border Lands Blood Works, April 5, 2021)

Bakersfield - Palmdale - RECORD #903 DETAIL

Status :	Action Pending
Record Date :	4/5/2021
Affiliation Type :	Individual
Submission Date :	4/5/2021
Interest As :	Individual
Submission Method :	Website
First Name :	Dustin
Last Name :	Downing
Professional Title :	Witch Doctor
Business/Organization :	Border Lands Blood Works
Address :	
Apt./Suite No. :	
City :	Tehachapi
State :	CA
Zip Code :	93561
Telephone :	6615244049
Email :	winterstag77@yahoo.com
Cell Phone :	
Email Subscription :	Bakersfield to Palmdale
Add to Mailing List :	Yes
EIR/EIS Comment :	

Stakeholder Comments/Issues :

903-1013 We don't want your silly High speed rail coming through our beautiful little town.....It is not going to save
903-1014 the planet or any of that AOC b.s...It'll bring crime and other problems to our community...Your plan for
903-1015 this giant piece of crap will take it through our beautiful valley making an eye sore just like the ugly ass wind mills that do nothing for our valley but only for L.A...Instead why don't you fix L.A sewer and water issue
903-1016 first..instead of dumping your shit in the Ocean..

Response to Submission 903 (Dustin Downing, Border Lands Blood Works, April 5, 2021)

903-1013

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The comment presents the commenter's opinion on the Bakersfield to Palmdale Project Section and does not identify which CEQA and NEPA issues are not addressed in the EIR/EIS. CEQA requires a final EIR to evaluate environmental issues in comments on a Draft EIR/EIS or Revised Draft EIR/Supplemental Draft EIS and to respond to the comments received on significant environmental issues (see 14 CCR §15088(a)). NEPA requires that the Final EIS responds to comments on substantive issues. (40 C.F.R. §1503.4) The comment expresses the commenter's views on the Bakersfield to Palmdale Project Section, but does not address a substantive environmental issue in the Draft EIR/EIS or Revised Draft EIR/Supplemental Draft EIS.

903-1014

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter states that the HSR project will introduce crime into the community. See response to comment 993 in this chapter. As discussed in Section 3.16 of this Final EIR/EIS, a provision of AVQ-MM#3 requires the design of nonstation structures to "Integrate trees and landscaping where possible to soften and buffer the appearance of guideways, columns, and elevated stations. This will be consistent with the principles of crime prevention through environmental design." This mitigation measure refers to the "Crime Prevention Through Environmental Design" principles. Crime Prevention Through Environmental Design is based on the principle that proper design of buildings and public spaces can lead to a reduction in the incidence of crime (https://www.cpted.net/). In terms of the landscaping design, examples Crime Prevention Through Environmental Design principles include: (1) providing landscaping that does not create hiding places; (2) keeping tree limbs at least 6 feet above the ground to reduce shadows and provide visibility; (3) using planted wall features or vines to avoid blank wall spaces to deter graffiti; and (4) using trees with thin branches near lighting sources to reduce shadows and ensure adequate lighting of spaces for safety. The mitigation measure requires incorporation of Crime Prevention Through Environmental Design principles to ensure that landscaping required by this measure does not result in residual safety and security impacts.

Response to Submission 903 (Dustin Downing, Border Lands Blood Works, April 5, 2021) - Continued

903-1015

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter raises concerns about the HSR project's effect on the landscape in Tehachapi. Refer to Response to Comment 741-91, contained in Chapter 22 of this Final EIR/EIS.

903-1016

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter suggests fixing the Los Angeles sewer and water issue. Improvements to Los Angeles' sewer and water are not necessary to mitigate for an adverse environmental impact of the proposed project.

Submission 902 (Stuart Jay, California Quarry Products, April 5, 2021)

California Quarry Products

Bakersfield - Palmdale - RECORD #902 DETAIL

Status :	Action Pending
Record Date :	4/5/2021
Affiliation Type :	Business and/or Organization
Submission Date :	4/5/2021
Interest As :	Business and/or Organization
Submission Method :	Project Email
First Name :	Stuart
Last Name :	Jay
Professional Title :	CEO
Business/Organization :	California Quarry Products
Address :	
Apt./Suite No. :	
City :	Lancaster
State :	CA
Zip Code :	0000
Telephone :	
Email :	californiaquarry@gmail.com
Cell Phone :	
Email Subscription :	
Add to Mailing List :	
EIR/EIS Comment :	

Stakeholder Comments/Issues :

Hello,

902-1012 I am a business owner located on 3rd Street East just north of Avenue M in Lancaster. In reviewing the various alternatives, it appears that some of them have a "temporary impact" to 3rd Street East (as well as Avenue L12) where 3rd Street East meets Avenue M/Columbia Way. See https://hsr.ca.gov/docs/programs/bakersfield-palmdale/BP_Footprint_Mapbook.pdf on page 84.

I've also excerpted what I'm referring to as an attached picture.

Can you tell me what this temporary impact is going to be, as it doesn't appear on alternative no. 5, and I haven't been able to locate any information about it. Alternatively, could you please direct me to whom I should ask?

Thank you for your time.

Regards,

Stuart Jay
CEO

Response to Submission 902 (Stuart Jay, California Quarry Products, April 5, 2021)

902-1012

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter asks what the temporary impact along 3rd Street East in Lancaster would entail. The temporary impact would involve detouring traffic from Valley Line Road (dirt road) to Ave L 12 and 3rd Street East, since Valley Line Road will not connect to Ave M during or post construction.

Submission 967 (Angela Moskow, California Wildlife Foundation/California Oaks, April 12, 2021)

Bakersfield - Palmdale - RECORD #967 DETAIL

Status :	Action Pending
Record Date :	4/12/2021
Affiliation Type :	Business and/or Organization
Submission Date :	4/12/2021
Interest As :	Business and/or Organization
Submission Method :	Project Email
First Name :	Angela
Last Name :	Moskow
Professional Title :	Manager
Business/Organization :	California Wildlife Foundation/California Oaks
Address :	201 University Avenue
Apt./Suite No. :	Berth H-43
City :	Berkekey
State :	CA
Zip Code :	944710
Telephone :	(510) 763-0282
Email :	amoskow@californiaoaks.org
Cell Phone :	
Email Subscription :	
Add to Mailing List :	
EIR/EIS Comment :	
Attachments :	CaliforniaOaksCommentLetterBPHighSpeedRail4_12_21.pdf (426 kb)

Stakeholder Comments/Issues :

Greetings,

Please find attached and please kindly confirm receipt of this letter on the

Revised Draft EIR/Supplemental Draft EIS for the Bakersfield to Palmdale Project Section California High-Speed Rail Authority.

Best,

Angela Moskow

Angela Moskow
California Oaks Information Network Manager
California Wildlife Foundation/California Oaks
201 University Avenue

Berth H-43
Berkeley, CA 94710

www.californiaoaks.org
Mobile: (510) 610-4685

Submission 967 (Angela Moskow, California Wildlife Foundation/California Oaks, April 12, 2021) - Continued

California Wildlife Foundation/California Oaks, 201 University Avenue, Berth H-43 Berkeley, CA 94710, (510) 763-0282

April 12, 2021

Revised Draft EIR/Supplemental Draft EIS for the Bakersfield to Palmdale Project Section
California High-Speed Rail Authority
355 S. Grand Avenue, Suite 2050
Los Angeles, CA 90071

Transmitted via email: Bakersfield_Palmdale@hsr.ca.gov

To whom it may concern:

The California Oaks program of California Wildlife Foundation (CWF/CO) works to conserve oak ecosystems because of their critical role in sequestering carbon, maintaining healthy watersheds, providing wildlife habitat, and sustaining cultural values. CWF/CO submitted comments on the Draft EIR/EIS (DEIR) for the Bakersfield to Palmdale Project Section of the High Speed Rail Project and the Biological and Aquatic Resources Technical Report. CWF/CO recently learned of the Revised DEIR/Supplemental DEIS. However, CWF/CO did not receive a notice from the California High-Speed Rail Authority. 967-1180

The underlying deficiencies of the DEIR associated with analysis of oak impacts and the mitigation plan for oak impacts continue with Revised DEIR/ Supplemental DEIS provisions that take into account the candidacy status of Southern California and Central Coast mountain lion (*Puma concolor*) populations under the California Endangered Species Act. California's mountain lions are oak-dependent and thereby impacted by damage to oak ecosystems. The proposed project's environmental analysis should evaluate impacts of oak disturbance, removal, and transport on mountain lions. A CWF/CO report that will be published in the spring of 2021 includes a table of vertebrate species which utilize oak habitat for reproduction, cover, and/or feeding, and which are California fully protected and/or designated as endangered, threatened, or candidate species under the California and/or federal Endangered Species Act.[1] California Department of Fish and Wildlife carried out queries utilizing the California Wildlife Habitat Relationship (CWHR) information system (see: https://wildlife.ca.gov/Data/CWHR) to generate the list of vertebrates.[2] 967-1181

Definition of oak woodland: Additional to the California Fish and Game Code reference in the CWF/CO letter on the Bakersfield to Palmdale Project Section of the High Speed Rail Project dated 4/28/20, please note the Board of Forestry and Fire Protection communicated to counties and cities that greater than 10 percent canopy cover is the appropriate measure to define oak woodlands for California Environmental Quality Act (CEQA) reviews after the enactment of Public Resources Code §21083.4, which applies to mitigation for the removal of oaks that are not commercial species and that are five inches or more in diameter as measured at a point 4.5 feet (breast height) above natural grade level. Registered Professional Foresters and arborists must conform to this canopy cover standard. 967-1182

Health and Safety Code §42801.1(g) provides the following definition: "*Forest* means lands that support, or can support, at least 10 percent tree canopy cover and that allow for management of one or more forest resources including timber, fish and wildlife, biodiversity, water quality, recreation, aesthetics, and other public benefits." Public Resources Code §4793(e) provides the following definition: "*Forest land* means land at least 10 percent occupied by trees of any size that are native to California, including native oaks, or formerly having had that tree cover and not currently zoned for uses incompatible with forest resource management."

Additional oak protection requirements for state agencies with land use planning and management responsibilities: The environmental documentation also needs to incorporate discussion of how the project is in compliance with California State Concurrent Resolution (17). The High Speed Rail Authority has responsibility for four species of oaks, as articulated by State Senate's Concurrent Resolution Number 17—Oak Woodlands (September 1, 1989), which directs state agencies with responsibility for land use planning and management with respect to oak woodlands. Pertinent sections are quoted below and the resolution is also attached for reference: 967-1183

> … now, therefore, be it
> *Resolved by the Senate of the State of California, the Assembly thereof concurring,* That all state agencies, including, but not limited to, those specified in this measure, having land use planning duties and responsibilities shall, in the performance of those duties and responsibilities and in a manner consistent with their respective duties and responsibilities, undertake to assess and determine the effects of their land use decisions or actions within any oak woodlands containing Blue, Engelmann, Valley, or Coast Live Oak that may be affected by the decisions or actions, and be it further
>
> *Resolved,* That …state agencies undertake, in the performance of their duties and responsibilities, to preserve and protect native oak woodlands to the maximum extent feasible and consistent with the performance of their duties and responsibilities, or provide for replacement plantings where Blue, Engelmann, Valley, or Coast Live Oak are removed from oak woodlands.

Thank you for your consideration of our comments.

Sincerely,

Janet Cobb
Executive Officer
California Wildlife Foundation

Angela Moskow
Manager, California Oaks Coalition

Attachment

[1] *Oaks*, Spring-Summer 2021, California Wildlife Foundation, Berkeley, CA, 2021 (in press), 3.
[2] CWHR contains life history, geographic range, habitat relationships, and management information on 712 species of amphibians, reptiles, birds, and mammals known to occur in the state; a species list of California's terrestrial vertebrates; and a habitat classification scheme for California containing 59 habitats, structural stages for most habitats, and 124 special habitat elements.

Submission 967 (Angela Moskow, California Wildlife Foundation/California Oaks, April 12, 2021) - Continued

WHEREAS, Equal access to child care services reflects basic civil rights law; and

WHEREAS, State law specifically directs that all contractors under the School-Age Community Child Care Services program, set forth in Article 22 (commencing with Section 8460) of Chapter 2 of Part 6 of the Education Code, shall include, at a minimum, a base percentage of children who are individuals with exceptional needs in their programs; now, therefore, be it

Resolved by the Senate of the State of California, the Assembly thereof concurring, That the Superintendent of Public Instruction is requested to promote and assure compliance with the requirements of the School-Age Community Child Care Services program by informing all special education units in elementary and secondary school districts and county offices of education regarding the enrollment of children who are individuals with exceptional needs in these programs, and by directing that the Child Development Division of the State Department of Education enforce these requirements by monitoring the compliance of all contractors operating these programs; and be it further

Resolved, That the Superintendent of Public Instruction shall include a report on the implementation of the requirements of this measure in the legislative report required by Section 8280 of the Education Code; and be it further

Resolved, That the Secretary of the Senate transmit a copy of this resolution to the Superintendent of Public Instruction.

RESOLUTION CHAPTER 100

Senate Concurrent Resolution No. 17—Relative to oak woodlands.

[Filed with Secretary of State September 1, 1989.]

WHEREAS, California's oak trees are part of the definition of the state's landscape: golden hills dotted with deep green trees; and

WHEREAS, California's oak woodlands provide forage for livestock, habitat for hundreds of species of wildlife, and visual enjoyment to residents and visitors to the state; and

WHEREAS, More than a million acres of oak woodlands have been lost since 1945, and losses continue due to intensive conversion to agriculture and urban encroachment; and

WHEREAS, Several species of oaks do not seem to be regenerating; and

WHEREAS, The continued health of oak woodlands is an indication of Californians' balance with their rural environment, and loss of this resource indicates a deteriorating relationship with our environment; and

WHEREAS, The range industry, which relies on the hardwood

rangelands as an integral part of their operations, is being adversely affected by continued urbanization and fragmentation and is misunderstood by the public; and

WHEREAS, A number of local governments are regulating hardwood harvesting on private lands; and

WHEREAS, The State Board of Forestry, with the support of the range industry and in cooperation with the Department of Fish and Game, the Department of Forestry, and the University of California, has undertaken a program of development, extension, and research with regard to information concerning California's oak woodlands; and

WHEREAS, There are a number of state departments, agencies, boards, and commissions exercising land use planning duties and management with respect to public and privately owned oak woodlands, including, but not limited to, the Department of Fish and Game, Department of Parks and Recreation, State Lands Commission, California Coastal Commission, Department of Forestry, and Office of Planning and Research; now, therefore, be it

Resolved by the Senate of the State of California, the Assembly thereof concurring, That all state agencies, including, but not limited to, those specified in this measure, having land use planning duties and responsibilities shall, in the performance of those duties and responsibilities and in a manner consistent with their respective duties and responsibilities, undertake to assess and determine the effects of their land use decisions or actions within any oak woodlands containing Blue, Engelman, Valley, or Coast Live Oak, that may be affected by the decisions or actions. For purposes of this measure, "oak woodlands" means a five-acre circular area containing five or more oak trees per acre; and be it further

Resolved, That those state agencies undertake, in the performance of their duties and responsibilities, to preserve and protect native oak woodlands to the maximum extent feasible and consistent with the performance of their duties and responsibilities, or provide for replacement plantings where Blue, Engelman, Valley, or Coast Live Oak are removed from oak woodlands; and be it further

Resolved, That each of those state agencies, on or before July 1, 1991, in cooperation with the range industry and other private landowners, shall prepare a report, which shall be coordinated by the Range Management Advisory Committee, and shall submit the report to the Resources Agency and to the appropriate policy and fiscal committees of the Assembly and the Senate of the California Legislature, on the actions taken to further the policy objective of this measure; and be it further

Resolved, That the Secretary of the Senate transmit a copy of this resolution to the Governor and the Secretary of the Resources Agency.

Response to Submission 967 (Angela Moskow, California Wildlife Foundation/California Oaks, April 12, 2021)

967-1180

The Revised Draft EIR/Supplemental Draft EIS was made available for a 45-day public review beginning on February 26, 2021 and ending on April 12, 2021, pursuant to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). On February 18, 2021 and in accordance with CEQA Guidelines 15087(a), a Notice of Availability was mailed to Ms. Angela Moskow of the California Wildlife Foundation/California Oaks at the following mailing address: 428 13th Street, Suite 10A, Oakland, CA 94612. The Authority also published notices in the Federal Register (on February 26, 2021), on the Authority's website, and in the following newspapers of general circulation (CEQA Guidelines 15087(a)(1): Antelope Valley Press, Bakersfield.com, Bakersfield Californian, El Popular (Spanish), Rosamond News, and Tehachapi News.

967-1181

The commenter states that California mountain lions are oak-dependent and are impacted by damage to oak ecosystems. The BARTR and the WCA (Appendix I to the BARTR) provides detailed analysis of wildlife movement across the project, including the mountain lion and a discussion of the type of habitat they use. The BARTR discusses the extent of each habitat type being impacted, including oak woodland. The findings documented in the BARTR are discussed in Section 3.7 of this Final EIR/EIS.

The website link provided by the commenter was reviewed. No changes to the document have been made in response to this comment.

967-1182

While this comment is not related to the new information about the monarch butterfly and Southern California/Central Coast Evolutionarily Significant Unit (ESU) of Mountain Lions as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter notes that Public Resources Code 21083.4 provides a definition for oaks and canopy cover. The Authority's intent is to avoid and protect plants and wildlife through implementation of IAMFs (Section 3.7.4.2 of this Final EIR/EIS), and Mitigation Measures as provided in Section 3.7.7 of this Final EIR/EIS.

The BARTR discusses the extent of each habitat type being impacted, including oak woodland. Section 3.7 of this Final EIR/EIS provides discussion of special-status plant communities and tables showing acres of impact by alternative, including blue oak woodland and valley oak woodland. Vegetation mapping methods are discussed in Section 3.7.4 of this Final EIR/EIS and in more detail in Section 5.4.2.5 of the BARTR (Authority 2018b). The method used for mapping oak woodlands for the project involved a criterion of relative canopy cover. The overall result of the mapping method used for the project resulted in a greater amount of mapped oak woodland and integrated a larger proportion of oak trees than would have been mapped and integrated using the state definition. This is because in order to meet the 10 percent absolute cover criterion and be considered part of a woodland according to the state definition, an oak tree would have to be within a short distance (generally less than 2 times the diameter of its canopy) of other oak trees. The mapping method used for the project was not as strict in this way, with the result being that many areas of scattered oak trees were mapped as woodlands even with an absolute canopy cover as low as about 2 percent. Thus, the methodology used in the EIR/EIS was more conservative than mapping using the state definition of oak woodland. Further, a strict mapping of oak woodland according to the state definition was not feasible because it would require complete access to the project vicinity so that individual trees could be identified. The mapping method used did not always capture all oaks that would have been captured with the state definition, however. For example, areas that had more pines than oaks were usually mapped as ghost pine woodland rather than oak woodland since the pines better characterized the

Response to Submission 967 (Angela Moskow, California Wildlife Foundation/California Oaks, April 12, 2021) - Continued

967-1182

vegetation. As already noted, however, using the state definition would have resulted in mapping less oak woodland overall, thus identifying fewer impacts and less mitigation for oak woodlands.

BIO-MM#35: Implement Transplantation and Compensatory Mitigation Measures for Protected Trees, as described in Section 3.7.7 of this Final EIR/EIS, requires the project biologist to identify protected trees prior to ground disturbing activities and establish environmentally sensitive area buffers around those trees. In addition, this measure commits the Authority to providing compensatory mitigation for impacts on protected trees, including impacts associated with removing or trimming a protected tree. Compensation will be based on requirements set out in applicable local government ordinances, policies and regulations with replacement ratios of 3:1 for native trees, 10:1 for heritage trees, or 1:1 for ornamental trees, unless higher ratios are required by local government ordinances or regulations.

Refer to Response to Comment 967-1183, contained in this chapter, for additional information about mitigation for impacts to oak woodlands.

967-1183

While this comment is not related to the new information about the monarch butterfly and Southern California/Central Coast Evolutionarily Significant Unit (ESU) of Mountain Lions as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter states that the EIR/EIS needs to incorporate discussion of its compliance with the California State Concurrent Resolution Number 17 (September 1, 1989). As documented in Section 3.7 of this Final EIR/EIS, the Authority has complied with its responsibilities under State Senate Resolution Number 17 - Oak Woodlands (September 1, 1989) by: 1) providing a determination of the effects of the Bakersfield to Palmdale Project Section within any oak woodlands containing Blue, Engelmann, Valley, or Coast Live Oak, and, 2) providing impact avoidance, minimization, and mitigation measures to preserve and protect native oak woodlands to the maximum extent feasible and consistent with the performance of their duties and responsibilities, or provide for replacement plantings where Blue, Engelmann, Valley, or Coast Live Oak are removed from oak woodlands. Refer to Response to Comment 967-1182, contained in this chapter. In addition, the following mitigation measures as identified in Section 3.7.7 in the Draft EIR/EIS and this Final EIR/EIS ensure that impacts on oak woodland and individual oak trees will be mitigated. These mitigation measures will provide for protection to special-status plant species and sensitive plant communities, such as blue oak woodland, by identifying environmentally sensitive areas and protecting those from construction impacts, such as BIO-MM#1,BIO-MM#6, BIO-MM#47, BIO-MM#50, BIO-MM#53 through BIO-MM#56, BIO-MM#58, BIO-MM#60,BIO-MM#61, and BIO-MM#75, and restoration for those species by revegetating and contouring the stockpile area for wildlife corridor access under BIO-MM#2,BIO-MM#6, BIO-MM#35, BIO- MM#38, BIO-MM#46, BIO-MM#47, BIO-MM#50, and BIO-MM#53.For example, BIO-MM#1 requires pre-construction surveys and GIS mapping of all sensitive plant communities within the work area. This measure will ensure that appropriate buffers can be provided during construction and the accurate quantification of affected oaks. And BIO-MM#35 requires pre-construction surveys to identify protected trees such as oaks within the work area. These pre-construction surveys ensure accurate quantification of affected oaks for purposes of either tree

Response to Submission 967 (Angela Moskow, California Wildlife Foundation/California Oaks, April 12, 2021) - Continued

967-1183

replacement at a 3:1 ratio (10:1 for heritage trees) or the Authority's contribution to a tree-planting fund. This is appropriate and consistent with Kern County oak tree preservation requirements, as the responsibility for most oak tree conservation as set forth in the Fish and Game Code rests with the local agency, i.e., subject to the polices listed in Section 1.10.10 of the Kern County General Plan for oak woodlands preservation requirements. As discussed in Section 3.7.5.6 of the Draft EIR/EIS and this Final EIR/EIS, there are no oak communities mapped for the project within Los Angeles County. Finally, mitigation for special-status species and habitats includes a CMP per BIO-MM#53. The Compensatory Mitigation Plan (CMP) identifies the mitigation to offset impacts on sensitive habitats, plants, and wildlife resulting from construction of the Preferred Alternative. The CMP will detail the locations where mitigation is proposed to occur and the strategy proposed to implement mitigation to meet the requirements and standards of the various environmental regulatory agencies with jurisdiction over the project. The CMP will provide the methods and a foundation for the mitigation options that are available to offset the loss of sensitive natural resources within the Preferred Alternative project footprint. Compensatory mitigation includes purchase of mitigation bank credits; fee-title acquisition; conservation easements; in-lieu fee payments; and conservation projects to create, restore, or enhance habitats. These compensatory mitigation programs address resources, including special-status species, plants and wildlife, streambed/riparian communities, and wildlife movement corridors. Detailed analysis, including mapping, is included in the BARTR (Authority 2018b). The BARTR, with other technical reports, was made available to the public by request during the public review process. The BARTR contains maps of the special-status plant species, including the various oak woodland communities in Figure 6-2.

Submission 909 (Troy Hightower, Californians for High-Speed Rail CA4HSR, April 6, 2021)

Bakersfield - Palmdale - RECORD #909 DETAIL

Status :	Action Pending
Record Date :	4/6/2021
Affiliation Type :	Business and/or Organization
Submission Date :	4/6/2021
Interest As :	Business and/or Organization
Submission Method :	Project Email
First Name :	Troy
Last Name :	Hightower
Professional Title :	CEO
Business/Organization :	Californians for High-Speed Rail CA4HSR
Address :	PO Box 2493
Apt./Suite No. :	
City :	Bakersfield
State :	CA
Zip Code :	93303
Telephone :	(661) 800-5069
Email :	thightower@ca4hsr.net
Cell Phone :	
Email Subscription :	
Add to Mailing List :	
EIR/EIS Comment :	
Attachments :	CA4HSR_Bakersfield-Pamdale_Section-Comments_040621.pdf (518 kb)

Stakeholder Comments/Issues :

Hello,

I would like to submit the ATTACHED comments for you consideration.

The comments are focused on the following key concerns:

909-1027 1. A “Gap” exists between the LGA/ F Street station and Oswell Street which was the original starting point for the Bakersfield-Palmdale section.

909-1028 2. Concerns raised by community members and City of Bakersfield Senior staff about the impacts of the LGA lead to discussions about reconsidering where the HSR station should be located in Bakersfield.

909-1029 3. Concerns about SJJPA operating the CAHSR and impacts to AMTRAK service including the Thruway busses at Bakersfield to/from Los Angeles.

Please send a confirmation that you received the comment letter.

Troy D. Hightower/CEO
Californians for High-Speed Rail

Californians for High Speed Rail

April 5, 2021

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

RE: Draft Bakersfield – Palmdale EIR

Dear Chairman Tom Richards,

909-1030 I am submitting this comment on behalf of the Californians for High Speed Rail “CA4HSR”. CA4HSR believes that the high speed rail project is essential to the economic vitality of the State of California. We publish a monthly HSR newsletter to provide factual information focused on Bakersfield and Kern County. First of all, we would like to express our long-term support for the High-Speed Rail project and want to ensure its success. The comments are focused on the following key concerns.

909-1031 1. A “Gap” exists between the LGA/ F Street station and Oswell Street which was the original starting point for the Bakersfield-Palmdale section.

909-1032 2. Concerns raised by community members and City of Bakersfield Senior staff about the impacts of the LGA lead to discussions about reconsidering where the HSR station should be located in Bakersfield.

909-1033 3. Concerns about SJJPA operating the CAHSR and impacts to AMTRAK service including the Thruway busses at Bakersfield to/from Los Angeles.

909-1034 **1)** I have previously submitted a comment on this issue on April 9, 2020. There is a “Gap” between the “FRA Approved Fresno-Bakersfield Supplemental LGA” EIR that ends at the F Street HSR station site at the intersection of 34th Street and L Street and where the draft Bakersfield-Palmdale EIR begins at Oswell Street. This Gap covers a distance of five miles in central Bakersfield. Attached is a map that highlights the Gap.

The “Fresno-Bakersfield Supplemental LGA ROD: Explanatory Cover Note” (November 2019) explains that the FRA approval of the LGA ends at the site of the proposed F Street HSR station.

By contrast, the 2014 Fresno-Bakersfield EIR has been approved by the FRA. It consists of the original Hybrid alignment that goes through downtown Bakersfield, includes a HSR station at Truxtun Avenue and continues east to Oswell Street.

Unless there are significant changes to the alignment in the Gap or the impacts and concerns raised are mitigated, it is unlikely the FRA will approve the same alignment

Californians for HSR – www.CA4HSR.net
Po Box 2493, Bakersfield, CA 93303
(661) 800-5069
Email: info@ca4hsr.net

Submission 909 (Troy Hightower, Californians for High-Speed Rail CA4HSR, April 6, 2021) - Continued

909-1034 through the Gap. Moving the Gap to the Bakersfield-Palmdale section does not solve the problem. If the FRA did not approve the Gap in the LGA, why would the FRA approve it in the Bakersfield-Palmdale section?

909-1035 2) We are bringing this to your attention because of our interest in supporting and improving the High-Speed Rail project in any way we can. The Gap leads us to believe that it would be in the interest of the CAHSR Authority and the people of Bakersfield to reconsider both the Fresno-Bakersfield Hybrid and LGA alignments to determine a better solution for the High-Speed Rail project through Bakersfield and beyond. For example, the LGA budget has grown to $1.4B (excluding the Gap). By comparison, the Hybrid estimated budget is less than $800M.

During a recent community meeting (virtual) regarding downtown planning City of Bakersfield staff raised concerns about the impacts of LGA within the Gap. That lead to a community member explaining that they believed the City was who proposed and supported LGA and F Street as the location for the HSR station.

They continued by asking if the City would consider changing the station location. City staff responded by saying that it was the State's project, and it was the State's decision where the station will be located. City staff went on to explain that the State was in the decision process and is currently accepting comments and recommended submitting comments. That is another reason we are submitting these comments.

We along with others participating in the meeting were shocked to hear these statements from City Senior staff. We recall when the City sued the HSR Authority to change the location of the approved HSR site at Truxtun Avenue to the F Street. The meeting was recorded by the City and uploaded to their YouTube page at: https://www.youtube.com/watch?v=dFjXuivr384&t=1603s

909-1036 In addition to the concerns mentioned above, we have the concerns about the SJJPA proposal to integrate CAHSR system: the lack of planning south of Madera or in Bakersfield, impacts to the Thruway Bus Service from Bakersfield to all parts of Southern California, truncating Amtrak service at Madera, and more details needed on how the SJJPA proposes to operate CAHSR infrastructure.

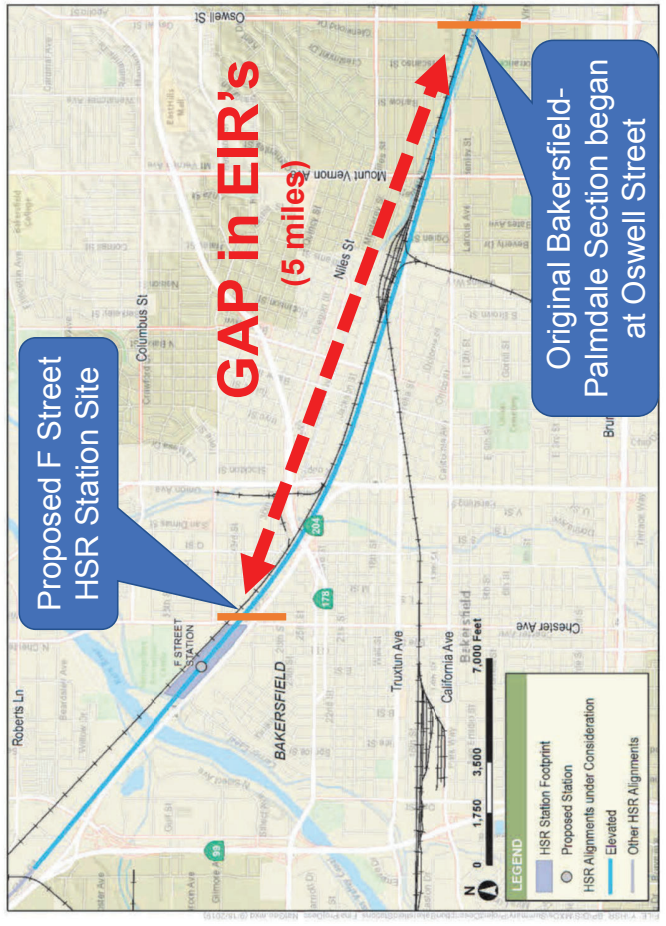
Respectfully,

T. Hightower

Troy Hightower, CEO

06 April 2021
Date

Californians for HSR – www.CA4HSR.net
Po Box 2493, Bakersfield, CA 93303
(661) 800-5069
Email: info@ca4hsr.net



Graphics added by TDH Associates International

Source: California High-Speed Rail Authority, 2018

Response to Submission 909 (Troy Hightower, Californians for High-Speed Rail CA4HSR, April 6, 2021)

909-1027

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter states there is a gap between the F Street Station and Oswell Street. Refer to Response to Comment 821-894, contained in Chapter 28 of this Final EIR/EIS.

909-1028

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter raises concerns by community members and senior staff from the City of Bakersfield regarding the F-B LGA. The commenter provides more detail on this item in comment 909-1035. Refer to Response to Comment 909-1035, contained in this chapter.

909-1029

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter raises concerns about the San Joaquin Joint Powers Authority (SJJPA) operating the HSR and impacts to Amtrak service. As noted in the Memorandum of Understanding between the California State Transportation Authority, California High-Speed Rail Authority, and the SJJPA (November/December 2020; https://hsr.ca.gov/wp-content/uploads/2021/03/brdmtg_012121_Item4_Interim_Service_Plan_MOU_SJJPA.pdf), the California High Speed Rail Early Train Operator –Central Valley Segment System Management and Operations Interim Financial Plan (CV Study) analysis included an integrated service plan for the region including the ACE and San Joaquins intercity rail service, and the use of the CHSRA section in the Central Valley. The CV Study concluded that the best scenario for all the parties is to start an early service of HSR between the cities of Bakersfield and an integrated station in Merced where ACE and San Joaquins services will directly connect to HSR at a multi-modal station in the future (Interim Service).

As discussed in Chapter 2 of the Fresno to Bakersfield Draft Supplemental EIR/EIS, it is expected that Amtrak San Joaquin rail service would likely adjust to function more in the role of a feeder service to the HSR system in the Bakersfield area, providing passengers with the opportunity to connect to cities not served by HSR. This is consistent with the 2008 San Joaquin Corridor Strategic Plan (Caltrans, March 2008), the 2013 and 2018 California State Rail Plan (Caltrans May 2013 and October 2017), and the California HSR Program Revised 2012 Business Plan (Authority and FRA 2012), as discussed in the Fresno to Bakersfield Section Final EIR/EIS. This assumption is also consistent with the 2016 California HSR Business Plan (Authority and FRA 2016).

The commenter did not raise specific concerns on environmental issues evaluated in the Draft EIR/EIS or Revised Draft EIR/Supplemental Draft EIS.

Response to Submission 909 (Troy Hightower, Californians for High-Speed Rail CA4HSR, April 6, 2021) - Continued

909-1030

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter's support of the Bakersfield to Palmdale Project Section of the HSR project is acknowledged. CEQA requires a Final EIR to evaluate environmental issues in comments on a Draft EIR/EIS or Revised Draft EIR/Supplemental Draft EIS and to respond to the comments received on significant environmental issues (see 14 CCR §15088(a)). NEPA requires that the Final EIS responds to comments on substantive issues. (40 C.F.R. §1503.4) The comment expresses the commenter's views on the Bakersfield to Palmdale Project Section, but does not address a substantive environmental issue in the Draft EIR/EIS or Revised Draft EIR/Supplemental Draft EIS.

909-1031

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

Refer to Response to Comment 821-894, contained in Chapter 28 of this Final EIR/EIS.

909-1032

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter raises concerns by community members and senior staff from the City of Bakersfield regarding the F-B LGA. The commenter provides more detail on this item in comment 909-1035. Refer to Response to Comment 909-1035, contained in this chapter.

909-1033

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

Refer to Response to Comment 909-1029, contained in this chapter

909-1034

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

Refer to Response to Comment 821-894, contained in Chapter 28 of this Final EIR/EIS.

Response to Submission 909 (Troy Hightower, Californians for High-Speed Rail CA4HSR, April 6, 2021) - Continued

909-1035

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter states that the F-B LGA budget has grown to $1.4 billion in comparison to less than $800 million for the Bakersfield Hybrid Alternative. It is unclear where the commenter has obtain his cost estimate values. Table 6-1 in the Fresno to Bakersfield Section Draft Supplemental EIR/EIS indicates that the capital cost of the May 2014 Project (Bakersfield Hybrid Alternative) was estimated at $2.89 billion, while the F-B LGA would cost $2.69 billion.

The commenter notes that City staff during a virtual meeting with community members indicated that the Authority was soliciting comments on the alignment south of the F Street Station. The Authority certified the Fresno to Bakersfield Section Final Supplemental EIR in October 2018 and in November 2019 the Authority issued the Fresno to Bakersfield Section Combined Supplemental Record of Decision and Final Supplemental EIS; however, the Authority Board reserved making a decision on the alignment from south of the F Street Station to Oswell Street to its future action on the Bakersfield to Palmdale Project Section.

909-1036

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

Refer to Response to Comment 909-1029, contained in this chapter.

Submission 968 (Tiffany Yap, Center for Biological Diversity, April 12, 2021)

Bakersfield - Palmdale - RECORD #968 DETAIL

Status :	Action Pending
Record Date :	4/12/2021
Affiliation Type :	Business and/or Organization
Submission Date :	4/12/2021
Interest As :	Business and/or Organization
Submission Method :	Project Email
First Name :	Tiffany
Last Name :	Yap
Professional Title :	Senior Scientist, Wildlife Corridor Advocate
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City :	Oakland
State :	CA
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Telephone :	
Email :	TYap@biologicaldiversity.org
Cell Phone :	
Email Subscription :	
Add to Mailing List :	
EIR/EIS Comment :	
Attachments :	CBD HSR RDEIR Comments 04-12-2021 w Exhibit.pdf (1 mb)

Stakeholder Comments/Issues :

Hello,

I am submitting comments on the RDEIR/SDEIS for the high speed rail Bakersfield to Palmdale Project Section on behalf of the Center for Biological Diversity. The following link provides the references cited:

[?Folder icon] CBD Comments References - High Speed Rail Bakersfield to Palmdale RDEIR Comments<https://centerforbiologicald-my.sharepoint.com/:f:/g/personal/tyap_biologicaldiversity_org/Evl3E1OBhZlOqcDb3bSaqgoBvWOFun_pPRQsHE1VddkoIw?e=Thm6Tx>

Please confirm that you've received the letter and are able to access the cited references.

Thank you for your time and consideration,

Tiffany

Tiffany Yap, D.Env/PhD (she, her)
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Urban Wildlands Program
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Submission 968 (Tiffany Yap, Center for Biological Diversity, April 12, 2021) - Continued

CENTER for BIOLOGICAL DIVERSITY Because life is good.

April 12, 2021

Sent via email

California High-Speed Rail Authority
355 S. Grand Avenue, Suite 2050
Los Angeles, CA 90071
Bakersfield_Palmdale@hsr.ca.gov

RE: Comments on Revised Draft Environmental Impact Report/Supplemental Environmental Impact Statement (RDEIR) for the Bakersfield to Palmdale Project Section of the California High-Speed Rail Project.

To whom it concerns,

These comments are submitted on behalf of the Center for Biological Diversity's (the "Center") members, staff, and supporters, regarding the Revised Draft Environmental Impact Report/Supplemental Environmental Impact Statement ("RDEIR") for the Bakersfield to Palmdale Project Section of the California High-Speed Rail Project. The Center has reviewed the RDEIR and provides comments on numerous issues. The RDEIR fails to adequately assess and mitigate impacts to all currently listed species, like the western Joshua tree. In addition, the Project is located within a critical linkage that is vital to statewide biodiversity and gene flow, where numerous sensitive and special-status animals and plants occur, including mountain lions, desert tortoises, and blunt-nosed leopard lizards. It is important that an adequate environmental review is produced in order to inform decision-makers and the public about ALL the impacts associated with the Project, and how avoidance, minimization, and adequate mitigation is addressed. The RDEIR fails to adequately assess and mitigate impacts to the Project area's unique biodiversity.

968-1184
968-1185

The Center is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over 1.7 million members and online activists throughout California and the United States. The Center has worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life for people in Kern and northern Los Angeles County. While we see many benefits to high-speed rail transportation, high-speed rail must be planned to avoid and minimize impacts to sensitive species and habitats. If impacts remain from the Project, robust mitigation must be required in order to fully offset impacts and preserve California's incredible biodiversity.

968-1186

968-1187

I. The RDEIR needs to analyze all currently listed species including the western Joshua tree.

The RDEIR fails to identify that on September 22, 2020, the Western Joshua Tree (*Yucca brevifolia*) was listed as a candidate species under the California Endangered Species Act ("CESA"). Candidate species are protected under CESA pursuant to Fish & Game Code Section 2085 during the remainder of the CESA listing. The proposed alternative alignments of the High Speed Rail from Bakersfield to Palmdale will impact the western Joshua tree as identified in Table 3.7-11 of the DEIR. However, the California Department of Fish and Wildlife ("CDFW") have adopted a series of emergency regulations related to survey protocols and evaluation of impacts to western Joshua trees.[1] The impact evaluation provided in the DEIR no longer complies with the CDFW's requirements for identifying and evaluating impacts to the western Joshua tree. A more accurate survey using the current CDFW survey requirements needs to be included in a second Revised RDEIR and Table 3.7-7 needs to be updated to include the revised western Joshua tree analysis.

II. The RDEIR fails to adequately assess and mitigate impacts to mountain lions.

968-1188

The RDEIR fails to adequately assess and mitigate impacts to mountain lions to less than significant. MM BIO#84 states that a biologist will conduct pre-construction surveys for known or potential mountain lion dens. This mitigation measure is insufficient and not based on the best available science. Kitten dens are very well hidden in rocky outcrops or dense vegetation. Experts often find them because the mother has a GPS collar, and her behavior (*e.g.*, having a smaller home range, staying in one location frequently) can signal she has had kittens. But mountain lions in the Project area are less monitored than other populations, and it is unlikely there will be many (if any) radio-collared lions in the vicinity. And there are currently no formalized, CDFW-approved survey protocols for mountain lions or mountain lion dens. Thesesurveys would likely be ineffective at determining the presence or potential presence of mountain lion dens. Such dens could be easily missed during surveys, which could result in kittens being killed or orphaned if the mother is deterred by nearby human activity and abandons them. Simply conducting mountain lion den surveys is insufficient and inadequate mitigation.

968-1189

Every lion in the Project area is critical for the long-term survival of healthy mountain lion populations throughout the state. The primary threat to mountain lions in the Southern California/Central Coast ESU is genetic isolation due to lack of connectivity caused by continuous development in mountain lion habitat with little regard of their movement needs. Thus, the persistence of the six populations with the Southern California/Central Coast ESU relies heavily on being connected with mountain lions throughout the ESU *as well as* statewide. The location of the proposed Project slices through the Tehachapi Mountains, an area identified by multiple mountain lion and connectivity scientists and researchers as a critical area for statewide genetic connectivity (Ernest et al. 2003; Penrod et al. 2003; South Coast Wildlands 2008; CDFW 2010; Gustafson et al. 2018; Benson et al. 2019). Effective wildlife connectivity that considers the life history and behaviors of mountain lions in this region is paramount for the

[1] https://fgc.ca.gov/Regulations/2020-New-and-Proposed

Submission 968 (Tiffany Yap, Center for Biological Diversity, April 12, 2021) - Continued

968-1189 survival of the Southern California and Central Coast mountain lions, yet the RDEIR fails to disclose this information and appropriately mitigate impacts to mountain lions. The RDEIR also fails to disclose that the continued operation and maintenance of the Project would result in indirect impacts to genetic connectivity for mountain lions, which could further impact already struggling populations of mountain lions and contribute to their local extirpation. Thus, the RDEIR fails to adequately describe, assess, and mitigate impacts to Southern and Central Coast mountain lions.

968-1190 Kitten dens are not the only vulnerable aspect of mountain lion life history. The lack of a known or potential den does not indicate the area is not being used by mountain lions. Mountain lions are nocturnal, elusive creatures that are difficult to find in the wild. They are so stealthy and secretive that lion sightings are rare despite the high numbers of outdoor recreationists in mountain lion habitat. They occur in low densities and have large home ranges. In California, resident adult and total population densities have been found to be 1.1 and 3.6 per 100 km^2, respectively (Pierce and Bleich 2003). Riley et al. (2014) found that mountain lions in the Santa Monica Mountains have home ranges of 100-200 km^2 for females and 300-500 km^2 for males. If one does not see a mountain lion or evidence of a mountain lion in the area, it could still be there using the site in some way. For example, a wildlife camera study conducted in the Northlake project area found no trace of mountain lions on the site, yet in November 2020 a mountain lion was recorded on a wildlife camera using a culvert adjacent to the site. The temporary impacts of construction and permanent impacts of operation and maintenance could significantly impact the long-term survival of struggling mountain lion populations in the Southern California/Central Coast ESU.

The loss of adequate undisturbed communication and nursery habitat, both temporarily and permanently from Project activities and operation/maintenance, could disrupt important mountain lion communication and reproductive behaviors that facilitate social structure and overall survival. Yovovich et al. (2020) documented the impacts of human activities on mountain lion communication and reproductive behaviors important for their survival. Males use scrapes to delineate territories as well as attract potential mates (Allen et al. 2015; Allen et al. 2016), and the males in the study preferred to use relatively flat areas away from human influence as scrape habitat (Yovovich et al. 2020). Similarly, when nursing females (with kittens less than 8 weeks old) shrank their home ranges to an average of 9 km^2 while their young were most vulnerable, they also selected undeveloped lands away from human disturbance, opting for habitat with protective cover and sufficient water and prey availability (Yovovich et al. 2020). Thus, continued habitat loss and fragmentation due to the Project extending into mountain lion habitat with little regard for their movement and behavioral needs threaten the long-term survival of mountain lions throughout the proposed Southern California/Central Coast ESU.

968-1191 MM-BIO#85 states that the Authority would provide "compensatory mitigation for impacts on mountain lion core and patch habitat through the preservation of suitable habitat that is acceptable to CDFW" with inadequate mitigation ratios of 2:1 for "high-priority foraging and dispersal habitat" and 1:1 for "low-priority foraging and dispersal habitat" (RDEIR at 3.7-24). The RDEIR fails to provide adequate detail as to how such habitat categorizations would be determined or quantified, where potential compensatory mitigation lands would be located, or what would be deemed as "acceptable to CDFW" (RDEIR at 3.7-24). This prevents the public

968-1191 and decisionmakers from being able to evaluate the effectiveness of the mitigation and amounts to improperly deferred mitigation. Mitigation measures for the Project must be considered in the RDEIR so that the proper environmental analysis can take place. (See *Sundstrom v. Co. of Mendocino* (1988) 202 Cal.App.3d 296.). The amount and location of the land to be set aside for impacts to mountain lion habitat need to be included in the RDEIR to enable the public and decisionmakers to evaluate the effectiveness of the mitigation measures to minimize impacts to mountain lions. In addition, there is no mention of habitat connectivity, which is critical for the long-term survival of mountain lions. Large, interconnected, intact swaths of habitat within this critical statewide connectivity corridor should be conserved, restored, and adaptively managed with measurable success criteria in perpetuity. MM-BIO#85 is grossly insufficient to minimize impacts to mountain lions due to the Project to less than significant.

III. The RDEIR fails to adequately assess and mitigate impacts to wildlife movement and habitat connectivity.

968-1192 Similar to what the Center mentioned in our comment letter on the Draft Environmental Impact Report/Draft Environmental Impact Statement (DEIR) dated April 28, 2020 ("April 2020 Letter," Exhibit A), the RDEIR fails to adequately describe, assess, and mitigate impacts to wildlife movement and habitat connectivity. The Project slices through habitat for numerous special-status plant and animal species, including but not limited to mountain lions, desert tortoise, blunt-nosed leopard lizard, San Joaquin kit fox, tricolored blackbird, Mojave tarplant, Joshua tree, and many others. Not only does the Project destroy thousands of acres of habitat for these species, but it also significantly fragments the landscape at a local and regional scale, impeding gene flow and threatening the persistence of numerous populations of special-status species.

968-1193 The RDEIR points to 39 wildlife crossings across 56 miles of 10-foot high, noisy, and bright barriers at grade throughout the last-remaining high-quality linkage area for statewide genetic connectivity for mountain lions. It is unclear what target species the crossings will be designed for, which makes it difficult to determine if the measures actually mitigate impacts to special-status species to less than significant. The majority of the proposed crossings (27/35) are too small (~6-foot arch) for mountain lions, Mountain lions have been documented using culverts that are about 4 meters (~13 feet) in diameter (Clevenger and Waltho 2005; Kintsch and Cramer 2011; Riley et al. 2018; W. Vickers unpublished data). The dimensions of some of the other crossings are unclear. The RDEIR lists five dual-use road undercrossings, two dual-use drainage overcrossings, and one overcrossing but does not provide dimensions for them. In addition, it is unclear how effective combined road and wildlife undercrossings will be, given that vehicles, traffic noise, and lighting could deter mountain lions, and numerous other species, from using them. In addition, the roads would be fenced off and therefore pose another movement barrier perpendicular to the proposed Project. The assumption that such crossings are sufficient for wildlife movement for a number of special-status species with different movement needs and behaviors is not founded in any science. This was highlighted in the Center's April 2020 Letter, yet the RDEIR still fails to adequately assess and mitigate impacts to wildlife movement and habitat connectivity to less than significant.

968-1194 In addition, mitigation should include protecting lands on both sides of the crossing sites. Such areas are important in providing effective wildlife crossings because animals are more likely to use them if there is suitable habitat on both sides of the crossing. Studies have shown that wildlife crossing infrastructure with suitable, protected habitat on both sides of the crossings gradually increase the level of wildlife permeability (Dodd et al. 2012; Sawyer et al. 2012; Kintsch et al. 2018). Lands on both sides of the rail where crossings will be placed should be acquired and managed in perpetuity. In addition, the crossings should be monitored so that the public can understand what works and what doesn't, which species are using the crossings and which are still avoiding them, etc. Such information could inform future conservation actions.

968-1195 BIO-MM#64 is grossly insufficient to mitigate impacts to wildlife connectivity to less than significant. The RDEIR states that "[p]rior to final construction design the Project Biologist shall confirm appropriate placement and dimensions of wildlife crossings" (RDEIR at 3.7-22), but to effectively and efficiently implement construction that is conducive to wildlife movement, a CDFW-approved biologist should be involved in the construction design at the beginning of the design process, not just at the end. In addition, crossings should have boulders, logs, and other ground cover materials dispersed throughout to provide cover for smaller species, like blunt-nosed leopard lizards and Tipton kangaroo rats. The RDEIR inaccurately purports that this measure includes "methods for creating new barrier-free areas" (RDEIR at 3.7-23). This is an absurd overstatement. The Project is removing thousands of acres of intact, contiguous habitat and permanently slicing through this highly diverse and important movement corridor. Although constructed crossings would reduce impacts to connectivity for some species, they do not completely remove barriers that the Project is imposing.

968-1196 The RDEIR fails to adequately assess and mitigate impacts of Project noise on wildlife connectivity. Human development and associated noise can degrade adjacent wildlife habitat and behavior (*see e.g.,* Slabbekoorn and Ripmeester 2008). For instance, field observations and controlled laboratory experiments have shown that traffic noise can significantly degrade habitat value for migrating songbirds (Ware et al. 2015). Subjects exposed to 55 and 61 dBA (simulated traffic noise) exhibited decreased feeding behavior and duration, as well as increased vigilance behavior (Ware et al. 2015). Such behavioral shifts increase the risk of starvation, thus decreasing survival rates. A recent study also highlighted the detrimental impacts of siting development near areas protected for wildlife. The study noted that "Anthropogenic noise 3 and 10 dB above natural sound levels . . . has documented effects on wildlife species richness, abundance, reproductive success, behavior, and physiology" (Buxton et al. 2017). The study further noted that "there is evidence of impacts across a wide range of species [] regardless of hearing sensitivity, including direct effects on invertebrates that lack ears and indirect effects on plants and entire ecological communities (*e.g*., reduced seedling recruitment due to altered behavior of seed distributors)" (Buxton et al. 2017). Moreover, human transportation networks and development resulted in high noise exceedances in protected areas (Buxton et al. 2017). Despite scientific evidence of noise impacts on wildlife connectivity, the RDEIR fails to adequately assess or mitigate impacts of noise to less than significant.

968-1197 The RDEIR's lack of sufficient wildlife crossings dismisses the need for corridor redundancy (*i.e*. the availability of alternative pathways for movement). Corridor redundancy is important in regional connectivity plans because it allows for improved functional connectivity

968-1197 and resilience. Compared to a single pathway, multiple connections between habitat patches increase the probability of movement across landscapes by a wider variety of species, and they provide more habitat for low-mobility species while still allowing for their dispersal (Mcrae et al., 2012; Olson & Burnett, 2008; Pinto & Keitt, 2008). In addition, corridor redundancy provides resilience to uncertainty, impacts of climate change, and extreme events, like flooding or wildfires, by providing alternate escape routes or refugia for animals seeking safety (Cushman et al., 2013; Mcrae et al., 2008; Mcrae et al., 2012; Olson & Burnett, 2008; Pinto & Keitt, 2008).

Corridor redundancy is critical when considering the impacts of climate change on wildlife movement and habitat connectivity. Climate change is increasing stress on species and ecosystems, causing changes in distribution, phenology, physiology, vital rates, genetics, ecosystem structure and processes, and increasing species extinction risk (Warren et al. 2011). A 2016 analysis found that climate-related local extinctions are already widespread and have occurred in hundreds of species, including almost half of the 976 species surveyed (Wiens 2016). A separate study estimated that nearly half of terrestrial non-flying threatened mammals and nearly one-quarter of threatened birds may have already been negatively impacted by climate change in at least part of their distribution (Pacifici et al. 2017). A 2016 meta-analysis reported that climate change is already impacting 82 percent of key ecological processes that form the foundation of healthy ecosystems and on which humans depend for basic needs (Scheffers et al. 2016). Genes are changing, species' physiology and physical features such as body size are changing, species are moving to try to keep pace with suitable climate space, species are shifting their timing of breeding and migration, and entire ecosystems are under stress (Parmesan and Yohe 2003; Root et al. 2003; Parmesan 2006; Chen et al. 2011; Maclean and Wilson 2011; Warren et al. 2011; Cahill et al. 2012). Thus, as mentioned in the Center's April 2020 Letter, the DEIR and RDEIR fail to use the best available science and adequately assess and mitigate impacts to wildlife movement to less than significant.

IV. The RDEIR provides inaccurate and confusing special-status wildlife species information.

968-1198 In Section 3.7.5.5 Special-Status Wildlife Species, the RDEIR provides inaccurate information. For example, California condor is listed as a documented species within the RSA. It is also listed as a potential species to occur within the RSA. The same situation occurs with the San Joaquin kit fox – it is included on the documented-within-the-RSA list and potentially-occurring-within-the-RSA list. Same with the tricolored blackbirds but its status is incorrectly identified in the potentially-occurring-within-the-RSA list, causing additional confusion to the reader. Also, while the desert tortoise has been petitioned to be uplisted to endangered because of ongoing declines throughout its range in California, the species is actually still a threatened species in California. The RDEIR fails to identify that golden eagles are also protected under the federal Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c)[2] and require a permit from the U.S. Fish and Wildlife Service if "take" is anticipated. This sloppy identification of species and their protective status undermines the environmental review process and brings into question the accuracy and adequacy of the biological analysis.

[2] https://www.fws.gov/birds/policies-and-regulations/laws-legislations/bald-and-golden-eagle-protection-act.php

Submission 968 (Tiffany Yap, Center for Biological Diversity, April 12, 2021) - Continued

VI. Prior Identified CEQA/NEPA failures are not remedied in the RDEIR.

968-1199

The Center's April 2020 Letter identified numerous areas where the document failed to comply with the requirements of NEPA and CEQA. The vast majority of those inadequacies have not been addressed much less remedied in this RDEIR. We request that a Revised RDEIR be produced that addresses the numerous inadequacies in the original DEIR and this RDEIR. It is important that an adequate environmental review is produced in order to inform decision-makers and the public about ALL the impacts associated with the project, and how avoidance, minimization and adequate mitigation is addressed.

VII. The HSRA failed to notify interested public of the RDEIR's availability.

968-1200

The Center's April 2020 Letter specifically asked to be added to this project's notice list for all updates associated with this project. However, we were never notified that an RDEIR was produced or available. In fact, we only found out about the document via a casual conversation with colleagues on March 31, 2021. The agency's inability to conduct adequate outreach to the interested public disenfranchises the purpose of CEQA/NEPA, perhaps purposefully.

VIII. Conclusion.

Thank you for the opportunity to submit comments on the RDEIR for the Bakersfield to Palmdale Project Section of the California High-Speed Rail Project. Please add the Center to your notice list for all future updates to the Project and do not hesitate to contact the Center with any questions at the emails listed below.

Sincerely,

Tiffany Yap, D.Env/PhD
Senior Scientist, Wildlife Corridor Advocate
Center for Biological Diversity
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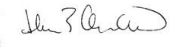

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Submission 968 (Tiffany Yap, Center for Biological Diversity, April 12, 2021) - Continued

Exhibit A

CENTER for BIOLOGICAL DIVERSITY Because life is good.

Protecting and restoring natural ecosystems and imperiled species through science, education, policy, and environmental law

Submitted via Email & USPS

April 28, 2020

"Bakersfield to Palmdale Draft EIR/EIS Comment"
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Bakersfield_Palmdale@hsr.ca.gov

RE: Comments on Draft Environmental Impact Report/Environmental Impact Statement (DEIR/S) for the Bakersfield to Palmdale Project Section of the California High-Speed Rail Project.

To whom it concerns,

These comments are submitted on behalf of the Center for Biological Diversity's (the "Center") members, staff and supporters, regarding the Draft Environmental Impact Report/Environmental Impact Statement (DEIR/S) for the Bakersfield to Palmdale Project Section of the California High-Speed Rail Project. The Center has reviewed the DEIR/S and provides comments on numerous issues. We urge the HSRA to address these issues in a revised and recirculated DEIR/S as outlined in further detail below.

The Center is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over 1.7 million members and online activists throughout California and the United States. The Center has worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life for people in Kern and northern Los Angeles County. While we see many benefits to high-speed rail transportation, high-speed rail must be planned to avoid and minimize impacts to sensitive species and habitats. If impacts remain from the project, robust mitigation must be required in order to fully offset impacts and preserve California's incredible biodiversity.

I. The DEIR/S Fails to Use the Best Available Science

As identified and detailed below, the DEIR/S fails to use the best available science to craft alternatives that would avoid and minimize impacts. The DEIR/S fails to use the best available science as a basis for impact analysis. It also fails to adequately mitigate impacts to the biological resources. The inadequacies include the failure to identify all of the at-risk sensitive species that could be affected by the project, presenting consistent and comprehensive data analysis, analyzing species specific impacts, and many other short-comings under the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). Oddly, the DEIR/S concludes that impacts to biological resources with the proposed mitigation is less than significant based on the analysis provided. But as our comments document below, the analysis is incomplete and flawed because the current and best available science was not included in the analysis.

Submission 968 (Tiffany Yap, Center for Biological Diversity, April 12, 2021) - Continued

A. Key Technical Reports Not Readily Available.

The DEIR/S refers to numerous Technical Reports and lists them on the website (at https://www.hsr.ca.gov/programs/environmental/eis_eir/draft_bakersfield_palmdale.aspx under Technical Reports). Because the website does not provide links to the reports, we requested copies of the Biological and Aquatic Resources Technical Report and the Noise and Vibration Technical Report from HSRA Communications Staff on April 15, 2020 but to date, we have never received the documents (Attachment). The Technical Reports are referred to in several of the sections that we are commenting on below, and their unavailability makes it difficult to understand and comment on key issues in the DEIR/S. Ultimately we were able to track down an electronic copy of the Biological and Aquatic Resources Technical Report elsewhere late last week. However, we have yet to acquire a copy of the Noise and Vibration Technical Report. For that reason and others below, we respectfully request that an updated and recirculated supplemental DEIR/S be produced, where all pertinent supporting documents and Technical Reports are available to the public on request and preferably downloadable from the HSR website, in order to fully disclose environmental and impact analyses.

B. Failure to Identify All Special Status Species and Communities in the Project Area.

The DEIR/S states
"**California Natural Diversity Database/RareFind:** Lists of special-status plant and wildlife species and special-status plant communities were prepared through a twofold inquiry consisting of a standard nine-quadrangle search using the RareFind program and a GIS mapping exercise of known occurrences within 10 miles of the project footprint within the Biological RSA. This twofold inquiry was performed to ensure that the query captured all special-status species, including those listed by CDFW as "sensitive," whose geographic location data had been suppressed (California Department of Fish and Game [CDFG]2011; CDFW 2016)."
(at pg. 3.7-23)

However in our query of that same database in a more limited five mile from centerline of the Bakersfield to Palmdale Project Section Alternative 2 Alignment with the Refined Cesar Chavez National Monument Design Option (Preferred Alternative), the California Natural Diversity Database/RareFind (CNDDB) (2020) which tracks sensitive species in California, identified five rare plant communities and over one hundred sensitive plants and animals including federally and State listed species. While the DEIR/S primarily addresses the federally and State listed species, 54 additional sensitive species are known to occur within five miles of the alignment and may also be impacted by the activities associated with the construction and operation of the Bakersfield-Palmdale HSR Preferred Alternative but were not included as species that may be impacted by the project and not analyzed in the impact analysis. The 54 species that were not identified or analyzed in the DEIR/S impact analyses include 24 rare plants, eight insects, two mollusks, three amphibians, five reptiles, eight birds and four mammals. Table 1 identifies all of the species and the five rare plants communities known to occur within five miles of the Preferred Alternative.

Table 1. Rare Plant Communities and Sensitive Species Documented From Within 5 Miles of Preferred Alternative Centerline (CNDDB 2020)

COMMON NAME	SCIENTIFIC NAME	FED/STATE/CRPR or IUCN
Rare Plant Communities		
Stabilized Interior Dunes	Stabilized Interior Dunes	--/Tracked by State/--
Great Valley Cottonwood Riparian Forest	Great Valley Cottonwood Riparian Forest	--/Tracked by State/--
Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	--/Tracked by State/--
Southern Willow Scrub	Southern Willow Scrub	--/Tracked by State/--
Valley Saltbush Scrub	Valley Saltbush Scrub	--/Tracked by State/--
Rare Plants		
California screw moss	*Tortula californica*	BLM-S/--/1B.2
Horn's milk-vetch	*Astragalus hornii var. hornii*	BLM-S/--/1B.1
Lancaster milk-vetch	*Astragalus preussii var. laxiflorus*	--/--/1B.1
Bakersfield smallscale	*Atriplex tularensis*	--/SE/1A
Peirson's morning-glory	*Calystegia peirsonii*	--/--/4.2
white pygmy-poppy	*Canbya candida*	USFS-S/--/4.2
California jewelflower	***Caulanthus californicus***	**FE/SE/1B.1**
hispid salty bird's-beak	*Chloropyron 3lex ssp. hispidum*	BLM-S/--/1B.1
Parry's spineflower	*Chorizanthe parryi var. parryi*	BLM-S, USFS-S/--/1B.1
Vasek's clarkia	*Clarkia tembloriensis ssp. calientensis*	BLM-S/--/1B.1
rose-flowered larkspur	*Delphinium purpusii*	BLM-S, USFS-S/--/1B.3
recurved larkspur	*Delphinium recurvatum*	BLM-S/--/1B.2
calico monkeyflower	*Diplacus (Mimulus) pictus*	BLM-S/--/1B.2
Kern mallow	***Eremalche parryi ssp. kernensis***	**FE/--/1B.2**
Hoover's eriastrum	*Eriastrum hooveri*	--/--/4.2
Rosamond eriastrum	*Eriastrum rosamondense*	--/--/1B.1
Tracy's eriastrum	*Eriastrum tracyi*	USFS-S/SR/3.2
Kern buckwheat	*Eriogonum kennedyi var. pinicola*	BLM-S/--/1B.1
Tejon poppy	*Eschscholzia lemmonii ssp. kernensis*	--/--/1B.1
Shevock's golden-aster	*Heterotheca shevockii*	BLM-S, USFS-S/--/1B.3
Coulter's goldfields	*Lasthenia glabrata ssp. coulteri*	BLM-S/--/1B.1
pale-yellow layia	*Layia heterotricha*	BLM-S, USFS-S/--/1B.1
Comanche Point layia	*Layia leucopappa*	BLM-S/--/1B.1
Munz's tidy-tips	*Layia munzii*	BLM-S/--/1B.2
sagebrush loeflingia	*Loeflingia squarrosa var. artemisiarum*	BLM-S/--/2B.2
Tehachapi monardella	*Monardella linoides ssp. oblonga*	BLM-S, USFS-S/--/1B.3
San Joaquin woollythreads	***Monolopia congdonii***	**FE/--/1B.2**

Submission 968 (Tiffany Yap, Center for Biological Diversity, April 12, 2021) - Continued

Baja navarretia	*Navarretia peninsularis*	USFS-S/--/1B.2
Piute Mountains navarretia	*Navarretia setiloba*	BLM-S, USFS-S/--/1B.1
short-joint beavertail	*Opuntia basilaris var. brachyclada*	BLM-S, USFS-S/--/1B.2
Bakersfield cactus	***Opuntia basilaris var. treleasei***	**FE/SE/1B.1**
San Joaquin adobe sunburst	***Pseudobahia peirsonii***	**FT/SE/1B.1**
aromatic canyon gooseberry	*Ribes menziesii var. ixoderme*	--/--/1B.2
Latimer's woodland-gilia	*Saltugilia latimeri*	BLM-S, USFS-S/--/1B.2
oil neststraw	*Stylocline citroleum*	BLM-S/--/1B.1
Greata's aster	*Symphyotrichum greatae*	BLM-S/--/1B.3
grey-leaved violet	*Viola pinetorum ssp. grisea*	--/--/1B.2
Mt. Pinos onion	*Allium howellii var. clokeyi*	USFS-S/--/1B.3
Spanish Needle onion	*Allium shevockii*	BLM-S, USFS-S/--/1B.3
slender mariposa-lily	*Calochortus clavatus var. gracilis*	BLM-S/--/1B.2
Palmer's mariposa-lily	*Calochortus palmeri var. palmeri*	BLM-S/--/1B.2
alkali mariposa-lily	*Calochortus striatus*	BLM-S, USFS-S/--/1B.2
striped adobe-lily	***Fritillaria striata***	**BLM-S, USFS-S/SE/1B.1**
California satintail	*Imperata brevifolia*	USFS-S/--/2B.1
California alkali grass	*Puccinellia simplex*	--/--/1B.2
Piute Mountains triteleia	*Triteleia piutensis*	--/--/1B.1
Western Joshua tree	***Yucca brevivfolia (brevifolia)***	**--/SP/--**
Insects		
An andrenid bee	*Andrena macswaini*	--/Tracked by State/--
An andrenid bee	*Andrena subapasta*	--/Tracked by State/--
Crotch bumble bee	***Bombus crotchii***	**--/ST/--**
monarch – California overwintering population	*Danaus plexippus* pop. 1	USFS-S/Tracked by State/--
valley elderberry longhorn beetle	***Desmocerus californicus dimorphus***	**FT/Tracked by State/--**
Comstock's blue butterfly	*Euphilotes battoides comstocki*	--/Tracked by State/--
moestan blister beetle	*Lytta moesta*	--/Tracked by State/--
Morrison's blister beetle	*Lytta morrisoni*	--/Tracked by State/--
Tehachapi Mountain silverspot butterfly	*Speyeria egleis tehachapina*	USFS-S/Tracked by State/--
Mollusks		
Kern shoulderband	*Helminthoglypta callistoderma*	--/Tracked by State/EN
Mohave shoulderband	*Helminthoglypta greggi*	--/Tracked by State/--
Amphibians		
relictual slender salamander	*Batrachoseps relictus*	USFS-S/SSC/--
Tehachapi slender salamander	***Batrachoseps stebbinsi***	**BLM-S/ST/--**
foothill yellow-legged frog	*Rana boylii*	BLM-S, USFS-S/CT/--
California red-legged frog	***Rana draytonii***	**FT/SSC/--**
western spadefoot	*Spea hammondii*	BLM-S/SSC/--

Reptiles		
Bakersfield legless lizard	*Anniella grinnelli*	--/SSC/--
northern California legless lizard	*Anniella pulchra*	USFS-S/SSC/--
southern California legless lizard	*Anniella stebbinsi*	USFS-S/SSC/--
California glossy snake	*Arizona elegans occidentalis*	--/SSC/--
western pond turtle	*Emys marmorata*	BLM-S, USFS-S/SSC/--
blunt-nosed leopard lizard	***Gambelia sila***	**FE/SE, FP/--**
desert tortoise	***Gopherus agassizii***	**FT/ST/--**
San Joaquin coachwhip	*Masticophis flagellum ruddocki*	--/SSC/--
coast horned lizard	*Phrynosoma blainvillii*	BLM-S/SSC/--
two-striped gartersnake	*Thamnophis hammondii*	BLM-S, USFS-S/SSC/--
Sierra night lizard	*Xantusia vigilis sierrae*	USFS-S/SSC/--
Birds		
Cooper's hawk	*Accipiter cooperii*	--/WL/--
tricolored blackbird	***Agelaius tricolor***	**BLM-S, BCC/ST/--**
southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	--/WL/--
golden eagle	*Aquila chrysaetos*	BLM-S/FP/--
great egret	*Ardea alba*	--/SSC/--
Bell's sage sparrow	*Artemisiospiza belli belli*	BCC/WL/--
short-eared owl	*Asio flammeus*	--/SSC/--
long-eared owl	*Asio otus*	--/SSC/--
burrowing owl	*Athene cunicularia*	BLM-S, BCC/SSC/--
ferruginous hawk	*Buteo regalis*	BCC/WL/--
Swainsons hawk	***Buteo swainsoni***	**BLM-S, BCC/ST/--**
western snowy plover	*Charadrius 5lexandrines nivosus*	FT, BCC/SSC/--
mountain plover	*Charadrius montanus*	BLM-S, BCC/SSC/--
merlin	*Falco columbarius*	--/WL/--
prairie falcon	*Falco mexicanus*	BCC/WL/--
California condor	***Gymnogyps californianus***	**FE/SE,FP/--**
loggerhead shrike	*Lanius ludovicianus*	BCC/SSC/--
white-faced ibis	*Plegadis chihi*	--/WL/--
purple martin	*Progne subis*	--/SSC/--
Le Conte's thrasher	*Toxostoma lecontei*	BCC/SSC/--
least Bell's vireo	***Vireo bellii pusillus***	**FE/SE/--**
Mammals		
Nelson's antelope squirrel	***Ammospermophilus nelsoni***	**BLM-S/ST/--**
pallid bat	*Antrozous pallidus*	BLM-S, USFS-S/SSC/--
Townsend's big-eared bat	*Corynorhinus townsendii*	BLM-S, USFS-S/SSC/--
Tipton kangaroo rat	***Dipodomys nitratoides nitratoides***	**FT/ST/--**
western mastiff bat	*Eumops perotis californicus*	BLM-S/SSC/--
Mountain lion (So. California ESU)	***Puma concolor***	**--/SC/--**

Submission 968 (Tiffany Yap, Center for Biological Diversity, April 12, 2021) - Continued

hoary bat	*Lasiurus cinereus*	--/Tracked by State/--
Tulare grasshopper mouse	*Onychomys torridus tularensis*	BLM-S/SSC/--
Tehachapi pocket mouse	*Perognathus alticola inexpectatus*	USFS-S/SSC/--
San Joaquin Pocket Mouse	*Perognathus inornatus*	BLM-S/--/--
American badger	*Taxidea taxus*	--/SSC/--
San Joaquin kit fox	***Vulpes macrotis mutica***	**FE/ST/--**
Mohave ground squirrel	***Xerospermophilus mohavensis***	**BLM-S/ST/--**

Federal
- FE - Endangered
- FT – Threatened
- BLM-S – Sensitive (BLM)
- USFS-S – Sensitive (USFS)
- BCC – Bird of Conservation Concern (USFWS)

State
- SE – Endangered
- ST – Threatened
- SR - Rare
- FP – Fully Protected
- SC - Candidate
- SP - Petitioned; accepted by CFGC
- SSC – Species of Special Concern
- WL – Watch List
- Tracked by State
- California Rare Plant Rank (CRPR)
  - 1A - Plants presumed extirpated in California and either rare or extinct elsewhere
  - 1B - Plants rare, threatened, or endangered in California and elsewhere
  - 2B - Plants rare, threatened, or endangered in California but more common elsewhere
  - 3 - Review List: Plants about which more information is needed
  - 4 - Watch List: Plants of limited distribution
  - Threat Rank
    - .1 - Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
    - .2 - Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
    - .3 - Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

IUCN (International Union for Conservation of Nature)
- EN – Endangered

Bold – Listed, candidate or petitioned for State or Federal Endangered Species Act Protection.
Underlined – Included in DEIR/S list of species potentially impacted by the proposed project

It is unclear why the DEIR/S failed to identify all of the rare species/rare plant communities because it used the same publicly available CNDDB inclusive of a ten-mile boundary. The incomplete identification of species/rare plant communities that may be impacted results in an incomplete analysis of the rare species and rare plant communities impacts from the Preferred Action and alternatives. Therefore an updated and recirculated supplemental DEIR/S is necessary in order to fully disclose environmental impacts.

i. The DEIR fails to adequately describe, assess, and mitigate impacts to Rare Plant Communities

The DEIR/S states

"Nine natural (plant) communities within the SSPSA are considered special-status plant communities. They include the following:

- Blue Oak Woodland
- Desert Riparian
- Desert Scrub
- Desert Wash
- Joshua Tree
- Mixed Chaparral
- Perennial Grassland
- Valley Foothill Riparian
- Valley Oak Woodland"

(at pg. 3.7-39)

Identifying these rare plant communities by common name, coupled with the fact that the delay in acquiring the Biological and Aquatic Resources Technical Report makes it difficult to evaluate which rare plant alliance(s) are actually present along the Preferred Alternative Alignment. The California Department of Fish and Wildlife provides a list of all Sensitive Natural Communities Alliances (CDFW 2019 https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153609&inline), but the information in the DEIR/S cannot be aligned with the State Sensitive Natural Communities Alliances.

In addition, the CNDDB (2020) identifies five rare plant communities located near or within the Preferred Alternative alignment including:

- Stabilized Interior Dunes
- Great Valley Cottonwood Riparian Forest
- Southern Cottonwood Willow Riparian Forest
- Southern Willow Scrub
- Valley Saltbush Scrub

It appears that at least two of these rare plant communities – Stabilized Interior Dunes and Valley Saltbush Scrub - are not included in the DEIR/S list of rare plant communities and therefore not analyzed for impacts in the publicly available materials. Therefore an updated and recirculated supplemental DEIR/S is necessary in order to fully disclose environmental impacts.

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ii. The DEIR fails to adequately describe, assess, and mitigate impacts to oak woodlands.

The DEIR fails to adequately describe, assess, and mitigate impacts to oak woodlands, ignores the best available science, and violates California Fish and Game Code and the Kern County General Plan. Blue oak woodlands are by far the most impacted special-status plant community assessed in the DEIR/S. According to Table 3.7-11, the proposed Project, including the CCNM Design Option and the Refined CCNM Design Option, would permanently impact 1,302 acres of blue oak woodland and temporarily impact 259 acres of blue oak woodland. Yet the DEIR/S fails to provide any explanation of these oak woodlands or any other special-status natural community within the main text. Any descriptions are buried in an appendix of a technical report that is not readily available to the public. And even if one is able to review the technical report, it is misleading and does not provide adequate information for the public to understand where these plant communities are and where they will be impacted. For example, the Biological and Aquatic Resources Technical Report states, "The locations of special-status natural communities within the Special-status Plant Study Area are shown in Figure 6-4" (Biological and Aquatic Resources Technical Report at 6-78), but Figure 6-4 actually shows special-status wildlife species survey results. In fact, there is no map showing the special-status natural communities at all. Thus, the DEIR fails to adequately describe existing conditions of oak woodlands and other special-status natural communities in the Project area.

The DEIR/S applies an erroneous definition of oak woodlands. According to the California Fish and Game Code, oak woodlands are defined as "an oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover" (Cal Fish & Game Code § 1361). And the Kern County General Plan states that oak tree conservation implementation measures apply to development projects "that contains oak woodlands, which are defined as development parcels having canopy cover by oak trees of at least ten percent (10%), as determined from base line aerial photography or by site survey performed by a licensed or certified arborist or botanist" (Kern County General Plan Section 1.10.10, Implementation Measure KK). However, the DEIR/S defined blue oak woodlands as "having blue oak as at greater than 50 percent relative cover in the tree canopy" (Biological and Aquatic Resources Technical Report Appendix R at R-5). The DEIR/S similarly defines valley oak woodland and interior live oak woodland. And the description of the Kern County General Plan, Section 1.10.10, General Provisions is buried in an appendix of the Biological and Aquatic Resources Technical Report, where it omits any reference to how oak woodlands are defined as "having canopy cover by oak trees of at least ten percent (10%)" (Kern County General Plan Section 1.10.10, Implementation Measure KK). Thus, the DEIR/S does not adequately describe the extant oak woodlands in the Project area, and therefore does not adequately explain nor appropriately mitigate potential impacts to oak woodlands due to the proposed Project. It is possible that a much larger area of blue oak woodlands, and any other oak woodlands, could be temporarily or permanently impacted by the proposed Project. To know this, the correct definition of oak woodlands needs to be applied to the analyses. In assigning an erroneous definition of oak woodlands, the DEIR/S blatantly violates CA Fish and Game Code and the Kern County General Plan and fails to provide an adequate description of existing conditions and appropriate mitigation to potential impacts.

Additionally, the DEIR states that "[t]here are no oak communities mapped for the project within Los Angeles County" (DEIR at 3.9-39). It is unclear if no oaks were identified in the Project in LA County or if oak communities in LA County were omitted from the analyses. LA County recognizes the historical, aesthetic, and ecological significant of oak trees, and the County has an Oak Tree Ordinance that states:

> a person shall not cut, destroy, remove, relocate, inflict damage or encroach into a protected zone of any tree of the oak genus which is (a) 25 inches or more in circumference (eight inches in diameter) as measured four and one-half feet above mean natural grade; in the case of an oak with more than one trunk, whose combined circumference of any two trunks is at least 38 inches (12 inches in diameter) as measured four and one half feet above mean natural grade, on any lot or parcel of land within the unincorporated area of Los Angeles County, or (b) any tree that has been provided as a replacement tree protects any tree of the oak tree genus that is 8 inches or more in diameter if a single trunk or a combined 12 inches or more in diameter if there are multiple trunks at 4.5 feet above mean natural grade. If the Project area impacts any oak trees in LA County then the DEIR should adequately describe, assess, and mitigate impacts to less than significant" (County of Los Angeles Oak Tree Ordinance Section 22.56.2060).

Measures should be taken to adequately describe, assess, and mitigate impacts to oak trees in LA County.

Although the DEIR/S provides information in a table that temporary impacts of at least 259 acres of blue oak woodland and permanent impacts of at least 1,302 acres of blue oak woodland, it is unclear what types of impacts those may entail. They could include trimming, habitat degradation, and removal, but such impacts are not quantified. In addition to this lack of clarity, the DEIR fails to provide sufficient mitigation measures to reduce impacts to blue oak woodland to less than significant. Mitigation measures BIO-MM#35, 50, 56, 58, and 61 are grossly insufficient. California has already lost over a million acres of oak woodlands since 1950 (Bolsinger 1988) and cannot afford to inadequately mitigate further impacts.

For example, BIO-MM#35 suggests transplantation of protected trees to areas outside the work area, an off-site compensatory mitigation ratio "not to exceed 3:1 for native trees," and an undisclosed "contribution" to a tree-planting fund to mitigate impacts to blue oak woodlands to less than significant (DEIR/S at 3.7-119). This pales in comparison to Santa Barbara County's Deciduous Oak Tree Protection and Regeneration Ordinance, which requires a 15:1 mitigation ratio (via replacement planting or protection of naturally occurring oaks between six inches and six feet tall) for removed oak trees (County of Santa Barbara 2003). The DEIR/S then goes on to state that "This mitigation measure is anticipated to be effective because it ensures that any protected trees within the work area are either transplanted or replaced" (DEIR/S at 3.7-119), which suggests that transplanting or attempting to replace any impacted tree would adequately provide the same habitat quality as current conditions. However, transplanting a blue oak tree outside of the work area does not negate the negative impacts to the tree or the habitat in the tree's original location. Translocating oak trees is a difficult procedure, mostly due to their deep taproots, and many trees may not survive transplantation. In addition, any off-site compensatory mitigation that involves restoration, enhancement, or creation of habitat does not guarantee oak

establishment. Any mitigation measures involving tree transplantation or off-site mitigation (restoration, enhancement, creation, or otherwise), should be monitored for at least seven years (SB 1334, Public Resources Code § 21083.4), and there should be specific success criteria and adaptive management strategies to ensure success criteria are met.

Other mitigation measures for impacts to blue oak woodlands include: BIO-MM#50 – implementation of measures to minimize impacts during off-site habitat restoration/enhancement/creation; BIO-MM#56 – construction monitoring, BIO-MM#58 – establishing non-disturbance zones; and BIO-MM#61 – a compliance reporting program. These mitigation measures for impacts to oak woodlands, as defined by California Fish and Game Code and the Kern County General Plan (*i.e.*, an oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover), are grossly insufficient and not based on any science. In addition, even though the Kern County General Plan provides protections for individual oak trees equal to or greater than a 12-inch diameter trunk at 4.5 feet breast height on parcels that have less than 10% oak tree canopy cover, there are no minimization or mitigation measures to ensure that such trees are identified and the area beneath and within the trees unaltered drip line is avoided unless approved by a licensed or certified arborist or botanist (Kern County General Plan Section 1.10.10, Implementation Measure LL). Removal of these individual trees may "be granted by the decision making body upon showing that a hardship exists based on substantial evidence in the record" (Kern County General Plan Section 1.10.10, Implementation Measure LL). Such insufficient mitigation would not reduce impacts to oak woodlands or oak trees to less than significant

Oak woodlands provide valuable habitat and connectivity for a wide variety of species (Bernhardt and Swiecki 2001; Lawrence et al. 2011; Jedlicka et al. 2014; Tietje et al. 2015). They are also important for many ecosystem services that communities rely on for safety and economic stability, including water quality protection, carbon sequestration, erosion control, and soil retention (Brown and Krygier 1970; Elliot 2010; Lawrence et al. 2011; Moyle et al. 2011; Pan et al. 2011; Jedlicka et al. 2014). Reduced woodland cover has been shown to result in increased runoff (*i.e.*, pollutants such as pesticides and fertilizers flowing into groundwater and surface waterways), erosion, sedimentation, and water temperatures; changes in channel morphology; decreased soil retention and fertility; and decreased terrestrial and aquatic biodiversity (Brown and Krygier 1970; Pess et al. 2002; Dahlgren et al. 2003; Houlahan and Findlay 2004; Opperman et al. 2005; Lohse et al. 2008; Elliot 2010; Lawrence et al. 2011; Moyle et al. 2011; Zhang and Hiscock 2011; Jedlicka et al. 2014). In addition, woodlands are an important carbon sink that can help moderate the impacts of climate change (Padilla et al. 2010; Pan et al. 2011), and some researchers argue that at a global scale, trees are linked to increased precipitation and water availability (Ellison et al., 2012). The DEIR/S should adequately assess and mitigate impacts to sensitive habitats like oak woodlands so that these unique ecosystems and the invaluable services they provide will not be lost. The DEIR/S is unclear, fails to adequately describe the oak woodlands in the Project area, violates California Fish and Game Code, ignores the best available science, and does not mitigate any impacts to oak woodlands, as defined by Fish and Game Code, to less than significant.

iii. The DEIR fails to adequately describe, assess, and mitigate impacts to Rare Plants

The additional twenty-four rare plants that are known to occur within five miles off the centerline of the Preferred Alternative (see Table 1 above) were not identified in the DEIR/S and need to be addressed in a supplemental and recirculated DEIR. Both direct and indirect impacts need to be evaluated, including hydrological impacts resulting from the tunneling proposed as part of the Preferred Alternative.

The Western Joshua Tree (*Yucca brevifolia*) was recently petitioned to the California Fish and Wildlife Commission for consideration for protection under the California Endangered Species Act. CDFW's Petition Evaluation Report recommended that "In completing its Petition Evaluation, the Department has determined there is sufficient scientific information to indicate that the petitioned action for western Joshua tree may be warranted. Therefore, the Department recommends the Commission accept the Petition for further consideration under CESA" http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=178381. The Commission will take up the recommendation at a soon-to-be scheduled meeting. If the Commission follows the staff recommendation, the Western Joshua Tree will receive Candidate status where all of the protections of the California Endangered Species Act are applied to this species. The DEIR/S will need to revise its avoidance, minimization and if necessary mitigation strategy for the proposed impact of 325 acres of "Joshua Tree" (at pg. 8-A-10) in an updated and recirculated DEIR/S.

iv. The DEIR fails to adequately describe, assess, and mitigate impacts to Rare Animals

The additional thirty rare animal species are known to occur within five miles off the centerline of the Preferred Alternative (see Table 1 above) but were not identified in the DEIR/S. In comprehensive EIR/S, each species with potential to be impacted (both temporarily or permanently) are addressed usually individually, because impacts are typically species-specific. The DEIR/S needs to provide that species-specific analysis in a revised and recirculated EIR/S. For example, railways act as a behavioral barrier to at least one species of bumblebees (Bhattacharya et al. 2003) while one species of butterflies easily cross railways when no trains are present (Barrientos and Borda-de-Água, 2017). Access by pollinators including bumblebees and butterflies to rare (and common) plants are also essential for successful plant reproduction and need to be identified and analyzed for avoidance, minimization and if necessary mitigation in a supplemental and recirculated DEIR/S. Both direct and indirect impacts need to be analyzed.

Clearly terrestrial animals depending on size are impacted differently by the proposed project. For example larger animals will find the HSR corridor as a barrier to movement (see wildlife connectivity discussion below) while fencing may be less of a barrier to small animals or animals that are active climber. Avian species may be able to avoid impacts from the proposed project. The DEIR/S fails to analyze the degree of impact to wildlife based on species life history. Therefore an updated and recirculated supplemental DEIR/S is necessary in order to fully disclose environmental impacts.

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v. *The DEIR fails to adequately describe, assess, and mitigate impacts to the Southern and Central Coastal California Evolutionarily Significant Unit (ESU) of mountain lions (Puma concolor)*

The DEIR fails to adequately describe, assess, and mitigate impacts to the Southern and Central Coastal California Evolutionarily Significant Unit (ESU) of mountain lions, a candidate species under the California Endangered Species Act (CESA). There is ample scientific evidence that indicates mountain lion populations in Southern and Central Coast California are imperiled and that human activities and land use planning that does not integrate adequate habitat connectivity can have adverse impacts on mountain lions. Continued habitat loss and fragmentation has led to 10 genetically isolated populations within California. There are six identified mountain lion populations in the ESU, and several are facing an extinction vortex due to high levels of inbreeding, low genetic diversity, and high human-caused mortality rates from car strikes on roads, depredation kills, rodenticide poisoning, poaching, disease, and increased human-caused wildfires (Ernest et al. 2003; Ernest et al. 2014; Riley et al. 2014; Vickers et al. 2015; Benson et al. 2016; Gustafson et al. 2018; Benson et al. 2019).

The effective population sizes of the six populations within the ESU range from 4 to 56.6 (Gustafson et al. 2018; Benson et al. 2019). An effective population size of 50 is assumed to be sufficient to prevent inbreeding depression over five generations, while an effective population size of 500 is considered sufficient to retain evolutionary potential in perpetuity (Traill et al. 2010; Frankham et al. 2014). Five of the six populations are well below that minimum threshold of 50 and none have an effective population size anywhere near 500, which indicates that these populations are at serious risk of becoming extirpated. Furthermore, mountain lions in the Santa Monica and Santa Ana mountains have been found to have dangerously low genetic diversity and effective population size, and they are likely to become extinct within 50 years if gene flow with other mountain lion populations is not improved (Benson et al. 2016; Gustafson et al. 2018; Benson et al. 2019). Populations in the Santa Cruz, San Gabriel, and San Bernardino mountains are showing similar trends (Gustafson et al. 2018; Saremi et al. 2019). This is detailed in the Center's petition to the California Fish and Game Commission to protect Southern California and Central Coast mountain lions under the California Endangered Species Act (Yap et al. 2019).

The primary threat to the long-term survival of mountain lions in the Southern California/Central Coast ESU is genetic isolation due to lack of connectivity caused by continuous development in mountain lion habitat with little regard of their movement needs. Thus, the persistence of the six populations with the ESU relies heavily on being connected with mountain lions throughout the ESU *as well as* statewide. The location of the proposed Project slices through the Tehachapi Mountains, an area identified by multiple mountain lion and connectivity scientists and researchers as a critical area for statewide genetic connectivity (Ernest et al. 2003; Penrod et al. 2003; South Coast Wildlands 2008; CDFW 2010; Gustafson et al. 2018; Benson et al. 2019). Wildlife connectivity in this region is paramount for the survival of the ESU mountain lions, yet the DEIR fails to disclose this information. Thus, the DEIR fails to adequately describe, assess, and mitigate impacts to Southern and Central Coast mountain lions.

Providing only 39 wildlife crossings is grossly insufficient for 56 miles of 10-foot high, noisy, and bright barriers at grade throughout the last-remaining high-quality linkage area for statewide genetic connectivity for mountain lions. The majority of the proposed crossings (27/35) are too small for mountain lions, Mountain lions have been documented using culverts that are about 4 meters (~13 feet) in diameter (Riley et al. 2018; Clevenger and Waltho 2005, Kintsch and Cramer 2011, W. Vickers unpublished data), The dimensions of some of the other crossings are unclear. The DEIR lists five dual-use road undercrossings, two dual-use drainage overcrossings, and one overcrossing but does not provide dimensions for them. In addition, it is unclear how effective combined road and wildlife undercrossings will be, given that traffic noise and lighting could deter mountain lions, and numerous other species, from using them. In addition, the roads would be fenced off and therefore pose another movement barrier perpendicular to the proposed Project. The DEIR fails to adequately mitigate impacts to mountain lions and connectivity to less than significant.

The DEIR also fails to adequately assess and minimize impacts from noise and lighting to mountain lions. There is evidence documenting the effects of human activity specifically on mountain lions. One study found that mountain lions are so fearful of humans and noise generated by humans that they will abandon the carcass of a deer and forgo the feeding opportunity just to avoid humans (Smith et al. 2017).1 The study concluded that even "non-consumptive forms of human disturbance may alter the ecological role of large carnivores by affecting the link between these top predators and their prey" (Smith et al. 2017). In addition, mountain lions have been found to respond fearfully upon hearing human vocalizations, avoiding the area and moving more cautiously when hearing humans (Smith et al. 2017; Suraci et al. 2019). Other studies have demonstrated that mountain lion behavior is impacted when exposed to other evidence of human presence, such as lighting or vehicles/traffic (Wilmers et al. 2013; Smith et al. 2015; Wang et al. 2017). In addition, preliminary results from studies underway by researchers at UC Davis and University of Southern California, as well as those by other researchers, suggest that the light, noise, and other aspects of highways can have negative impacts on wildlife numbers and diversity near the highways (Vickers 2020). Thus, highways and similar infrastructure that exposes wildlife to high levels of noise and lighting can exert negative effects at some level, even if adequate wildlife passageways and fencing are well designed. Berms and sound/light barriers should be implemented at all wildlife crossings to encourage mountain lions and other wildlife to utilize the crossings. Sound and lighting should also be minimized throughout the entire proposed Project, including at other surface, elevated, and underground portions, particularly where the Project goes through natural habitats.

Mountain lions are a key indicator species of wildlife connectivity and healthy ecosystems. As the last remaining wide-ranging top predator in the region, the ability to move through large swaths of interconnected habitat is vital for genetic connectivity and their long-term survival. In addition, impacts to mountain lions in the region could have severe ecological consequences; loss of the ecosystem engineer could have ripple effects on other plant and animal species, potentially leading to a decrease in biodiversity and diminished overall ecosystem function. Many scavengers, including California condors, kit foxes, raptors, and numerous insects, would lose a reliable food source (Ruth and Elbroch 2014; Barry et al. 2019). Fish, birds, amphibians, reptiles, rare native plants, and butterflies would potentially diminish if this apex predator were lost (Ripple and Beschta 2006; Ripple and Beschta 2008; Ripple et al. 2014). Any

1 *See also* Sean Greene, "How a fear of humans affects the lives of California's mountain lions," *Los Angeles Times* (June 27, 2017), available at http://beta.latimes.com/science/sciencenow/la-sci-sn-pumas-human-noise-20170627-story.html.

transportation project that does not adequately address wildlife connectivity issues and integrate effective wildlife crossings and corridors based on the best available science could lead to the extirpation of mountain lion populations in the ESU and severe loss of biodiversity and ecosystem function in the region. See further discussion in Section III of this comment letter regarding the DEIR's failure to adequately describe, assess, and mitigate impacts to wildlife movement and connectivity to less than significant.

II. Inadequate Alternatives Analysis

NEPA requires that an EIS contain a discussion of the "alternatives to the proposed action." 42 U.S.C. §§ 4332(C)(iii),(E). The discussion of alternatives is at "the heart" of the NEPA process, and is intended to provide a "clear basis for choice among options by the decisionmaker and the public." 40 C.F.R. §1502.14; *Idaho Sporting Congress*, 222 F.3d at 567 (compliance with NEPA's procedures "is not an end in itself . . . [but] it is through NEPA's action forcing procedures that the sweeping policy goals announced in § 101 of NEPA are realized.") (internal citations omitted). NEPA's regulations and Ninth Circuit case law require the agency to "rigorously explore" and objectively evaluate "all reasonable alternatives." 40 C.F.R. § 1502.14(a) (emphasis added); *Envtl. Prot. Info. Ctr. v. U.S. Forest Serv.*, 234 Fed. Appx. 440, 442 (9th Cir. 2007). "The purpose of NEPA's alternatives requirement is to ensure agencies do not undertake projects "without intense consideration of other more ecologically sound courses of action, including shelving the entire project, or of accomplishing the same result by entirely different means." *Envtl. Defense Fund, Inc. v. U.S. Army Corps of Engrs.*, 492 F.2d 1123, 1135 (5th Cir. 1974). An agency will be found in compliance with NEPA only when "all reasonable alternatives have been considered and an appropriate explanation is provided as to why an alternative was eliminated." *Native Ecosystems Council v. U.S. Forest Serv.,* 428 F.3d 1233, 1246 (9th Cir. 2005); *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1228-1229 (9th Cir. 1988). The courts, in the Ninth Circuit as elsewhere, have consistently held that an agency's failure to consider a reasonable alternative is fatal to an agency's NEPA analysis. *See, e.g., Idaho Conserv. League v. Mumma*, 956 F.2d 1508, 1519-20 (9th Cir. 1992) ("The existence of a viable, but unexamined alternative renders an environmental impact statement inadequate.").

If HSRA rejects an alternative from consideration, it must explain why a particular option is not feasible and was therefore eliminated from further consideration. 40 C.F.R. § 1502.14(a). The courts will scrutinize this explanation to ensure that the reasons given are adequately supported by the record. *See Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 813-15 (9th Cir. 1999); *Idaho Conserv. League*, 956 F.2d at 1522 (while agencies can use criteria to determine which options to fully evaluate, those criteria are subject to judicial review); *Citizens for a Better Henderson*, 768 F.2d at 1057.

CEQA also requires a robust alternatives analysis as noted above. Here, HRSA too narrowly construed the project purpose and need and project objectives such that the DEIS/R did not consider an adequate range of alternatives to the proposed project.

Additional feasible alternatives should be considered which would utilize additional tunneling that could reduce the terrestrial impacts particularly in sensitive habitats and rare plant communities. While we recognize increasing tunneling could increase impacts based on the location of the tunneling spoils, the DEIR/S should have provided an analysis of benefits of

avoidance of rare plant/animal habitat and connectivity versus the cost to mitigate impacts for those species/habitats. Alternative routes should have also been evaluated.

The existence of other feasible but unexplored alternatives shows that the analysis of alternatives in the DEIS/R is inadequate.

III. The DEIR fails to adequately describe, assess, and mitigate impacts to wildlife movement and connectivity.

Although the DEIR acknowledges that the region has a high level of wildlife connectivity throughout the entire proposed Project, particularly in the Tehachapi Mountains (DEIR at 3.7-47), the DEIR fails to adequately describe, assess, and mitigate impacts to wildlife movement and connectivity.

Transportation infrastructure, like roads and rail, and development create barriers that lead to habitat loss and fragmentation, which harms native wildlife, plants, and people. As barriers to wildlife movement, poorly-planned development and roads can affect an animal's behavior, movement patterns, reproductive success, and physiological state, which can lead to significant impacts on individual wildlife, populations, communities, landscapes, and ecosystem function (Mitsch and Wilson 1996; Trombulak and Frissell 2000; van der Ree et al. 2011; Haddad et al. 2015; Marsh and Jaeger 2015; Ceia-Hasse et al. 2018; Dornas et al. 2019). For example, habitat fragmentation from transportation infrastructure and development has been shown to cause mortalities and harmful genetic isolation in mountain lions in Southern California (Ernest et al. 2014; Riley et al. 2014; Vickers et al. 2015), increase local extinction risk in amphibians and reptiles (Cushman 2006; Brehme et al. 2018; Dornas et al. 2019), cause high levels of avoidance behavior and mortality in birds and insects (Benítez-López et al. 2010; Loss et al. 2014; Kantola et al. 2019), and alter pollinator behavior and degrade habitats (Trombulak and Frissell 2000; Goverde et al. 2002; Aguilar et al. 2008). Habitat fragmentation also severely impacts plant communities. An 18-year study found that reconnected landscapes had nearly 14% more plant species compared to fragmented habitats, and that number is likely to continue to rise as time passes (Damschen et al. 2019). The authors conclude that efforts to preserve and enhance connectivity will pay off over the long-term (Damschen et al. 2019). In addition, connectivity between high quality habitat areas in heterogeneous landscapes is important to allow for range shifts and species migrations as climate changes (Heller and Zavaleta 2009; Cushman et al. 2013; Krosby et al. 2018). Loss of wildlife connectivity decreases biodiversity and degrades ecosystems.

The DEIR fails to adequately describe the Project area's importance in wildlife connectivity. The region's heterogeneous habitats that include wetlands, streams, grasslands, scrublands, woodlands, and desert are important for wildlife connectivity and migration at the local, regional, and continental scale. Local connectivity that links aquatic and terrestrial habitats allows various sensitive species to persist, including state-protected foothill yellow-legged frogs (*Rana boylii*), California red-legged frog (*Rana draytonii*), western spadefoot toad (*Spea hammondii*) and western pond turtles (*Actinemys marmorata*). At a regional scale, medium- and large-sized mammals, such as mountain lions (*Puma concolor*), bobcats (*Lynx rufus*), San Joaquin kit foxes (*Vulpes macrotis mutica*), ring-tailed cats (*Bassariscus astutus*), and mule deer

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(*Odocoileus hemionus*), require large patches of heterogeneous habitat to forage, seek shelter/refuge, and find mates. These species are all known to occur in the Project area. And, as mentioned previously, the Tehachapi Mountains have been identified by multiple mountain lion and connectivity scientists and researchers as a critical area for statewide genetic connectivity and the long-term persistence of the Southern/Central Coast California ESU of mountain lions (Ernest et al. 2003; Penrod et al. 2003; South Coast Wildlands 2008; CDFW 2010; Gustafson et al. 2018; Benson et al. 2019). And at a global scale, a portion of the Project area has been identified by Audubon as an Important Bird Area[2] for resident and migratory birds within the Pacific Flyway, a north-south migratory corridor the extends from Alaska to Patagonia. The region is a hub for local and global biodiversity; wildlife movement and habitat connectivity must be maintained to preserve the area's rich diversity and evolutionary potential.

Providing only 39 wildlife crossings is grossly insufficient for 56 miles of 10-foot high, noisy, and bright barriers at grade throughout the last-remaining high-quality linkage area for statewide genetic connectivity for numerous animal and plant species, including mountain lions. Most of the proposed crossings (27/39) are six-foot arch culverts, which would seem to target mostly medium-sized animals. Aside from three 10-foot arch culverts, the dimensions of the other crossings are unclear, though they are likely larger. The number of larger crossings (3 to 12 total) over 56 miles of barriers is insufficient for large animals or those that need more space to migrate, and this strategy neglects the needs and behaviors of smaller animals, including small mammals, reptiles, and amphibians, that might require much smaller passageways to actually use them, like the Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*) and blunt-nosed leopard lizard (*Gambelia sila*). Alternatively, placing logs and rocks/boulders along with native vegetation within the soft-bottom crossings could help facilitate the use of the crossings by small critters, but it would be important to understand which species occur in the area so that the crossings can be designed to be effective. More in-depth analyses that include on-the-ground movement studies of which species are moving in the area and their patterns of movement are needed to determine how to best implement such crossings. In addition, smaller species with poor dispersal abilities would require more frequent intervals of crossings to increase their chances of finding a crossing. And for some amphibian and reptile species, such as California red-legged frogs and western pond turtles, undercrossings should have grated tops so that the light and moisture inside the crossings are similar to that of the ambient environment. To improve the effectiveness of any wildlife crossings, they should be planned in areas with high quality, protected habitat on both sides of the rail infrastructure. The DEIR should include acquiring unprotected lands on both sides of the rail where a wildlife crossing would be implemented and preserve and manage those lands in perpetuity to ensure that the wildlife crossings remain functional over time. Ultimately, the DEIR fails to adequately assess and mitigate impacts to wildlife movement and connectivity needs for numerous special-status wildlife throughout the Project area to less than significant.

The DEIR lists five dual-use road undercrossings, two dual-use drainage overcrossings, and one overcrossing but does not provide dimensions for them. In addition, it is unclear how effective combined road and wildlife undercrossings will be, given that traffic noise and lighting could deter numerous other species, from using them. In addition, the roads would be fenced off and therefore pose another movement barrier perpendicular to the proposed Project. Again, the

2 https://www.audubon.org/important-bird-areas/state/california

DEIR fails to adequately describe and mitigate impacts to wildlife movement and connectivity in the Project area to less than significant.

The DEIR's lack of sufficient wildlife crossings dismisses the need for corridor redundancy (*i.e.* the availability of alternative pathways for movement). Corridor redundancy is important in regional connectivity plans because it allows for improved functional connectivity and resilience. Compared to a single pathway, multiple connections between habitat patches increase the probability of movement across landscapes by a wider variety of species, and they provide more habitat for low-mobility species while still allowing for their dispersal (Mcrae et al., 2012; Olson & Burnett, 2008; Pinto & Keitt, 2008). In addition, corridor redundancy provides resilience to uncertainty, impacts of climate change, and extreme events, like flooding or wildfires, by providing alternate escape routes or refugia for animals seeking safety (Cushman et al., 2013; Mcrae et al., 2008; Mcrae et al., 2012; Olson & Burnett, 2008; Pinto & Keitt, 2008).

Corridor redundancy is critical when considering the impacts of climate change on wildlife movement and habitat connectivity. Climate change is increasing stress on species and ecosystems, causing changes in distribution, phenology, physiology, vital rates, genetics, ecosystem structure and processes, and increasing species extinction risk (Warren et al. 2011). A 2016 analysis found that climate-related local extinctions are already widespread and have occurred in hundreds of species, including almost half of the 976 species surveyed (Wiens 2016). A separate study estimated that nearly half of terrestrial non-flying threatened mammals and nearly one-quarter of threatened birds may have already been negatively impacted by climate change in at least part of their distribution (Pacifici et al. 2017). A 2016 meta-analysis reported that climate change is already impacting 82 percent of key ecological processes that form the foundation of healthy ecosystems and on which humans depend for basic needs (Scheffers et al. 2016). Genes are changing, species' physiology and physical features such as body size are changing, species are moving to try to keep pace with suitable climate space, species are shifting their timing of breeding and migration, and entire ecosystems are under stress (Parmesan and Yohe 2003; Root et al. 2003; Parmesan 2006; Chen et al. 2011; Maclean and Wilson 2011; Warren et al. 2011; Cahill et al. 2012). Thus, the DEIR fails to use the best available science and adequately assess and mitigate impacts to wildlife movement to less than significant.

In addition, adequate mitigation measures should include addressing edge effects of the Project, such as light, noise, and other aspects of anthropogenic features that can have negative impacts on wildlife. Human development and associated noise can degrade adjacent wildlife habitat and behavior (*see e.g.,* Slabbekoorn and Ripmeester 2008). For instance, field observations and controlled laboratory experiments have shown that traffic noise can significantly degrade habitat value for migrating songbirds (Ware et al. 2015). Subjects exposed to 55 and 61 dBA (simulated traffic noise) exhibited decreased feeding behavior and duration, as well as increased vigilance behavior (Ware et al. 2015). Such behavioral shifts increase the risk of starvation, thus decreasing survival rates. A recent study also highlighted the detrimental impacts of siting development near areas protected for wildlife. The study noted that "Anthropogenic noise 3 and 10 dB above natural sound levels . . . has documented effects on wildlife species richness, abundance, reproductive success, behavior, and physiology" (Buxton et al. 2017). The study further noted that "there is evidence of impacts across a wide range of species [] regardless of hearing sensitivity, including direct effects on invertebrates that lack ears and indirect effects on plants and entire ecological communities (*e.g.*, reduced seedling

recruitment due to altered behavior of seed distributors)" (Buxton et al. 2017). Moreover, human transportation networks and development resulted in high noise exceedances in protected areas (Buxton et al. 2017). In addition, preliminary results from studies underway by researchers at UC Davis and University of Southern California, as well as those by other researchers, suggest that the light, noise, and other aspects of highways can have negative impacts on wildlife numbers and diversity near the highways (Vickers 2020). Thus, highways and similar infrastructure that exposes wildlife to high levels of noise and lighting can exert negative effects at some level, even if adequate wildlife passageways and fencing are well designed.

The Project's placement will subject the surrounding open space to development edge effects and will likely impact key, wide-ranging predators, such as mountain lions and bobcats (Crooks 2002; Riley et al. 2006; Delaney et al. 2010; Lee et al. 2012; Vickers et al. 2015), as well as smaller species with poor dispersal abilities, such as song birds, small mammals, and herpetofauna (Cushman 2006; Benítez-López et al. 2010; Kociolek et al. 2011). Negative edge effects from human activity, traffic, lighting, noise, domestic pets, pollutants, invasive weeds, and increased fire frequency have been found to be biologically significant up to 300 meters (~1000 feet) away from anthropogenic features in terrestrial systems (Environmental Law Institute 2003). As mentioned previously, limiting movement and dispersal can affect species' ability to find food, shelter, mates, and refugia during and after disturbances like fires or floods. Individuals can die off, populations can become isolated, sensitive species can become locally extinct, and important ecological processes like plant pollination and nutrient cycling can be lost. In addition, linkages and corridors between major core habitat areas are important to allow for range shifts and species migrations as climate changes. Therefore, it is imperative that thorough analyses are conducted to determine if Project activities (construction and operation) will affect species movement. Berms and sound/light barriers should be implemented at all wildlife crossings to encourage wildlife to utilize the crossings. Sound and lighting should also be minimized throughout the entire proposed Project, including at other surface, elevated, and underground portions, particularly where the Project goes through natural habitats. Again, the DEIR fails to provide sufficient details and analyses to warrant their conclusion that Project impacts on habitat connectivity and wildlife movement would be mitigated to less than significant.

The DEIR/S provides vague mitigation measures related to wildlife movement (WM-IAMF#1-6, which are buried in an appendix of a technical report that is not readily available to the public), and there is no guarantee that additional best management practices will be implemented or enforceable. Appendix 1 of the Biological and Aquatic Resources Technical Report states that "The Authority recognizes the following BMPs to minimize rail-kill and facilitate animal movement across rail lines" (Biological and Aquatic Resources Technical Report, Appendix 1 at 7-10). There is no accountability given to the Authority to actually implement practices that prevent fencing from blocking crossing structure entrances, ensure that disturbed areas outside the final Project footprint will be revegetated with native plants, or maintain crossing structures and fences. In addition, mitigation measures should include monitoring the wildlife crossings to determine if species are using the crossings.

IV. Impact Analysis Flawed

As described above, because comprehensive baseline biological information is not included in the DEIR/S, the actual impact analysis is therefore flawed. Typically in the hundreds of environmental reports that we have reviewed and commented on, impact analysis is detailed by species. However this EIR/S fails to provide that much needed analysis by species particularly for the long-term operational impacts. For example, the DEIR/S is generally mute on the operational impact to species including the critically endangered California condor. California condors are rebounding from the brink of extinction due to unprecedented efforts and funding from federal, state and private entities. California condors use the general area of the Tehachapi mountains extensively as a strong-hold for the southern California flocks including heavy use of the proposed project area. Mortalities of birds of prey, particularly scavenging birds from trains including HSR are well documented in the literature (Borda-de-Água et al. 2017). The addition of fencing along the HSR tracks provide new perching and foraging perches for numerous species including California condors. The fencing along the HSR creates an "attractive nuisance" that lures birds into harm's way. These potential impacts to California condors and other birds are not addressed in the impact analysis section. The Biological and Aquatic Resources Technical Report (at pb. 8-5 and 8-6) includes a section on "Standard procedures when working in areas where California condors have a potential to occur would include, at a minimum, the following standard conservation practices:

- If condors enter the project site at any time during the project implementation, all personnel will be instructed to assess current work activities to ensure the activities do not present a hazard (e.g., moving vehicles and equipment loading). Any activities identified as presenting a potential hazard will be stopped or blocked.
- Any observations of condors within the project vicinity will be reported to the appropriate USFWS biologist with information including the date, time, location, and wing numbers if readable.
- Any condors in the work area will be observed until they have safely left the site.
- Within potential condor foraging areas, the WEAP will include the development and implementation of condor educational materials and training for all workers during construction.
- Project personnel shall collect all litter, small artificial items (screws, washers, nuts, or bolts, etc.), and food waste from the project vicinity on no less than a daily basis, including anytime during a given day that a crew leaves a work area where such materials exist."

These avoidance measures appear focused on the construction and maintenance activities but do not address the inherent threats to California condors from the operation of the HSR. In addition, Appendix O: Result of Analysis of California Condor (*Gymnogyps californianus*) Activity Patterns Based on 2014–2016 GIS Satellite Telemetry Movement Data is not included in the Biological and Aquatic Resources Technical Report.

Despite the failure to analyze impacts by species as identified above, the impact analysis that is presented in the DEIR/S is also fraught with inadequacies and inaccuracies. Here we highlight two of many examples of problems with the existing impact analysis:

Example #1 - The DEIR/S states:

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" Implementation of the proposed B-P Build Alternatives (including the César E. Chávez National Monument Design Option [CCNM Design Option] and the Refined César E. Chávez National Monument Design Option [Refined CCNM Design Option]) would result in permanent impacts affecting 11,006.2 acres of suitable habitat for special-status species."
(DEIR/S at 3.7-1)

Summary Table S-7 indicates the following acreages of impacts for Alternative 2 and the Refined CCNM. Because Table 2-7 does not total the acres of the Preferred Alternative, we add the summation here in Column 4:

Biological/Aquatic Resources Impacts	Alternative 2	Refined CCNM Design Option	Total
Suitable habitat for special-status plant species (acres of overall habitat permanently affected)	9,974.4	+1,904.6	11,879.0
Suitable habitat for special-status wildlife species (acres of overall habitat permanently affected)	58,671.0	+12,142.9	70,813.9
Suitable habitat for modeled federal and state threatened/endangered species (acres of overall habitat permanently affected)	26,986.4	+5,430.2	32,416.6
Special-status plant communities (acres permanently impacted)	1,166.6	+555.4	1722.0

(DEIR/S at pg. S-79 and S-80)

The DEIR/S' calculated impact area of 11,006.2 acres to "suitable habitat for special-status species" at pg. 3.7-1 is less than the suitable habitat calculated for any of the special-status plant or animal or federal and state threatened/endangered species alone (11,879.0 acres for special status plant, 70,813.9 acres for special status wildlife and 32,416.6 acres for suitable habitat modeled for federal and state threatened and endangered species)

The DEIR/S' calculated impacts of 70,813.9 acres to the "Suitable habitat for special-status wildlife species (acres of overall habitat permanently affected)" in Table S-7 is an enormous impact. Even with the proposed inadequate 1:1 mitigation ratio (see below for discussion of the inadequacy of mitigation ratios), it is unclear where adequate species specific mitigation habitat would be available. At typical impact mitigation requirement ratio of 3:1, the mitigation to offset impacts should be over 210,000 acres, essentially requiring the HSRA acquire land equivalent to the whole Tejon Ranch as mitigation. For purposes of consistency and clarity, acres of impact must be consistent in the DEIR/S. Because the current DEIR/S impact analysis is unclear about the actual amount of impact that will occur from the Preferred Alternative, an updated and recirculated supplemental DEIR/S is necessary in order to fully and accurately disclose environmental impacts..

Example 2 - The impact from the subsoil material excavated for the proposed tunnels is very unclear. The Summary Report states:
"With the addition of the Refined CCNM Design Option, the earthwork balance would not be achievable and would result in a range of about 2 to 14 million cubic yards of excess materials…"
And further states:

"Those materials would be stockpiled in the area north of SR 58 in the vicinity of Bealville Road"
(DEIR/S at S-20)

The Foot Print Map Book (at Sheets 23, 24 and 25) identifies a large area (over 600 acres) of permanent impact, so we presume this area is the stockpile area referred to in the Summary and where it is mentioned in Section 3.7 in the context of "Impact Bio#10: Operation Impact on Aquatic Resources" (at pg. 3.7-85). However Impact Bio#10 does not discuss the key details about the stockpile area, including the impact to the existing lands. We could not locate the projected height of the stockpile in the impact area in the DEIR/S. Our rough calculations indicate that to accommodate 2 to 14 million cubic yards of material, the height of the stockpiled materials above the existing land surface on the approximately 600-acre stockpile area would need to be 3 to 14.5 feet. From the vegetation mapping, the stockpile area includes over 250 acres of blue oak woodland – an identified rare plant community. Stockpiling subsoils on this rare plant community is a significant permanent impact. Stockpile material would be subsoil which is typically unsuitable for most restoration purposes, so onsite mitigation for blue oak woodland would not be possible . Stockpiling would also affect wildlife connectivity, and other rare plants and animals. The stockpile area is also partially located on lands included in the White Wolf Conservation Easement (see below).

Because of the numerous inadequacies in the impact analyses, a revised/supplement and recirculated DEIR/S is necessary in order to provide an adequate level of impact analysis.

V. Proposed Mitigation Measures Fail to Adequately Mitigate Impacts

In general, the proposed mitigation measures are focused on the short-term construction but fail long-term impact mitigation are generalized and often defer actual mitigation to an unclear future date through plans and strategies to be developed in the future, typically without public review. In the case where actual mitigation ratios are proposed, those mitigation ratios are woefully inadequate and well below standard mitigation requirements of the land management and wildlife agencies.

A. Examples of Specific Mitigation Measure Failures

While many of the BIO-MM are vague and too non-specific to ensure that mitigation is truly effective, we provide a few specific examples to represent the mitigation measure failures below:

BIO-MM#1: Conduct Presence/Absence Pre-construction Surveys for Special-Status Plant Species and Special-Status Plant Communities (DEIR/S at pg.3.7-107)

In order for BIO-MM#1 to be effective, project biologist qualifications must require expertise in identifying rare plants. Surveys must occur during the season when the plants can be unequivocally identified, particularly rare annual species, and in years with adequate rainfall when germination and plant expression is visible. Absent these requirements, the mitigation measure is inadequate.

BIO-MM#2: Prepare and Implement Plan for Salvage and Relocation of Special-Status Plant Species (DEIR/S at pg.3.7-107)

Relocation of special status plant species has an abysmal failure rate (Fiedler 1991). While the Bio-MM #2 states

> "If relocation or propagation is required by authorizations issued under the FESA and/or CESA, the Project Biologist will prepare a plant species salvage plan to address monitoring, salvage, relocation and/or seed banking of federal or State-listed plant species."

It is unclear why only federal and State-listed plant species are included based on the fact that many of the rare plant species, particularly the 1B.1 and 1B.2 species are eligible for listing under the ESAs. Based on the number of rare plant species with potential to be impacted by the preferred alternative, a "plant species salvage plan" needs to be included for public review a part of the DEIR/S needs to (see below section on missing plans), not deferred to a future time, when the public will have no opportunity to review. The plan must clearly identify the Salvage and Relocation strategies, because they will need to be species specific. This plan must include locations of recipient sites, because rare plant occurrences are often associated with specific soil types, aspects, hydrology etc. Without such details, Bio-MM#2 in inadequate.

While we generally support stockpiling topsoil, particularly to mitigate temporary impacts, critical protocols for stockpile storage must be carefully implemented in order to retain viable propagules and soil microflora/fauna (Strohmayer 1999, Ruiz-Jaen and Aide 2005). The "plant species salvage plan" needs to address this important aspect.

The "plant species salvage plan" must also follow guidelines developed by the Society for Ecological Restoration International (2004). Absent these requirements, the mitigation measure is inadequate.

B. Failure to Identify Appropriate Mitigation

Because the DEIR/S fails to provide adequate identification and analysis of impacts, inevitably, it also fails to identify adequate mitigation measures for the project's environmental impacts. Most of the mitigation measures are focused on construction impacts, and the long-term permanent impacts of the projects are not addressed adequately.

"Implicit in NEPA's demand that an agency prepare a detailed statement on 'any adverse environmental effects which cannot be avoided should the proposal be implemented,' 42 U.S.C. § 4332(C)(ii), is an understanding that an EIS will discuss the extent to which adverse effects can be avoided." *Methow Valley*, 490 U.S. at 351-52. Because the DEIR/S does not adequately assess the project's direct, indirect, and cumulative impacts, its analysis of mitigation measures for those impacts is necessarily flawed. The DEIR/S must discuss mitigation in sufficient detail to ensure that environmental consequences have been fairly evaluated." *Methow Valley*, 490 U.S. at 352; *see also Idaho Sporting Congress*, 137 F.3d at 1151 ("[w]ithout analytical detail to support the proposed mitigation measures, we are not persuaded that they amount to anything more than a 'mere listing' of good management practices"). As the Supreme Court clarified in *Robertson*, 490 U.S. at 352, the "requirement that an EIS contain a detailed discussion of possible mitigation measures flows both from the language of [NEPA] and, more expressly, from

CEQ's implementing regulations" and the "omission of a reasonably complete discussion of possible mitigation measures would undermine the 'action forcing' function of NEPA."

Although NEPA does not require that the harms identified actually be mitigated, NEPA does require that an EIS discuss mitigation measures, with "sufficient detail to ensure that environmental consequences have been fairly evaluated" and the purpose of the mitigation discussion is to evaluate whether anticipated environmental impacts *can be avoided*. *Methow Valley*, 490 U.S. at 351-52. As the Ninth Circuit noted: "[a] mitigation discussion without at least *some* evaluation of effectiveness is useless in making that determination." *South Fork Band Council of Western Shoshone v. DOI* , 588 F.3d 718 , 727 (9th Cir. 2009) (emphasis in original).

In contrast, CEQA requires even more--that mitigation be considered for unavoidable impacts and be adopted. The purpose of alternatives analysis in an environmental review document under CEQA is to enable the agency to fulfill the statutory requirement that feasible alternatives that avoid significant impacts of a project must be implemented.

> "[I]t is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects."

(Public Res. Code § 21002.) The statutory language and case law are quite clear that the Legislature intended public agencies to utilize CEQA's environmental review process and procedures to make determinations regarding feasible alternatives and mitigation measures based on a robust analysis.

CEQA's mandates are not purely procedural. It also contains an important substantive mandate: public agencies are required "to deny approval of a project with significant adverse effects when feasible alternatives or feasible mitigation measures can substantially lessen such effects." (*Sierra Club v. Gilroy City Council* (1990) 222 Cal.App.3d 30, 41; *see also* Pub. Res. Code § 21002.) Thus, a thorough review of mitigation measures is needed, and the HRSA cannot rely on vague or unformulated measures to find that impacts have been mitigated.

Here, the DEIR/S does not provide a full analysis of possible mitigation measures to avoid or lessen the impacts of the proposed project and therefore the HSRA cannot properly assess the likelihood that such measures would actually avoid the impacts of the proposed project.

For example, ***BIO-MM#38: Compensate for Impacts to Listed Plant Species*** only requires a 1:1 mitigation ratio which is wholly inadequate and not in line with standard mitigation requirements by the wildlife agencies. The 1:1 mitigation ratio is also inadequate to mitigate for the destruction of occupied habitat and should be far higher (Moilanen et al 2009, Norton 2008). Mitigation presumes that acquisition will be appropriate occupied habitat which is currently existing and providing benefits to the species, to off-set the elimination of habitat

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from the proposed project. However, a 1:1 mitigation strategy assures *a net loss of habitat* for the species, because currently the species is present at both the mitigation site and the proposed project site. Adequate mitigation ratios must be included that actually safeguard rare species from further declines and the need for future listing. For these species and others that are already critically endangered including but not limited to the desert tortoise, San Joaquin kit fox, blunt-nosed leopard lizard and others, a minimum a 5:1 mitigation ratio should be required as mitigation for impacts associated with the proposed project.

As discussed above, DEIR/S calculates that impacts of 70,813.9 acres to the "Suitable habitat for special-status wildlife species (acres of overall habitat permanently affected)" in Table S-7 will likely occur. In order to properly and fully mitigate such an impact, the DEIR/S needs to consider as a mitigation alternative the acquisition of the Tejon Ranch in whole.

The DEIR/S is also fails to propose adequate mitigation on lands that are already protected for conservation purposes by conservation easements and other mechanisms. The DEIR/S proposes a terrible precedent to develop land that has been set aside exclusively for conservation purposes, for example the lands protected on Tejon Ranch by a Conservation Easement. In other projects that we have reviewed, such lands already conserved for conservation purposes have, at a minimum, required a 10:1 mitigation for any terrestrial impact.

C. Key Plans are Unavailable for Public Review

The mitigation measures call for numerous plans to be developed in order to minimize and mitigate impacts. However none of those plans are provided in the DEIR/S. Therefore it is impossible to evaluate the efficacy of the mitigation without having those plans available. The key missing plans include:

- Plan for Salvage, Relocation and/or Propagation of Special-Status Plant Species (at pg. 3.7-107) which may be the same as Special Plant Species Management Plan (at pg.3.7-108)
- Restoration and Revegetation Plan for temporary impacts (at pg.3.7-108)
- Relocation plan to remove the hibernacula and provide for construction of an alternative bat roost outside of the Work Area (at pg.3.7-116) which may be the same as the Bat Roost Relocation Plan (at pg. 3.7-116)
- Biological Resources Management Plan (at pg. S-50)
- Flood Protection Plan (at pg. S-50)
- Stormwater Pollution Prevention Plan (at pg. 3.7-107)
- Construction Management Plan (at pg. S-51)
- Paleontological Resource Monitoring and Mitigation Plan (at pg. S-51)
- Compensatory Mitigation Plan for Species and Species Habitat (at pg. 3.7-128)
- Weed Control Plan (at pg. 3.7-124 and 130)
- Compensatory Mitigation Plan (CMP) for Impacts to Aquatic Resources (at pg. 3.7-122)
- Adaptive management plan (at pg. 3.7-123)
- Prepare Plan for Dewatering and Water Diversions (62 (at pg. 3.7-134)
- Annual Vegetation Control Plan (at pg. 3.7-129)

It is critical that these plans are part of the environmental review process, so that the public and decisionmakers can evaluate the efficacy of the mitigation that these plans provide.

VI. Impacts to Existing Conserved Lands Inadequate – Tejon Ranch White Wolf Conservation Easement.

The DEIR/S recognizes that the existing Conservation Easement on the White Wolf area of Tejon Ranch will be impacted by the preferred alternative (at pg. 3.7-89) and states:

> "The project is not anticipated to conflict with this easement, as the acquisition areas allow for the installation of infrastructure such as transit and transportation facilities."

In addition the Tejon Ranch White Wolf Conservation Easement area appears to include over 400 acres of the permanent impact area for the "excess material stockpile" from the tunnels boring. As calculated above, because we could not find where the DEIR/S addressed it, the 400+ acres currently under a Conservation Easement could be permanently covered by 3 to 14.5 feet of fill material – an area which includes over 250 acres of blue oak woodlands.

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VII. Project Fails to Properly Apply the DRECP CMAs

The DEIR/S fails to apply and analyze all of the Bureau of Land Management's (BLM's) Conservation Management Actions (CMAs) as adopted in the Desert Renewable Energy Conservation Plan (DRECP) for all BLM lands that the propose project crosses. In particular the DEIR/S fails to incorporate the LUPA-wide CMAs which are applied through out the DRECP area and include:

LUPA- BIO3 – Resource Setback Standards
LUPA- BIO4 – Seasonal Restrictions
LUPA- BIO6 – Subsidized Predator Standards
LUPA- BIO7 - Restoration of Areas Disturbed by Construction Activities But Not Converted by Long-Term Disturbance Requirements, which need to be incorporated into Restoration and Revegetation Plan for temporary impacts (at pg.3.7-108)
LUPA-BIO11 - Nuisance Animals and Invasive Species Requirements
LUPA-BIO13 - General Siting and Design Requirements
LUPA-BIO14 - Biology: General Standard Practices
LUPA-BIO16 - Activity-Specific Bird and Bat CMAs
LUPA-BIO17 - Activity-Specific Bird and Bat CMAs
LUPA-BIO RIPWET 1 & 2 – Riparian and Wetland Focus Species
LUPA-BIO RIPWET 3 – Riparian birds
LUPA-BIO RIPWET 6 – Tehachapi Slender Salamander
LUPA-BIO RIPWET 7 – Tehachapi Slender Salamander
LUPA-BIO BAT 1 & 2 – Bats
LUPA-BIO PLANTS 1, 2 & 3 – BLM Special Status Plant Species
LUPA-BIO SVF 1 through 5 – Special Vegetation Features
LUPA- BIO VEG 1 through 6 – General Vegetation Management
LUPA-BIO-IFS-4 through 9 – Desert tortoise

LUPA-BIO-IFS-11 – Bendire's thrasher
LUPA-BIO-IFS-12 through 14 – Burrowing owl
LUPA-BIO-IFS-15 through 23 – California condor
LUPA-BIO-IFS-24 through 31 – Golden Eagle
LUPA-BIO-IFS-32 – Swainsons Hawk
LUPA-BIO-IFS-35 through 42 – Mohave Ground Squirrel
LUPA-BIO-COMP-1 through 4 – Compensation
LUPA-AIR-1 through 4 – Air Quality
LUPA-LANDS-2 - Land acquisition
LUPA-SW-1 through 31 – Soil and Water

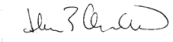
Because of the DEIR/s did not analyze or adopt these LUPA-wide CMAs on the BLM parcels that the proposed project is planning on crossing, a revised/supplement and recirculated DEIR/S is necessary in order to provide an adequate level of impact analysis.

VIII. CONCLUSION

Thank you for the opportunity to submit comments on the DEIR/S for the for the Bakersfield to Palmdale Project Section of the California High-Speed Rail Project. Because of all of the inaccuracies, short-comings and confusion in the DEIR/S, we request that the HSRA revise and recirculate the DEIR/S.

Please add the Center to your notice list for all future updates to the Project and do not hesitate to contact the Center with any questions at the number or email listed below.

Sincerely,



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Attachment: Email Thread with HSR Consultant RE: Availability of Technical Reports

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Response to Submission 968 (Tiffany Yap, Center for Biological Diversity, April 12, 2021)

968-1184

While this comment is not related to the new information about the monarch butterfly and Southern California/Central Coast Evolutionarily Significant Unit (ESU) of Mountain Lions as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter states that the Revised Draft EIR/Supplemental Draft EIS fails to adequately assess and mitigate impacts to currently listed species, such as the western Joshua tree. The rare plant species and plant communities listed by the commenter were analyzed in the BARTR and its appendices (Authority 2018b). Those determined to have potentially significant impacts were summarized and evaluated in Section 3.7.6 per the methods defined in Sections 3.7.4.6 and 3.7.4.7. The methodology implemented for the biological and aquatic resources analyses is discussed in Section 3.7.4 of this Final EIR/EIS and is consistent with methodology implemented for other California HSR project sections that have recently undergone the environmental review process. Species that would be potentially affected, or special-status species that have the potential to occur within the resource study area, are discussed in Section 3.7. Additionally, Section 3.7.4.2 outlines the IAMFs that will be implemented during design, construction, and operations of the project, and Section 3.7.6 discusses the environmental consequences of the project alternatives, outlining potential biological and aquatic resource impacts. Sections 3.7.7.1and 3.7.7.2 of this Final EIR/EIS outline detailed mitigation measures designed to reduce identified impacts to less than significant levels under CEQA. As discussed in Section 3.7.4.5 of this Final EIR/EIS, during the botanical surveys, protected trees in the study area were identified based on the regulations summarized in Appendix B of the BARTR (Authority 2018b). To address information needs for areas where access was not granted, the Authority used habitat suitability models based on several databases. This system is a widely used tool, and its approach assumes the presence of special-status wildlife species in areas where suitable habitat occurs (as identified in the California Wildlife Habitat Relationship System or other published agency literature). It provides a reasonable and conservative basis for estimating potential impacts. The net result is a conservative approach that overestimates impacts on suitable habitat. Impact BIO#3 of this Final EIR/EIS discusses the construction impacts on special-status plant

968-1184

communities, including oak woodland and Joshua tree woodland. As discussed in BIO-MM#1 pre-construction botanical surveys for special-status species and special-status plant communities (including Joshua tree woodland) will be conducted.

Additionally, BIO-MM#2 calls for the implementation of a plan for salvage and relocation of special-status plant species, including but not limited to Joshua trees. Therefore, impacts on special-status species would be mitigated to a less-than-significant level under CEQA.

As noted in the cover memo that accompanied the RDEIR/SDEIS and in Section 3.7 of this Final EIR/EIS, the western Joshua tree was petitioned to the California Fish and Game Commission for listing as endangered under CESA. The Commission accepted the petition on September 22, 2020, which caused the Joshua tree to become a special-status species at that time. Impacts to the western Joshua tree, however, were already analyzed in the Draft EIR/EIS as a protected species, and no changes were necessary based on the subsequent change in legal status.

In addition, refer to Responses to Comments 777-305, 777-309, and 777-311, contained in Chapter 25 of this Final EIR/EIS, and Response to Comment 781-591, contained in Chapter 20 of this Final EIR/EIS, for further discussions of rare plant communities, and special-status plant communities and special status-plant species.

Response to Submission 968 (Tiffany Yap, Center for Biological Diversity, April 12, 2021) - Continued

968-1185

The commenter expresses the importance of an adequate environmental review is performed to inform decision-makers of all the impacts and states that the RDEIR fails to adequately assess and mitigate impacts to the project area's unique bio diversity. The RDEIR/SDEIS only addressed new infrormation related to mountain lion and monarch butterfly; refer to Section 3.7 of the Draft EIR/EIS and this Final EIR/EIS which addresses all sensitive and special-status plant and animal species. The Authority intends to avoid and minimize impacts to special status species through Impact Avoidance and Minimization Features and Mitigation Measures as described in Section 3.7 of this Final EIR/EIS. The Biological and Aquatics Resources Technical Report (BARTR) discusses the extent of each habitat type being impacted.

The WCA in the Appendix I to the BARTR provides an extensive analysis that demonstrates opportunity for wildlife species to move across the alignment, including mountain lions in the Tehachapi Mountains, desert tortoises in the Antelope Valley, and blunt-nosed leopard lizards in the San Joquin Valley and foothills. As discussed in Section 3.7.6.4 of this Final EIR/EIS, effective mitigation measures have been identified to reduce impacts on wildlife crossings and habitat linkages to a less than significant level by avoidance, protection, or restoration methods. These measures include: BIO-MM#36, BIO-MM#37, BIO-MM#42, BIO-MM#50, BIO-MM#56, BIO-MM#64, BIO-MM#77, BIO-MM#78, and BIO-MM#86, which would allow for the protection of habitat linkages. These measures would work together with design features to minimize or avoid impacts on wildlife crossings during construction activities so as not to interfere substantially with the movement of native wildlife species.

968-1186

The commenter acknowledges the benefits of high-speed rail transportation and states that robust mitigation is required to offset impacts to California's biodiversity. Refer to Response to Comment 968-1184, contained in this chapter, Responses to Comments 777-305, 777-309, and 777-311, contained in Chapter 25 of this Final EIR/EIS, and Response to Comment 781-591, contained in Chapter 20 of this Final EIR/EIS, for further discussions of rare plant communities, and special-status plant communities and special status-plant species.

968-1187

Refer to Responses to Comments 968-1184, contained in this chapter, 777-305, 777-309, 777-311, and 781-591, contained in Chapter 25 of this Final EIR/EIS, for further discussions of rare plant communities, and special-status plant communities and special status-plant species. The Western Joshua tree is included in Section 3.7.5.3 and is considered a protected tree species. Surveys for the Western Joshua tree will be conducted as required under BIO-MM#35. This measure also requires compensatory mitigation for impacts to protected trees.

As noted in the cover memo accompanying the RDEIR/SDEIS and in section 3.7 of the Final EIR/EIS, the western Joshua tree was petitioned to the California Fish and Game Commission for listing as endangered under CESA. The Commission accepted the petition on September 22, 2020, which caused the Joshua tree to become a special-status species at that time. Impacts to the western Joshua tree, however, were analyzed in the Draft EIR/EIS, and no changes were necessary based on the subsequent change in legal status.

968-1188

The commenter raises concerns about the sufficiency of mitigation measures for mountain lion and the ability to track them since no CDFW protocols have been developed. The analysis and mitigation for impacts to mountain lion meet the requirements of CEQA and NEPA. As project design progresses, the Authority will consult with the CDFW and other mountain lion experts for best survey and tracking protocols to develop appropriate protective buffers for denning mountain lion.

Response to Submission 968 (Tiffany Yap, Center for Biological Diversity, April 12, 2021) - Continued

968-1189

The commenter raises concerns about indirect impacts to genetic connectivity for mountain lions. The WCA in Appendix I of the BARTR provides extensive analysis of the 14 viaduct and 6 tunnel crossing opportunities and 5 dedicated wildlife crossings across the alignment within mountain lion species range that will continue to allow gene flow from the Western Sierra Nevada population to the southern California and central coast ESU of mountain lion. An example of the crossing opportunity includes a 2.3 mile long tunnel segment located at the mountain lion least cost corridor modeled by South Coast Wildland as part of the South Coast Missing Linkages Project: A Linkage Design for the Tehachapi Connection (Penrod 2003). The mountain lion least cost corridor is the top one percent of mountain lion movement corridor within the Tehachapi Mountains.

968-1190

The commenter raises concern about mountain lion being present but undetected, temporary construction impacts, permanent impacts associated with operations and maintenance, habitat that could affect the long-term survival of the southern California and central coast ESU of mountain lion, specifically communication sites such as scrapes and nursery sites.

As described in BIO-MM#84, the Authority will consult with CDFW and other lion experts to develop mountain lion den survey protocols to identify the 0.25-mile buffer for protection of denning mountain lions during construction.

The project includes 14 elevated segments, 6 underground segments, and 5 dedicated wildlife crossings within mountain lion range that provide opportunities for mountain lion to cross the alignment and maintain gene flow between the Sierra Nevada population and the south California/central coast ESU of mountain lion. One of these underground sections includes a 2.3-mile tunnel segment that crosses underneath the mountain lion least cost corridor (top 1 percent of movement habitat) modeled by South Coast Wildlands for the South Coast Missing Linkages Project: A Linkage Design for the Tehachapi Connection (Penrod et al. 2003). Further, the WCA describes temporary effects of constructions and permanent effects of maintenance and operations.

As discussed in Section 3.7.6.4 of this Final EIR/EIS, effective mitigation measures have been identified to reduce impacts on wildlife crossings and habitat linkages to a less than significant level by avoidance, protection, or restoration methods. These measures include: BIO-MM#36, BIO-MM#37, BIO-MM#42, BIO-MM#50, BIO-MM#56, BIO-MM#64, BIO-MM#77, BIO-MM#78, and BIO-MM#86, which would allow for the protection of habitat linkages. These measures would work together with design features to minimize or avoid impacts on wildlife crossings during construction activities so as not to interfere substantially with the movement of native wildlife species.

Response to Submission 968 (Tiffany Yap, Center for Biological Diversity, April 12, 2021) - Continued

968-1191

The commenter suggests continued habitat loss and fragmentation due to the project threatens the long-term survival of mountain lions throughout the proposed Southern California/Central Coast ESU of mountain lion, and requests more specific details regarding compensatory mitigation.

Mountain lion core and patch habitat would be quantified using the core and patch habitat developed by South Coast Wildlands and described in the South Coast Missing Linkages Project: A Linkage Design for the Tehachapi Connection (Penrod 2003). CDFW would approve the mitigation and ensure that the compensatory mitigation was adequate as part of the 2081 Incidental Take Permit process. The Compensatory Mitigation Plan (BIO-MM#53) would identify mitigation opportunities that could mitigate for multiple species at the same location where possible. However, at this time mitigation lands have not yet been identified.

As described in the WCA, Appendix I to the BARTR, the project will maintain genetic connectivity across the project linking the Western Sierra Nevada population with the southern California and central coast ESU of mountain lion through the species range through a combination of 14 elevated segments, six underground segments, and five dedicated wildlife crossings. The crossing opportunities includes a 2.3-mile tunnel segment through the mountain lion least cost corridor identified by South Coast Wildlands in the development of the South Coast Missing Linkages Project: A Linkage Design for the Tehachapi Connection (Penrod 2003). The number and spacing of crossing opportunities through viaducts, tunnels, and dedicated wildlife crossings reduces relative permeability for modeled mountain lion movement by only 1 percent across mountain lion species range.

968-1192

While this comment is not related to the new information about the monarch butterfly and Southern California/Central Coast Evolutionarily Significant Unit (ESU) of Mountain Lions as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here. Impacts associated with special-status wildlife habitat and wildlife movement are described in Section 3.7.4 of the EIR/EIS and will be avoided, minimized, or mitigated in accordance with applicable regulations and agency requirements, as specified in Section 3.7.4.2, Impact Avoidance and Minimization Features, and Section 3.7.7, Mitigation Measures. Section 3.7, Table 3.7-7, of this Final EIR/EIS lists special-status wildlife species and impacts on habitat for each B-P Build Alternative. The WCA, Appendix I of the BARTR [Authority 2018b], analyzed various-sized animals, and the wildlife movement features were based on these analyses. Additionally, specific wildlife movement impact and avoidance project features were developed to address impacts on wildlife movement are outlined as WM-IAMF #1 through WM-IAMF #6 in the WCA. These measures have been incorporated into the biological BIO-IAMFs, and the BIO-MMs outlined in Sections 3.7.4.2 and 3.7.7.2 of the Final EIR/EIS. These wildlife movement IAMFs and mitigation measures are discussed under Impact BIO#5 of the Final EIR/EIS and include avoidance of impediments to movement, measures to reduce impacts from night lighting and construction noise, wildlife exclusion fencing, measures for impacts from vehicle traffic, and restoration and revegetation plans for impacts on special-status species and wildlife movement corridors. Additionally, Section 3.7.4.2 outlines the IAMFs that will be implemented during design, construction, and operations of the project. Section 3.7.6 discusses the environmental consequences of the project alternatives, outlining potential biological and aquatic resource impacts. Sections 3.7.7.1 and 3.7.7.2 of this Final EIR/EIS outline detailed mitigation measures designed to reduce identified impacts to less-than-significant levels. Additionally, refer to Responses to Comments 777-312, 777-313, and 777-315 contained in Chapter 25 of this Final EIR/EIS.

Response to Submission 968 (Tiffany Yap, Center for Biological Diversity, April 12, 2021) - Continued

968-1193

The HSR Bakersfield to Palmdale Project Section maintains wildlife permeability across the alignment through a series of elevated viaducts, tunnels and dedicated wildlife crossings. The project includes 52 elevated viaducts, 9 underground tunnels and 39 dedicated wildlife crossings (Table 2-1 in the WCA, Appendix I in the BARTR). The Local Permeability Assessment, described in the WCA (Appendix I in the BARTR) modeled wildlife movement across a 6-kilometer-wide corridor using South Coast Wildlands movement data for select representative focal species and compared it with project conditions that prohibit wildlife from crossing at fenced at-grade segments. Because of the number, sizes, and distribution of the elevated viaducts, underground tunnels, and dedicated wildlife crossings, the project would reduce permeability for mountain lion by 1 percent, mule deer by 2 percent, American badger by 3 percent, San Joaquin kit fox by 1 percent, desert kit fox by 9 percent, desert tortoise by 7 percent, western gray squirrel by 2 percent, blunt-nosed leopard lizard by 1 percent, and Tipton kangaroo rat by 1 percent. Further, the Southern California/Central Coast ESU mountain lion occurs within the Tehachapi Mountains and interfaces with the Western Sierra Nevada mountain lion population along SR 58. Within the mountain lion species range, genetic connectivity is maintained between these populations through the use of 14 elevated viaducts, 6 underground tunnels, and 5 dedicated wildlife crossings. As part of the development of the South Coast Missing Linkages: A Linkage Design for the Tehachapi Connection (Penrod et al. 2003), South Coast Wildlands developed modeled least cost corridors (top 1 percent of movement habitat) for a number of focal species, including mountain lion. The mountain lion least cost corridor coincides with the HSR alignment at a 2.37-mile-long underground tunnel segment, which would allow mountain lion to freely cross over the project unimpeded.

The specific design of the proposed wildlife crossings have not been finalized at the current 15 percent stage of design. However, the Authority has committed to the size and design criteria for the designated wildlife crossings described in Section 7.3.4 of the WCA (Appendix I of the BARTR). Table 4-3 in the WCA (Appendix I of the BARTR) designates which species would be suitable for which crossing type. The remaining 34 dedicated wildlife crossings do not fall within mountain lion species range. All of the wildlife undercrossings within mule deer and mountain lion species range are 10-foot-tall arch to accommodate the larger species. The 10-foot-tall arch is based on documented use of mule deer using 10-foot-tall corrugated steel culvert undercrossings at US 191

968-1193

and US 91, both in Utah (Cramer 2013). As the HSR project design progresses, the Authority will consult with the CDFW and wildlife experts on the design of the dedicated wildlife crossings.

968-1194

The commenter states that mitigation should include protecting lands on both sides of the crossing sites.

Mitigation Measure BIO-MM#64 will guide the design of the wildlife crossings to be constructed for the project and includes provisions for vegetative cover at crossing entrances and separation from human use areas (e.g., trails, multiuse undercrossings)

968-1195

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast ESU of mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter is concerned about the specific design of the wildlife crossings The wildlife crossings will be designed and constructed consistent with the provisions of BIO-MM#64 and Section 7.3.4 of the WCA, Appendix I of the BARTR, and will be designed in consultation with qualified qualified wildlife biologists. Refer to responses to comments 1192 - 1194 for additional information regarding wildlife movement and crossings.

Response to Submission 968 (Tiffany Yap, Center for Biological Diversity, April 12, 2021) - Continued

968-1196

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast ESU of mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here. The commenter expresses concerns regarding the adverse effects of noise on wildlife habitat and behavior. In this Final EIR/EIS, the Authority has added provisions to minimize noise to BIO-MM#64.

968-1197

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast ESU of mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter expresses concern that the project lacks sufficient wildlife crossings. As described in the WCA, Appendix I of the BARTR, the HSR project includes 52 elevated segments, 9 underground segments, and 39 dedicated wildlife crossings where wildlife can cross the project alignment. The number and distribution of crossings throughout the length of the project provides the necessary corridor redundancy for regional wildlife connectivity.

968-1198

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast ESU of mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here. Inconsistencies within the document for the various species have been updated. Note Section 3.7.2.1 of the Draft EIR/EIS previously addressed the federal Bald and Golden Eagle Protection Act. Additionally, it is the Authority's intent is to minimize and avoid impacts to wildlife species through implementation of IAMFs (Section 3.7.4.2 of this Final EIR/EIS) and Mitigation Measures as provided in Section 3.7.7 of this Final EIR/EIS. Specifically, please refer to BIO-MM#'s 7, 8, 16, 30, 31, 45, 53, 56, 58, 65-67, and 69-71.

968-1199

The commenter suggests that the changes made to the RDEIR/SDEIS were insufficient and that changes were not made based on the Center for Biological Diversity comments on the Draft EIR/EIS. The Revised Draft EIR/Supplemental Draft EIS specifically analyzed the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation. The commenter's comments on the Draft EIR/EIS and the Authority's responses are included in Chapter 25 of this Final EIR/EIS (Submissions 714, 716, and 777) and Chapter 28 of this Final EIR/EIS (Submission 817).

Response to Submission 968 (Tiffany Yap, Center for Biological Diversity, April 12, 2021) - Continued

968-1200

The Revised Draft EIR/Supplemental Draft EIS was made available for a 45-day public review beginning on February 26, 2021 and ending on April 12, 2021, pursuant to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). On February 18, 2021 and in accordance with CEQA Guidelines 15087(a), a Notice of Availability was mailed to Ms. Ileene Anderson from the Center for Biological Diversity at the following mailing address: 660 S. Figueroa St., Suite 1000, Los Angeles, CA 90017. The Authority also published notices in the Federal Register (on February 26, 2021), on the Authority's website, and in the following newspapers of general circulation (CEQA Guidelines 15087(a)(1): Antelope Valley Press, Bakersfield.com, Bakersfield Californian, El Popular (Spanish), Rosamond News, and Tehachapi News.

Submission 879 (Rob Harding, Kern River Family Mortuary, March 12, 2021)

Bakersfield - Palmdale - RECORD #879 DETAIL

Status :	Action Pending
Record Date :	3/12/2021
Affiliation Type :	Business and/or Organization
Submission Date :	3/12/2021
Interest As :	Business and/or Organization
Submission Method :	Project Email
First Name :	Rob
Last Name :	Harding
Professional Title :	
Business/Organization :	Kern River Family Mortuary
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Apt./Suite No. :	
City :	Bakersfield
State :	CA
Zip Code :	93308
Telephone :	(661) 392-9010
Email :	krfm@att.net
Cell Phone :	
Email Subscription :	
Add to Mailing List :	
EIR/EIS Comment :	

Stakeholder Comments/Issues :

879-984 My name is Rob Harding. I am opposed to the hole High -Speed Rail coming to Bakersfield tearing up roads, building and waiting tax payers hard urn money. This High - Speed Rail is a train to know where.

Kern River Family Mortuary
1900 N. Chester Ave.
Bakersfield, Ca. 93308
661-392-9010 (Phone)
661-392-9031 (Fax)
krfm@att.net e-mail

Response to Submission 879 (Rob Harding, Kern River Family Mortuary, March 12, 2021)

879-984

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The comment presents the commenter's opinion on the Bakersfield to Palmdale Project Section. CEQA requires a final EIR to evaluate environmental issues in comments on a Draft EIR/EIS or Revised Draft EIR/Supplemental Draft EIS and to respond to the comments received on significant environmental issues (see 14 CCR §15088(a)). NEPA requires that the Final EIS responds to comments on substantive issues. (40 C.F.R. §1503.4) The comment expresses the commenter's views on the Bakersfield to Palmdale Project Section, but does not address a substantive environmental issue in the Draft EIR/EIS or Revised Draft EIR/Supplemental Draft EIS.

Submission 928 (H. Tracey Brownfield, Land Veritas Corp., April 9, 2021)

Bakersfield - Palmdale - RECORD #928 DETAIL

Status :	Action Pending
Record Date :	4/12/2021
Affiliation Type :	Business and/or Organization
Submission Date :	4/9/2021
Interest As :	Business and/or Organization
Submission Method :	Project Email
First Name :	H. Tracey
Last Name :	Brownfield
Professional Title :	President
Business/Organization :	Land Veritas Corp.
Address :	1001 Bridgeway
Apt./Suite No. :	Suite 2050
City :	Los Angeles
State :	CA
Zip Code :	90071
Telephone :	(415) 729-3733
Email :	tracey@landveritas.com
Cell Phone :	
Email Subscription :	
Add to Mailing List :	
EIR/EIS Comment :	
Attachments :	2021-04-09_Land Veritas_Revised Draft EIR Comment Letter_HSR Bakersfield to Palmdale.pdf (3 mb)

Stakeholder Comments/Issues :

Hello,

Please find attached a comment on the Revised Draft EIR/Supplemental Draft EIS for the High Speed Rail Bakersfield to Palmdale Section, submitted on behalf of Land Veritas Corp.

Thank you,
Marlene Tyner-Valencourt

--

MARLENE TYNER-VALENCOURT, MESM |? ?Conservation Project Manager |? ?d: 858.682.2699 <(858)%20682-2699> | o: 858.842.1800 x 2210 <(858)%20842-1800> |? ?c: 248.499.0805 <(248)%20499-0805> |? ?tyner-valencourt@wra-ca.com WRA, Inc. |? ?www.wra-ca.com |? ?3033 5th Avenue, Suite 315, San Diego, CA 92103 |? ?San Rafael |? ?Emeryville |? ?Petaluma | Fort Bragg |? ?Denver *Our San Diego office has moved! Please note our new address.*

928-1090

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Land Veritas Corp.
1001 Bridgeway, Suite 246
Sausalito, CA 94969

April 9, 2021

California High-Speed Rail Authority
355 S. Grand Avenue, Suite 2050
Los Angeles, CA 90071

Subject: Revised Draft EIR/Supplemental Draft EIS for the Bakersfield to Palmdale Project Section (SCH #2009082062)

Dear High-Speed Rail Authority:

Thank you for the opportunity to provide comments on the joint Revised Draft Environmental Impact Report (EIR) and Supplemental Environmental Impact Statement (EIS), published for the California High Speed Rail (HSR) Bakersfield to Palmdale (B-P) section.

Land Veritas Corp. is the Bank Sponsor of the Petersen Ranch Mitigation Bank (Bank), located in Los Angeles County. We submitted a comment letter in response to the Draft EIR/Supplemental Draft EIS for the Bakersfield to Palmdale Project Section on April 28, 2020 (Attachment 1). This letter is to provide additional comment based on the Revised Draft EIR/EIS dated February 2021.

The Revised Draft EIR/EIS focuses on the updated listing status of the monarch butterfly (*Danaus plexippus*) under the federal Endangered Species Act (ESA) and mountain lion (*Puma concolor*) under the California Endangered Species Act (CESA), and provides additional impact assessments and avoidance and mitigation measures to reduce the impact of the B-P project on each species.

Mitigation Measure BIO-MM#83 has been added to Provide Compensatory Mitigation for Impacts on Monarch Butterfly Breeding and Foraging Habitat. This Mitigation Measure references BIO-MM#53 for strategies on how to secure compensatory mitigation for monarch breeding and foraging habitat. Monarch butterfly breeding and foraging habitat requirements include a diversity of nectar resources and plentiful populations of milkweed (*Asclepias* spp.) species. In arid portions of the West, which hosts a regionally-significant migratory population of monarch, these resources are both most plentiful and of highest ecological importance within riparian corridors and water-dependent habitats[1]. The Bank is located within the Western monarch butterfly population unit and boasts a complex landscape of arid washes and plains, seasonal wet meadows, and riparian corridors that support this suitable habitat.

Mitigation Measure BIO-MM#85, entitled 'Prepare Compensatory Mitigation for Impacts on Mountain Lion Core and Patch Habitat', references BIO-MM#53 for strategies on how to secure mitigation for

[1] U.S. Fish and Wildlife Service. 2020. Monarch (*Danaus plexippus*) Species Status Assessment Report. V2.1 96 pp + appendices.

Submission 928 (H. Tracey Brownfield, Land Veritas Corp., April 9, 2021) - Continued

928-1090

impacts to breeding/foraging habitat, high-priority foraging and dispersal habitat, and low-priority foraging and dispersal habitat within mountain lion core and patch habitats. The Bank is located within mountain lion patch habitat[2] and mountain lions have been observed utilizing the Bank's many preserved, enhanced, and restored habitats.

Both mitigation measures recommend securing mitigation via credit purchases from approved mitigation banks as one strategy to provide compensatory mitigation for impacts to monarch butterfly and mountain lion. However, many existing, approved mitigation banks may not have specifically-designated credits for newly listed special-status species. Additionally, ESA-candidate species such as the monarch butterfly may not be reflected in approved mitigation bank credits, even if there is a documented presence of the species at a given mitigation bank.

The Petersen Ranch Mitigation Bank currently offers habitat-specific CEQA preservation credits to provide mitigation for natural resources protected through CEQA mitigation measures, and we have information on the use of the habitats underlying these credits by special-status species, including mountain lion and monarch butterfly. We recommend the mitigation measures BIO-MM#83 and BIO-MM#85 be worded to allow the use of suitable natural community/vegetation based mitigation credits from mitigation banks to provide compensatory mitigation for species like the mountain lion and monarch butterfly whose listing status changed following bank entitlement and approval.

We thank you for the opportunity to provide comments on this project and hope you consider the Petersen Ranch Mitigation Bank as a future partner, as we can compensatory mitigation that achieves compliance while providing superior environmental outcomes.

Sincerely,

H. Tracey Brownfield
President, Land Veritas Corp.

tracey@landveritas.com
P: 415.729.3733

Enclosures

Attachment 1:

Draft EIR/Supplemental Draft EIS for the Bakersfield to Palmdale Project Section – Land Veritas Comment Letter submitted on April 28, 2020

[2] Science and Collaboration for Connected Wildlands. 2013, Aug. 1. Mountain Lion Connectivity Modeling for the California Desert Linkage Network [ds824]. California Department of Fish and Wildlife. Biogeographic information and Observation System (BIOS). Retrieved April 6, 2021 from http://bios.dfg.ca.gov

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Submission 928 (H. Tracey Brownfield, Land Veritas Corp., April 9, 2021) - Continued

LAND VERITAS

Land Veritas Corp.
1001 Bridgeway, Suite 246
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April 28, 2020

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

Subject: Draft EIR/EIS for the Bakersfield to Palmdale Project Section (SCH #2009082062)

Dear High-Speed Rail Authority:

Thank you for the opportunity to provide comments on the joint Draft Environmental Impact Report (EIR) and Environmental Impact Statement (EIS) published for the California High Speed Rail (HSR) Bakersfield to Palmdale (B-P) section.

Land Veritas Corp. is the Bank Sponsor of the Petersen Ranch Mitigation Bank (Bank), located in Los Angeles County. The Bank was approved in 2016 by the Lahontan Regional Water Quality Control Board (RWQCB), United States Army Corps of Engineers (USACE), the United States Environmental Protection Agency (EPA), and the California Department of Fish and Wildlife (CDFW) to sell mitigation credits for impacts to protected resources. The Bank includes over 4,100 acres of natural habitats, the regular management and maintenance of which is funded through a non-wasting endowment. Importantly, the Bank's Service Area, defining the area in which the Bank can sell credits, covers the Antelope Valley portion of the HSR B-P section.

The Bank sells credits which can be used to offset impacts regulated by Sections 401 and 404 of the Clean Water Act, Section 1602 of the California Fish and Game Code, the Porter Cologne Water Quality Act, the California Endangered Species Act (CESA) and the California Environmental Quality Act (CEQA). The Bank's credits include aquatic resources such as seasonal wetlands, ephemeral streams, alluvial floodplains, and riparian habitats, Swainson's hawk foraging credits, and covered habitats such as riparian forests, valley and foothill grasslands, mixed chaparral communities, and great basin scrub. Nearly all 4,100 acres of the Bank Property is credited for Swainson's hawk foraging habitat, and actively foraging Swainson's hawks have been observed onsite.

The Bank is located within important wildlife migratory corridors, and while it has already been credited for the resources listed above, it is also suitable habitat for several other special status plant and animal species that HSR could potentially impact. Wildlife species potentially impacted by HSR and observed at the Bank include but are not limited to Blainville's horned lizard, western pond turtle, loggerhead shrike, burrowing owl, northern harrier, and tricolored blackbird.

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Approximately 2,500 acres of the Bank Property are not yet under conservation easement. Mitigation projects can therefore be planned and implemented on unencumbered portions of the Bank Property to match specific project impacts for the B-P section, including the possible translocation of impacted special-status plant species.

Land Veritas has reviewed the HSR B-P Section DEIR/DEIS and presents the following comments on specific Biology Mitigation Measures (BIO-MM) included therein:

Prepare a Compensatory Mitigation Plan (CMP) for Species and Species Habitat (BIO-MM#53) and Aquatic Resources (BIO-MM#47): The CMPs defined in BIO-MM#53 and BIO-MM#47 identify several methods to provide mitigation for impacts to protected species, habitats, and aquatic resources, including purchasing mitigation credits from an agency-approved mitigation bank. Both the joint USACE and EPA 2008 Mitigation Rule (33 C.F.R. 325 and 332, 40 C.F.R. 230) and the state wetland policy for California (California State Water Resource Control Board, 2019) specify a preference for purchasing credits from approved mitigation banks over other forms of compensatory mitigation. This preference was established because mitigation banks avoid temporal loss of function to impacted resources, must be managed and funded in perpetuity, are protected via permanent conservation easement, and are subject to a high degree of regulatory oversight relative to other options. The CMPs defined in BIO-MM#53 and BIO-MM#47 should be written consistent with state and federal guidance and state a preference for the purchase of mitigation credits over other forms of compensatory mitigation to provide consistency with these policies and ensure impacts due to temporal loss are less than significant.

BIO-MM#47 - Prepare and Implement a CMP for Impacts to Aquatic Resources: Currently, BIO-MM#47 does not define a geographic area in which compensatory mitigation for aquatic resources must be located. Aquatic resource mitigation for impacts to Waters of the State and riparian habitats should take place within the HUC-8 of original impacts or at an approved mitigation bank with a service area that covers the impact sites to ensure functional replacement at the watershed level. Following this watershed approach to compensatory mitigation is required for the project to be consistent with joint USACE and EPA 2008 Mitigation Rule (33 C.F.R. 325 and 332, 40 C.F.R. 230) and the state wetland policy for California (California State Water Resource Control Board, 2019). As with other forms of mitigation, preference should be given for credits from approved mitigation banks, and mitigation ratios should distinguish between mitigation type. While we support the fact that mitigation ratios are provided for given aquatic resource types, ratios should be specified for selected mitigation types as well (e.g. preservation, enhancement, and rehabilitation) to ensure no net loss of aquatic resource function as the mitigating value of these different approaches are not equal.

BIO-MM#43 - Provide Compensatory Mitigation for Loss of Swainson's Hawk Habitat: Land Veritas agrees with HSR's determination to follow Central Valley guidance (Swainson's Hawk Technical Advisory Committee, 2000) for Swainson's hawk surveys within the Central Valley, and Antelope Valley guidance (California Energy Commission [CEC] and California Department of Fish and Game [CDFG], 2010) for surveys within the Antelope Valley, as Swainson's hawk populations within those two regions are distinct. However, while survey methods identified in the EIR follow these regional guidelines, the compensatory mitigation requirements outlined in BIO-MM#43 do not. Antelope Valley mitigation guidance calls for a minimum 2:1 mitigation ratio for impacts to Swainson's hawk foraging habitat impacted within a five-mile

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Submission 928 (H. Tracey Brownfield, Land Veritas Corp., April 9, 2021) - Continued

radius of an active nest, that mitigation lands are located within the Antelope Valley Swainson's hawk breeding range, that adequate funding for long-term management of mitigation lands is included, and durable protection is provided via permanent conservation easement.

The California Environmental Quality Act clearly requires assessment of impacts to wildlife populations, (PRC § 21001(c), CCCR Title 14, Division 6, Chapter 3, §15065(a)(1)), as such the EIR should analyze the potential for significant impacts, and any required mitigation measures for the two distinct populations of Swainson's hawk (Antelope Valley and Central Valley) independently. The EIR does not adequately address the impacts associated with loss of foraging habitat on the Antelope Valley population of Swainson's hawk and Mitigation Measure (BIO-MM#43 should include compensatory mitigation provisions consistent with existing regional guidance. Additionally, the purchase of mitigation credits which meet the above criteria should be prioritized over other forms of mitigation as outlined in BIO-MM#53.

BIO-MM#70 - Provide Compensatory Mitigation for Impacts on Tricolored Blackbird: For species-specific mitigation, compensatory mitigation is typically required to be located in areas of documented use by the species. BIO-MM#70 should specify this requirement for tricolored blackbird. Given its reduced range and level of threat, this should be required to adequately contribute to the recovery of the species.

BIO-MM#38 - Compensate for Impacts to Listed Plant Species: Compensatory mitigation for impacts to federal- and state-listed plant species should differentiate between and assign appropriate mitigation ratios based on mitigation type (e.g. re-establishment, rehabilitation, enhancement, and preservation). These ratios should be determined based on species-specific requirements and likelihood of the success of a proposed mitigation solution. Additionally, translocation to suitable habitats should be listed as an allowable action within BIO-MM#38.

We thank you for the opportunity to provide comments on this project and hope you consider the Petersen Ranch Mitigation Bank as a future partner, as we can compensatory mitigation that achieves compliance while providing superior environmental outcomes.

Sincerely,

H. Tracey Brownfield
President, Land Veritas Corp.

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References

California Energy Commission and California Department of Fish and Game. 2010. Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California. Sacramento, CA.

California State Water Resources Control Board. 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. Online: https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/procedures_conformed.pdf

Department of the Army, Corps of Engineers. 2008. Compensatory Mitigation for Losses of Aquatic Resources; Final Rule. Department of Defense 33 C.F.R. 325 and 332. Online: https://www.sac.usace.army.mil/Portals/43/docs/regulatory/Final_Mitigation_Rule.pdf

Environmental Protection Agency. 2008. Compensatory Mitigation for Losses of Aquatic Resources; Final Rule. EPA 40 C.F.R. 230. Online: https://www.sac.usace.army.mil/Portals/43/docs/regulatory/Final_Mitigation_Rule.pdf

Swainson's Hawk Technical Advisory Committee. 2000. Recommended Timing and Methodology for Swainson's hawk Nesting Surveys in California's Central Valley. Sacramento, CA.

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Submission 928 (H. Tracey Brownfield, Land Veritas Corp., April 9, 2021) - Continued

Appendix A

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Submission 928 (H. Tracey Brownfield, Land Veritas Corp., April 9, 2021) - Continued

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PETERSEN RANCH MITIGATION BANK

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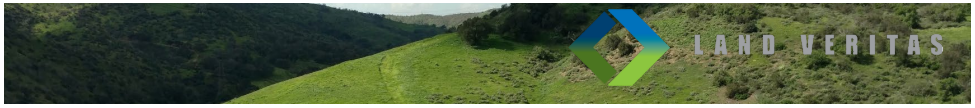
Submission 928 (H. Tracey Brownfield, Land Veritas Corp., April 9, 2021) - Continued



PETERSEN RANCH MITIGATION BANK

Summary

Land Veritas (LV), a Women-Owned Business Entity, is the sponsor of The Petersen Ranch Mitigation Bank (Bank). The Bank was approved and received its first credit release in June 2016. The United States Army Corps of Engineers (Corps), Environmental Protection Agency (USEPA), Lahontan Regional Water Quality Control Board (Lahontan RWQCB) and California Department of Fish and Wildlife (CDFW) are signatory participants in the Interagency Review Team (IRT) that reviewed and approved the Bank over a 5+ year entitlement process.

Located in unincorporated Leona Valley, Los Angeles County, California, the Bank contains approximately 4,103 acres and consists of two properties: The Petersen Ranch Bank Property (approximately 3,789 acres) and the Elizabeth Lake Bank Property (approximately 314 acres), as shown in Exhibit A.

Implementing the Bank's Development Plan established/re-established, rehabilitated, enhanced, and/or preserved of hundreds of acres of aquatic features, including streams, wetlands, alluvial floodplains, and non-wetland riparian areas. These actions generated credits that can be used to mitigate for impacts authorized through Section 404 of the Clean Water Act (404 Credits), the Porter-Cologne Water Quality Control Act (PC Credits), Section 1600 of the California Fish and Game Code (1600 Credits), the California Environmental Quality Act (CEQA Credits) and the California Endangered Species Act (CESA Credits). The Bank Property contains habitat for Swainson's hawk (state threatened species) as well as other special-status species including, but not limited to, western pond turtle, tricolored blackbird and coast horned lizard, as well as several sensitive vegetation communities.

The Bank Properties are being established in multiple phases across six geographic areas (Areas A – F). Restoration of Area A of the Petersen Ranch Property and Area E of the Elizabeth Lake Property were completed in 2016. Subsequent phases will be constructed and incorporated into the Bank over time. The Bank Properties will be managed in perpetuity with funding provided by a non-wasting endowment**.** The Southwest Resource Management Association is a CDFW-approved non-profit land trust and holds both the conservation easement and endowment.

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REGULATIONS COVERED

The Bank has five credits categories that can mitigate for impacts associated with the following regulations:

404 Credits:

- Section 10 of the Rivers and Harbors Act,
- Section 404 of the Clean Water Act,
- Section 401 of the Clean Water Act,

Porter Cologne Credits:

- the Porter Cologne Water Quality Control Act,

1600 Credits:

- Section 1600 et seq. of the California Fish and Game Code,

Swainson's Hawk Credits:

- the California Endangered Species Act,

CEQA Credits:

- the California Environmental Quality Act

Though not a signatory to the Bank, the Los Angeles Regional Water Quality Control Board has authorized permittees to purchase credits from the Bank to satisfy 401 certification requirements.

SERVICE AREA

Attached are service areas for each category of credits that are available. Service areas are the areas in which Mitigation and Conservation Banks can sell credits; however, impacts outside of the service areas can use Bank credits on a case-by-case basis upon regulatory approval. The service area maps also show the approximate location of High Speed Rail alignment.

The Elizabeth Lake property is an inholding within the Angeles National Forest and therefore suitable for mitigation on federal lands (see attached maps). While the Elizabeth Lake property is located within the Santa Clara River watershed, the Petersen Ranch property is located at the headwaters of two major watersheds, as the divide between the Santa Clara River and Antelope Valley-Fremont Valley watersheds bisects the Ranch. This results in a large service area in which the Bank's credits can be sold.

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Submission 928 (H. Tracey Brownfield, Land Veritas Corp., April 9, 2021) - Continued

LAND VERITAS

PRICING

Each of the Bank's credit categories overlap to form a bundled credit that can be used to mitigate for resources under multiple jurisdictions simultaneously. As a result, each credit is assigned a "Price Tier" based on the highest valued component within the bundle. For example; a Chaparral CEQA credit that overlaps with a 404 credit is assigned a higher Price Tier than a Chaparral CEQA credit that cannot be used for 404 mitigation. There are twelve different credit price tiers, ranging from the highest for 404 re-establishment credits to the lowest for Swainson's hawk credits. Credit prices vary across a wide range, and can be provided through a direct consultation with the Bank Sponsor.

404 CREDITS AND PORTER COLOGNE CREDITS

404 Credits and PC Credits can mitigate for impacts associated with waters and wetlands of the United States and waters and wetlands of the State. All 404 Credits are either classified as re-establishment or preservation, including riparian and upland buffer preservation credits. These credits cover numerous habitats including:

- **Alluvial Floodplains**: Diverse alluvial fan habitats containing complexes of braided ephemeral streams and riparian habitats.
- **Ephemeral Streams**: Single thread seasonal streams and associated riparian habitats.
- **Freshwater Marsh**: Seasonal to Perennial wetlands containing cattails and rushes and supporting special status species including western pond turtle and tri-colored blackbird.
- **Open Water**: Mostly perennial deeply ponded areas providing important food and water sources for wildlife and supporting aquatic habitat for western pond turtle and amphibians.
- **Seasonal Wetland**: Seasonally flooded depressions and large meadow complexes dominated with wetland grasses, rushes and sedges.
- **Wetland Riparian**: Wetland habitats with understory similar to seasonal wetlands and a diverse shrub and tree canopy of mulefat, willows, elderberry, cottonwoods and other riparian species.

1600 CREDITS

1600 credits can be used to offset impacts to CDFW regulated resources authorized under a Lake and Streambed Alteration Agreement. These credits include the following habitats which are the same as those described under the 404 Credits and PC Credits, except where noted:

- Alluvial Floodplain
- Ephemeral Stream
- Freshwater Marsh
- Open Water
- Seasonal Wetland
- Wetland Riparian

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LAND VERITAS

- **Non-wetland Riparian**: A diverse mixture of riparian habitats ranging from xeric desert riparian scrub to upland Fremont cottonwood forests.

For each of the above habitats the Bank has the following 1600 credit types:

- **Re-established:** Restoration of an upland habitat into an aquatic habitat in a location that was historically aquatic but had been converted to uplands through past human disturbance. This credit type comes from restoration activities that increase the amount of aquatic habitats within the Bank.
- **Rehabilitated:** Restoration of an existing, but degraded, aquatic habitat into a high quality habitat. This credit type comes from multiple restoration activities that work together to repair a previously impacted habitat to its natural condition.
- **Enhanced**: Improvement of an existing aquatic habitat through vegetation management or planting.
- **Preserved**: Protection of a high quality existing habitat.

SWAINSON'S HAWK CREDITS

Nearly the entire Bank generates foraging credits for Swainson's hawk. Potential nesting habitat has also been identified within the Bank, but nesting Swainson's hawks have not been observed.

CEQA CREDITS

CEQA credits can be used to offset impacts to natural vegetation communities. These credits cover multiple habitat types including the following:

- Bare Ground
- Chaparral
- Cismontane woodland, pinyon-juniper woodland
- Great Basin scrub
- Non-native woodland
- Open water
- Riparian forest
- Riparian scrub
- Seeps, meadows, marshes
- Valley and foothill grassland

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Submission 928 (H. Tracey Brownfield, Land Veritas Corp., April 9, 2021) - Continued

Attachment 1: Figures

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Submission 928 (H. Tracey Brownfield, Land Veritas Corp., April 9, 2021) - Continued

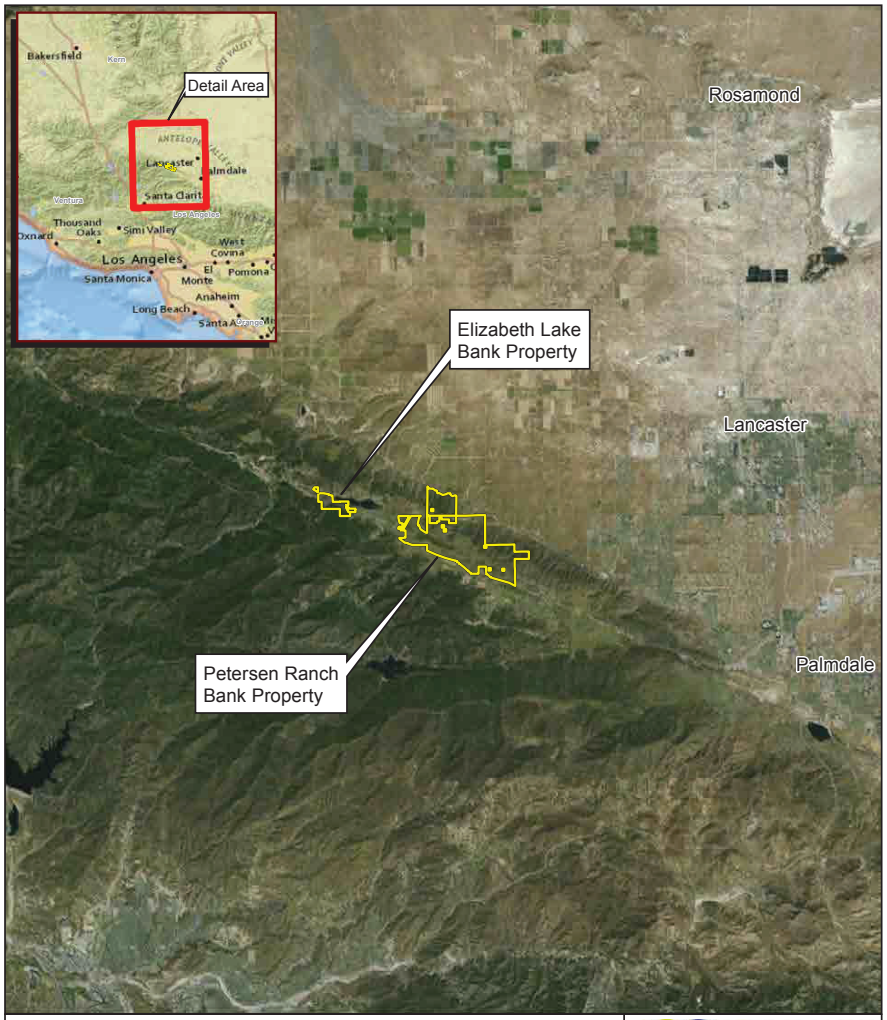


Figure 1: Location Map

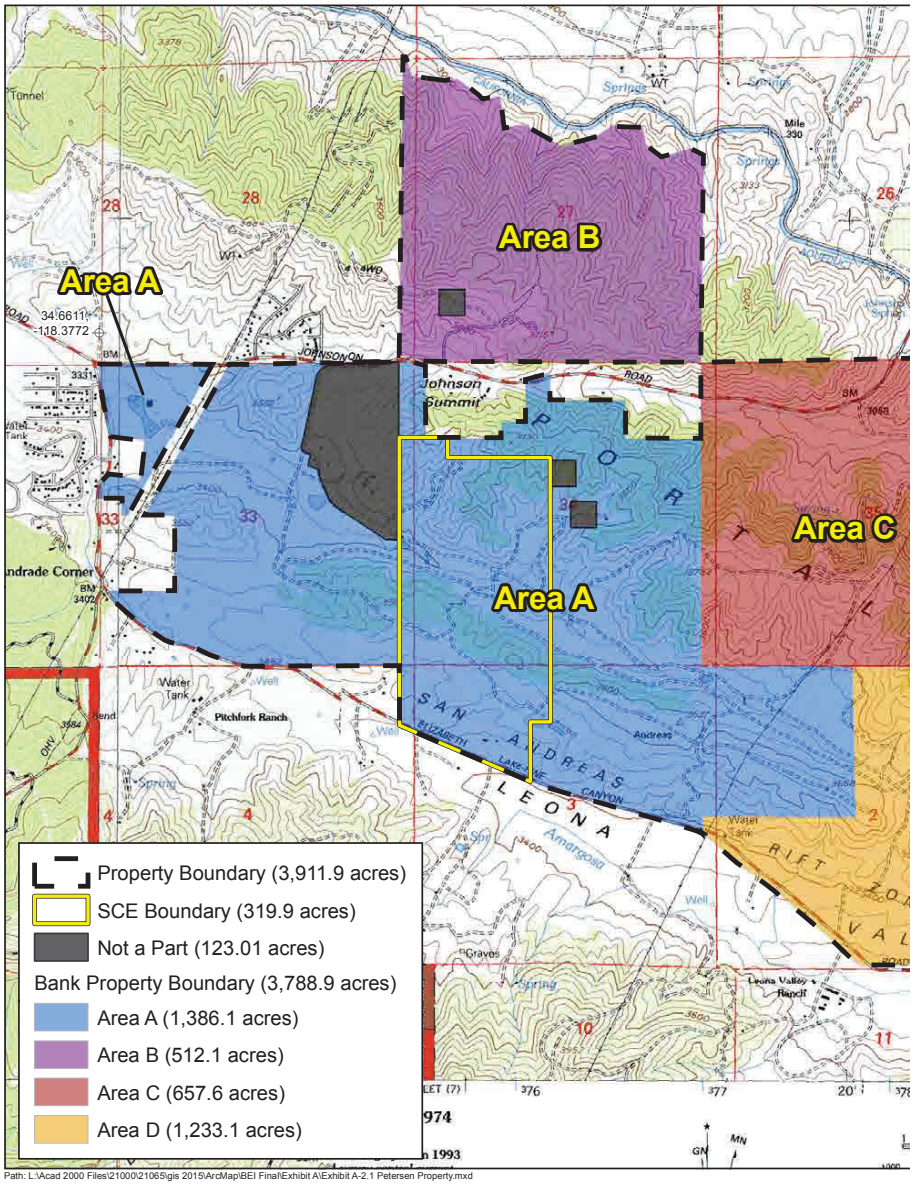
Petersen Ranch Mitigation Bank
Los Angeles County, California

0 3.5 7
Miles

wra
ENVIRONMENTAL CONSULTANTS

Map Date: June 2015
Map By: Chris Zumwalt
Base Source: ESRI Microsoft 5/8/2010

Path: L:\Acad 2000 Files\21000\21065\gis 2015\ArcMap\BEI Final\Exhibit A\Exhibit A-1 Location.mxd



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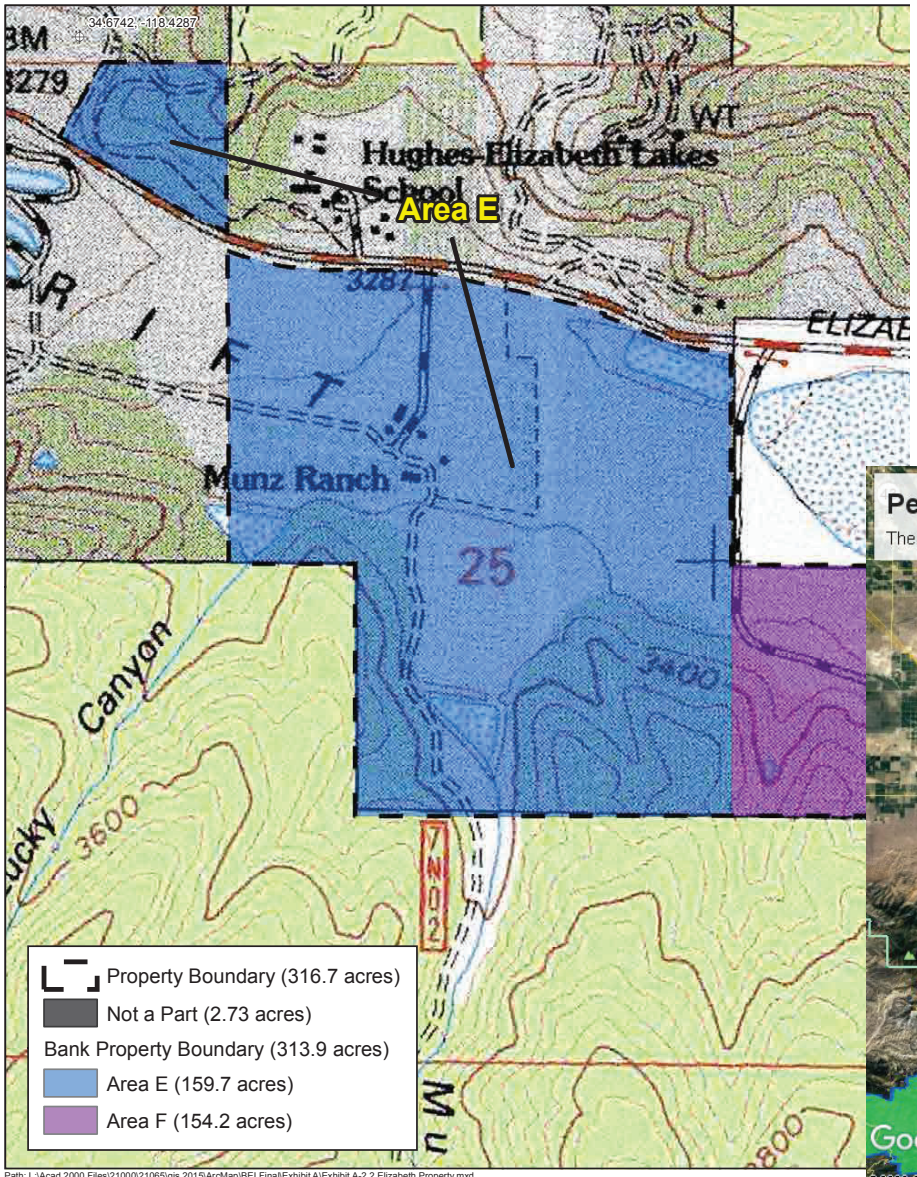
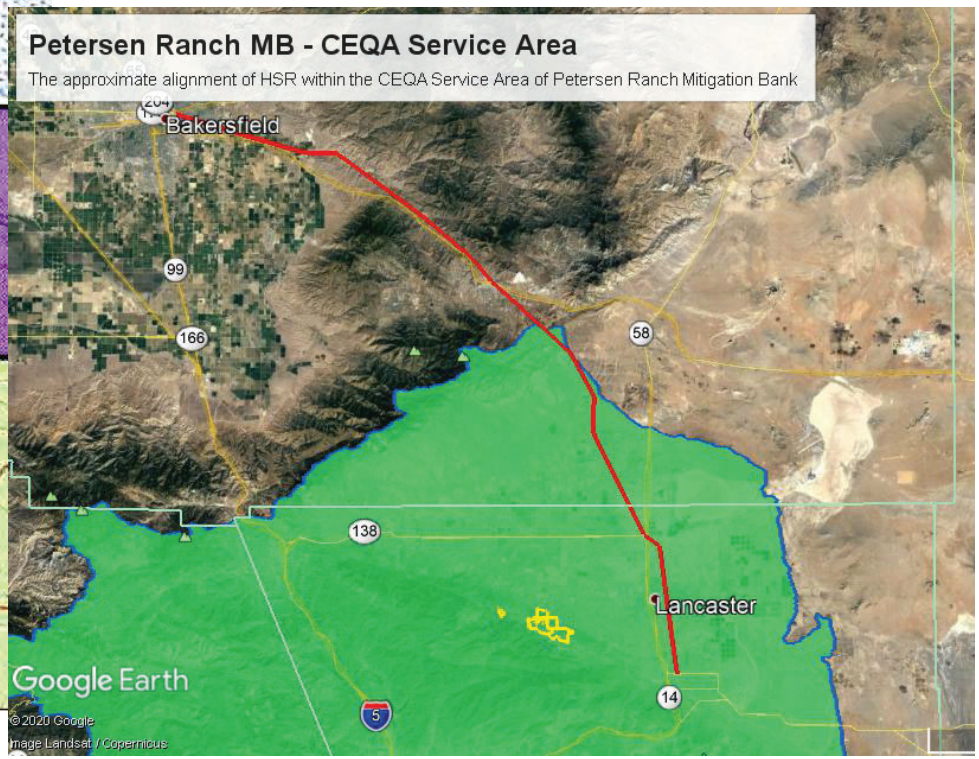
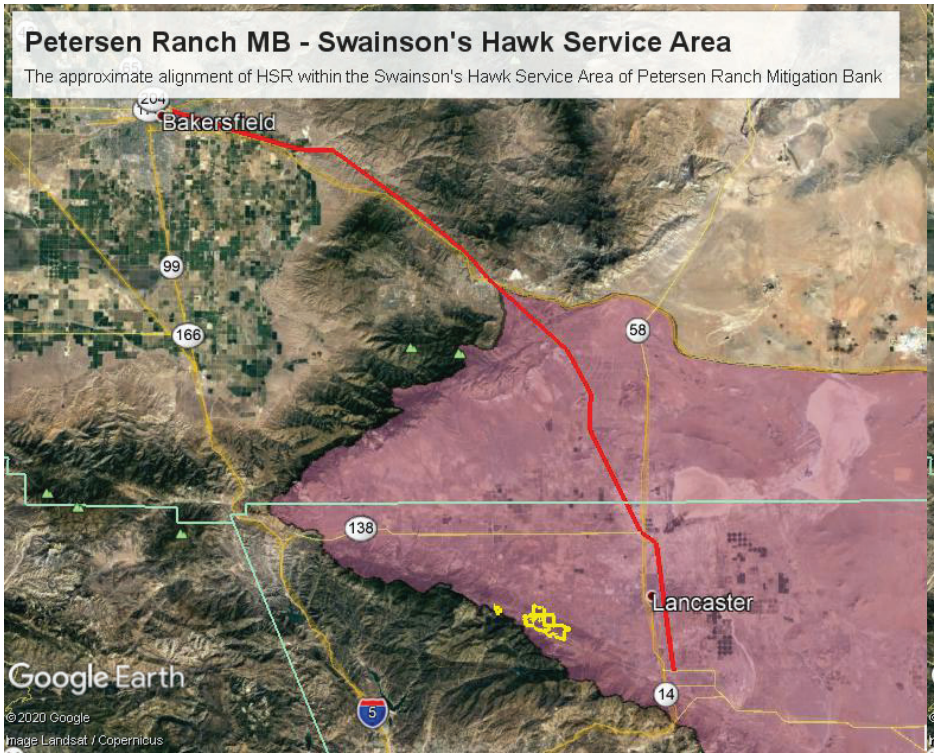
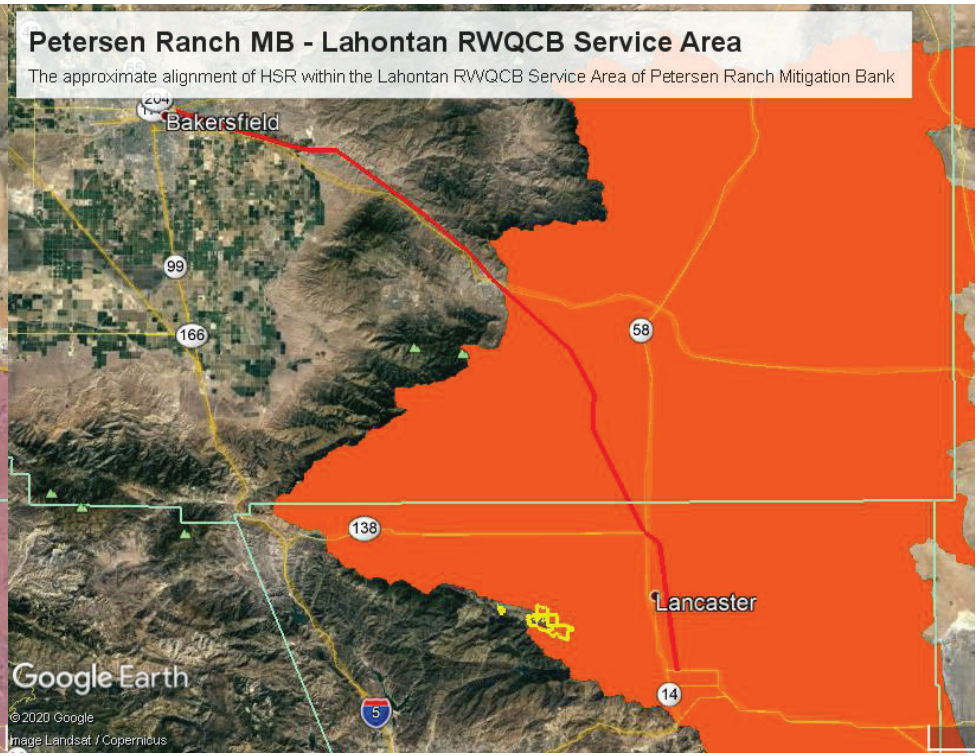
Submission 928 (H. Tracey Brownfield, Land Veritas Corp., April 9, 2021) - Continued



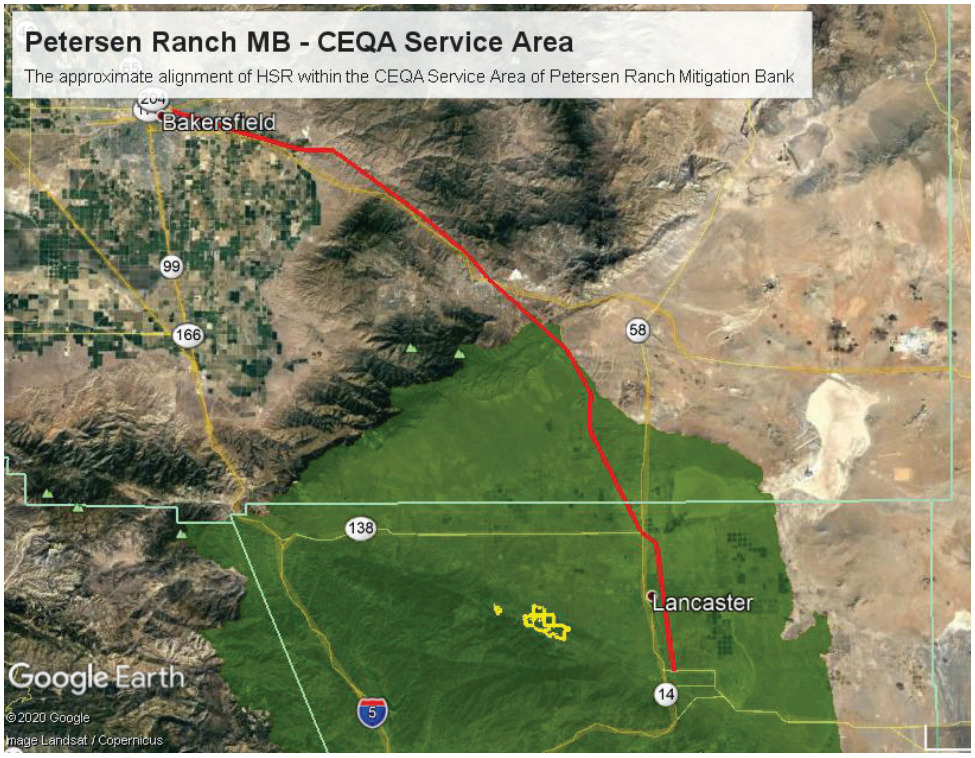


Submission 928 (H. Tracey Brownfield, Land Veritas Corp., April 9, 2021) - Continued





Submission 928 (H. Tracey Brownfield, Land Veritas Corp., April 9, 2021) - Continued



Response to Submission 928 (H. Tracey Brownfield, Land Veritas Corp., April 9, 2021)

928-1090

The commenter notes that the newly added Mitigation Measures BIO-MM#83 and BIO-MM#85 reference BIO-MM#53 for strategies on how to secure mitigation for impacts to breeding/foraging habitat of the Monarch butterfly, and breeding/foraging habitat, high-priority foraging and dispersal habitat, and low-priority foraging and dispersal habitat within mountain lion core and patch habitats. The commenter notes that one strategy outlined in BIO-MM#53 recommends securing mitigation via credit purchases from approved mitigation banks. The commenter expresses concern that existing, approved mitigation banks may not yet have specifically designated credits for newly listed species such as the Monarch butterfly and mountain lion, and suggests that BIO-MM#83 and BIO-MM#85 be worded to allow the use of suitable natural community/vegetation based mitigation credits from mitigation banks to provide compensatory mitigation for species like the mountain lion and monarch butterfly whose listing status changed.

BIO-MM#83 and BIO-MM#85 outline the ratios at which impacted habitat should be replaced, and refer to BIO-MM#53 for the strategies for compensatory habitat selection. Per BIO-MM#53, the Authority will prepare a Compensatory Mitigation Plan (CMP) that sets out the compensatory mitigation that will be provided to offset permanent and temporary impacts to federal and State-listed species and their habitat, fish and wildlife resources regulated under Section 1600 et seq. of the Fish and Game Code, and certain other special-status species. The CMP will include the following with regards to selection of appropriate habitat compensation: a description of the species and habitat types for which compensatory mitigation is being provided; a description of the methods used to identify and evaluate mitigation options. If mitigation banks do not have specifically-designated credits for newly listed species such as the monarch butterfly and the mountain lion, the CMP(s) will provide an overview of the strategy for mitigating effects to species including location of appropriate compensatory habitat. The CMP(s) will be subject to regulatory agency review and approval. Because BIO-MM#53 already outlines the ways that appropriate habitat would be compensated, and because BIO-MM#83 and BIO-MM#85 outline ratios for compensation but not the specifics of compensatory habitat mitigation selection, there is no need to include wording allowing the use of suitable natural community/vegetation based mitigation for species whose listing status has changed after the approval of mitigation banks has occurred. No change has been made to this Final EIR/EIS in response to this comment.

Submission 951 (Alex Mullenax, Mullenax Ranch, LLC, April 12, 2021)

Bakersfield - Palmdale - RECORD #951 DETAIL

Status :	Action Pending
Record Date :	4/12/2021
Affiliation Type :	Business and/or Organization
Submission Date :	4/12/2021
Interest As :	Business and/or Organization
Submission Method :	Website
First Name :	Alex
Last Name :	Mullenax
Professional Title :	Owner
Business/Organization :	Mullenax Ranch, LLC
Address :	
Apt./Suite No. :	
City :	Tehachapi
State :	CA
Zip Code :	93561
Telephone :	6612383072
Email :	mullenax.info@gmail.com
Cell Phone :	
Email Subscription :	Bakersfield to Palmdale
Add to Mailing List :	Yes
EIR/EIS Comment :	

Stakeholder Comments/Issues :

951-1150 Our business and residence would be very negatively affected by the sound of the close proximity of the HSR route through Tehachapi. Our business specializes in breeding conservation of threatened or special interest
951-1151 livestock. Many of our neighbors are affected on a greater scale, with some losing their house or business completely. The primary areas affected in Tehachapi are zoned Residential Estate properties. We are concerned about falling property values and quality of life for those closest to the route and the environmental impact to the area.

951-1152 While I'm not as familiar with the Monarch Butterfly, I do recognize the migratory habitat is important to their survival. The unique flora of Tehachapi's micro-climate is special to the state. Over the last year our business has worked with CA Fish & Wildlife to help conserve the sub-species of Mountain Lion unique to the Tehachapi area. The mountains in Tehachapi near Highline Road and Tehachapi Willow Springs Road are an integral part of the habitat here for the lion and black bear population.

951-1153 I understand HSRA had other possible routes identified earlier on in the project. My understanding is limited, but my impression was at least one of the other routes bypassed Tehachapi City and its outlying Residential
951-1154 Estate communities. As there is no train stop in Tehachapi, noise mitigation plans have been set aside, and no positive impact or benefit to Tehachapi area residents we beseech HSRA to please examine the impact to our small and peaceful community. Tehachapi is like stepping out of California for a moment, with small town atmosphere and character. It's not like anywhere else we've traveled and there's something very special about this area and the community itself. I sincerely hope HSRA will think about what actions can lesson the impact to the area, both environmental and for us humans too. Thank you for your time.

Response to Submission 951 (Alex Mullenax, Mullenax Ranch, LLC, April 12, 2021)

951-1150

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter indicates that their business and residence would experience noise impacts in Tehachapi. Based on information available to the Authority, parcels associated with the Mullenax Ranch are located roughly four miles south of the City of Tehachapi, and roughly one mile from the proposed alignment, and are therefore outside of the resource study areas for noise (I.e., within approximately 2,500 feet of the alignment) and vibration (i.e., within 275 feet of the alignment), as they would not be impacted.

951-1151

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter expresses concerns about impacts to property values and quality of life in Tehachapi. Refer to Response to Comment 741-82, contained in Chapter 22 of this Final EIR/EIS.

951-1152

The commenter states that they recognize Tehachapi's unique habitat and that they have worked with CDFW to protect mountain lions in the Tehachapi area. The Authority is committed to using avoidance and minimization measures to protect species and will work with state and federal wildlife agencies throughout the construction period. There are four elevated viaduct segments within 1.25 miles of the intersection of Highline Road and Tehachapi Willow Springs Road and a 2.4 mile tunnel segment 1.4 miles southeast of that intersection that can be used by mountain lion and black bear to cross the HSR alignment. This underground tunnel segment is also the top 1 percent of mountain lion habitat that was identified by South Coast Wildlands in the South Coast Missing Linkages Project: A Linkage Design for the Tehachapi Connection (Penrod et al. 2003). The southern California and central coast ESU of mountain lion is south of SR 58 and this mountain lion least cost corridor will be one of many ways that the Western Sierra Nevada mountain lion population will genetically connect with the southern California and central coast ESU of mountain lion. The Authority's intent is to minimize and avoid impacts to wildlife species through implementation of IAMFs (Section 3.7.4.2 of this Final EIR/EIS) and Mitigation Measures as provided in Section 3.7.7 of this Final EIR/EIS.

951-1153

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter asks about alternative routes of the Bakersfield to Palmdale Project Section. Refer to Chapter 2, Alternatives, Section 2.3.12, Range of Potential Alternatives Considered and Findings of the Draft EIR/EIS, for a detailed discussion of alternatives considered, alternatives withdrawn from further consideration, the reasons for their withdrawal, and alternatives ultimately carried forward in the EIR/EIS analysis. Additionally, Table 2-4 of this Bakersfield to Palmdale Project Section Final EIR/EIS summarizes the previous and current alternatives and lists reasons for the withdrawal of alternatives.

Response to Submission 951 (Alex Mullenax, Mullenax Ranch, LLC, April 12, 2021) - Continued

951-1154

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter expresses concerns about lack of noise mitigation and community impacts to Tehachapi. Refer to Response to Comment 741-65, contained in Chapter 22 of this Final EIR/EIS.

Submission 953 (Ernie Mullenax, Mullenax Ranch, LLC, April 12, 2021)

Bakersfield - Palmdale - RECORD #953 DETAIL

Status :	Action Pending
Record Date :	4/12/2021
Affiliation Type :	Business and/or Organization
Submission Date :	4/12/2021
Interest As :	Business and/or Organization
Submission Method :	Website
First Name :	Ernie
Last Name :	Mullenax
Professional Title :	Owner
Business/Organization :	Mullenax Ranch, LLC
Address :	
Apt./Suite No. :	
City :	Tehachapi
State :	CA
Zip Code :	93561
Telephone :	9099737997
Email :	emullenax1@gmail.com
Cell Phone :	
Email Subscription :	Bakersfield to Palmdale
Add to Mailing List :	Yes
EIR/EIS Comment :	

Stakeholder Comments/Issues :

953-1155 The blight the proposed HSR route will cause to the Tehachapi area would not only lower property values but create an awful place to live. Multiple neighbors of ours would lose their homes, homes which they counted on living out their retirement in a peaceful and beautiful area.

953-1156 I'm extremely displeased about the noise factor to both the city area and outside city limits. Being told that there will no longer be noise mitigation for the area will increase the blight to the area tenfold.

953-1157 Tehachapi area is a vital area for a multitude of wildlife species. The impact the HSR will have is both negative and harmful to the local species here, particularly to the lions endemic to this area.

Response to Submission 953 (Ernie Mullenax, Mullenax Ranch, LLC, April 12, 2021)

953-1155

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter expresses concern about property values and physical deterioration, as well as the displacement of local residents. Refer to Response to Comment 741-83, contained in Chapter 22 of this Final EIR/EIS.

953-1156

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter expresses concerns about lack of noise mitigation and the resultant effects related to physical deterioration. Refer to Responses to Comments 741-75 and 741-83, contained in Chapter 22 of this Final EIR/EIS.

953-1157

The commenter states that Tehachapi is a vital area for several wildlife species. A detailed assessment of impacts on wildlife during construction and operation of the HSR project is provided in Section 3.7.6 of this Final EIR/EIS. Mitigation measures to address these impacts are provided in Section 3.7.7 of this Final EIR/EIS. Potential impacts to mountain lion were addressed in the Revised Draft EIR/ Supplemental Draft EIS published in February 2021. The Revised Draft EIR/Supplemental Draft EIS added Mitigation Measures BIO-MM#84 and BIO-MM#85 to address impacts to mountain lion. The impact discussion and mitigation measures for mountain lion have been added to Section 3.7 in this Final EIR/EIS. No additional revisions to this Final EIR/EIS have been made in response to this comment.

The Authority is committed to using avoidance and minimization measures to protect species and will work with state and federal wildlife agencies throughout the construction period. The Authority's intent is to minimize and avoid impacts to wildlife species through implementation of IAMFs (described in Section 3.7.4.2 of this Final EIR/EIS) and Mitigation Measures as provided in Section 3.7.7 of this Final EIR/EIS.

Submission 950 (Mano Lujan, Red House Barbeque and The Shed Restaurants, April 11, 2021)

Bakersfield - Palmdale - RECORD #950 DETAIL

Status :	Action Pending
Record Date :	4/12/2021
Affiliation Type :	Business and/or Organization
Submission Date :	4/11/2021
Interest As :	Business and/or Organization
Submission Method :	Program Info Line
First Name :	Mano
Last Name :	Lujan
Professional Title :	Business Owner
Business/Organization :	Red House Barbeque and The Shed Restaurants
Address :	426 East Tehachapi Blvd.
Apt./Suite No. :	
City :	Tehachapi
State :	CA
Zip Code :	93561
Telephone :	(661) 300-0770
Email :	
Cell Phone :	
Email Subscription :	
Add to Mailing List :	Yes
EIR/EIS Comment :	No

Stakeholder Comments/Issues :

950-1127 My name is Mano Lujan. M-a-n-o L-u-j-a-n. My address is 426 East Tehachapi Blvd, Tehachapi, CA 93561. My phone number is 661-300-0770. I'm the owner of Red House Barbeque in Tehachapi, the Shed Restaurant in Tehachapi, and I sit on the board for Layla and Milo's Soup for the Soul Soup Kitchen, a registered California non-profit based in Tehachapi. I'm opposed to this high-speed rail for what it's going to do to my town. The noise levels are not going to be good, um we are pretty close to the train tracks already and it's pretty loud here. Environmental impact here is is of great concern and as is the noise pollution that this is going to generate. Again I am opposed to this. I own multiple businesses and a non-profit in this town. Thank you.

Response to Submission 950 (Mano Lujan, Red House Barbeque and The Shed Restaurants, April 11, 2021)

950-1127

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter expresses opposition to the project and concerns about the noise level and other environmental impacts to the City of Tehachapi. Refer to Response to Comment 741-69, contained in Chapter 22 of this Final EIR/EIS.

Submission 987 (Derek Abbott, Tejon Ranch Company, April 13, 2021)

Bakersfield - Palmdale - RECORD #987 DETAIL

Status :	Action Pending
Record Date :	4/13/2021
Affiliation Type :	Business and/or Organization
Submission Date :	4/13/2021
Interest As :	Business and/or Organization
Submission Method :	Website
First Name :	Derek
Last Name :	Abbott
Professional Title :	SVP - Real Estate
Business/Organization :	Tejon Ranch Company
Address :	
Apt./Suite No. :	
City :	Lebec
State :	CA
Zip Code :	93243
Telephone :	6616634253
Email :	dabbott@tejonranch.com
Cell Phone :	
Email Subscription :	
Add to Mailing List :	No
EIR/EIS Comment :	

Stakeholder Comments/Issues :

987-1280 As the landowner of the 270,000 acre Tejon Ranch, Tejon Ranch Company has a vested interest in the routing and design of High Speed Rail as it passes through our property for 7 miles as it traverses from Bakersfield to Palmdale.
Tejon Ranch Company currently operates grazing, ranching, and wildlife management activities on the land area of Tejon Ranch that High Speed Rail proposes to traverse. High Speed Rail's EIRs to date have not presented adequate detail on how access and infrastructure for our operations will be addressed and access preserved following the construction of high speed rail. We recognize that future discussions on Right-of-Way acquisition will occur at the appropriate time, and at that time, further design details will be available that will support more specific discussion on how HSR addresses our operational concerns.

987-1281 Tejon Ranch Company has previously submitted comments on the DEIR and I'm re-attaching the comment letter we previously submitted. In review of the Revised Draft EIR/EIS, it does not appear that additional detail is included that addresses these comments. Specifically it appears that the mitigation ratios and approach previously identified are unchanged. Also, no further detail on design or operational provisions for Tejon Ranch Company facilities is provided.
We thank you for your attention and look forward to productive discussions to address our access and operational needs as design progresses and right-of-way acquisition occurs.

Thank you,
Derek Abbott
Tejon Ranch Company

TEJON RANCH
COMPANY

March 24, 2020

Attn: Draft EIR/EIS for the Bakersfield to Palmdale Project Section
California High-Speed Rail Authority
770 L Street, Suite 620 MS-1
Sacramento, CA 95814
Bakersfield_Palmdale@hsr.ca.gov

Re: Bakersfield to Palmdale Draft EIR/EIS Comments

Dear Sir/Madam,

Tejon Ranch Company owns the 270,000 acre Tejon Ranch, the largest contiguous piece of privately held property in California. The High Speed Rail alignment for the Bakersfield to Palmdale segment proposes to traverse the north end of Tejon Ranch for a distance of approximately 7 miles. We have reviewed the Bakersfield to Palmdale Draft EIR/EIS as available online. The EIR analyzes an approximately 400' ROW corridor through various sections of the alignment on the Ranch, resulting in a potential footprint on Tejon Ranch of approximately 400 acres of disturbance.

Tejon Ranch Company was surprised by the release of the Bakersfield to Palmdale Draft EIR/EIS document. Despite our ownership of land through which High Speed Rail must travel for 7 miles, Tejon Ranch and the High Speed Rail Authority have regularly had conflicts arise caused by a lack of communication from High Speed Rail. To address this, High Speed Rail under previous regional leadership had made significant efforts to regularly communicate with Tejon Ranch Company. Those regular outreaches from High Speed Rail however stopped in early 2019 and Tejon Ranch Company was not notified of the impending release of the document. We stand ready to meet on the matter with representatives of High Speed Rail at any time and as often as necessary to ensure regular and open communication between our organizations going forward.

As a general comment, the level of analysis of resources and impacts presented in the document is general in a manner that precludes detailed review. Additionally, the failure to make technical studies accessible for download, when download links could have been simply included on the public website similar to those provided for the EIR/EIS document (as is typical practice for posting of EIR documents across various agencies in the state) is inappropriate and does not support efficient public review.

Tejon Ranch Company notes that the EIR/EIS proposes that mitigation be provided for biological impacts at a 1:1 ratio. The 1:1 mitigation ratio proposed is significantly lower than any project is required to provide in this region, and is certainly less that any project of similar scale statewide. In fact, projects of significant scale like this are being held to higher mitigation ratios

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Tejon Ranch, CA 93243
661 248 3000 O | 661 248 3100 F
www.tejonranch.com

Tejon Ranch Co. (NYSE:TRC) – a diversified real estate development and agribusiness company.

Submission 987 (Derek Abbott, Tejon Ranch Company, April 13, 2021) - Continued

on a regular basis by the same regulatory agencies which are reviewing and will issue permits to this project. It would be inappropriate for a public project to be required to mitigate at a lower ratio than private projects. In particular, given this project's substantial impacts to agriculturally productive lands on and off the Tejon Ranch, a 1:1 mitigation ratio is unreasonable at a time that other state agencies are placing a premium on the preservation of agricultural lands in California by acquiring them with other cap-and-trade funds.[1]

The EIR/EIS also does not specifically identify the mitigation areas or analyze whether they provide adequate mitigation. Tejon Ranch lands include significant biological resources in and near the alignment of High Speed Rail. High Speed Rail must adequately mitigate for impacts, and should be required to acquire land of comparable condition most proximate to its proposed right of way to provide like-for-like or high quality mitigation land. High Speed Rail should work with adjacent landowners such as Tejon Ranch Company to identify potentially suitable mitigation lands. The document's lack of detail on mitigation areas identified makes it difficult to assess whether suitable proximate land is being identified for mitigation.

Tejon Ranch Company has identified significant concerns with the impact of the construction and operation of High Speed Rail in the proposed alignment through Tejon Ranch. The Ranch and its partners run cattle, hunting, and security activities on the portion of Tejon Ranch affected by High Speed Rail and the High Speed Rail alignment slices entirely through the north end of the Ranch, potentially stranding and separating a 10,000-acre portion of the Ranch from the rest of our property. We've previously discussed these operational concerns with High Speed Rail staff and identified the need for culverts or crossings to allow for roads, utilities or animal transport across the alignment. These concerns remain as they and/or mitigating improvements to address them are not fully addressed by the latest alignment proposal and the project analyzed in the Draft EIR/EIS. High Speed Rail will need to address the impact on Tejon Ranch's effective use of the land prior to the rail line's development.

For these reasons, we remain concerned about the proposed High Speed Rail Bakersfield to Palmdale Draft EIR/EIS and project and we ask that High Speed Rail make efforts to address our concerns.

Sincerely,

Hugh F. McMahon IV
Executive Vice President Real Estate
Tejon Ranch Company

[1] Source: https://www.conservation.ca.gov/index/Pages/News/SALC-2020-Funding-Available-for-Ag-Land-Conservation.aspx

Response to Submission 987 (Derek Abbott, Tejon Ranch Company, April 13, 2021)

987-1280

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter expresses concerns about access and maintenance of infrastructure for Tejon Ranch operations following construction of the B-P Build Alternatives. The commenter states that they recognize that right-of-way acquisition discussions will involve further design details and more specific discussions regarding the commenter's concerns. Refer to Response to Comment 706-281, in Chapter 25 of this Final EIR/EIS, which is a response to a comment submitted by this commenter on the Draft EIR/EIS, for more details about the Authority's commitments to coordination with agricultural property owners.

987-1281

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter states that they have previously submitted comments on the Draft EIR/EIS, and attaches the previously submitted comment letter. This previously submitted comment letter was reviewed in preparing this comment response. The commenter states that the Revised Draft EIR/Supplemental Draft EIS does not include a response to their previously submitted comment letter. This is accurate, as the Revised Draft EIR/Supplemental Draft EIS was limited to new information about the monarch butterfly and Southern California and Central Coast mountain lion, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation. Responses to the commenter's previously submitted comments on the Draft EIR/EIS can be found in Chapter 25, Responses to Comments 706-276 through 706-281, contained in Chapter 25 of this Final EIR/EIS.

Submission 868 (Tony Lacava, The Lacava Group, Real Estate, February 28, 2021)

Bakersfield - Palmdale - RECORD #868 DETAIL

Status :	Action Pending
Record Date :	3/1/2021
Affiliation Type :	Business and/or Organization
Submission Date :	2/28/2021
Interest As :	Business and/or Organization
Submission Method :	Project Email
First Name :	Tony
Last Name :	Lacava
Professional Title :	Realtor
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Add to Mailing List :	
EIR/EIS Comment :	

Stakeholder Comments/Issues :

868-975 I don’t understand the need for the high speed rail and believe it never should have been started. The only positive is that is supplied some people some employment. But providing employment should not be a reason to undertake such a project, it should be a byproduct of a useful project. This rail will not be useful in any sense of the word. Just look at how poorly southern Cal uses its bus and train systems. I know nobody in my life who is in any way excited about the high speed rail. The costs projections and delays, as I knew would be the case, have been both comical and sad.

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Response to Submission 868 (Tony Lacava, The Lacava Group, Real Estate, February 28, 2021)

868-975

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter states that they do not understand the need for the HSR project. As discussed in Section 1.2.4 of this Final EIR/EIS, the HSR system, including the Bakersfield to Palmdale Project Section, would close the existing passenger “rail gap” between Southern California and the rest of the state. This gap exists between the Los Angeles area and the southern San Joaquin Valley, where passengers are required to board Amtrak connecting buses from Los Angeles and Palmdale to the station in Bakersfield, where they can board a train once again. For additional information on the project purpose and need, refer to Section 1.2 of this Final EIR/EIS.

The commenter acknowledges that the project has provided employment opportunities. As of July 2020, construction of the California HSR had created 4,000 construction jobs.

The commenter states that the HSR project will not be useful and expresses their opinion of the project. The Revised 2020 Business Plan indicates that under the medium and high ridership scenarios, the Phase 1 system will have 12.8 and 17.9 million riders in 2033, respectively (Authority 2020, p. 135). The ridership numbers are estimated to increase to 38.6 and 50.0 million riders by 2040 under the medium and high ridership scenarios, respectively. The HSR system will provide transportation to millions of riders per year.

Submission 970 (Cara Lacey, The Nature Conservancy, April 12, 2021)

Bakersfield - Palmdale - RECORD #970 DETAIL

Status :	Action Pending
Record Date :	4/12/2021
Affiliation Type :	Business and/or Organization
Submission Date :	4/12/2021
Interest As :	Business and/or Organization
Submission Method :	Project Email
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Add to Mailing List :	
EIR/EIS Comment :	

Stakeholder Comments/Issues :

Please find attached The Nature Conservancy's comments on the High-Speed Rail Bakersfield to Palmdale Revised Draft EIR (RDEIR). We are happy to work with you or discuss any of these comments.

We look forward to continuing to discuss the plans as they relate especially to the area of the Tehachapi linkage to decrease impacts as much as possible so that the significant biodiversity of the area remains protected, intact and can flourish, while connectivity and corridors for movement are sustained and enhanced.

Thank you for enabling us to comment.

Cara

Please consider the environment before printing this email.

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Submission 970 (Cara Lacey, The Nature Conservancy, April 12, 2021) - Continued

The Nature Conservancy
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To: Mr. Serge Stanich
Draft EIR/EIS California High-Speed Rail Authority
770 L Street, Suite 620 MS-1
Sacramento, CA 95814
Via email sent to Bakersfield_palmdale@hsr.ca.gov

Date: April 10, 2021

Re: Comments on Revised Draft Environmental Impact Report/Supplemental EIR (RDEIR) for the Bakersfield to Palmdale Segment

Dear Mr. Serge Stanich,

970-1202 The Nature Conservancy (TNC) thanks the High-Speed Rail Authority (HSRA) for providing a platform for us to comment on this Revised Draft Environmental Impact Report (RDEIR). We value this opportunity to provide feedback and would like to remind you that we drafted a previous letter approximately one year ago, dated April 28, 2020. The previous letter gave a comprehensive review of the significance of the Tehachapi region and its vital importance to species survival and movement, we hope that you can re-review the overview section. In addition, the previous letter outlined our concerns, comments, and recommendations on the initial DEIR. We look forward to your response to those initial comments and concerns. Below and on the following pages, we provide our comments on this RDEIR with a focus on the updated sections, as well as our recommendations for changes to the project design and suggestions on additional information to consider in the analysis of impacts and design of mitigation measures.

970-1203 The Nature Conservancy (TNC) is a science-based organization that works throughout the world to identify conservation solutions that protect both people and nature. In California we have worked together with multiple agencies and partners to protect over 1.5 million acres of land and 3.8 million acres of sea floor. In the Tehachapi region, which is the focus of this revised environmental review document and our comments, TNC has worked with partners including the Wildlife Conservation Board, Sierra Nevada Conservancy and other State and Federal Agencies to protect over 42,000 acres of vital habitat. We continue to focus in this location to protect habitat for large suites of plant and animal species as well as their movement pathways, in perpetuity. Additional significant conservation investments have been made on Tejon Ranch, including the purchase of conservation easements funded by the State of California. High-Speed Rail (HSR) implementation in this location as planned, will impact the valued biodiversity of this region. If not designed and constructed in the least impactful way and using the latest science to evaluate and mitigate for impacts, the long-term effects of the HSR will significantly impact the biological resources of the Tehachapi region as an ecological stronghold and vital linkage for species movement, today and in the future, especially as the climate changes.

TNC RDEIR Comments:

970-1204 A recent genetic study of Western U.S. mountain lion populations identified the Tehachapi region as vital for maintaining mountain lion movement and genetic diversity throughout California (Gustafson et al. 2018). In the Sierra Nevada Mountains, the populations of mountain lions are healthy and well connected, however the South and Central Coast regions contain six sub-populations of mountain lions with poor connectivity and low genetic diversity. Due to poor landscape connectivity leading to genetic isolation, the mountain lion in southern California may go extinct in the next 50 years (Benson et al. 2019). The protection of the Tehachapi linkage is necessary to allow mountain lion gene flow into the South and Central Coast regions. Therefore, it is imperative that the connectivity, biodiversity, and ecological integrity of this region be upheld, for both the mountain lion and for the full suite of species impacted by habitat loss and fragmentation in the South and Central Coast regions.

TNC cordially request that HSRA use the mitigation hierarchy and investigate the ability to avoid impacts first, where unable to avoid, minimize and where unable to minimize, rectify or mitigate in a way that is explained in detail within the DEIR/RDEIR documentation. Without understanding how and where efforts will be used to avoid, minimize and/or in what form impacts will be fully mitigated, it is difficult to comment on the mitigation measures proposed in the RDEIR. A review of your GIS layers would be helpful to better understand the full impacts of the proposed Project and methods for mitigation.

Proposed Mitigation General Comments:

970-1205 TNC remains concerned that determinations on mitigation will be made after the DEIR/RDEIR is finalized. The timing of such actions removes an important component of both NEPA and CEQA, the requirement for public participation in the process. TNC believes that the mitigation determinations should be made with input and feedback from conservation organizations and local stakeholders with detailed knowledge of the challenges and opportunities present in the project area. As proposed in the DEIR and RDEIR, HSRA has suggested that the specific mitigation requirements will be determined by regulatory agencies after the public-facing environmental review process has concluded. Similarly, all compensatory mitigation plans will be developed without details made available to the public, that potentially misses out on information that local organizations can provide. TNC believes this does not seem appropriate for such a large public project in an extremely sensitive area. This remains our concern with the DEIR (please refer back to our previous letter dated April 28, 2020) as it relates to the mitigation measures for multiple species; and it pertains to this RDEIR as it relates to the added mitigation measures, as they relate to the mountain lion and monarch butterfly.

970-1206 As noted above in our introduction, this particular area, where the Project moves through the Southern Sierra Nevada, is identified by multiple mountain lion and connectivity scientists and researchers as a critical area for statewide genetic connectivity (Ernest et al. 2003; Penrod et al. 2003; South Coast Wildlands 2008; CDFW 2010; Gustafson et al. 2018; Benson et al. 2019). TNC believes the RDEIR does not sufficiently use this foundational science to address the significant importance of avoiding and reducing impacts to be less than significant, nor does it provide TNC with an analysis of how the Project will appropriately mitigate impacts to mountain lions, to a less than significant level.

970-1207 The RDEIR also does not address how the continued operation and maintenance of the Project would result in indirect impacts to genetic connectivity for mountain lions, which could further impact already struggling populations of mountain lions and contribute to their local extirpation. Thus it is difficult for TNC to assess how the RDEIR adequately addresses these issues, as it does not describe methods or

Submission 970 (Cara Lacey, The Nature Conservancy, April 12, 2021) - Continued

970-1207 location of lands for mitigation that the Project is assessing, or how HSRA is properly mitigating impacts to the mountain lion.

Proposed Mountain Lion Mitigation Measures

BIO-MM#84 and BIO-MM#85:

970-1208 BIO-MM#84 states that a biologist will conduct pre-construction surveys for known or potential mountain lion/kitten dens. TNC believes that the respective surveys, although a step in the right direction, would likely be inadequate in determining the presence or potential presence of mountain lions or the continuation of mountain lions in this location. Dens could easily be missed during surveys, which could result in kittens being killed or orphaned if the mother is deterred by nearby human activity and abandons them. TNC believes that solely conducting mountain lion den surveys is not enough to mitigate for impacts on their kittens or on them in this region. We recommend that HSRA work with mountain lion experts to better understand the best approach for surveys and assess with the expert how such surveys would be least impactful and what type of information such surveys could provide. We recommend that you engage with Dr. Winston Vickers of the UC Davis Wildlife Health Center and with The Nature Conservancy ecologists and scientists focusing on this area early in this process and before the FEIR.

970-1209 BIO-MM#85 states that HSRA would provide "compensatory mitigation for impacts on mountain lion core and patch habitat through the preservation of suitable habitat that is acceptable to CDFW" with mitigation ratios of 2:1 for "high-priority foraging and dispersal habitat" and 1:1 for "low-priority foraging and dispersal habitat". Yet, the RDEIR does not provide sufficient detail as to how such habitat categorizations would be determined or quantified; or describe what would be deemed as "acceptable to CDFW". This places TNC and our review at a disadvantage. TNC believes that MM-BIO#85 is not adequately addressing mitigation for lions because the RDEIR does not describe how it is mitigating impacts and only defers to consultation with CDFW. Further, MM-BIO #85 does not address the amount and location of land proposed to be set aside for impacts to mountain lion habitat. Large, interconnected, intact swaths of habitat within the Project location need to be conserved, restored, and managed in perpetuity, yet this information about the land and location of its preservation has not yet been described. Therefore, TNC believes a full environmental analysis of the impacts and mitigation descriptions of the Project has not been made available to us to properly assess or study. We ask that HSRA please describe how habitat categorizations would be quantified, where potential compensatory mitigation lands would be located and what CDFW would deem acceptable prior to finalization of the EIR. This could be done in the following ways:

a. Establish mitigation goals in the DEIR/RDEIR that describe and document 1) the number of acres to be protected to offset unavoidable impacts; 2) the number of acres of impacted lands to be restored; and 3) develop success criteria for the mountain lion so that:
   i. we can properly evaluate how such impacts proposed are being determined or quantified,
   ii. where proposed potential compensatory mitigation lands would be located, and
   iii. if compensatory mitigation habitat type and quantity are adequate.

b. So that this process facilitates transparency and allows us, wildlife and mountain lion experts as well as other organizations with relevant expertise to provide feedback as to

970-1209 what should be acceptable mitigation prior to the FEIR, we recommend that HSRA make all mitigation details and plans subject to a public comment period and that all comments provided be addressed. We suggest that independent committees of local experts with relevant experience be created to:

i. review and approve all mitigation proposals (ratios, locations, success criteria, species specific needs); and
ii. review and approve compensatory mitigation plans to ensure impacts are adequately offset to support the DEIR/RDEIR findings that impacts are less than significant.

Wildlife Connectivity and Crossing Comments

970-1210 As was recently stated in our past meeting with HSRA, we foresee needing a system of crossings under and over Highway 58. Wildlife crossings need to be aligned with the HSRA Project and should also be closely coordinated with TNC, SC Wildlands, CDFW, Caltrans, Kern County COG and others, to adequately address the possibility for functional species movement across multiple barriers – i.e. the existing railroad, Highway 58, new truck climbing lanes being planned and HSR, amongst other future projects. TNC believes that the RDEIR does not adequately describe, assess, and mitigate impacts to wildlife movement and habitat connectivity. The Project cuts through habitat and a habitat linkage that is vital for numerous special-status plant and animal species, including but not limited to mountain lions, desert tortoise, blunt-nosed leopard lizard, and many others.

970-1211 The RDEIR points to 39 wildlife crossings across 56 miles. It is unclear what target species the crossings will be designed for, making it difficult to determine if the measures proposed will mitigate impacts to special-status species to less than significant. It is also difficult to determine the location of those crossings without detailed GIS files that we have requested but have not yet been shared. Further, as is depicted in the RDEIR, the majority of the proposed crossings are too small and increases to the diameter of many will be needed for species, such as mountain lions, mule deer, and bears. We ask that you work with experts in the region to determine the most adequate size and type of wildlife crossings needed for multiple species.

In addition, the dimensions of some of the other crossings HSRA proposes, are unclear. The RDEIR lists five dual-use road undercrossings, two dual-use drainage overcrossings, and one overcrossing but does not provide dimensions for them, nor does it describe how these crossings will mitigate for lion or other species movement that will be impacted by the Project. Finally, the Project proposes that roads would be fenced off and therefore pose another movement barrier perpendicular to the proposed Project. It would be helpful to TNC to better understand the type, location, amount, size, and what science the crossing effectiveness will have on mountain lions is being used. We also recommend that TNC, HSRA and other wildlife biologists and experts meet to discuss future impacts and the size, location and number of crossings that may be needed.

BIO-MM#64

970-1212 BIO-MM#64 in the RDEIR states that, "the Project Biologist review of final construction design for consistency with placement ad dimensions of wildlife crossings will be verified in a memorandum provided to the Authority," but the measure does not state if, or with whom the Project Biologist will consult during the DEIR phase and FEIR phases to address proposed impacts, nor how HSRA is or will be working with other agencies and NGOs already working on wildlife crossings in the area. TNC believes to

Submission 970 (Cara Lacey, The Nature Conservancy, April 12, 2021) - Continued

970-1212 effectively and efficiently implement construction conducive to wildlife movement, CDFW biologists, Caltrans biologist, wildlife crossing experts, local wildlife biologists and organizations like The Nature Conservancy and transportation agencies be consulted regularly and be involved in the planning, environmental mitigation during this DEIR process, not just at the end. Many of the agencies and experts noted, are all already working in the field on planned projects.

Therefore, TNC believes that regular consultation is important so that mitigation, location, size and alignment of wildlife crossings are adequately portrayed in the DEIR prior to the FEIR and throughout the life of the Project. Consultation and coordination is essential and part of creating, as the RDEIR mitigation measure states, "methods for new barrier-free areas," up front and before the FEIR because although constructed crossings would reduce impacts to connectivity for some species, they do not completely remove barriers the Project is imposing. The Project is still removing thousands of acres of intact, contiguous habitat and permanently cutting a barrier through this highly diverse and important movement corridor. Detailed mitigation methods are crucial to avoiding and reducing impacts to this sensitive location.

BIO-MM#86 and BIOMM#87

970-1213 Construction and operational lighting impacts are critical to reducing impacts to mountain lions and other species. The RDEIR does attempt to detail how the Project will minimize lighting impacts through specific measures. Thank you for providing us with this information, but more detail on how lighting and other impacts will be mitigated during and after construction as well as how lighting will be monitored as to its impacts on species movement, is needed. It would be helpful if the HSRA works with mountain lion experts, such as Dr. Winston Vickers at the UC Davis Wildlife Health Center, and Dr. Fraser Shilling, with the UC Davis Road Ecology Center, both of whom have extensive knowledge regarding mountain lion behavior and the impacts light and human operations, including noise have on their movement patterns. A Before and After Control Plan should be used to study, monitor and mitigate for all impacts of light and noise.

970-1214 In regard to noise, the RDEIR is lacking in determining how the Project will assess and mitigate for noise and its impacts on wildlife behavior before, during and after construction. Baseline surveys and studies on wildlife movement and Project impacts due to noise should be done prior to, during and after construction, so that a plan is implemented to properly mitigate for noise. Wildlife behavioral shifts associated with noise commonly occur and increase the risk of wildlife not being able to move to find resources such as food and mates. Highway, roadway and transportation noise specifically impacts the way animals move. It is crucial that the HSRA work with wildlife behavior and noise experts like Dr. Fraser Shilling with the UC Davis Road Ecology Center to address exceedances in noise levels in this Project area. TNC recommends that the RDEIR add information on noise impacts on wildlife connectivity, to adequately assess and mitigate impacts of noise to less than significant.

General Comments on Permanent impact areas

Please see TNC's original comments on the DEIR for our concerns in regard to permanent impact areas. These concerns remain and have not yet been responded to or addressed. Our recommendation under permanent impact areas in the original DEIR comments were as follows:

970-1215 a. TNC would like a mitigation measure included that requires all natural areas be revegetated with locally sourced native species. The language "Steps to restore" provides

970-1215 no assurances that restoration will be carried out to ensure restoration actions achieve replacement of vegetation communities impacted by construction activities.

970-1216 b. For each area, goals for revegetation should be established based on vegetation communities present prior to disturbance. The goals must include actions that will achieve replacement of all mature oak trees similar to those described in the El Dorado County Ordinance Number 5061 that are based on percent of the oak woodland to be impacted, the size of each tree, and the technique used to replace each tree.

970-1217 c. The cover, composition and distribution of other native tree species, native shrubs, grasses and forbs prior to disturbance should define the restoration goals for each area to be impacted. Success criteria should be established for restoration areas that include successful establishment of native trees, shrubs, grasses and forbs to pre-disturbance levels for at least 5 years. As these revegetated areas will attract wildlife seeking food and shelter, all fences to exclude wildlife should be placed where the revegetated areas meet the operational footprint of High-Speed Rail (areas required to be devoid of native habitat for safe operation), not at the edge of the HSR right-of-way.

970-1218 TNC further suggests that the mitigation measures be revised to require establishment of an independent committee of local experts in restoration, plant ecology, and native plant propagation to help review and approve all restoration plans.

General Comments on Excess material stockpile

970-1219 TNC, as was stated in our meeting, has concerns about the location selected for permanently stockpiling the excess material (dirt) associated with the project. The excess material stockpile location at the northwest corner of Bealville Road and Hwy 58 has been identified as important habitat for wildlife connectivity by multiple analyses (Penrod et al. 2003 and Spencer et al. 2010). This area is situated completely within the SC Wildlands Tehachapi Linkage (Penrod et al. 2003) and the entire area has been identified as an Essential Connectivity Area by the State of California (Spencer et al. 2010). This area is also the only area where blue oak woodlands are protected immediately north and south of Hwy 58 providing an important opportunity for woodland species to cross without interference from human activities into the future. Additionally, more than half of the stockpile area occurs on lands covered by a conservation easement on Tejon Ranch funded by the State of California. The area supports hundreds of mature blue oaks. The replacement time for mature oaks would greatly impact the movement of oak woodland species in the only area with protected oak woodlands immediately north and south of Hwy 58 until restoration efforts resulted in the presence of mature trees. TNC feels that this is not the correct location for such an impactful land use and that the excess material should not be deposited on any area supporting natural habitat, but only stockpiled on areas already impacted by past intensive human land uses, such as the nearby Bena Landfill.

TNC recommends continuing to work with The Nature Conservancy as well as Kern County COG and Caltrans on better and least impactful places for the fill dirt, to at least begin to decrease some of the impacts the stockpile has on significant species. TNC would also like to recommend that HSRA re-evaluate the cost and benefits of tunneling, at grade lines versus aqueducts or raising all of the Project above grade in this location. By doing so, the benefits of reducing fill impacts significantly may be possible and may outweigh the costs. Could raising the entirety of the train mitigate for wildlife movement, decrease impacts and reduce stockpiles to the point that benefits of not tunneling and

Submission 970 (Cara Lacey, The Nature Conservancy, April 12, 2021) - Continued

970-1219 reducing or eliminating at-grade sections actually decrease costs? We are not sure but would be interested in finding out the costs versus benefits analysis that HSRA did for this section. We are not opposed to tunneling and using the fill in better areas, in fact tunneling is another way to remove the at-grade sections, but the fill and stockpile locations require additional thought. Further, in regard to tunneling, as you continue to evaluate the impacts in the DEIR, TNC stands by its previous comment to avoid impacts to intact natural lands when digging tunnels by using the boring machine rather than digging from the surface.

Conclusion

970-1220 Thank you again for this opportunity to comment. We hope to continue to work with you and others as projects are planned in this location. It is our hope that the HSRA will hold additional meetings with detailed presentations and will work with our organization and multiple other NGOs and agencies already working in this location to protect habitat and habitat corridors. Without better communication and a better understanding of mitigation methods, it will be hard to collectively work to find solutions to multiple issues that are impacting one of the most important geographies for connectivity in California, if not the most important landscape-scale wildlife linkage in the state.

Again, we thank you for giving us this opportunity to comment and thank you for your time. We hope to continue to work together in the future.

Sincerely yours,

Cara Lacey, AICP, LEED AP
Associate Director, Cities Program
Director of Connected Lands
The Nature Conservancy in California

Citations:

Benson, J. F., P. J. Mahoney, T. W. Vickers, J. A. Sikich, P. Beier, S. P. D. Riley, H. B. Ernest, and W. M. Boyce. 2019. Extinction vortex dynamics of top predators isolated by urbanization. Ecological Applications 00(00):e01868. 10.1002/eap.1868

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Response to Submission 970 (Cara Lacey, The Nature Conservancy, April 12, 2021)

970-1202

The commenter notes that they had submitted a previous comment letter dated April 28, 2020. Responses to comments on the commenter's previous comment letter can be found under Submission 789 in Chapter 25 of this Final EIR/EIS.

970-1203

Refer to Response to Comment 789-337, contained in Chapter 25 of this Final EIR/EIS.

970-1204

The commenter requests the Authority to use the mitigation hierarchy and investigate the ability to avoid impacts first, where unable to avoid, minimize and where unable to minimize, rectify or mitigate in a way that is explained in detail within the RDEIR/SDEIS documentation. As explained in Section 3.7.4.2 of the Draft EIR/EIS and this Final EIR/EIS, the Authority incorporated numerous IAMFs into the project design to first avoid and minimize impacts to sensitive plant and wildlife species. With regard to maintaining genetic connectivity, the Authority has committed to mitigation measures for maintaining wildlife movement and connectivity as described in Section 3.7.7.2, specifically BIO-MM #64 Establish Wildlife Crossings, which includes measures to protect wildlife crossings from potential impacts from construction and operation. In addition, the WCA (Appendix I of the BARTR) includes IAMFs e to implement for addressing project impacts to wildlife movement and connectivity.

Also, refer to Responses to Comments 970-1206 and 970-1240, contained in this chapter.

970-1205

Refer to Response to Comment 789-342, contained in Chapter 25 of this Final EIR/EIS.

970-1206

The commenter questions whether the analysis uses science from South Coast Wildlands and CDFW, among others, in developing the less than significant impact determinations. The WCA (Appendix I of the BARTR) uses extensive modeling using the same movement data developed by South Coast Wildlands.

The HSR Bakersfield to Palmdale Project Section maintains wildlife permeability across the alignment through a series of elevated viaducts, tunnels and dedicated wildlife crossings. The project includes 52 elevated viaducts, 9 underground tunnels and 39 dedicated wildlife crossings (Table 2-1 in the WCA, Appendix I in the BARTR). The Local Permeability Assessment, described in the WCA (Appendix I in the BARTR) modeled wildlife movement across a 6–kilometer-wide corridor using South Coast Wildlands movement data for select representative focal species and compared it with project conditions that prohibit wildlife from crossing at fenced at-grade segments. Because of the number, sizes, and distribution of the elevated viaducts, underground tunnels, and dedicated wildlife crossings, the project would reduce permeability for mountain lion by 1 percent, mule deer by 2 percent, American badger by 3 percent, San Joaquin kit fox by 1 percent, desert kit fox by 9 percent, desert tortoise by 7 percent, western gray squirrel by 2 percent, blunt-nosed leopard lizard by 1 percent, and Tipton kangaroo rat by 1 percent. Further, the Southern California/Central Coast ESU mountain lion occurs within the Tehachapi Mountains and interfaces with the Western Sierra Nevada mountain lion population along SR 58. Within the mountain lion species range, genetic connectivity is maintained between these populations through the use of 14 elevated viaducts, 6 underground tunnels, and 5 dedicated wildlife crossings. As part of the development of the South Coast Missing Linkages: A Linkage Design for the Tehachapi Connection (Penrod et al. 2003), South Coast Wildlands developed modeled least cost corridors (top 1 percent of movement habitat) for a number of focal species, including mountain lion. The mountain lion least cost corridor crosses the HSR alignment at a 2.37-mile-long underground tunnel segment, which would allow mountain lion to freely cross over the project unimpeded. Mitigation Measure #82 (Avoid Direct Impacts to Monarch Butterfly Host Plants) and #83 (Provide Compensatory Mitigation for Impacts on Monarch Butterfly Breeding and Foraging Habitat) provided in Section 3.7.7 of this Final EIR/EIS will reduce the impacts to less than significant.

The Authority has committed to designing the wildlife crossings consistent with Section

Response to Submission 970 (Cara Lacey, The Nature Conservancy, April 12, 2021) - Continued

970-1206

7.3.4 of the WCA, Appendix I of the BARTR. Applicable mitigation measures to wildlife movement include BIO-MM#37, BIO-MM#64, BIO-MM#77, BIO-MM#78, BIO-MM#84, BIO-MM#85, BIO-MM#86, and BIO-MM#87 and provide mitigation for minimizing effects to wildlife movement during construction and establishing wildlife fencing, jump outs, and preconstruction mountain lion den surveys, core and patch replacement, and minimizing lighting.

970-1207

The commenter states that the RDEIR/SDEIS does not address how the continued operations and maintenance of the Project would result in indirect impacts to genetic connectivity for mountain lion. The Section 6.2.6 of the WCA, Appendix I to the BARTR addresses the indirect effects such as noise, vibration, and lighting. Within the mountain lion species range, genetic connectivity is maintained between the Western Sierra Nevada and the Southern California and Central Coast ESU populations through the use of 14 elevated viaducts, 6 underground tunnels, and 5 dedicated wildlife crossings. As part of the development of the South Coast Missing Linkages: A Linkage Design for the Tehachapi Connection (Penrod et al. 2003), South Coast Wildlands developed modeled least cost corridors (top 1 percent of movement habitat) for a number of focal species, including mountain lion. The mountain lion least cost corridor crosses the HSR alignment at a 2.37-mile-long underground tunnel segment, which would allow mountain lion to freely cross over the project unimpeded. Indirect effects to connectivity for mountain lions would be avoided and minimized by the implementation of IAMFs (Section 3.7.4.2 of this Final EIR/EIS) and Mitigation Measures as provided in Section 3.7.7 of this Final EIR/EIS.

Additional mitigation measures have been added to address lighting impacts to special-status species including the mountain lion. BIO-MM#86 Implement Lighting Minimization Measures During Construction and BIO-MM#87 Implement Lighting Minimization Measures for Operations have been added to the Final EIR/EIS to address lighting impacts to special-status species including mountain lion. The commenter also questions the location of compensatory mitigation for impacts to mountain lion. Mitigation Measure BIO-MM#85 would provide for compensatory mitigation for impacts to mountain lion core and patch habitat through the preservation of suitable habitat that is acceptable to CDFW with adequate mitigation ratios of 2:1 for high-priority foraging and dispersal habitat and 1:1 for low-priority foraging and dispersal habitat. The specific land being considered for mitigation has not yet been selected; however, selection of mitigation land will be determined with consideration where mitigation opportunities can be co-located.

Response to Submission 970 (Cara Lacey, The Nature Conservancy, April 12, 2021) - Continued

970-1208

The commenter raises concerns about the sufficiency of mitigation measures for mountain lion and the ability to track them since no CDFW protocols have been developed. The analysis and mitigation for impacts to mountain lion meet the requirements of CEQA and NEPA. The Authority will consult with the CDFW and other mountain lion experts for best survey and tracking protocols for surveying and to develop appropriate protective buffers for denning mountain lion.

970-1209

While this comment is not related to the new information about the monarch butterfly and Southern California/Central Coast Evolutionarily Significant Unit (ESU) of Mountain Lions as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft Supplemental EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The Draft EIR/EIS includes biological resources mitigation measures developed for the California HSR Program and modified to correspond with the B-P Build Alternatives. These are detailed in Section 3.7, Biological and Aquatic Resources, of this Final EIR/EIS; Section 3.7.4.2 provides the IAMFs and Section 3.7.7 discusses specific mitigation measures. As part of the Draft EIR/EIS, mitigation measures and IAMFs were subject to comment during the 60-day public review period that took place from February 28, 2020, through April 28, 2020. The public was given the opportunity to comment on the content, analysis, and conclusions of the Draft EIR/EIS. Further, all measures were developed and reviewed by qualified biologists who meet the industry standards for addressing special-status species and their habitats within the project corridor. Once measures were developed, they were reviewed by agencies that evaluate species and habitats for listing (i.e., CDFW and USFWS). The Authority has a team of biology experts who crafted the mitigation measures. The on-site Project Biologist will oversee and approve implementation of all mitigation before, during, and after construction. Although the location of compensatory mitigation has not been selected, the EIR/EIS provides sufficient detail, including minimum mitigation ratios, that will ensure impacts are less than significant. The compensatory mitigation will also be implemented in consultation and with oversight from regulatory agencies that are specifically charged with protecting the species, which will further ensure that the mitigation is effective and successful. This is the standard practice for compensatory mitigation. Also refer to BP-Response-Section 3.7 BIO-01: Mitigation Measures (Resources, Details and Phasing, Responsibilities and Future Planning). Additionally, refer to Response to Comment 789-341 and 777-343.

Response to Submission 970 (Cara Lacey, The Nature Conservancy, April 12, 2021) - Continued

970-1210

The commenter states a system of wildlife crossings under and over Highway 58 may need to be coordinated in the vicinity of the HSR alignment. The project provides opportunities for wildlife to cross the project alignment utilizing a combination of elevated viaducts, underground tunnels, and dedicated wildlife crossings. The project includes 14 elevated sections and 6 underground segments within mountain lion range that provide opportunities for mountain lion to cross the alignment and maintain gene flow between the Sierra Nevada mountains and the southern California and central coastal ESU of mountain lion. One of these crossing opportunities is a 2.3-mile segment of habitat that will be preserved over a tunnel section through the least cost corridor (top 1 percent of mountain lion movement habitat) for mountain lion modeled by South Coast Wildlands for the South Coast Missing Linkages Project: A Linkage Design for the Tehachapi Connection (Penrod et al. 2003). As discussed in Responses to Comments 777-315(b), 777-315(c), and 777-315(f), contained in Chapter 25 of this Final EIR/EIS, crossing opportunities will be made available for smaller wildlife species (such as desert tortoise and blunt-nosed leopard lizard) and larger species (such as mountain lion and mule deer). For additional discussion of wildlife movement and connectivity, refer to Section 6.7.3 and Appendix I (WCA) of the BARTR (Authority 2018b).

The commenter states that coordination with other agencies will be necessary during future design and implementation. The Authority is committed to working with stakeholders through design and construction.

970-1211

The Table 2-1 in the WCA (Appendix I of the BARTR) shows the location and lengths of the 52 elevated viaduct and 9 underground tunnel segments distributed throughout the project. In addition, Section 7.3.4 of the WCA provides design criteria for the additional 39 wildlife crossings that would be constructed in fenced at-grade surface segments, including the use of 10 ft. arch undercrossings within mule deer species range to accommodate their larger stature. Mountain lion and black bear species range coincide with mule deer species range across the project. The CDFW and wildlife experts will be consulted in the final design of the wildlife crossings.

970-1212

While this comment is not related to the new information about the monarch butterfly and Southern California/Central Coast Evolutionarily Significant Unit (ESU) of Mountain Lions as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft Supplemental EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter requests consultation with biologists from CDFW, Caltrans, and TNC during the development of mitigation, specifically the dedicated wildlife crossings. The analysis and mitigation measures in the EIR/EIS were prepared by expert biologists and is based on scientific studies and other available information. The Authority has also coordinated with and held multiple meetings with regulatory agencies, including CDFW and Caltrans. The Authority also appreciates TNC's participation in the environmental review process. The Authority will consult with CDFW and other experts on the wildlife movement mitigation measures as project design progresses.

The compensatory mitigation described in Section 3.7.7.2 of this Final EIR/EIS identifies mitigation measures per species that will be implemented in consultation with regulatory agencies that are specifically charged with protecting the species. Consultation with regulatory agencies and subject experts will further ensure that the mitigation is effective and successful. This is the standard practice for compensatory mitigation. Also refer to BP-Response-Section 3.7 BIO-01: Mitigation Measures (Resources, Details and Phasing, Responsibilities and Future Planning). Additionally, refer to Responses to Comments 777-343 and 789-341, contained in Chapter 25 of this Final EIR/EIS, and 970-1209, contained in this chapter.

Response to Submission 970 (Cara Lacey, The Nature Conservancy, April 12, 2021) - Continued

970-1213

The Authority's intent is to minimize and avoid impacts to humans and wildlife species through implementation of IAMFs (Section 3.7.4.2 of this Final EIR/EIS) and Mitigation Measures as provided in Section 3.7.7 of this Final EIR/EIS. As described in WM-IAMF #2, WM-IAMF#3, and MM# 86, nighttime construction will be minimized and avoided where feasible, light will be shielded away from wildlife habitat, and minimum lumens will be used. MM#87 addresses nighttime lighting during operations.

970-1214

While this comment is not related to the new information about the monarch butterfly and Southern California/Central Coast Evolutionarily Significant Unit (ESU) of Mountain Lions as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft Supplemental EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter suggests that the RDEIR is lacking in determining how the Project will assess and mitigate for noise impacts.

Additional information regarding the noise impact analysis conducted for impacts to wildlife from the B-P HSR segment has been added to Impact BIO #8 in Section 3.7.4 in this Final EIR/EIS.

The Authority's intent is to minimize and avoid impacts to wildlife species through implementation of IAMFs (Section 3.7.4.2 of this Final EIR/EIS) and Mitigation Measures as provided in Section 3.7.7 of this Final EIR/EIS. Specific measures to address noise impacts have been added to BIO-MM#64.

970-1215

While this comment is not related to the new information about the monarch butterfly and Southern California/Central Coast Evolutionarily Significant Unit (ESU) of Mountain Lions as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft Supplemental EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter suggests that the there are no assurances that restoration will be carried out. Section 3.7.7.2 provides mitigation measures for restoration. The compensatory mitigation described in Section 3.7.7.2 of this Final EIR/EIS identifies mitigation measures per species that will be implemented in consultation with regulatory agencies that are specifically charged with protecting the species. This will further ensure that the mitigation is effective and successful. Specifically, BIO-MM#53: Prepare a Compensatory Mitigation Plan (CMP) for Species and Species Habitat, as identified in specific BIO-MMs, commits the Authority to preparing compensatory mitigation plans which provide descriptions for compensatory mitigation to restore, and/or mitigate for suitable habitat affected by the Bakersfield to Palmdale Build Alternatives. The CMP would establish specifications of success criteria to gauge the effectiveness of restoration and function of the mitigation lands. The mitigation lands, their management, and monitoring serve to allow for intended ecologic function of compensation habitat for sensitive plant species and special-status species habitat loss related to the Bakersfield to Palmdale Build Alternatives.

In addition, construction-related impacts would be mitigated though BIO-MM#6: Prepare and Implement a Restoration and Revegetation Plan, which requires in restoration and revegetation in all temporarily disturbed areas outside of the permanent right-of -way that potentially support special-status species, wetlands and/or other aquatic resources. BIO-MM#32: Restore Temporary Riparian Habitat Impacts, and BIO-MM#33: Restore Aquatic Resources Subject to Temporary Impact, provide additional detail for the restoration of riparian habitat and aquatic resources.

These mitigation measures will be enforceable through the Mitigation Monitoring and Enforcement Plan (MMEP) pursuant to NEPA. The MMEP is consistent with CEQA requirements for mitigation monitoring as set forth in Section 15097 of the CEQA

Response to Submission 970 (Cara Lacey, The Nature Conservancy, April 12, 2021) - Continued

970-1215

Guidelines (Title 14 California Code of Regulations, Division 6, Chapter 3). The MMEP will identify responsible parties, timing of implementation, reporting criteria, and when the measure is complete. The MMEP will be considered for adoption at the time the Authority Board considers certification of the EIR and approval of the project. While the MMEP will be part of the Record of Decision issued pursuant to NEPA, all IAMFs and mitigation measures identified in this Final EIR/EIS will be included in the MMEP at project approval. In addition, please refer to Responses to Comments 789-341, contained in Chapter 25 of this Final EIR/EIS, and 908-1043, 914-1056, and 917-1067, contained in this chapter.

970-1216

While this comment is not related to the new information about the monarch butterfly and Southern California/Central Coast Evolutionarily Significant Unit (ESU) of Mountain Lions as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft Supplemental EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

BIO MM#1 (Conduct Presence/Absence Pre-construction Surveys for Special-Status Plant Species and Special-Status Plant Communities) provided in Section 3.7.7 of this Final EIR/EIS will enable HSR to establish revegetation goals within different vegetation communities including but not limited to oak woodlands, and BIO-MM#35: Implement Transplantation and Compensatory Mitigation Measures for Protected Trees requires the project biologist to identify protected trees prior to ground disturbing activities and establish environmentally sensitive area buffers around those trees. In addition, this measure commits the Authority to providing compensatory mitigation for impacts on protected trees, including impacts associated with removing or trimming a protected tree.

Compensation will be based on requirements set out in applicable local government ordinances, policies, and regulations, with replacement ratios of 3:1 for native trees, 10:1 for heritage trees, or 1:1 for ornamental trees, unless higher ratios are required by local government ordinances or regulations. Additionally, refer to Response to Comment 967-1183, contained in this chapter.

Response to Submission 970 (Cara Lacey, The Nature Conservancy, April 12, 2021) - Continued

970-1217

While this comment is not related to the new information about the monarch butterfly and Southern California/Central Coast Evolutionarily Significant Unit (ESU) of Mountain Lions as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft Supplemental EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

BIO-MM#2 Prepare and Implement Plan for Salvage and Relocation of Special-Status Plant Species and BIO-MM#35 Implement Transplantation and Compensatory Mitigation Measures for Protected Trees provided in Section 3.7.7.2 of this Final EIR/EIS address cover, composition, and distribution of native plants within the areas of disturbance and requirements for locally sourced native seed mixes. These plans would include provisions that address the techniques, locations, and procedures required for the collection, storage, and relocation of seed or plant material, including the collection, stockpiling, and redistribution of topsoil and associated seed. These mitigation measures would be effective because they salvage unavoidable special-status species within the project footprint; relocate salvaged species to suitable habitat acquired within the region, and monitor relocated species per the Special Plant Species Management Plan to provide for suitable survival of special-status plant species, plant communities and protected trees, reducing the potential impact during construction.

Additionally, compensatory mitigation as further described in BIO-MM#35 will be based on requirements set out in applicable local government ordinances, policies, and regulations, with replacement ratios to be consistent with those required by local government ordinances or regulations. Also, refer to Responses to Comments 967-1183 and 970-1216, contained in this chapter.

970-1218

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

The commenter suggests that the mitigation measures be revised to require establishment of an independent committee of local experts in restoration, plant ecology, and native plant propagation to help review and approve all restoration plans. Refer to Response to Comment #789-341.

Response to Submission 970 (Cara Lacey, The Nature Conservancy, April 12, 2021) - Continued

970-1219

While this comment is not related to the new information about the monarch butterfly and Southern California and Central Coast mountain lion as candidate species under the Endangered Species Act, and new mitigation measures to address impacts to wildlife resulting from lighting during construction and project operation in the Revised Draft EIR/Supplemental Draft EIS, the Authority appreciates all comments and is responding in full here.

Table 6-1 in Chapter 6, Costs and Operations, of this Final EIR/EIS shows the capital cost estimates for each alternative from the Bakersfield Station to the Palmdale Station (including the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street), as well as for the CCNM Design Option and the Refined CCNM Design Option. Alternatives 1, 2, 3, and 5 range in distance from 82.47 to 84.46 miles and are estimated to have construction costs between approximately $18.9 billion and $19.8 billion (2020$). The CCNM Design Option would $18 million less to construct and the Refined CCNM Design Option would cost $815 million more to construct.

As noted in Table 2-25 in Chapter 2 of this Final EIR/EIS, tunnels are proposed to be constructed using tunnel boring machines, drill and blast, and sequential excavation methods. Specific tunneling methods will continue to be evaluated as the project design progresses.

Regarding the location of the stockpile area and Caltrans trucking lanes, the Authority will continue to coordinate with Caltrans regarding the construction schedules for the high-speed rail project, trucking lanes, and planned improvements to SR 58. Refer to Responses to Comments 777-313, contained in Chapter 25 of this Final EIR/EIS, and 908-1040, 908-1041, 908-1042, and 908-1043, contained in this chapter, for discussions regarding the stockpile location.

No change has been made to the Final EIR/EIS in response to this comment.

970-1220

Refer to Standard Response BP-Response-GENERAL-02: Public Outreach on the Draft EIR/EIS.

Standard Response BP-Response-GENERAL-02: Public Outreach on the Draft EIR/EIS outlines what was done for presentations regarding the project, as well as the Authority's commitment to future outreach with agencies and NGOs.

A Wildlife Corridor Assessment (Authority 2018c) assessing permeability for wildlife movement across the HSR alignment has been prepared that addresses wildlife connectivity issues for the Bakersfield to Palmdale Project Section.

Submission 913 (Christina Evans, University of Arizona, April 7, 2021)

Bakersfield - Palmdale - RECORD #913 DETAIL

Status :	Action Pending
Record Date :	4/7/2021
Affiliation Type :	Individual
Submission Date :	4/7/2021
Interest As :	Individual
Submission Method :	Website
First Name :	Christina
Last Name :	Evans
Professional Title :	Undergraduate Student
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Cell Phone :	
Email Subscription :	
Add to Mailing List :	No
EIR/EIS Comment :	
Attachments :	54927_BakersfieldtoPalmdaleProjectSupplementalDraftEISPublicCommentLetter.pdf (74 kb)

Stakeholder Comments/Issues :

See Attached PDF

913-1047

April 7th, 2021

Mark McLoughlin
Director of Environmental Services
California High-Speed Rail Authority
770 L Street, Suite 800
Sacramento, California 95814

Subject: Bakersfield to Palmdale Project Section: Revised Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement [EIS #20210022]

Dear Mr. McLoughlin,

Overarchingly, the California High-Speed Rail Authority has clearly put forth time and effort into the research and consideration of the environmental impacts of the Supplemental Draft EIS for the Bakersfield to Palmdale project. The EIS addresses many concerns from water quality, to noise pollution, to wildlife. The impacts of both the final project and construction on Mountain Lion habitat and Monarch Butterfly migration are extremely detailed and well communicated. The recognition that construction itself could pose risk to nearby species proves how proactive this project has been at mitigating the ultimate harms to the highlighted species in question. We applaud the inclusion of monitoring techniques and habitat reconstruction as a result of the impacts from construction. Overall, we believe that this Supplemental Draft EIS does a high quality job of outlining, recognizing, and addressing the environmental and wildlife impacts of the Bakersfield to Palmdale project. However, we would like to briefly address some minor concerns we have with the lack of mitigation of the risks of construction on Mountain Lions and the impacts of Monarch host-plant loss in permanent-loss areas.

Firstly, we would like to briefly introduce ourselves. We are a group of four senior Natural Resources and the Environment undergraduates studying at the University of Arizona. We each come to you with at least 4 to 5 years of collegiate studies within a variety of science fields including but not limited to: natural resources, ecology, wildlife conservation, marine sciences, policy & law, environmental education, and water quality. Each of us have practiced and participated in lab experiments; field research, observations, and data collection; management preparation and planning; scientific communication; and technical writing courses. Throughout our policy and law studies at the University of Arizona, we have spent extensive time reading, discussing, and incorporating the varying policies and standards of NEPA, ESA, NFMA, and FLPMA.

Submission 913 (Christina Evans, University of Arizona, April 7, 2021) - Continued

913-1048

We are writing to express a few concerns about the project's mitigation of impacts on Mountain Lion and Monarch Butterfly populations and necessary resources. We recognize that the Supplemental Draft EIS for the Bakersfield to Palmdale Project already has shown immense work on this topic, and many additional species, but we believe that our proposals would aid the future of the project as well as the species of concern.

The Palmdale to Bakersfield project clearly and thoroughly outlines mitigation efforts in the event of Monarch migration to the area. However in Section BIO-MM#82, it is stated that "construction personnel would avoid host plants outside of permanent impact areas where feasible." This creates an impact of permanent loss that could be easily and cheaply mitigated. Evetts & Burnside (1972) found that Milkweed clippings resprouted in 21 days, less time than has already been allotted to halt construction and perform surveys if host-plants are found. This indicates that any host-plants found within permanent-loss areas could easily be relocated outside said permanent-loss areas during the potential survey period. This simple relocation of Milkweed host-plants to a site not under construction provides not only protection for the Monarch Butterflies but offers a feasible method of providing a secondary host plant community for the Monarch Butterflies in case of unintended loss or reduction from construction operations.This change could also potentially lessen the amount of time needed to stop construction and survey during their peak flight period.

913-1049

Although this project does plan for many potential effects of construction, the buffer zones for Mountain Lions may not be adequate. BIO-MM#84 establishes the plan to create a buffer zone around mountain lion dens of ¼ mile to deter from disturbing the mountain lions and their potential young. This does not account for Mountain Lion prey fleeing the area. In turn, this will force Mountain Lions to wander farther than the ¼ buffer zone to find food. Furthermore, if their prey wander far or flee at signs of distress, like construction sights, smells, and sounds, then the Mountain Lions' habitats may change in response. The areas where Mountain Lions are located, which were scouted out by researchers prior to construction, may be inaccurate once construction is underway. New surveys would need to be done once construction starts until the project's completion, in order to make sure the data on Mountain Lions and their locations are accurate. Additionally, anthropological disturbance increases the likelihood of Mountain Lions fleeing the area, even after construction has been completed. Construction can disrupt a Mountain Lion's ability to find resources in the area for an unknown amount of time due to discouraging them to abide in the area (Benson e*t al.* n.d.). It is crucial that Mountain Lions have necessary resources on each separate side of construction zones and wildlife corridors, as it is unknown whether Mountain Lions will ever feel comfortable enough to return to the area, let alone use the Wildlife Corridors. Ultimately this disruption can lessen future population growth, a big risk for potentially threatened

913-1049

species (Riley 1998). Shawn James Riley (1998) also discusses at great length how far Mountain Lions and their food travel, often times significantly farther than ¼ mi. Their research could help develop a proper distance for said buffer zones, if it is not possible to survey food availability as a whole. Lastly, wildlife corridors should have adequate management to avoid species from finding poor-quality habitat more suitable (Morrison & Boyce, 2009). This management and necessary surveying would likely need to be maintained beyond construction.

913-1050

The work that the California High-Speed Rail Authority has conducted on this supplemental draft EIS is beneficial to the cause of protecting and mitigating the potential threats to at-risk species. In fact, we do support the supplemental draft EIS although we believe the adjustments we recommend would strengthen the mitigation efforts of the project and limit potential litigation. Our additional survey recommendations would help the project fully research the impacts on Mountain Lions and Monarch Butterflies in the area, as they are stated as a focal species in Section 3.7.4.4. We would like to thank you for the research already conducted by your organization, for it has opened a talking point to address these at-risk potentialites. We look forward to making use and creating further research to discuss these threats.

Here are the sources cited above if you would like to find more information on the points we discussed:

Benson, John F., Jeff A. Sikich, & Seth P.D. Riley. (N.D.). Survival and competing mortality risks of mountain lions in a major metropolitan area. *Biological Conservation*, https://doi.org/10.1016/j.biocon.2019.108294

Evetts, L., & O. Burnside. (1972). Germination and Seedling Development of Common Milkweed and Other Species. *Weed Science, 20*(4), 371-378. doi:10.1017/S004317450003589X

Morrison, S. A., & W.M. Boyce. (2009). Conserving connectivity: Some lessons from mountain lions in Southern California. *Conservation Biology, 23*(2), 275-285. doi:10.1111/j.1523-1739.2008.01079.x

Riley, Shawn James. (1998). Integration of Environmental, Biological, and Human Dimensions for Management of Mountain Lions (*Puma concolor*) in Montana. *Michigan State University*, https://www.researchgate.net/publication/33791648_Integration_of_environmental_biological_and_human_dimensions_for_management_of_mountain_lions_Puma_concolor_in_Montana?enrichId=rgreq-b840b0b33632758d9af269c47eb112ed-XXX&enrichSource=Y292ZXJQYWdlOzMzNzkxNjQ4O0FTOjk3NjU0MTY4MDk2NzY5QDE0MDAyOTM5NzYyMzI%3D&el=1_x_2&_esc=publicationCoverPdf

Submission 913 (Christina Evans, University of Arizona, April 7, 2021) - Continued

Sincerely,
Christina Evans, Daniel Marrufo, Paige Renaldo, &
Catrina Alberts

Senior undergraduate students at the University of
Arizona, College of Agriculture and Life Sciences,
School of Natural Resources and the Environment

Response to Submission 913 (Christina Evans, University of Arizona, April 7, 2021)

913-1047

The commenter lauds the Authority on the effort in preparing the RDEIR/SDEIS but raises concerns about lack of construction-related mitigation for mountain lions and permanent loss of Monarch butterfly host plants. The comment is introductory and does not contain any substantive comments or questions about the environmental analysis or conclusions contained in the RDEIS/SDEIS. For further discussion of these topics, refer to Response to Comment 913-1054, contained in this chapter.

913-1048

The commenter states that the RDEIR/SDEIS clearly and thoroughly outlines mitigation efforts in the event of Monarch migration to the area, but suggests the BIO-MM#82 could be modified to also provide for relocation of milkweed host-plants. In this Final EIR/EIS, BIO-MM#82 has been revised to include replanting native milkweed in temporary impact areas where feasible.

913-1049

The commenter states the proposed 0.25-mile buffer zone around mountain lion dens may not be adequate. The minimum mountain lion home range/territory size is 15 square miles for males and 3 to 13 square miles for females in southern California (Beier 1993). A quarter mile of additional travel to find food is not a significant distance for a mountain lion. During and following construction, because of the extensive areas of undeveloped land surrounding the HSR alignment, mountain lion will have access to adequate food resources to survive. In addition, the project includes 14 elevated sections and 6 underground sections within mountain lion species range that provide opportunities for mountain lion to cross the alignment and maintain gene flow between the Sierra Nevada mountains and the south coast ranges. One of these crossing opportunities is a 2.3-mile segment of habitat that will be preserved over a tunnel section through the least cost corridor (top 1 percent of mountain lion movement habitat) for mountain lion modeled by South Coast Wildlands for the South Coast Missing Linkages Project: A Linkage Design for the Tehachapi Connection (Penrod et al. 2003). The project will also construct five dedicated wildlife crossings within mountain lion species range consistent with the provisions of BIO-MM#64.

Further, the Benson et al. N.d. reference does not describe that construction can disrupt mountain lion's ability to find resources. Mountain lion have been recorded in the area along SR-58 following the construction of SR 58, the Union Pacific Railroad, and various land developments. Based on mountain lion acclimatization to these existing projects, it is likely that mountain lion will acclimate to the HSR project once construction is concluded. The Riley 1998 source cited in the comment analyzed mountain lion in Montana, which have a different prey base (migratory whitetail deer and elk) compared to mule deer in southern California that are less inclined to migrate great distances.

A management plan will be developed to manage the habitat that provides crossing opportunities across the HSR alignment, specifically underground tunnels, elevated viaducts, and dedicated wildlife crossings. Long term monitoring is being considered as part of the mitigation strategy for wildlife crossings under BIO-MM#64.

Response to Submission 913 (Christina Evans, University of Arizona, April 7, 2021) - Continued

913-1050

The commenter acknowledges the measures identified in the RDEIR/SDEIS would benefit protection of at-risk species. The commenter reiterates its suggestion regarding surveys to research mountain lions and Monarch butterflies in the area. The comment is a conclusion paragraph and does not contain any substantive comments or questions about the environmental analysis or conclusions contained in the RDEIS/SDEIS. For further discussion of these topics, refer to Response to Comment 913-1053, contained in this chapter.

Submission 914 (Ella Kaufman, University of Arizona, April 7, 2021)

Bakersfield - Palmdale - RECORD #914 DETAIL

Status :	Action Pending
Record Date :	4/7/2021
Affiliation Type :	Individual
Submission Date :	4/7/2021
Interest As :	Individual
Submission Method :	Website
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Add to Mailing List :	No
EIR/EIS Comment :	
Attachments :	22499_Attn_RevisedDraftEIR_SupplementalDraftEISfortheBakersfieldtoPalmdaleProjectSectionCommentLetter.pdf (75 kb)

Stakeholder Comments/Issues :

Please find our comment letter as an attached document

March 16, 2021

Ella Kaufman, Chelsea Mendoza, Marcela Lambert, and Rakeen Abdali
The University of Arizona
Environment and Natural Resources 2
1064 East Lowell Street
Tucson, AZ 85721

Attn: Revised Draft EIR/Supplemental Draft EIS for the Bakersfield to Palmdale Project Section
California High-Speed Rail Authority
355 S. Grand Avenue, Suite 2050
Los Angeles, CA 90071

Dear California High-Speed Rail Authority:

We are students at the University of Arizona in an advanced-level Natural Resources Law and Policy course. We have spent the semester analyzing the NEPA and the EIS process. Our group has examined the "Revised Draft EIR/Supplemental Draft EIS for the Bakersfield to Palmdale Project" and would like to provide our comments and concerns. We are addressing the California High-Speed Rail Authority's revisions to the Draft EIR/Draft EIS based on the listings of the mountain lion as a state candidate species and of the monarch butterfly as a federal candidate species. Additionally, we are outlining measures to reduce the impacts of lighting on wildlife during the project's construction and operation.

914-1051

We believe that there should be more scientific evidence provided for the claim that impacts on wildlife movement will be "unlikely" post construction activities. We also observed that actions to reduce adverse impacts on endangered species, as well as to reduce the impacts of lighting during construction and project operation are not sufficiently outlined in the report. For this reason, we request more details. This revision does provide beneficial measures for species protection including wildlife crossings, which is a positive result of endangered species consideration.

914-1052

In section 3.7.6.4 under *Impact BIO #5: Construction Impacts on Wildlife Movement,* it is indicated that the temporary direct impacts of the project could permanently alter historical migration corridors, territories, or foraging habitats, but that wildlife could reestablish their normal functions once the project is complete and construction activities are removed. It is also stated that temporary indirect impacts on wildlife movement could result from construction activities. We recommend that you form a partnership with an outside organization to provide scientific support for these claims. Partnering with the US Fish and Wildlife Service and the California Department of Fish and Wildlife to support claims that direct and indirect impacts would not permanently alter wildlife function may be beneficial to this report. NEPA requires a Council on Environmental Quality "to conduct investigations, studies, surveys, research, and analyses relating to ecological systems and environmental quality" (National Environmental Policy Act [NEPA], 2000). Therefore, more detailed on-site analysis should be included to back the assumption that normal species functions will not be permanently altered.

914-1053

Furthermore, in regard to wildlife movement, we commend this revised EIS for incorporating tunnels and viaducts into the project design. Wildlife crossings can be helpful tools for animals to avoid isolating them from their environment and disrupting migratory patterns

914-1054

Submission 914 (Ella Kaufman, University of Arizona, April 7, 2021) - Continued

914-1054 (Vartan, 2021). Because these protective measures are so important, we have conceived a plan to ensure they are adequate. We recommend building the 39 wildlife crossings prior to constructing the high-speed rail to prevent restricting wildlife from crossing during construction. Depending on when the crossings are completed, we perceive that their effectiveness at reducing harm may vary. However, we did not find a timeline for their completion. If it is possible to build these before the high-speed rail, then wildlife will not be restricted from crossing during construction.

At the same time, we understand if there are limitations to allowing animals on site during construction, especially if this would pose a risk to the safety of the workers or the animals. If limitations prevent completion of the crossings before construction, we recommend they be created in tandem with the railway as it progresses. This course of action would disrupt wildlife movement more than creating the crossings before construction because the animals would be temporarily stuck on either side of the pathway. Still, concurrent completion of the railway and the crossings is more ideal than finishing the crossings after the railway begins running. The longer that wildlife are prevented from crossing, the more adverse consequences they will experience.

914-1055 We agree with your findings that construction delays can exacerbate disruptions to mountain lions and monarch butterflies, such as altering breeding seasons, increasing foraging competition, and shifting foraging ranges. For example when analyzing consequences of habitat fragmentation, Collinge asserts that mountain lions can suffer from habitat fragmentation, habitat loss, and experience an increase in the size of the boundary between fragments and their surrounding habitats due to urbanization (Collinge, 1996). In short, we fully support the creation of the crossings and appreciate the consideration of wildlife. These considerations will largely benefit mountain lions and monarch butterflies, but they will also aid all wildlife species. We would like to maximize the effectiveness of this mitigation effort by emphasizing that early completion of the crossings is best.

914-1056 In section 3.7.8 under *NEPA Impacts Summary,* biological mitigation measures for special-status plants and wildlife species are addressed. While the addition of the list of measures that will be taken to reduce environmental impacts is appreciated, the list is not detailed in the revised draft. Further information should be provided about the actions taken to reduce damage. For example, BIO-MM#85 states that avoidance and minimization measures will be implemented to reduce damage towards mountain lions, but does not provide further information on how that will occur. We encourage details of the avoidance measures to be included in the revised draft. These measures should be listed in section 3.7.8 to clarify measures taken to reduce the environmental impacts. Pairing the specific measures with how the mitigation will occur would clarify the California High-Speed Rail Authority's intentions with species protection. Additionally, these avoidance measures may not be perfectly implemented at every point during this project, which would mean damages to wildlife may not be completely mitigated. Therefore, we request more information on the extent to which the mountain lions, or other wildlife, could be adversely affected in the long term if the measures put in place are not sufficient.

914-1057 In section 3.7.7.2 *Mitigation Measures for Biological and Aquatic Resources*, BIO-MM#86 states that ground-disturbing activities that take place within wildlife habitat during nighttime hours will be avoided. In the event construction should take place at night, one mitigation measure is to shield and direct nighttime lighting to avoid illuminating wildlife habitat. Studies have shown that urban lighting can have an effect on deer and mountain lion behaviors and can alter their interactions (University of Michigan, 2020). The report stated that the minimum lighting level approved by OSHA (29 CFR 1926.56) will be utilized during construction (i.e., 5 foot-candles or 54 lux). Therefore, the impacts of these light sources must be taken into consideration. Additionally, it is mentioned that the duration of lighting infrastructure will be minimized by utilizing remote monitoring systems to ensure the security of the construction site outside of operating hours. This raises the concern that if the monitoring system(s) in place so happen(s) to fail, this may result in light pollution from dusk until dawn. We suggest that further research be done in finding an environmentally friendly lighting source, as well as a means for mitigating light pollution for the construction portion of the project in order to minimize risk of changing mountain lion behavior. It may even be in favor of the mountain lion for nighttime construction to be forgone entirely.

914-1058 We feel that these suggested changes will create a more scientifically sound and informational EIS. We appreciate the California High-Speed Rail Authority's efforts to mitigate negative impacts on endangered species and believe that the analyses provided in this document provide crucial support for species protection. While we applaud the mitigation efforts made in this report, further scientific research and environmentally conscious actions are needed. We propose that a more detailed on-site analysis be included to back the assumption that normal species functions will not be permanently altered. We also suggest that wildlife crossings are

914-1059 implemented prior to beginning railway construction. Another request is for more details to be provided regarding actions to reduce adverse impacts on endangered species and that a more environmentally conscious effort be implemented with project lighting.

Sincerely,

Ella Kaufman, Chelsea Mendoza, Marcela Lambert, and Rakeen Abdali

References

Collinge, S. K. (1996). Ecological consequences of habitat fragmentation: implications for landscape architecture and planning. *Landscape and urban planning*, *36*(1), 59-77.

National Environmental Policy Act of 1969 § 102, 42 U.S.C. § 4332 (2000).

University of Michigan. (2020, October 19). Light pollution alters predator-prey interactions between cougars and mule deer in western US. *ScienceDaily*. Retrieved April 6, 2021 from www.sciencedaily.com/releases/2020/10/201019112158.htm

Vartan, S. (2019, April 16). *How wildlife bridges over highways make animals-and people-safer*. https://www.nationalgeographic.com/animals/article/wildlife-overpasses-underpasses-make-animals-people-safer.

Response to Submission 914 (Ella Kaufman, University of Arizona, April 7, 2021)

914-1051

The two roadkill studies (Caltrans 2015 and TNC 2019) and the Road-Crossing and Connectivity Assessment for Black Bear in the Tehachapi Region of California (Zellar 2017) provide evidence that large mammals, including mountain lion, mule deer, and black bear currently utilize the habitat in the area following completion of construction of SR-58, the Union Pacific Railroad, and other development in the area. It is expected that wildlife will also habituate and utilize the habitat on both sides of the HSR alignment following construction.

The commenter states more scientific evidence should be provided to support the determination that impacts on wildlife movement will be unlikely post-construction. The analysis and determinations are supported by substantial evidence, including scientific studies and literature. For example, Santos et al. 2017 documents examples of wildlife mortality in railways, including high-speed trains. Although the HSR will be fenced to prevent collisions with wildlife, these documented railway mortality studies demonstrate that wildlife are likely to habituate to disturbance resulting from operation and maintenance of the HSR. Additional information is included in the Biological and Aquatic Resources Technical Report (BARTR) and Wildlife Connectivity Assessment (WCA).

914-1052

The commenter states that mitigation for impacts to endangered species and to reduce lighting impacts are not sufficiently outlined in the RDEIR/SDEIS and requests more details. The level of detail in the EIR/EIS meets the requirements of CEQA and NEPA. Additional information on measures proposed to reduce lighting effects are located in the WCA, which is Appendix I to the Bakersfield to Palmdale Project Section BARTR. As discussed in Section 3.7.6.4 of this Final EIR/EIS, effective mitigation measures have been identified to reduce impacts on wildlife movement corridors and habitat linkages to a less than significant level by avoidance, protection, or restoration methods. These measures include: BIO-MM#36, BIO-MM#37, BIO-MM#42, BIO-MM#50, BIO-MM#56, BIO-MM#64, BIO-MM#77, BIO-MM#78, and BIO-MM#86. Implementation of these measures would allow for the protection of habitat linkages and would work together with design features to minimize or avoid impacts on wildlife movement corridors during construction activities so as not to interfere substantially with the movement of native wildlife species. In addition, refer to Responses to Comments 914-1050 and 914-1053, contained in this chapter.

914-1053

The commenter recommends partnership with an outside organization and more detailed on-site analysis to support the determination that normal species functions would not be permanently altered. As discussed in Section 3.7.6.4 of this Final EIR/EIS, effective mitigation measures have been identified to reduce impacts on wildlife crossings and habitat linkages to a less than significant level by avoidance, protection, or restoration methods. These measures include: BIO-MM#36, BIO-MM#37, BIO-MM#42, BIO-MM#50, BIO-MM#56, BIO-MM#64, BIO-MM#77, BIO-MM#78, and BIO-MM#86, which would allow for the protection of habitat linkages. These measures would work together with design features to minimize or avoid impacts on wildlife crossings during construction activities so as not to interfere substantially with the movement of native wildlife species. A detailed analysis of wildlife movement and permeability is provided in the WCA.

Response to Submission 914 (Ella Kaufman, University of Arizona, April 7, 2021) - Continued

914-1054

The commenter suggests that the proposed wildlife crossings be constructed prior to construction of the HSR. Mitigation Measure BIO-MM#64: Establish Wildlife Crossings indicates that dedicated wildlife crossings would be designed during final design and prior to construction activities. The phased construction and extensive network of underground tunnels and elevated viaducts will provide opportunities for wildlife to cross the alignment during construction and after construction. The dedicated wildlife crossings are primarily constructed within the foundation of the HSR fill material and it is not possible to construct these crossings prior to the construction of the HSR alignment, as also suggested by the commenter. No revisions to the Final EIR/EIS have been made in response to this comment.

914-1055

The commenter supports the early construction of dedicated wildlife crossings. Wildlife will be able to cross the project alignment at underground tunnels and at elevated viaducts, which would effectively provide crossing opportunities throughout the duration of construction as the commenter is suggesting. Refer to Response to Comment 914-1054, contained in this chapter.

914-1056

The commenter suggests that more detailed information related to the mitigation measures and avoidance and minimization features (IAMFs) should be provided in the Final EIR/EIS. Section 3.7.7 of this Final EIR/EIS provides the full text of the mitigation measures, while Section 3.7.4.2 provides the full text of the biological IAMFs. As discussed in Section 3.7 of this Final EIR/EIS, implementation of the identified mitigation measures would reduce biological and aquatic resource impacts to less than significant. Further, the commenter suggests that BIO-MM#85 states that undefined avoidance and minimization measures will be implemented, but BIO-MM#85 requires compensatory mitigation for impacts on mountain lion core and patch habitat through the preservation of suitable habitat that is acceptable to CDFW at a minimum ratio of 2:1 for permanent impacts on breeding/foraging habitat and high-priority foraging and dispersal habitat, and at a ratio of 1:1 for low-priority foraging and dispersal habitat, unless a higher ratio is required by regulatory authorizations issued under the California Endangered Species Act. The measure also specifies that compensatory mitigation would be provided using one or more of the methods described in BIO-MM#53, which provides additional details about compensatory mitigation.

914-1057

The commenter states that failure of the remote monitoring system discussed in BIO-MM#86 could result in operation of construction lighting from dusk until dawn and that an alternative method should be considered. Any nighttime illumination used would be shielded and directed away from wildlife areas. As discussed in Section 3.7.7 of this Final EIR/EIS, the mitigation measure states that a remote monitoring system such as remote cameras and sensor or other methods would be implemented to ensure security of the construction site during hours lighting is not in use. In the event the remote monitoring system fails, the monitoring system would be repaired and would not result in additional light impact.

Response to Submission 914 (Ella Kaufman, University of Arizona, April 7, 2021) - Continued

914-1058

The comment is a conclusion paragraph summarizing prior comments in the letter. The commenter suggests further on-site analysis be conducted to ensure normal species functions would not be permanently altered. As described in the WCA, the project maintains crossing opportunities at elevated viaducts and underground tunnels to maintain connectivity for mountain lion across the project, which would maintain genetic exchange between the Western Sierra Nevada mountain lion population and the Southern California and central costal ESU. Further, the dedicated wildlife crossings would provide additional connectivity opportunities to cross the project alignment. Refer to Response to Comment 914-1053, contained in this chapter.

914-1059

The commenter also states that wildlife crossings should be constructed prior to railway construction and that additional detail should be provided related to construction project lighting. Refer to Responses to Comments 914-1054 and 914-1057, contained in this chapter.

Submission 917 (Camille McCollum, University of Arizona, April 8, 2021)

Bakersfield - Palmdale - RECORD #917 DETAIL

Status :	Action Pending
Record Date :	4/8/2021
Affiliation Type :	Business and/or Organization
Submission Date :	4/8/2021
Interest As :	Business and/or Organization
Submission Method :	Website
First Name :	Camille
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Email Subscription :	
Add to Mailing List :	No
EIR/EIS Comment :	
Attachments :	68973_PublicCommentLetter.pdf (51 kb)

Stakeholder Comments/Issues :

“Please find our comment letter attached. Thank you for your consideration."

March 19, 2021

Reilly Cunnington, Bobby Figarotta, Seliah McCasland, Camille McCollum
The University of Arizona
Environment and Natural Resources 2
1064 E Lowell Street
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U.S. Environmental Protection Agency
EPA Docket Center, Office of Land and Emergency Management, Mail Code 5101T
1200 Pennsylvania Avenue NW
Washington, D.C. 2046

To the California High Speed Rail Authority:

We are environmentally-oriented students at the University of Arizona enrolled in a Natural Resources Law and Policy Course, with two of us being native Californians who care deeply about the affected human and wild communities. California’s High Speed Rail Authority has produced a limited draft environmental impact statement for the proposed rail line route connecting the cities of Bakersfield and Palmdale. We are concerned about how effective the proposed alternatives and mitigation measures will be at protecting mountain lion and monarch butterfly populations. The revised draft EIS is lacking in its analysis and needs to be further developed to appropriately assess what the impacts of the operation will be, as well as providing more concrete methods of mitigating such impacts. 917-1065

The draft environmental impact statement lays out the proposed mitigation measures, but these alternatives are vague and do not illustrate the extent of impacts due to the proposed development. The DEIS mentions the impact of the project on monarch butterflies and mountain lions. Specific impacts on mountain lions and monarch butterflies are included, however we are concerned about how effective it will be at preventing loss of life, and further damage to the populations. For example, the revised DEIS states that, “ Prior to any ground-disturbing activities, the Project Biologist would survey for monarch butterfly larval host plants (native milkweed species) within suitable habitat” (Page 3.7-23). What will the CHSRA do if native milkweed establishes after ground disturbing-activities begin, and monarch butterflies are present? We believe that monitoring should continue periodically throughout the project to ensure that monarch butterflies are not established near the rail line. 917-1066

Questions we asked while reading the draft included:

- What are your recovery plans? 917-1067
- What are you doing to ensure that migration paths are not being affected aside from saying we are protecting migration paths? 917-1068

Submission 917 (Camille McCollum, University of Arizona, April 8, 2021) - Continued

- How have you determined "less than significant impacts" for almost all impacted populations when the audience does not even know what these impacts are? 917-1069
- How will the CHSRA handle loss of life or 'take' of endangered species in terms of the ESA? 917-1070

In addition to the comments above, we are seeking more information in regard to mitigation efforts for wildlife crossings and habitat linkages. Wildlife crossings allow species to move freely and avoid such development that will likely harm them, while habitat linkages ensure that species populations will not suffer due to the high speed rail construction. These aspects of the EIS are incredibly important and will serve to mitigate the harms imposed on species, but the information about these efforts is not clear and plans need to be explicitly outlined so the public can be confident in the species mitigation efforts. The biological aquatic resources document of the draft EIS acknowledges that wildlife crossings and habitat linkages will be affected; however, the agency does not go beyond this to explain how their proposed mitigation efforts will be maintained. As page 76 states: 917-1071

> "(The project) would represent a new barrier in an already fragmented portion of the Mojave Desert… Building structures could also hinder movement depending on their location and size… Indirect impacts from installation of track, fencing, and building structures may include the alteration of long-term movement, foraging ranges, and genetic distribution of a species… linear obstacles, such as track and fencing, may prevent wildlife from moving throughout their ranges during daily foraging, migration, or the breeding season. This could result in habitat fragmentation, habitat shifts, increased foraging competition, or limitations on genetic exchange."

It is clear that the intended project will affect species' habitats, several of which are listed under either the ESA or CESA. In regards to the monarch butterfly and mountain lion, we have a few measures to suggest. For the butterfly, the project should plant large amounts of native milkweed and other butterfly-pollinated plants away from the railways in order to encourage migration around the project areas. For the mountain lion, we suggest successful measures used in other areas, such as wildlife crossings and fencing, be used in this project. From the information provided above, it does not seem that the agency has done enough to understand how the project will damage or destroy habitats. It seems that these mitigation strategies inherently avoid the fact that these species' habitats are being affected and possibly destroyed. Though not every species protected has critical habitat, we believe that the agency needs to do more to understand and explain effects on habitats and wildlife crossings. 917-1072 917-1073 917-1074

We recognize that the draft EIS is unfinished and offer these comments with hopes that the final EIS will adequately reflect the concerns of the public. We feel that our concerns must be heard in order to ensure this project fulfills its requirements of NEPA. We suggest that in the final EIS, there must be explicit explanations of each alternative. Specifically, we believe the agency must lay out each alternative and evaluate how it will affect wildlife crossings, habitats, protected species, and impacts on citizens of California. The proposed mitigation efforts must also be explained, with definitive evidence as to how they will accurately mitigate the impacts. 917-1075

Sincerely,

Reilly Cunnington, Bobby Figarotta, Seliah McCasland, Camille McCollum

Response to Submission 917 (Camille McCollum, University of Arizona, April 8, 2021)

917-1065

The commenter expresses concern about the effectiveness of the proposed alternatives and mitigation measures for protecting mountain lions and Monarch butterfly. Impacts BIO#2, BIO#5, BIO#8, and BIO#11 in Section 3.7.6 of this Final EIR/EIS provide analysis of construction-related and operations impacts to mountain lion and Monarch butterfly. Section 3.7.7 of this Final EIR/EIS provides the full text of the mitigation measures, while Section 3.7.4.2 provides the full text of the biological IAMFs. As discussed in Section 3.7 of this Final EIR/EIS, implementation of the identified mitigation measures would reduce biological and aquatic resource impacts to less than significant.

917-1066

The commenter expresses concern about the effectiveness of measures identified in the Revised Draft EIR/Supplemental Draft EIS at reducing impacts to mountain lions and Monarch butterfly. Mitigation Measure BIO-MM#82 (Section 3.7.7 of this Final EIR/EIS) identifies pre-construction surveys and avoidance of host plants. As discussed under Impact BIO#2: Construction Impacts on Special-Status Wildlife Species, it is unlikely that milkweed would re-establish during construction or in the right-of-way after construction is completed. BIO-MM#83 would require compensatory mitigation for impacts on Monarch Butterfly breeding and foraging habitat at a minimum ratio of 2:1, and areas of temporary impact will be replanted with native milkweed.

With regard to monarch butterfly mortality due to train strikes, because the butterfly does not move in large numbers outside of known migratory areas, it is anticipated there will only be a small number of strikes. And although the milkweed host plant habitat is within the entire footprint, the alignment is not near or between overwintering and migratory areas. Therefore, implementation of the proposed mitigation measures would reduce impacts to less than significant.

917-1067

The commenter questions what the Authority's recovery plans are. The Final EIR/EIS lists mitigation measures in Section 3.7.7. Mitigation Measure BIO-MM#53: Prepare a Compensatory Mitigation Plan (CMP) for Species and Species Habitat outlines what would go into a compensatory mitigation plan to offset permanent and temporary impacts to federal and State-listed species and their habitat. The mitigation measure includes the following:

The Authority will prepare a Compensatory Mitigation Plan that sets out the compensatory mitigation that will be provided to offset permanent and temporary impacts to federal and State-listed species and their habitat, fish and wildlife resources regulated under Section 1600 et seq. of the Fish and Game Code, and certain other special-status species. The CMP will include the following:

· A description of the species and habitat types for which compensatory mitigation is being provided.

· A description of the methods used to identify and evaluate mitigation options. Mitigation options will include one or more of the following:

· Purchase of mitigation credits from an agency-approved mitigation bank.

· Protection of habitat through acquisition of fee-title or conservation easement and funding for long-term management of the habitat. Title to lands acquired in fee will be transferred to CDFW and conservation easements will be held by an entity approved in writing by the applicable regulatory agency. In circumstances where the Authority protects habitat through a conservation easement, the terms of the conservation easement will be subject to approval of the applicable regulatory agencies, and the conservation easement will identify applicable regulatory agencies as third party beneficiaries with a right of access to the easement areas.

· Payment to an existing in-lieu fee program.

· A summary of the estimated direct permanent and temporary impacts to species and species habitat.

Response to Submission 917 (Camille McCollum, University of Arizona, April 8, 2021) - Continued

917-1067

· A description of the process that will be used to confirm impacts. Actual impacts to species and habitat could differ from estimates. Should this occur, adjustments will be made to the compensatory mitigation that will be provided. Adjustments to impact estimates and compensatory mitigation will occur in the following circumstances:

· Impacts to species (typically measured as habitat loss) are reduced or increased as a result of changes in project design,

· Pre-construction site assessments indicate that habitat features are absent (e.g., because of errors in land cover mapping or land cover conversion),

· The habitat is determined to be unoccupied based on negative species surveys, or

· Impacts initially categorized as permanent qualify as temporary impacts.

· An overview of the strategy for mitigating effects to species. The overview will include the ratios to be applied to determine mitigation levels and the resulting mitigation totals.

· A description of habitat restoration or enhancement projects, if any, that will contribute to compensatory mitigation commitments.

· A description of the success criteria that will be used to evaluate the performance of habitat restoration or enhancement projects, and a description of the types of monitoring that will be used to verify that such criteria have been met.

· A description of the management actions that will be used to maintain the habitat on the mitigation sites, and the funding mechanisms for long-term management.

· A description of adaptive management approaches, if applicable, that will be used in the management of species habitat:

A description of financial assurances that will be provided to demonstrate that the funding to implement mitigation is assured.

917-1067

917-1068

The commenter questions what is proposed to ensure that migration paths are not affected. The project provides opportunities for wildlife to cross the project alignment utilizing a combination of elevated viaducts, underground tunnels, and dedicated wildlife crossings. The project includes 14 elevated segments and 6 underground segments within mountain lion range that provide opportunities for mountain lion to cross the alignment and maintain gene flow between the Western Sierra Nevada population and the southern California and central coastal ESU of mountain lion. One of these crossing opportunities is a 2.3 mile segment of habi tat that will be preserved over a tunnel section that is the least cost corridor (top 1 percent of mountain lion movement habitat) for mountain lion modeled by South Coast Wildlands for the South Coast Missing Linkages Project: A Linkage Design for the Tehachapi Connection (Penrod et al. 2003). In addition, five dedicated wildlife crossings will be constructed for wildlife to cross through the fenced at-grade segments.

917-1069

The commenter questions how a determination of “less than significant impacts” has been made. The methodology is described in Section 3.7 and Section 3.7.6 of this Final EIR/EIS which provides a detailed discussion of the impacts identified for the proposed project. The significance conclusions are supported by substantial evidence, including evidence in the technical reports.

Response to Submission 917 (Camille McCollum, University of Arizona, April 8, 2021) - Continued

917-1070

The commenter questions how the Authority will handle the "take" of endangered species. The Authority is committed to using avoidance to protect species as much as feasible and will work with state and federal wildlife agencies to obtain applicable take authorization under the California Endangered Species Act and Federal Endangered Species Act (FESA). The Final EIR/EIS describes IAMFs and Mitigation Measures that will avoid or minimize impacts to protected species.

The Authority is conducting formal consultation with the USFWS in accordance with Section 7 of the FESA. With implementation of conservation measures proposed in the Biological Assessment, the Authority has requested concurrence from the USFWS regarding the determination that the proposed action would have no impact on critical habitat and "may affect, but is not likely to adversely affect" two plant and three bird species. The Authority will not approve the Record of Decision for the project until after the USFWS issues a Biological Opinion with appropriate take authorization. Additionally, if warranted, the Authority would obtain take authorization through a Section 2081 Incidental Take Permit from the CDFW for state-listed species. This process is discussed in the Final EIR/EIS Section 3.7 summary and in Section 3.7.2.1.

917-1071

The commenter is requesting additional information on wildlife crossings and habitat linkage mitigation.

Chapter 2 of this Final EIR/EIS describes structures and wildlife crossings that are proposed for each alternative, and the BARTR, and its appendices, discuss wildlife corridors and proposed crossings. The text cited by the commenter provides introductory discussion. The paragraph on page 16 of Section 3.7 of the RDEIR/SDEIS concludes with: "However, the construction of tunnels and viaducts, particularly in the mountainous areas, would allow for continued wildlife movement over and under the alignments. In addition, wildlife undercrossings and overcrossings would be installed along the length of the track. This would further reduce the impacts on normal wildlife movement throughout ranges. However, wildlife crossing effectiveness would depend on wildlife usage and continual maintenance of the structures." As discussed in Section 3.7.6 of this Final EIR/EIS, the design characteristics of the project include effective IAMFs to identify wildlife crossings and delineate ESAs or environmentally restricted areas on final construction plans and in the field (BIO-IAMF#8 and BIO-IAMF#5). Effective mitigation measures have been identified in Section 3.7.7 to reduce impacts on wildlife crossings and habitat linkages to a less than significant level by avoidance, protection, or restoration methods. These measures include: BIO-MM#42, BIO-MM#37, BIOMM#56, BIO- MM#64, BIO-MM#77, BIO-MM#78, and BIO-MM#86, which would allow for the protection of habitat linkages. Impacts would be considered less than significant under CEQA after implementation of BIO-MM#42, BIO-MM#37, BIO-MM#56, BIO-MM#64, BIO-MM#77, BIO-MM#78, and BIO-MM#86.

Response to Submission 917 (Camille McCollum, University of Arizona, April 8, 2021) - Continued

917-1072

The commenter suggests planting large amounts of native milkweed away from the railway to encourage migration around the project area. Mitigation Measure BIO-MM#82 (Section 3.7.7 of this Final EIR/EIS) identifies pre-construction surveys and avoidance of host plants. In addition, in this Final EIR/EIS, BIO-MM#82 has been revised to include replanting native milkweed in temporary impact areas where feasible. As discussed under Impact BIO#2: Construction Impacts on Special-Status Wildlife Species, implementation of the proposed mitigation measures would reduce impacts to less than significant.

No revisions have been made to the Final EIR/EIS in response to this comment.

917-1073

The commenter recommends the use of wildlife crossings and fencing be used for this project. As discussed in Mitigation Measure BIO-MM#64 of this Final EIR/EIS, dedicated wildlife crossings would be developed as part of the proposed project. Additionally, Mitigation Measure BIO-MM#77 of this Final EIR/EIS identifies the use of security fencing to prevent access into the right-of-way and tracks by mountain lion. The dedicated wildlife crossings will be designed consistent with the design recommendations in Section 7.3.4 in the WCA that describes fencing or steep riprap to help guide or funnel wildlife toward the crossing entrance. No revisions have been made to the Final EIR/EIS in response to this comment.

917-1074

The commenter states that the Authority needs to do more to understand and document effects on habitats and wildlife crossings. An extensive analysis for wildlife crossings is provided in the WCA, Appendix I to the BARTR. As discussed in the BARTR and the WCA, the Bakersfield to Palmdale Project Section maintains intact habitat across the project alignment at the tunnels and viaducts that provide opportunities for the inter-movement of the Western Sierra Nevada population with the southern and central coastal California populations of mountain lion. Other opportunities for wildlife to cross the alignment include the dedicated wildlife crossings that will constructed through implementation of mitigation measure BIO-MM#64. The project effects to habitat are quantified in the BARTR and discussed in Section 3.7 of this Final EIR/EIS.

917-1075

Refer to Standard Response BP-Response-GENERAL-01: Alternatives.

Refer to Standard Response BP-Response-GENERAL-01: Alternatives.

Chapter 2 of this Final EIR/EIS describes the alternatives development process and provides detailed discussion of the proposed alternatives analyzed in Chapters 3, 4, and 5 of this Final EIR/EIS. As described in the text and figures provided in Chapter 2, the four build alternatives are very similar because they share a common alignment for much of the 80-mile length of the Bakersfield to Palmdale Project Section. The text, tables, and figures provided in Chapters 3, 4, and 5 identify how each alternative affects wildlife crossings, habitats, protected species, and impacts on citizens of California.