

Response to Comments

## **Chapter 2. Federal Agencies Comment Letters**

Comment Letter AF001

AF001



UNITED STATES MARINE CORPS
MARINE CORPS AIR BASES WESTERN AREA MIRAMAR
P.O. BOX 452901
SAN DIEGO, CA 92145-2001

11230
G-5/High Speed Rail
May 5, 2004

CALIFORNIA HIGH SPEED RAIL AUTHORITY
ATTN MR DAN LEAVITT
925 L STREET SUITE 1425
SACRAMENTO CA 95814

RE: DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL
IMPACT STATEMENT (EIR/EIS) FOR THE PROPOSED CALIFORNIA HIGH
SPEED TRAIN SYSTEM

Dear Mr. Leavitt,

This is in response to the proposed California High Speed Train
System and the route alignment alternatives for San Diego
County. As a member of this community, we support the expansion
of mass transit and will continue to participate in the planning
process for this region. This initiative is noteworthy as the
region is in a perpetual state of declining resources. To
assist you in addressing the substantive context of our
concerns, I have briefly summarized them below for your
reference purposes. Previous statements provided to the High
Speed Rail Task Force on May 13, 1999 are provided for your
reference purposes (enclosure).

The proposed project is contained within Marine Corps Air
Station (MCAS) Miramar airspace and Area of Influence for land
use planning purposes. Any alignment alternative in proximity
to MCAS Miramar would be directly affected by the routine over-
flights of military fixed and rotary-wing aircraft transiting to
and from this installation. Of particular concern is the
proposed alignment alternative that follows Miramar Road
directly adjacent to the Miramar housing complex and the myriad
of sensitive habitats adjacent to this circulation alternative.
Further examination of the substantive impacts to this area will
be required. Impacts to federal facilities must be identified
and prevented, or mitigation measures implemented. Any proposed
alternative which, would limit or impact on the Marine Corp's
ability to perform mission essential training and readiness
requirements to meet national security objectives would not be
approved.

The east-west configuration of the Miramar Road alternative
raises some significant noise and safety concerns.
The proposed Miramar Road alternative would be directly
underneath the primary departure and arrival corridor, Field
Carrier Landing Practice, Touch and Go and Ground Controlled
Approach Flight patterns for Miramar operations. As a result,
examination of electronic emissions or interference with
military operations is requisite under the circumstances. In
addition, the proposed project is within Accident Potential Zone
(APZ) I, and the identified 75-80 Community Noise Equivalent
Level (CNEL) noise contours for Miramar operations. There is no
effective mitigation for exterior noise from over-flight and the
cumulative impacts of both the rail corridor traffic and
transiting military aircraft should be examined further.

Lastly, all environmental studies must address all pending or
transportation actions must include careful considerations that
may affect MCAS Miramar, including the proposed I-805 expansion
and additional commuter rail service and lines and the blocking
of access to ingress and egress.

Thank you for the opportunity to review this land use proposal.
If we may be of any further assistance, please contact Ms. C.
Laura Thornton at (858) 577-6603.

Sincerely,

[Signature]

P. S. PARKHURST
Colonel, U.S. Marine Corps
Community Plans and Liaison Officer
By direction of the Commander

Enclosure:
(1) DoD Statement to SANDAG Transportation High Speed Rail Task
Force May 13, 1999

AF001-2
cont.

AF001-3

AF001-1

AF001-2



**Comment Letter AF001 Continued**

DOD STATEMENT TO SANDAG TRANSPORTATION HIGH SPEED RAIL TASKFORCE  
13 MAY 1999

On behalf of the United States Marine Corps, DOD expresses the following concerns about the three proposed routes for High-Speed Rail (HSR) line placement in San Diego County.

The following comments are general in nature and should not be used to infer a preferred alignment. Any effort to make use of Marine Corps' land for HSR that would limit or impact on the Marine Corps ability to perform its mission in any way would not be approved. These impacts could take the form of electronic interference to flight operations, interference with any of the airfield approach or safety surfaces required for airfield operations, encroachment on base boundaries that would impact family housing, quality of life, environmentally sensitive areas, other surface traffic patterns, or any other interference.

Formal approval or adoption of any preferred alternative, if determined to be feasible, could not occur until the High-Speed Rail Authority (HSRA) completes the Consolidated Land and Airspace Management Planning process with the MCAS Miramar staff. Guidance on this process has been provided to the HSRA

and they are in touch with the MCAS Miramar planning organization.

Any routes along I-15, on either side, will encroach on and impact some extremely sensitive environmental areas including very high quality vernal pools and habitat for the California gnatcatcher. All environmental documents for proposed future work must carefully consider the impacts to these area and all environmental issues at MCAS Miramar. Close coordination with and study of the pending Integrated Natural Resources Management Plan, to be released during the summer of 1999, is required.

MCAS Miramar has a critical shortage of military family housing. An Environmental Impact Statement is currently being prepared to study several sites about the Air Station which have been identified as suitable for housing, with potential for well over 1,000 units and ancillary facilities. All of these sites may eventually be required for housing of military families. Any study of proposed rail facilities must consider and avoid environmental impact to these areas, particularly noise impacts and blocking of access to ingress and egress.

All environmental studies must address all pending or proposed transportation actions that may affect MCAS Miramar, including

AF001-4

AF001-4  
cont.

*ENCLOSURE (1)*



U.S. Department  
of Transportation  
**Federal Railroad  
Administration**

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**Comment Letter AF001 Continued**

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the proposed I-805 expansion and additional commuter rail  
service and lines.

AF001-4  
cont.

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**Response to Comments of P. S. Parkhurst, U.S. Marine Corp, May 10, 2004 (Letter AF001)**

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**AF001-1**

Acknowledged.

**AF001-2**

Acknowledged. The Authority identified the both the Carroll Canyon and Miramar Road alignment options as preferred between Mira Mesa and San Diego. These alignment Canyon options would enable the HST system to directly serve downtown San Diego, whereas the I-15 to Qualcomm option would terminate about 8-miles from the city center at the Qualcomm Stadium (20 minutes by light rail). Directly serving Downtown San Diego would provide better connections to the regional transit system and airport. SANDAG, NCTD, MTDB, Caltrans District 11, and the City of San Diego all support direct HST service to downtown San Diego via the Inland Empire (I-215/I-15 Corridor).

The Carroll Canyon and Miramar Road alignment options have similar potential for environmental impacts. The Carroll Canyon option would avoid and minimize some potential impacts to Miramar Naval Air Station as compared to either the Miramar Road or I-15 alignment option. As compared to the I-15 option, one alignment through either Carroll Canyon or along Miramar Road would have less potential for impact to parklands and vernal pools, and less potential for growth-induced impacts, but more potential for visual, cultural, and floodplains impacts.

Should the HST proposal move forward, the Authority and the FRA will continue to work with the United States Marine Corps throughout the more detailed project-specific studies that will be required to select a specific alignment prior to implementation.

**AF001-3**

Subsequent project level environmental reviews would include further analysis of the cumulative effects of related projects in the vicinity of the proposed segments or portions of the proposed HST system, should a decision be made to move forward with the system.

**AF001-4**

Please see standard response 6.31.4.

Comment Letter AF002

AF002

Congress of the United States  
Washington, DC 20515



May 26, 2004

Joseph Petrillo, Chairman  
California High-Speed Rail Authority  
925 L Street Suite 1425  
Sacramento, CA 95814

Dear Chairman Petrillo:

In response to your solicitation for public comment, we write to express our full support for the California High-Speed Rail Authority's (CHSRA's) Draft Program Environmental Impact Review / Environmental Impact Statement (EIR/EIS) for the proposed California High-Speed Train System as it relates to the San Francisco Bay Area. We wholeheartedly agree with the Authority's decision after thorough study of all alignment options to eliminate the Altamont Pass from further consideration.

A southern approach into the San Francisco Bay Area is the only economically and environmentally sound alignment option that meets the stated purpose of this project: to provide a predictable and consistent mode of intercity travel, connecting the state's major metropolitan areas, commercial airports, mass transit systems and highway network. A southern approach through the Pacheco Pass or the Diablo Range will efficiently serve all three population and economic centers of the Bay Area, while requiring only one split as trains travel through San Jose to Oakland and San Francisco. Minimizing the number of splits in the route between Los Angeles and San Francisco should reduce overall travel time, attracting a greater number of travelers to the new system.

The Altamont Pass, in contrast, would require an unwieldy and unlikely-to-be built three-way split in Union City to serve Oakland, San Francisco and San Jose. This split would seriously reduce the number of trains that can service each of the Bay Area's major metropolitan cities and double the operating costs for the system, transferring the project from one with an operating surplus to one with an operating deficit. The draft environmental document, therefore, appropriately concludes that an alignment along the Altamont Pass "would have an adverse impact on the commercial viability of the entire high speed train system."

The environmental implications of an alignment along the Altamont Pass are even more troubling. The Altamont route would require a new crossing over the San Francisco Bay. Not only is this an economically and politically unlikely alternative, a new Bay crossing

would impact sensitive wetlands, saltwater marshes, and aquatic habitat within and surrounding the Don Edwards San Francisco Bay National Wildlife Refuge. The Bay Conservation and Development Commission has discouraged any new or expanded use of bay waters or shoreline habitat important to sensitive bay species. A high speed rail project that relies on a new bay crossing will likely derail the entire project.

The design of a project of this magnitude must be based on state-of-the-art planning and engineering principals that are applicable for a 21<sup>st</sup> century high-speed passenger train system. We commend the CHSRA for its sophisticated analysis of the alignment options in the San Francisco Bay Area and its ongoing commitment to sound transportation planning. As the CHSRA finalizes its EIR/EIS, we urge the Authority to remain firm in its wise decision to eliminate the Altamont Pass from further consideration as an alternative alignment.

Sincerely,

Michael M. Honda  
Member of Congress

Zoe Lofgren  
Member of Congress

Anna Eshoo  
Member of Congress

AF002-1  
cont.

AF002-1

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of Transportation  
**Federal Railroad  
Administration**

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**Response to Comments of Michael Honda, Zoe Lofgren, Anna Eshoo – United States Congress, June 8, 2004  
(Letter AF002)**

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**AF002-1**

Please see standard response 2.18.1.



Comment Letter AF003

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(831) 335-2020
FAX (650) 323-3498
annagram@mail.house.gov
http://www.house.gov/eshoo

Anna G. Eshoo
14th District, California
Congress of the United States
House of Representatives
Washington, DC 20515-0514

AF003
COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEES
TELECOMMUNICATIONS AND THE INTERNET
HEALTH
PERMANENT SELECT COMMITTEE ON INTELLIGENCE
SUBCOMMITTEES
INTELLIGENCE POLICY AND NATIONAL SECURITY - RANKING MEMBER
TECHNICAL AND TACTICAL INTELLIGENCE
WHIP AT LARGE
CO CHAIR
E 911 CAUCUS
CO CHAIR
MEDICAL TECHNOLOGY CAUCUS
VICE CHAIR
DEMOCRATIC BUDGET GROUP

Gertrude Reagan
967 Moreno Ave.
Palo Alto, CA 94303

August 6, 2004

California High Speed Rail Authority Board
Attn: California High-Speed Train
Draft Program EIR/EIS Comments
925 L Street, Suite 1425
Sacramento, California 95814

Dear Board Members,

Please find enclosed correspondence from my constituent, Gertrude Reagan, regarding her concerns pertaining to the California High Speed Rail Project and in particular, the approach to the San Francisco Bay Area.

I respectfully request that you include Ms. Reagan's comments in your review of the California High Speed Rail Authority Draft Program EIR/EIS.

Sincerely, and gratefully,

Anna G. Eshoo
Member of Congress

Enclosure

Dear Rep. Eshoo:

July 17, 2004

Thank you for your good work on the recent Sanders Amendment. The voting process was very discouraging, but the closeness of the vote shows the level of concern, which is good!

Regarding High Speed Rail: Recently you have been siding with San Jose to have the line come directly there first, but...

The arguments made against the Altamont high speed rail routing are based on faulty assumptions:

1) San Jose would not receive worse service or less service. Technically it is feasible and common practice for European HSR systems to serve multiple branch lines, just as BART trains running through the Transbay Tube and SF originate from four different East Bay branch lines. Any modern rail line, including the HSR mainline to Southern California, can handle trains about every two minutes. Trains from every Northern California branch can run nonstop to LA. Market demand will determine how many nonstop (and slower trains) San Jose will have heading south.

2) Environmental concerns about crossing the Bay at Dumbarton are overblown. A rail line already exists there. Moreover, a plan is in place to restore passenger service on this line. Environmental problems are far more serious on the San Jose-Fresno mountain crossings currently being considered, as well as on wetlands in the San Joaquin Valley near Los Baños.

Regarding point 1 above:

a) Because San Jose would be on a branch line, it would have its own dedicated trains to Fresno and LA. Passengers boarding to go south would have empty trains to board.

b) Studies have shown conclusively that San Francisco will have the highest ridership of all Northern California cities. SF will need to have nonstop service to Southern California. These trains should be able to bypass San Jose. It would make less sense to build special tracks for

AF003-1

AF003-2

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U.S. Department of Transportation
Federal Railroad Administration

**Comment Letter AF003 Continued**

them to run right through San Jose at high speed, or to slow down to pass through.

c) The Altamont routing would increase the distance between San Jose and southern destinations by nine miles. However, it would decrease the distance between San Francisco and the latter slightly. And it would drastically decrease distances between Bay Area cities and Modesto, Stockton, and Sacramento (by as much as 120 miles).

The Altamont routing has more potential to serve a lot more needs:

1) The two southerly proposed routings would greatly increase the trip distance between the Bay Area and Sacramento, making it unattractive to riders. Currently Florida is contemplating building a HSR line between Tampa and Orlando, about the same distance as Bay Area-Sacramento (approved by voters in 2000, but vehemently opposed by Governor Jeb Bush).

2) The Altamont routing would give us vastly improved train service to Modesto, Stockton, and Sacramento — in addition to Fresno and Southern California. These shorter distance travel needs should not be overlooked. Recent European HSR projects, in the Netherlands and Southeast England (Chunnel link), serve more travelers/commuters in the 50-150 mile range than on longer distances. Political support for the projects came from these constituencies. When you look at our freeways, it's clear that our emphasis should be likewise. Without such emphasis, the whole California HSR proposal is vulnerable to those who will argue that HSR offers nothing for our traffic problems closer to home.

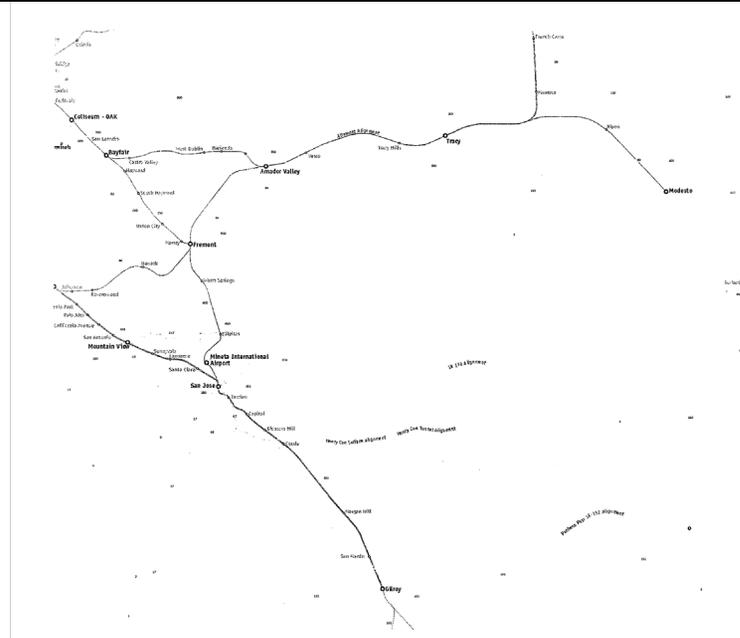
Last but not least:

- Please study the enclosed map.
- Altamont has the shortest overall route miles for the complete system including Sacramento — meaning it would save billions.
- PCL, Sierra Club, other environmental groups support Altamont and oppose the Diablo (east of San Jose) routing through the largest remote wilderness area in the region.
- <http://www.arch21.org/CaHighSpeed.dir/hsrindex.html> explains these issues and more — an excellent and well researched report on the web.

Sincerely,



AF003-2  
cont.



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**Response to Comments of Anna Eshoo – United States Congress, August 11, 2004 (Letter AF003)**

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**AF003-1**

Acknowledged.

**AF003-2**

Please see standard response 2.18.1.

**Comment Letter AF004**

**AF004**



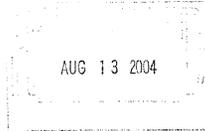
**United States Department of the Interior**

NATIONAL PARK SERVICE  
Mojave National Preserve  
222 East Main Street, Suite 202  
Barstow, California 92311

IN REPLY REFER TO:  
L7619 (MOIA)

August 5, 2004

Mr. David Valenstein  
Federal Railroad Administration  
1120 Vermont Avenue (Mail Stop 20)  
Washington, DC 20590



Dear Mr. Valenstein:

Thank you for the opportunity to review and comment on the draft Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the proposed California High-Speed Train System. Mojave National Preserve is a unit of the National Park Service situated between Interstate Highways 15 and 40 in southeastern California with a detached unit, Clark Mountain, to the north of I-15. We are interested in your project and its potential relation to other rail projects in California that would potentially abut Mojave's boundaries.

The Nevada Department of Transportation and the Federal Railroad Administration have issued a Notice of Intent to prepare an EIS for magnetic levitation rail between Anaheim, California and Las Vegas Nevada. The project proponents anticipate a Record of Decision by 2005/2006 at which time they will seek additional funding for construction. Stations will be located throughout the State, including Ontario Airport and the City of Anaheim. Because your proposal also includes stations in these two places, it would be reasonable and logical for you to coordinate your efforts with this other major rail project. Both projects share overlapping markets and may have impacts on each other as well as cumulative impacts to consider. Points of contact for the MagLev project include Mr. Christopher Bonanti of the Federal Railroad Administration, and Mr. Jeffrey Fontaine and Mr. James Mallery of the Nevada Department of Transportation.

I am also aware of another proposal for high-speed rail service from southern California to Las Vegas, Nevada. Bombardier Technology is interested in providing service between Victorville, California and Las Vegas, Nevada along the CalTrans right-of-way on the I-15 corridor. The draft Program EIR/EIS appears to be proposing the same technology as Bombardier Technology presented to me two years ago. I do not know the current status of this Victorville-to-Las Vegas proposal but encourage you to look into this other proposal and how it might be coordinated with the draft Program EIR/EIS.

If you have any questions about these other proposals, please feel free to contact Ms. Danette Woo, Environmental Compliance Specialist at (760) 255-8841 or [danette\\_woo@nps.gov](mailto:danette_woo@nps.gov).

Sincerely,

Mary G. Martin  
Superintendent

cc: Mr. Dan Leavitt, California High Speed Rail Authority ✓

AF004-1



CALIFORNIA HIGH SPEED RAIL AUTHORITY



U.S. Department  
of Transportation  
**Federal Railroad  
Administration**

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**Response to Comments of Mary Martin, Superintendent – U.S. Department of the Interior, August 13, 2004  
(Letter AF004)**

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**AF004-1**

Acknowledged. The Authority is aware of the Mojave National Preserve and Clark Mountain units; however, they are far to the east of any alignment options under consideration. The Authority will coordinate with the Nevada Department of Transportation and other project sponsors that propose high speed rail and Maglev systems particularly with regard to proposed stations and alignments affecting areas in proximity to proposed HST alignments and stations. Should the HST proposal move forward, project level studies will further consider the potential for cumulative impacts resulting from these other proposals.

As the federal lead agency for this Program EIR/EIS, the FRA will continue to provide coordination regarding studies of high-speed rail and Maglev proposals in California. In addition, the Authority will coordinate with the Nevada Department of Transportation and other project sponsors during subsequent phases of project development and implementation that involve California.

Comment Letter AF005

DENNIS A. CARDOZA  
18TH DISTRICT, CALIFORNIA

COMMITTEE ON AGRICULTURE  
SUBCOMMITTEE ON DEPARTMENT OPERATIONS,  
OVERSIGHT, NUTRITION AND FORESTRY

SUBCOMMITTEE ON GENERAL FARM  
COMMODITIES AND RISK MANAGEMENT

SUBCOMMITTEE ON LIVESTOCK AND  
HORTICULTURE

COMMITTEE ON RESOURCES  
SUBCOMMITTEE ON NATIONAL PARKS,  
RECREATION AND PUBLIC LANDS

SUBCOMMITTEE ON WATER AND POWER

COMMITTEE ON SCIENCE  
SUBCOMMITTEE ON RESEARCH

Congress of the United States  
House of Representatives  
Washington, DC 20515-0518

October 17, 2003

AUG 31 2004

**AF005**  
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MODESTO, CA 95354  
(209) 527-1914

448 WEST WEBER AVENUE, SUITE 240  
STOCKTON, CA 95203  
(209) 946-0361  
(800) 356-6424

Mr. Joseph E. Petrillo  
925 L Street, Suite 1425  
Sacramento, CA 95814

Dear Mr. Petrillo:

I am writing to inform the California High Speed Rail Authority of my strong support of the Authority's plans to develop a High Speed Rail System in California that will run from Sacramento through the San Joaquin Valley to San Diego, with portions of the system branching out to the Bay Area.

AF005-1

As you are aware, the San Joaquin Valley is California's fastest growing region of the state. For this reason, it is essential that the High Speed Rail System include numerous stops in the San Joaquin Valley, including Stockton, Modesto and Merced. These stops in the Valley will help to address our region's transportation, economic, environmental and quality of life goals. Specifically, they will help to alleviate the increasing demands of growth by helping to address the Valley's traffic congestion and air quality needs.

AF005-2

I am also very supportive of efforts underway to consider development of portions of the former Castle Air Force Base as a maintenance hub for the High Speed Rail System. The Castle Airport, Aviation and Development Center would be a highly desirable location for a maintenance facility, as it would be centrally located to the system, and would appear to have the necessary land and workforce resources.

AF005-3

As you may be aware, the San Joaquin Valley consistently ranks among the highest unemployment regions in the nation. Route stops in Merced, Modesto and Stockton and the development of a maintenance facility at Castle would greatly benefit the Valley, as they would generate jobs and economic growth activity for the region.

I appreciate the opportunity to express my support for the High Speed Rail route stops in Merced, Modesto and Stockton and for the siting of a maintenance facility at Castle. Please do not hesitate to contact me if I can be of any further assistance in this effort.

Sincerely,



Dennis Cardoza  
Member of Congress

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**Response to Comments of Dennis Cardoza – U.S. Congress, August 31, 2004 (Letter AF005)**

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**AF005-1**

Acknowledged.

**AF005-2**

Acknowledged. Please see standard response 2.31.4 regarding potential station stops. The Authority has identified potential HST stations at Sacramento, Stockton, Modesto, Merced, Fresno, and Bakersfield to serve the Central Valley's intercity travel markets.

**AF005-3**

Acknowledged. The Authority has identified the Downtown Merced and Castle Airport, Aviation and Development Center as potential HST station sites to serve Merced County. One of these sites would be selected during subsequent project-specific environmental studies. Please see standard response 2.35.1 in regards to the selection of maintenance facilities locations.

Comment Letter AF006

TOM LANTOS  
CALIFORNIA

WASHINGTON OFFICE  
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WASHINGTON, D.C. 20515  
(202) 225-3531

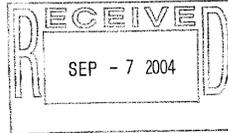
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SUITE 410  
SAN MATEO, CA 94402  
(650) 942-0300  
IN SAN FRANCISCO:  
(415) 566-5257



Congress of the United States  
House of Representatives  
Washington, D.C. 20515

**AF006**  
INTERNATIONAL RELATIONS COMMITTEE  
Ranking Democratic Member  
  
GOVERNMENT REFORM COMMITTEE  
Subcommittee on Energy Policy,  
Natural Resources and Regulatory Affairs  
Subcommittee on National Security,  
Veterans' Affairs and International Relations  
  
Cochair, Permanent United States  
Congressional Delegation to the  
European Parliament  
Member, United States  
Congressional Delegation to the  
NATO Parliamentary Assembly  
Cochair, Congressional  
Human Rights Caucus  
Member, United States Holocaust Memorial Council

August 31, 2004



California High Speed Rail Authority  
925 L Street, Suite 1425  
Sacramento, CA 95814

Dear Chair and Board Members:

I want to take this opportunity to comment on the draft environmental impact report (DEIR) currently under review by the High Speed Rail Authority (HSR). I strongly believe that a high-speed system offering fast and convenient rail service between Northern and Southern California can provide environmental and economic benefits to all Californians.

I have two concerns as you review the DEIR. First, I am concerned about the omission of the Altamont Pass alternative route. There are many important and very compelling meritorious arguments for not choosing this alternative, however, I believe the overall viability of the project is enhanced by considering all alternatives during the decision making process.

Second, I am a long-time advocate of protecting our environmental resources, particularly open space, parks, and wetlands. Some of the proposed HSR routes would impact sensitive areas including Henry Coe State Park, Orestimba Wilderness, Mt. Hamilton, Coyote Ridge, the Grassland Ecological Area, and the aquatic resources and open space of the Diablo Range. I believe that HSR impact on these environmentally sensitive areas must be fully considered prior to any decision.

I urge you to undertake a revision of the draft environmental impact to ensure that all alternatives and all environmental impacts are fully included and considered.

Cordially,

TOM LANTOS  
Member of Congress

AF006-1

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♻️



U.S. Department  
of Transportation  
**Federal Railroad  
Administration**

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**Response to Comments of Tom Lantos – U.S. Congress, August 31, 2004 (Letter AF006)**

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**AF006-1**

Please see standard response 2.18.1.

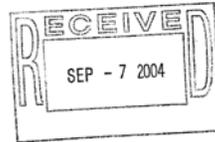
Comment Letter AF007

AF007



DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O BOX 532711
LOS ANGELES, CALIFORNIA 90053-2325

August 31, 2004



REPLY TO
ATTENTION OF:

Office of the Chief
Regulatory Branch

Mr. Mark E. Yachmetz
Associate Administrator for Railroad Development
U.S. Department of Transportation
Federal Railroad Administration
1120 Vermont Avenue, N.W.
Washington, D.C. 20590

Dear Mr. Yachmetz:

Pursuant to our regulatory authorities promulgated under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbor Act (RHA), we offer the following comments on the California High Speed Train Project ("Project") Draft Program Environmental Impact Report/Tier 1 Environmental Impact Statement ("PEIR/EIS").

In 2003, the U.S. Army Corps of Engineers ("Corps") entered into a Memorandum of Understanding ("MOU") for the Project along with the FRA, Federal Highway Administration, Federal Transit Administration, and the U.S. Environmental Protection Agency to formalize our cooperating agency status as defined in regulation at 40 C.F.R. § 1501.6.

On June 6, 2001, former South Pacific Division Commander, General Peter T. Madsen, designated the Los Angeles District as the lead district office to participate in the interagency working group associated with this proposed Project.

our comments are broad in nature and are intended to represent the common interests of all three offices. In the comments that follow (see Enclosure), we have addressed our regulatory scope, range of alternatives, evaluation of impacts, mitigation/sequencing, and general data needs for future environmental documentation.

The goal of the PEIR/EIS is to select a 'system' alternative, that is, Modal or High Speed Train, which would satisfy the Project's overall purpose and, if possible, identify options for a High Speed Train preferred corridor/alignment with associated station locations.

The Corps recognizes the importance of this project and in working collaboratively with the FRA to ensure the environmental processes and substantive requirements are both ripe for consideration and sufficiently fulfilled.

Sincerely,

[Signature of Aaron O. Allen]

Aaron O. Allen, Ph.D.
Acting Chief, Regulatory Branch

Enclosure

1. Detailed Comments

Copies Furnished:

California High Speed Rail Authority (Mehdi Morshed, Dan Leavit)
U.S. Environmental Protection Agency (Enrique Manzanilla, Connell Dunning)
U.S. Fish and Wildlife Service (Mark Littlefield)

AF007-1
cont.

AF007-1



U.S. Department of Transportation
Federal Railroad Administration

Comment Letter AF007 Continued

-3-

ENCLOSURE: U.S. Army Corps of Engineers Detailed Comments

Regulatory Scope

At its conclusion, this Tier 1 process will recommend one or more alternatives be advanced for detailed analysis, but it will not result in the issuance of regulatory permits or the acquisition of right-of-way. Rather, as the Corps understands, subsequent to this programmatic environmental process a Tier 2, or project-level, NEPA/CEQA document will be prepared to evaluate the corridor/alignment options and station locations that have been advanced from the Tier 1 EIS Record of Decision (ROD). During future NEPA analysis, opportunities would be pursued for further avoidance and minimization of aquatic resources. Moreover, the Tier 2 environmental review process would comply with the substantive requirements of the 404(b)(1) Guidelines ("Guidelines") as well as achieve consistency with the Corps public interest review process for Department of Army ("DA") Standard Individual Permits.

The Guidelines indicate that discharges of dredged or fill material into waters of the U.S., including wetlands, should not occur unless it can be demonstrated that such discharges, either individually or cumulatively, will not result in unacceptable adverse effects on the aquatic ecosystem. The Guidelines specifically require that no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge, which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences. When considering practicability, the Guidelines define a practicable alternative as one that is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purposes [refer to 40 C.F.R. § 230.3(q)].

A discharge of dredged or fill material into waters of the U.S. can only be permitted if it is the LEDPA; does not violate any applicable State water quality standards or toxic effluent standard or prohibition; does not jeopardize the continued existence of species listed as endangered or threatened under the Endangered Species Act or adversely modify their designated critical habitat; does not significantly degrade the nation's waters; has taken all steps to minimize potential adverse impacts of the discharge on the aquatic ecosystem; and is not contrary to the public interest. As the future applicant, the HSRA will bear the burden of proof for all the tests of the Guidelines to demonstrate to the Corps that the proposed Project, or any part of it, should be built in waters of the U.S.

Based on the aforementioned, full compliance with the Guidelines and the Corps' public interest review process will not be entirely determined nor fulfilled until such time that: a Tier 2/project-level NEPA document is prepared; a preferred alternative is identified; a DA Section 404 permit application is processed; a Public Notice ("PN") is issued to solicit and consider public comments; and a thorough 404(b)(1) alternatives analysis is conducted.

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Range of Alternatives

Notwithstanding the requirements outlined above, decisions will be made at this programmatic Tier 1 level relating to the environmental impacts (benefits and detriments) and 'preliminary' practicability constraints associated with the Project's proposed alternatives. As a matter of policy, the range of alternatives and rigor of analysis should be proportional to the level of impacts. Paramount to the Corps' decision-making processes is that proposed high-speed corridors/alignments which exhibit the potential for the least overall adverse environmental harm or for which the environmental impacts are not fully known are appropriately examined in the context of "practicability"<sup>1</sup> prior to being eliminated from further consideration. In other words, we need to ensure a robust range of reasonable and practicable alternatives are advanced which are most likely to exhibit the characteristics of the LEDPA.

Based on the evaluation presented in the Draft PEIR/EIS, the proposed Project would potentially result in substantial adverse effects on aquatic resources. In many cases, the potential impacts to water resources would exceed 1,000 acres (as reported in Appendix 3). More specifically, in the Bay Area to Merced segment several alignments proposed to cross this environmentally sensitive area would potentially result in impacts to wetlands ranging from 59 acres to 9,627 acres<sup>2</sup>. These alternatives include the Pacheco Pass/SR-152 alignment and Diablo Direct alignments; the Altamont Pass alignment, which is located farther north was rejected by the HSRA during the screening process due to undesirable operational deficiencies and therefore wetlands impacts associated with this alignment are not included in the Draft PEIR/EIS summary Table 3.15-D.

General biological data coupled with statutory designations of "aquatic resources of national importance" (e.g., Orestimba Creek) occurring within the southern portion of the mountain range make this area critically important to sustaining healthy ecological functions, particularly those associated with aquatic resources and wildlife movement. This section of the mountain range would be affected by the Diablo and Pacheco alignments. It appears the Diablo Range Direct alignments would potentially adversely impact existing mitigation/conservation sites, marine/anadromous fish resources, listed endangered and threatened species, the Henry Coe State Park, and the Orestimba Wilderness area. Although tunneling is proposed to minimize some of these impacts, cumulatively, the adverse effects may render these alternatives inconsistent with the Guidelines. For similar reasons, there is concern that the Pacheco Pass/SR-152 alignment options may result in the significant degradation of aquatic resources.

Because it is unclear whether the difference between the environmental impacts of the

<sup>1</sup> "Practicability" as defined by 40 C.F.R. § 230.3(q)

<sup>2</sup> For biologically sensitive areas, impacts were calculated assuming a worse case scenario within a 2,000-foot-wide study "envelope". In actuality, the footprint of direct disturbance to biological resources would be substantially less, based on a 50- to 100-foot-wide construction footprint.

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Comment Letter AF007 Continued

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proposed Diablo Direct alignments and Pacheco Pass alignment would be minor when compared to the Altamont Pass alignment, we believe decisions relating to the elimination of alternatives in this regional segment are not ripe. Instead, the Corps requests decisions regarding the Bay Area to Merced segment be deferred until new or supplemental information and analytical analyses could more thoroughly and accurately substantiate the degree and magnitude of impacts associated with each alternative. In doing so, a reasonable range of practicable alternatives would be preserved for the future NEPA analysis, which in turn would better inform the public and decision makers of the direct, indirect, and cumulative losses to the aquatic ecosystem.

Identification of Resources & Evaluation of Impacts to the Aquatic Environment

The Council on Environmental Quality (CEQ) requires the data and analyses in an EIS are commensurate with the importance of the impact (40 C.F.R. § 1502.15). Similarly, the Guidelines emphasize the level of documentation should reflect the significance and complexity of the discharge activity (40 C.F.R. § 230.6). In the context of this Project, the evaluation of impacts presented in Section 3.15 of the Draft PEIR/EIS suggests the proposed alternatives would potentially result in significant adverse impacts to waters of the U.S. For instance, figures presented in Appendix 3.15-D estimate a potential loss of up to 9,627 acres of wetlands within the designated 2,000-foot-wide study area for the San Francisco to San Jose segment. While we recognize this and other acreages presented in Table 3.15-D-1 are likely to be over reported since the evaluation assumed a worse case scenario, the projected magnitude of impacts to aquatic resources justifies the need for a rigorous study and candid disclosure of impacts. To this end, relevant quantitative information should be coalesced in the main report of the Final PEIR/EIS rather than relegated to appendices. Additionally, supplemental data should augment the evaluation, particularly in areas of known sensitivity for which little site-specific data has been collected.

The programmatic environmental evaluation provides a planning-level assessment of the existing environmental resources within a relatively large study area and with a correspondingly broad analysis of potential effects. These landscape-level assessments largely rely upon existing data for inventorying resources. In fact, the primary data source used for identifying wetlands is the National Wetlands Inventory (NWI) maps. Section 3.15 of the Draft PEIR/EIS acknowledges that these maps do not show all wetlands and indicates the level of information is therefore incomplete in some areas. Due to the various shortcomings of NWI maps, the Corps recommends the Final PEIR/EIS incorporate additional existing data to more accurately and thoroughly depict water resources. Furthermore, the Corps recommends the Final PEIR/EIS clearly explain the assumptions and/or more accurately capture the projected direct impacts to biological resources by re-calculating the acreages of impact using a 50- to 100-foot-wide footprint of disturbance, which would more closely correspond to the actual construction and grading limits.

AF007-3 cont.

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Adverse indirect effects on aquatic resources also are expected to result from the implementation of the alternatives, although they are not entirely disclosed or understood based upon the discussion presented in Section 3.15 of the Draft PEIR/EIS. The loss or degradation of waters of the U.S. must meaningfully be considered in the context of the NEPA and the Guidelines. Based on our regulations and policies, the Corps places high degrees of importance on the functional losses either directly or indirectly caused by the discharge of dredged or fill material into waters of the U.S., including wetlands. Therefore, to the extent practicable for this programmatic document, the Final PEIR/EIS should quantitatively and/or qualitatively address the anticipated indirect effects to aquatic ecosystems in terms of sedimentation (e.g., sediment transport, aggradation, degradation), erosion, hydrologic regime, water quality, floodplain encroachment, and habitat integrity.

Mitigation/Sequencing

The NEPA requires a discussion of mitigation for adverse environmental impacts of alternatives, where mitigation is defined to include avoidance, minimization, restoration and creation of habitats. Section 404 of the CWA also requires consideration of practicable alternatives to avoid and minimize adverse environmental impacts, and further requires that these measures be exhausted before turning to restoration and creation of habitats. The proposed tunneling of the high-speed train alignments in several segments of the northern mountain crossings and the Tehachapi Mountains in southern California would likely avoid or reduce the direct impacts to surface water resources, which is important in terms of demonstrating that the Project has taken appropriate and practicable steps to minimize potential adverse impacts of the discharge on the aquatic ecosystem (40 C.F.R. 230.10(d)). We support the implementation of tunneling and any other design features that would further avoid or minimize impacts to the aquatic environment so long as such engineering techniques are proven to be otherwise environmentally compatible.

The Corps strongly encourages the FRA and HSRA to make the most of the timely mitigation planning opportunities afforded at this stage of the environmental process by leveraging the resources of local, State, Federal, and non-profit entities to help with watershed-wide identification of areas suitable for wetlands enhancement, restoration and/or in-perpetuity preservation. In this vein, the Final PEIR/EIS should propose a more meaningful suite of mitigation strategies that would avoid and minimize impacts and/or compensate for any unavoidable adverse impacts to aquatic resources.

Data Needs

Albeit a landscape-level analysis, disclosure of the degree and magnitude of impacts is necessary for soliciting meaningful public input as well as for making informed decisions. As a matter of efficacy, Section 3.15 of the Draft PEIR/EIS should include a summary of the major

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**Comment Letter AF007 Continued**

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impacts to water resources with accompanying aerial or topographic maps of sufficient scale that geo-spatially illustrate the potential direct and indirect effects associated with the discharge of dredged or fill material into waters of the U.S. We found Figures 3.15-2, 3.15-4A, 3.15-4B, 3.15-6, 3.15-8 and 3.15-10 to be deficient for such purposes.

Although not all-inclusive, the following list comprises a general overview of the potential data needs and analyses for identifying and assessing waters of the U.S. during the project-level, or Tier 2, environmental evaluation.

- A delineation of all wetlands, which could be affected by the proposed Project. The delineation must follow the procedures set forth in the 1987 Wetlands Delineation Manual and include the data support forms.
- A delineation of other waters of the U.S. as follows:
  - For tidal waters, the high tide line shall be determined as described at 33 C.F.R. § 328.3(d);
  - For non-tidal waters, the ordinary high water mark shall be determined as described at 33 C.F.R § 328.3(e).
- All plant and animal taxa encountered during site visits;
- A detailed assessment of the functions and values of wetlands and other waters of the U.S. Functions are the physical, chemical and biological attributes of a wetland/waters without regard to their importance to society. Examples of functions include flood storage, wildlife habitat, and grounder water recharge. Values are those wetlands/waters functions that generally are regarded as beneficial to society, such as recreation, aesthetics, and wildlife viewing. The functional assessment should determine which functions are performed by the wetlands/waters, the value of those functions, and how the project will affect the continued performance of the identified functions. The precise assessment methodology for characterizing the functions and values of aquatic resources should be determined in close consultation with the Corps.
- A detailed assessment of project impacts on special aquatic sites and other waters as follows:
  - A detailed description of the project impacts, including the type of impact (e.g., habitat removal, fragmentation, introduction of exotic species) and its magnitude. These effects must be evaluated in the appropriate local or regional context.
- A detailed purpose and need statement, coordinated with the appropriate agencies. It is noteworthy to mention the Corps is solely responsible for the final approval of the overall project purpose used to conduct the 404(b)(1) alternatives analysis.
- A feasibility study of candidate mitigation sites
- Maps showing the occurrences of all associated sensitive species that have been identified within the survey area in relation to project features, including federally listed endangered and threatened species and designated critical habitat.
  - The size of the population(s) in terms of numbers of individuals and habitat occupied

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- The portion of the population(s) to be directly affected by each project alternative
- The portion of the population to be indirectly affected by each alternative
- The amount of suitable habitat to be directly or indirectly affected under each alternative

AF007-5  
cont.



**Response to Comments of Aaron O. Allen, Acting Chief Regulatory Branch – U.S. Army Corps of Engineers, August 31, 2004 (Letter AF007)****AF007-1**

The FRA acknowledges the MOU between the FRA and cooperating federal agencies for this program environmental process and the general framework for the integration of NEPA and Clean Water Act Section 404 issues.

**AF007-2**

The FRA acknowledges the regulatory context and expectations for future steps to satisfy Clean Water Act Section 404 permitting requirements.

**AF007-3**

3a. Regarding the Northern Mountain Crossing, please see Standard Response 6.3.1. The Program EIR/EIS is based on available data bases and information, and now further study is planned in a separate program EIR/EIS considering a broad corridor including Pacheco Pass generally in the south and Altamont pass generally in the north before identifying a preferred alignment for the proposed HST system to connect the Central Valley to the Bay Area. The FRA consulted with Council on Environmental Quality (CEQ) on this approach and CEQ found that it appears to be consistent with NEPA and CEQ regulations (letter from Horst Greczmiel dated January 24, 2005). The referenced designation of "aquatic resources of national importance" (which is not a statutory designation) occurred in conjunction with the approval of the first phase of the extensive Diablo Grande residential and commercial development, was based on a broad literature review, and was not based on field review of resources in the area, parts of which have been in long term ranching and grazing use.

3b. Comment: "relevant quantitative information should be coalesced in the main report of the Final PEIR/EIS rather than relegated to appendices."

To represent the potential for direct impact to water and biological resources for the System Alternatives (Modal and HST), additional GIS analysis has been completed for the approximate footprint of the alternative facilities. The quantifications are representative of the unmitigated potential for direct impacts that could occur within the corridor. The analysis is included in Section 3.15 of the Final Program EIR/EIS with the appropriate summary information included in Chapter 6: HST Alignment Options Comparison and the Summary.

3c. Comment: "Additionally, supplemental data should augment the evaluation, particularly in areas of known sensitivity for which little site-specific data has been collected." ..... "incorporate additional data to more accurately and thoroughly depict water resources."

The Authority and FRA are confident that all available and relevant information, commensurate with the level of decisions being made, has been considered in the preparation of the Final Program EIR/EIS. (See the following description of information sources applied to the analysis.) In addition, the Authority pursued further research regarding additional sources of information on wetland and water resources as a response to this and other similar comments. The research included over 12 agency and organizational data sources. Most of the data sources were based on or included the same information as the NWI and USGS databases. One exception was the California Spatial Information Library's Hydrographic database, which included a more comprehensive coverage of water resources than our previous sources. However, the additional information was still only a marginal increment over the USGS database previously applied.

In terms of information on wetlands resources, the co-lead agencies acknowledge the areas of the NWI where wetland resources have yet to be mapped; however, extensive attempts to obtain information in these areas has resulted in very little additional data.

In these areas of limited or no wetlands information, the co-lead agencies have determined that water resources are the best indicator of the presence of wetlands for this program level analysis. Comprehensive and complete information exists for the water resources and is readily compared in the Program EIR/EIS for each alignment option to determine those that have the least potential for impacting water resources. Subsequent project level studies will provide field surveys in all areas of potential impact along the alignment options carried forward.

The Final Program EIR/EIS reflects modifications to clearly identify where wetlands information is limited and where greater emphasis should be placed on the evaluation of water resources as an indicator of the presences of wetland areas.

General Statewide Screening Evaluation Approach and Information sources used:

Wetlands were primarily identified with data from the National Wetlands Inventory (NWI), depending upon NWI data availability. NWI coverage varied to some degree over the entire high-speed train study area. To address these variations, the NWI information was supplemented with location information recorded in the California Natural Diversity Database (CNDDB) for specific habitats and species that are related to wetlands. Other wetland location information from available site-specific studies was also utilized as described for each region of the study area below.

Using location information about wetlands from other studies and the databases noted above, the screening evaluation identified wetlands likely to be encountered by HST alignment segments, quantified the number of wetland crossings and in some instances acres of wetlands, and recorded the potential value of the wetlands. The assessment of potential wetland value considered if the wetland was a part of a larger system of wetlands, if the wetland was a part of a wildlife refuge or sanctuary, and if there were institutional restrictions on constructing in the wetlands. Special cases where wetlands are suspected which could affect the location of alignments or stations were noted and discussed qualitatively. Further analysis

of potential wetland impacts using available data and studies is described for alignment and station options considered in the Program EIR/EIS. At the subsequent project level, after completion of the Program EIR/EIS, wetland delineations would be completed along with detailed evaluation of reasonable and practicable avoidance alternatives.

#### Bay Area to Merced

Data from the NWI was used as the primary source of wetland location information. Using this data as a guide, the regional team (at an appropriate time of year) performed a drive-by visual inspection survey of wetland resources occurring along the proposed alignments to verify wetland resources identified as potentially affected. All alignment and station options were surveyed in this way and any additional potential wetland resources were recorded and considered in the screening analysis.

The USGS California GAP Analysis Program Data dated June 30, 1998 was used to fill in gaps in the National Wetland Inventory (NWI) database for this region. Specifically, the GAP data was used to fill in gaps in the vicinity of the proposed HSR corridor for the following quads where NWI data was unavailable:

- Saint Teresa Hills
- Morgan Hills
- Mount Madonna
- Pacheco Peak

The minimum mapping unit for the GAP data is 100 ha for upland community types and 40 ha for wetland communities. To account for mosaics of communities below this resolution, each map unit was attributed with up to three community types, each of which had to be >10% of the map unit area. The spatial locations of individual stands of vegetation therefore are not provided.

Thus, the GAP data may not have included small-scale wetlands along the HSR corridor where NWI data is missing, however, the GAP coverage is deemed suitable for the programmatic EIR/EIS.

#### Sacramento to Bakersfield

Data from the NWI was used as the primary source of wetland location information, and were supplemented with additional data from Natural Heritage Division, California Department of Fish and Game (California Central Valley Wetlands and Riparian GIS, July, 2, 1997), CA GAP Analysis (University of California, Biological Resources Division, January 29, 1996), USGS (hydrographic features and 7.5 minute topographic quadrangle maps, and FEMA flood plain mapping).

Data sources for vernal pools were available in this region and used for the analysis including information on vernal pool complexes greater than 40 acres in size for 29 Counties throughout the Central Valley (California Department of Fish and Game, Statewide Vernal Pool Density Classification, June 7, 2001), specific information regarding vernal pools in Merced (EIP Associates, Merced County NCCP Wetlands Delineation, August 28, 2002), and a separate data base of vernal pool densities throughout the Central Valley Merced (California Dept. of Forestry and Fire Protection, Fire and Resource Assessment Program (FRAP), Vegetation Data, October 2002).

#### Bakersfield-to-Los Angeles

The National Wetlands Inventory was the primary data source used in the regional wetlands analyses. It was acknowledged that the NWI had some gaps in information. Efforts were made to obtain additional data sources; however, additional information was available for very limited locations and was not consistent in type or extent. The next best data source to research for streambeds and wetlands are the USGS quadrangle maps for those gap areas. Using the USGS quadrangle maps is a reasonable source to determine the likelihood of streambed and wetland areas and provides relative information for each alternative considered. The USGS maps are often consulted in the initial stages of environmental assessment research to identify the likely location of such resources as wetlands

and streambeds. The location of the blue-line streams were further researched and confirmed by the interpretation of current aerial photography. This level of effort is reasonable and consistent for the gap areas for each alternative given the programmatic level of the document.

A program-level environmental document should provide sufficient relative detail for each alternative for comparison purposes in determining the potential environmental consequences of each considered. A program-level document is not used to permit a project and is not a project EIR or construction-level EIR. Detailed protocol survey or delineations are not appropriate at this level of analysis, particularly considering the specificity and certainty of the engineering and project description information available. It is anticipated that the program-level document provides decision makers with a comparative evaluation with the understanding that a subsequent document will address the proposed project to a level of detail consistent with the protocol needed to obtain relevant permits from state and federal agencies. The methods used for the California High Speed Rail Project were defined with this in mind.

#### Los Angeles-to-San Diego via- Inland Empire Corridor

Using the NWI GIS database as a guide, a two-day drive-by visual inspection survey (at an appropriate time of year) of the wetland resources occurring along the proposed alignments to verify wetland resources identified as potentially affected. Relevant wetlands were photographed. Because vernal pools are not indicated on the NWI database, prior to initiating the field survey, the team reviewed relevant maps noted below to obtain information about potential vernal pools occurring in the project area, particularly in western Riverside County and in MCAS Miramar.

The following are supplementary sources of information that were used in the screening evaluation:

- Previous project evaluations including Parsons-Brinckerhoff (1996, 1999, 2000)
- The California Natural Diversity Database (CNDDB)

- The California Department of Fish and Game (CDFG) Map of Vernal Pool locations in Western Riverside County 16
- MCAS Miramar's Integrated Natural Resources Management Plan
- The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) 17
- Review of general plans for several cities
- Review of aerial photography

The evaluation focused on identifying natural wetlands resources (unchannelized wetlands) within or directly adjacent to the areas of potential rights-of-way for alignments and station areas under consideration. These natural wetlands include riparian wetlands (associated with rivers, streams, creeks, etc.), vernal pools, and freshwater marsh habitats.

#### Los Angeles-to-San Diego via- Orange County

Data from the NWI and CNDDDB were used as primary sources of wetland location information, and were supplemented with the following data sources:

Browne and Vogt. 1982. Buena Vista Lagoon Watershed Enhancement Program, Draft Report on the Engineering Analysis of the Buena Vista Lagoon Watershed. Technical Report submitted to City of Carlsbad (Carlsbad, CA) and State Coastal Conservancy (Oakland, CA).

Buena Vista Lagoon Foundation. 1983. Buena Vista Lagoon Stewardship Plan.

Buena Vista Lagoon JPC. 1996. Buena Vista Lagoon Joint Powers Committee – Strategic Plan.

California Department of Fish and Game. 1991. Interim Management Plan: Buena Vista Lagoon Ecological Reserve.

California Department of Fish and Game. 2002. California Natural Diversity Database Rare Find 2. October 2002.

California Native Plant Society. 2000. California Native Plant Society's Inventory of Rare and Endangered Plants of California. Special Publication #1 Sixth Edition.

City of Carlsbad and Port of Los Angeles. 1989. Sediment Load Study for Batiquitos Lagoon – Draft Technical Memorandum for the Batiquitos Lagoon Enhancement Project.

Coppock, D. et al. 1985. Los Peñasquitos Lagoon Enhancement Plan and Program. Prepared for the Los Peñasquitos Lagoon Foundation and State Coastal Conservancy.

County of Orange. 1996. Natural Community Conservation Plan and Habitat Conservation Plan. Final Administrative Record. July 17, 1996.

County of San Diego Department of Parks and Recreation. 1995. San Elijo Lagoon Area Enhancement Plan Draft. August 1995.

Cowardin, Lewis M., Virginia Carter, Francis C. Golet, and Edward LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service.

Enriquez, Jake. County of San Diego Department of Parks and Recreation. 2003. Personal Communication. January 3, 2003.

Hastings, Mike. 2000. A Summary Analysis of Existing Conditions Affecting Los Peñasquitos Lagoon and Watershed. September 8, 2000.

Hastings, Mike. Los Peñasquitos Lagoon Foundation. 2003. Personal Communication. January 15, 2003.

Merckel, & Associates, Inc. 1999. Batiquitos Lagoon Enhancement Project Long Term Monitoring and Pilot Revegetation Program. 1999 Annual Report Executive Summary.

San Dieguito River Park Joint Powers Authority. 2000. Environmental Impact Report/Environmental Impact Statement for the San Dieguito Wetland Restoration Project. September 2000.

Soczka, Ernie. NRG Cabrillo Power. 2002. Personal communication. November 1, 2002.

Soczka, Ernie. NRG Cabrillo Power. 2003. Personal communication. January 6, 2003.

State Coastal Conservancy and the City of Del Mar. 1979. San Dieguito Lagoon Resource Enhancement Program.

Wootten, Ron. 2002. Buena Vista Lagoon Restoration Feasibility Analysis – Request for Proposals. Prepared for the Buena Vista Lagoon Foundation. April 8, 2002.

www.ceres.ca.gov/wetlands/geo\_info/so\_cal/agua\_hedionda. 2002. Obtained information on Agua Hedionda Lagoon. October 29, 2002

www.epa.gov/owow/wetlands/restore/5star/fy02grants. 2002. Obtained information on lagoon restoration activities. October 29, 2002.

www.nwi.fws.gov. 2003. National Wetlands Inventory. U.S. Fish and Wildlife Service.

www.torreypine.org/tplagn. 2002. Los Peñasquitos Marsh Natural Preserve and Lagoon. Written by Carl L. Hubbs, Thomas W. Whitaker, and Freda M. H. Reid. Torrey Pines Association. Website visited October 28, 2002.

3d. To represent the potential for direct impact to water and biological resources for the System Alternatives (Modal and HST), additional GIS analysis has been completed for the approximate footprint of the alternatives to clarify the information concerning potential impacts. For the HST Alternative this analysis identified and quantified potential direct impacts based on the representative Draft Program EIR/EIS alignments within the broader GIS envelopes used to identify the potentially affected resources. For the Modal Alternative this analysis identified and quantified potential direct impacts for the highway improvements only. Airport improvements represented a relatively minor portion of the additional right of way required and were not included for this additional analysis. The quantifications are representative of the unmitigated potential for

direct impacts that could occur within the corridor. Subsequent project level engineering and environmental studies would focus on avoidance and minimization of potential impacts. The analysis is included in Section 3.14, Section 3.15, Chapter 6 and the Summary of the Final Program EIR/EIS.

3e. Comment: “to the extent practicable for this programmatic document, the Final PEIR/EIS should quantitatively and/or qualitatively address the anticipated indirect effects to aquatic ecosystems in terms of sedimentation (e.g., sediment transport, aggradation, degradation), erosion, hydrologic regime, water quality, floodplain encroachment, and habitat integrity.”

Section 3.17 of the Final Program EIR/EIS addresses the anticipated indirect effects to aquatic ecosystems in general qualitative terms as they relate to the construction and operation of the facilities proposed in the HST and Modal Alternatives. The description of design practices addresses features included in the proposed HST system to reduce and avoid potential adverse environmental impacts and how the proposed HST system design would be further refined and developed to minimize and avoid direct and indirect impacts to aquatic and biological resources has been added to Section 3.14.5, and Section 3.15.5 of the Final Program EIR/EIS.

#### **AF007-4**

Each environmental area (sections of Chapter 3) has been modified to include more specific mitigation strategies that would be applied generally for the HST system. Each section of Chapter 3 also outlines specific design features that will be applied to the implementation of the HST system to avoid, minimize, and mitigate potential impacts.

#### **AF007-5**

Please see response AF007-3d. Inclusion of more detailed mapping in the Program EIR/EIS is not feasible because of the vast geographic scale of the alternatives at this point in the planning environmental process. Please see the Final Program EIR/EIS Section 3.14.3 and Section 3.15.3 regarding a discussion of the

representative levels of impacts to waters of the U.S. from the HST Alternative. Moreover, additional mitigation measures for minimization of impacts to waters of the U.S. have been added to Section 3.14.6 and 3.15.6.

The Co-lead agencies agree with the list of information and analyses that would be needed for the project-level or Tier 2 environmental evaluation.

Comment Letter AF008

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
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August 31, 2004

Mark Yachmetz
Associate Administrator of Railroad Development
Federal Railroad Administration
1120 Vermont Avenue, NW, MS 20
Washington, D.C. 20590

Subject: California High Speed Train System Draft Programmatic Environmental Impact Report/Environmental Impact Statement (CEQ# 040056)

Dear Mr. Yachmetz:

The Environmental Protection Agency (EPA) has reviewed the Draft Programmatic Environmental Impact Report/Environmental Impact Statement (Draft PEIS) for the California High Speed Train System. Our review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act. EPA provided comments to the Federal Railroad Administration (FRA) and the California High Speed Rail Authority (CHSRA) regarding a portion of this Draft PEIS in a previous letter dated February 27, 2004. Our detailed comments on the entire Draft PEIS are enclosed.

EPA is supportive of a high speed train system for California and the potential for this project to reduce motor vehicle and airplane emissions. EPA requested to be a cooperating agency in this NEPA process and has been working with FRA and CHSRA to address the potential environmental impacts of the project as outlined in an April 2003 Interagency Memorandum of Understanding (MOU). According to the MOU, the Draft PEIS is a "Tier 1," or programmatic environmental review document, providing a landscape-level analysis of the potential environmental impacts. The Tier 1 process is expected to eliminate alternatives for further consideration. Future "Tier 2," or project-level analyses, will address site-specific environmental impacts of the remaining alternatives. EPA's comments focus on issues we would like addressed before a Tier 1 Record of Decision is signed and seek to alert FRA to the potential consequences of these decisions on future Tier 2 analyses.

The MOU also outlines a process for integrating the requirements of NEPA and Clean Water Act (CWA) Section 404 to streamline the environmental review process. A federal permit from the Army Corps of Engineers under CWA Section 404 will be required for this project at Tier 2 due to anticipated fill of waters of the United States. The MOU seeks to ensure that the alignments advanced to Tier 2 are most likely to contain the "least environmentally damaging practicable alternative," a determination that is required for a CWA Section 404 permit. FRA and CHSRA must also demonstrate avoidance and minimization of impacts to waters of the United

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AF008-2

States prior to obtaining a CWA Section 404 permit. EPA and the Army Corps of Engineers have been working with FRA and CHSRA to provide guidance regarding the least environmentally damaging practicable alternatives and will continue to work with both agencies through the project-level analysis for the high speed train system.

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cont.

Through this coordination and review, EPA has identified a potential for significant adverse effects within some portions of the proposed high speed train system that could be corrected by project modification or other feasible alternatives, as well as additional information and analyses that should be included in the Final PEIS. EPA has identified potential impacts to aquatic resources of national importance (CWA Section 404(q), 33 U.S.C. 1344(q)), wetlands and water quality, wildlife habitat, and endangered species that would result from the alternative alignments presented for the Diablo Direct and Pacheco alignments within the Bay Area to Merced region. The proposal for a high speed train route following the Diablo Direct alignments presents federal permitting challenges because it would fragment the Diablo Range, bisect aquatic resources of national importance (including Orestimba Creek), and impact state parks, wilderness, and private, state, and federal conservation and mitigation lands. Based on the information available to date, EPA would have difficulty concurring on a Diablo Direct alignment as the least environmentally damaging practicable alternative. The Draft PEIS identifies that a proposed route through the Pacheco Pass may result in significant impacts to waters of the United States, resulting in similar permitting difficulties. Because of the potentially adverse impacts from the Diablo Direct and Pacheco alignments, we recommend deferring a decision on an alignment connecting the Bay Area to Merced until the information in this analysis can be supplemented to demonstrate to the public and the decision-maker that all variations of an Altamont Pass alternative have been fully evaluated in keeping with the CWA Section 404(b)(1) Guidelines. As a cooperating agency, we look forward to meeting with you to discuss whether this new information would best be presented in a supplemental document or in the Final Tier 1 PEIS. This will help to ensure that the alignment moved forward for future Tier 2 project-level study is most likely to contain the least environmentally damaging practicable alternative connecting the Bay Area to Merced region.

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Significant impacts to biological resources are also expected from the high speed train system alignments connecting Bakersfield to Los Angeles (Interstate-5 and Soledad Canyon). The Soledad Canyon alignment requires more miles of track, with greater impacts to sensitive biological resources and wildlife movement corridors. If aligned next to the Santa Clara River, this alternative would require substantial cut-and-fill within the sensitive Soledad Canyon region. These significant environmental impacts can be avoided by more closely aligning the high speed train route with existing transportation networks.

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The high speed train system in the Central Valley includes a series of community bypasses to be constructed in addition to alignments proposed through communities. The extra tracks and system requirements related to the additional bypasses more than doubles the number of acres of converted farmland, increases severance of farm parcels, adds noise and visual impacts from additional tracks, and increases impacts to water and biological resources. Because

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of the potentially significant impacts that would result from the extra tracks required from community bypasses, we recommend that Final PEIS commit to future Tier 2 project-level analysis comparing the high speed train system with and without bypasses.

In addition to the potential significant adverse effects identified above, EPA has identified additional information and analyses that should be included in the Final PEIS. The quantities in the Draft PEIS pertaining to impacts to biological and water resources represent an "envelope" approach to estimating impacts. The large values presented do not facilitate an understanding of the potential direct impacts from a high speed train system. As discussed in interagency meetings, this warrants additional information more closely approximating potential direct impacts to biological and water resources. EPA also has concerns regarding the cumulative impacts analysis, potential landscape-level impacts to wildlife species associated with the fully grade-separated portions of the high speed train system, and potential impacts associated with tunneling.

Although EPA is supportive of a high speed train system for California, our rating reflects our specific objections to impacts that would result from the two Bay Area to Merced alignments, an alignment through Soledad Canyon connecting Bakersfield to Los Angeles, and bypasses proposed to supplement routes through communities in the Central Valley. For these reasons, EPA has rated the document as EO-2, Environmental Objections - Insufficient Information. We look forward to working with FRA and CHSRA, as a cooperating agency, to identify ways to address these issues and the other concerns identified in the enclosed detailed comments.

The enclosure further describes the above-listed comments and the additional environmental concerns that EPA identified following our review of the Draft PEIS. A "Summary of Rating Definitions" for further details on EPA's rating system is also provided. We appreciate the opportunity to review the Draft PEIS and believe that a well planned high speed train system can offer great economic and environmental benefits for California's future. We look forward to continuing our coordination with FRA and CHSRA as a cooperating agency and are available to discuss the issues addressed in this letter during upcoming interagency meetings. If you have any questions, please feel free to call me at (415) 972-3843. You can also contact Tim Vendlinski, Wetlands Regulatory Office Supervisor at (415) 972-3464 or Lisa Hanf, Federal Activities Office Manager, at (415) 972-3854.

Sincerely  
  
Enrique Manzanilla, Director  
Cross Media Division

Enclosures: EPA's Detailed Comments  
Summary of Rating Definitions

cc:

Mehdi Morshed, California High Speed Rail Authority  
Colonel Alex Dornstauder, Los Angeles Army Corps of Engineers  
Wayne White, U.S. Fish and Wildlife Service  
Crawford Tuttle, California Resources Agency  
James Branham, California Environmental Protection Agency

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EPA DETAILED COMMENTS ON THE CALIFORNIA HIGH SPEED TRAIN SYSTEM DRAFT PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, AUGUST 31, 2004

Clean Water Act Section 404

The Clean Water Act Section 404(b)(1) Guidelines (Guidelines) at 40 CFR Part 230.10(a) state that "... no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences." A practicable alternative is one "available and capable of being done after taking into consideration cost, existing technology and logistics in light of overall project purposes." Alternatives from the NEPA documents (including this Tier 1 Draft PEIS) can serve as the basis for the Section 404 alternatives analysis (40 CFR 230.10(a)). As described in the Interagency Memorandum of Understanding (MOU), EPA and the Army Corps of Engineers are committed to working with the Federal Railroad Administration (FRA) and the California High Speed Rail Authority (CHSRA) to cooperate at the Tier 1 programmatic level to streamline decision-making at the Section 404 permitting phase. As such, it is critical that high speed train alternative alignments moved forward to the Tier 2 stage are most likely to contain the least environmentally damaging practicable alternative and that no alternatives are eliminated without this determination. In addition, prior to obtaining a CWA Section 404 permit, FRA and CHSRA will have to demonstrate that potential impacts to waters of the United States have been avoided and minimized to the maximum extent practicable (40 CFR 230.10(a) and 230.10(d)).

Northern Mountain Crossings
Diablo Direct Alignments

EPA has objections to the Diablo Direct alignments because they may cause significant adverse effects to the health of the aquatic ecosystem in the Diablo Mountain Range, including the Henry Coe State Park and Orestimba Wilderness. The Diablo Direct alignments would bisect the Diablo Range, resulting in substantial habitat fragmentation, disruption of important wildlife corridors, and impacts to State and Federal mitigation lands established pursuant to permitting and enforcement agreements with the Diablo Grande Resort. EPA recognizes that tunneling is proposed to mitigate habitat fragmentation in this area; however, it is unclear how effective tunneling would be in minimizing fragmentation. During the permitting process for the Diablo Grande Resort, EPA designated the federally regulated waters in Del Puerto Creek, Salado Creek, Crow Creek, and Orestimba Creek watersheds of the Diablo Range, as aquatic resources of national importance under our Memorandum of Agreement (MOA) with the Department of the Army, pursuant to CWA Section 404(a) (33 U.S.C. 1344(q)). (This information has been provided to FRA and CHSRA during our interagency meetings.) These creeks and their surrounding watersheds are characterized by high food-web productivity and physical habitat for fish and wildlife, and also support adjacent wetlands and riffle and pool complexes. Orestimba Creek, in particular, has one of the few remaining Sycamore Alluvial Woodlands in California. As a result, projects requiring a CWA Section 404 permit that would result in unacceptable adverse effects to federally regulated waters within these watershed of the Diablo Range could be candidates for elevation using procedures detailed in the MOA.

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The Diablo Direct alignments bisect the Diablo Range, encompassing approximately two million acres of relatively intact watersheds in a state where the majority of waterways have been degraded. The streams, wetlands, springs, and surrounding watersheds of the Diablo Range provide intact habitat that protects and supports a collection of plants and animals considered to be part of a biodiversity hotspot of global significance (Myers 2000). Non-governmental organizations and government organizations at all levels have been investing in large-scale acquisitions totaling approximately 300,000 acres for conservation and consider this area to be the last significant unprotected open space between the San Francisco Bay Area and the Central Valley (The Nature Conservancy 2003). Decreasing the aquatic functions directly through discharges to waters in the Diablo Range, or indirectly through degrading upland resources, are impacts that EPA will consider carefully in determining whether any of the Diablo Direct alignments comply with the CWA Section 404(b)(1) Guidelines.

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The impacts of the Diablo Direct alignments may be considered significant adverse environmental impacts under the Guidelines. Considering the high value aquatic resources and large-scale habitat fragmentation, the Diablo Direct alignments do not appear to exhibit characteristics of the "least environmentally damaging practicable alternative," the only alternative that can be permitted under the binding CWA Section 404 regulations (40 CFR 230.10 (a) and (c)). Therefore, EPA anticipates that there may be significant permitting challenges to these alignments

Pacheco Pass Alignments

As disclosed in the Draft PEIS, the Pacheco Pass alignments may result in substantial impacts to wetlands and other waters and may result in great impacts to jurisdictional waters. EPA has environmental objections to these impacts. The Draft PEIS identifies a potential for over 1,000 acres of impact to wetlands within a 2,000-foot corridor (App. 3.15-D-2). We recognize this overestimates the potential direct impacts that will occur within the 100- or 50-foot high speed train project footprint. A screening tool prepared to determine which alignments would be studied in the Draft PEIS identifies that the Pacheco Pass alignments may impact between 289 and 394 acres of wetlands (Table 2-H-4e, p. 6). The loss of wetlands associated with Pacheco Pass alignments, as well as the impacts to wildlife corridors and habitat fragmentation, are not consistent with the substantive binding requirements of CWA Section 404(b)(1) Guidelines (40 CFR 230.10 (a) and (c)). Specifically, the magnitude of impacts to special aquatic sites may cause or contribute to significant degradation of waters of the United States (40 CFR 230.10(c)). If the FRA chooses to advance the Pacheco Pass alignments to Tier 2, substantial alignment and design modifications would be important to reduce impacts consistent with the Guidelines.

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Recommendations:

Based on the information available to date, EPA would have difficulty concurring on a Diablo Direct alignment as the least environmentally damaging practicable alternative.



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Also, in light of the potentially significant impacts to waters resulting from the Pacheco Pass alignment, additional measures to avoid and minimize impacts to waters should be evaluated.

Altamont Pass Alignment

Because the Diablo Direct and Pacheco Pass alignments, as proposed, may have significant adverse impacts to waters of the United States and could be inconsistent with the Guidelines, it is important to fully evaluate other viable alternatives in Tier 1. The Altamont Pass Alternative in the Bay Area to Merced region was not fully evaluated in the Draft PEIS. Page 2-38 states that Altamont Pass would result in considerable system operational constraints, would not permit high-frequency service to the major Bay Area markets, and would require a new San Francisco Bay Crossing. A new crossing of the San Francisco Bay, as well as a route through the Don Edwards National Wildlife Refuge, could result in impacts to important aquatic resources and habitat for multiple species. While EPA understands that an Altamont Pass alignment with a Bay Crossing may have significant environmental impacts, an analysis of an Altamont Pass alignment with and without a Bay crossing should be completed to determine which Bay Area to Merced alignment is most likely to contain the least environmentally damaging practicable alternative. Through interagency meetings, EPA has stated that information presented in the Draft PEIS supporting the elimination of Altamont Pass is not sufficient in light of: (1) the significant impacts associated with the only other alternatives for connecting the Bay Area to Merced, and (2) the potential for practicable design variations of the Altamont Pass alternative to meet the stated purpose and need for the project.

Recommendations:

FRA and CHSRA should establish why Altamont Pass should be eliminated and provide supporting documentation regarding relevant technical studies, market share estimates, ridership (intercity and commute trips) analysis data, and operational constraints. The analysis should clearly demonstrate and support why all variations of an Altamont Pass alternative (including an alignment without a Bay Crossing and with destinations to San Jose and San Francisco with service to Oakland on existing light-rail) are not practicable in light of the entire high speed train system and logistical constraints that must be addressed in other urban centers.

Alternatively, FRA and CHSRA should analyze a full range of reasonable alternatives, including an Altamont Pass alignment with and without a Bay Crossing, so that an equal comparison between all the Bay Area to Merced alternatives can be made. The analysis should include Tier 1 landscape-level data, such as a complete list of water bodies, wetlands, and streams that are mapped on USGS 7.5 minute maps (even if these water ways are not digitized or available electronically), as well as broad "edge-area" analysis to quantify fragmentation.

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Southern Mountain Crossings

Interstate-5 and State Route 58/Soledad Canyon

The Draft PEIS identifies that data gaps exist for both the Interstate-5 (I-5) and the State Route 58 (SR-58)/Soledad Canyon route. The high speed train alternative will traverse "more undeveloped (and possibly more unsurveyed) area" than the modal alternative and that the high speed train alternative may impact a larger number of special-status species and habitat than has been estimated in the document (p. 3.15-24)." The I-5 route would provide a more direct connection between Northern and Southern California and would require fewer miles of track (87 versus 120 miles) and less overall conversion of land from open space to transportation uses than the SR-58/Soledad Canyon alignment. It would also impact fewer biological resources (p. 3.15-25). The SR-58/Soledad Canyon route would be even more damaging if it parallels the Santa Clara River and utilizes cut-and-fill techniques in this sensitive region. The Santa Clara River and Soledad Canyon provide wildlife corridors and contain sensitive plant communities and essential habitat for an endangered native fish, the unarmored threespine stickleback, as indicated in the Draft PEIS (BLM, 2000). EPA would not support an alignment that causes significant adverse impact to this major regional resource for wildlife. The Draft PEIS indicates that a wider corridor, including a route that would avoid Soledad Canyon and the Santa Clara River, is also being considered; however, there is no information presented regarding the environmental impacts associated with a route that avoids these areas.

Recommendations:

Clarify the extent of underestimated impacts for the Interstate-5 (I-5) and State Route 58(SR-58)/Soledad Canyon routes. As mentioned above, Tier 1 landscape-level analysis should include a complete list of water bodies, wetlands, and streams that are mapped on USGS 7.5 minute maps (even if these water ways are not digitized or available electronically), as well as broad "edge-area" analysis to quantify fragmentation. If substantial data gaps cannot be addressed in the Final PEIS, defer elimination of either Bakersfield to Los Angeles alignments until sufficient information is available in order for Army Corps of Engineers and EPA to conclude that the alignment being moved forward to the Tier 2 analysis is most likely to contain the least environmentally damaging practicable alternative.

The Final PEIS should disclose the impacts from an alignment from Bakersfield to Los Angeles through the Antelope Valley that would not follow Soledad Canyon and the Santa Clara River and would not degrade existing and proposed conservation areas. The Final PEIS should include a mapped alignment of such a route and correlate the modified route with impacts that would be avoided by moving the alignment out of the canyon.

Express Loops and Bypasses in the Central Valley

The Draft PEIS proposed several potential express loops/bypasses to circumvent the more congested urban areas, reduce costs, and reduce potential urban impacts such as noise. The Draft

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PEIS indicates that "some areas require the development of an express loop and mainline alignment (p. 3.8-14)." Although other corridor alignments in the train system are proposed to pass through urbanized areas (Los Angeles to San Diego, Bay Area to Merced, etc.), the only city bypasses proposed are located in the Central Valley. The justification for bypassing communities is critical in light of the additional impacts to resources that would result from bypassing each community in the Central Valley.

The Tier 1 Draft PEIS estimates the "lowest potential impacts" associated with the proposed express loops and "mainline" high speed train system through the Sacramento to Bakersfield corridor, assuming a 100-foot-wide corridor. As shown in Table 3.8-2, the "mainline" train system would impact far fewer acres of farmland than a train system with a network of both bypasses and mainline routes. For example, the Modesto "mainline" route would impact 49 acres of prime farmland, while the bypass would impact an additional 141 acres of prime farmland. EPA recognizes that the impacts to farmlands can be minimized by reducing the size of the right-of-way to 50 feet and sharing track, where feasible. We also recognize that providing bypasses around cities offers a method to increase speed throughout the entire route and to reduce noise within established communities. However, the introduction of express bypasses throughout the Central Valley would significantly increase farmland severances, acres of farmland impacted, and introduce an additional source of noise and visual impacts to adjacent communities. EPA has objections with the proposal to route the high speed train network both through and around communities in the Central Valley and recommends reducing the impacts that the train system will have in this region by minimizing total miles of train track required for system operation.

**Recommendations:**

Clarify why express loop construction is warranted in each community in light of additional farmland impacts and noise and visual impacts. Because the bypasses are proposed to circumvent the more congested urban areas, reduce costs, and reduce potential urban impacts such as noise, the Final PEIS should examine additional less-damaging measures, other than city bypasses, to reduce urban impacts. Identify the operational constraints in the Central Valley that require the train system to bypass communities in the context of the other regions of the train system where no bypasses are proposed.

EPA recommends that FRA and CHSRA commit to analyzing Central Valley routes with and without bypasses in the Tier 2 Environmental Impact Statement in order to disclose to decision makers the full impact of bypasses and to provide flexibility in determining the best mix of bypass and mainline routes. In the Final PEIS, identify strategies to pursue agreements with existing rail operators to share right-of-way to further minimize impacts to farmlands.

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**Impact Analysis Methodology**

The "envelope" approach used to estimate the potential impacts to biological and water resources attempts to address effects that may occur at a distance from the direct impacts of the project. The width of the envelope was altered depending on the sensitivity of the particular location associated with the train route. The Draft PEIS does not, however, clearly identify what specific portions of each alignment are deemed sensitive and what characteristics support the sensitivity rating. A sensitivity rating is not applied consistently across regions.

**Recommendations:**

For the analysis of impacts to biological and water resources, define "sensitive" areas and justify why specific areas within the high speed train alternative alignment were determined to be sensitive by describing the characteristics that support this designation. Apply the sensitivity designations consistently across all regions. Provide a figure or map depicting where sensitive areas are and where other modifications to the envelope approach are provided (i.e., developed and undeveloped areas, p. 3.15-4). Overlay this map with sensitive species occurrences and waters of the United States, so that it is clear which areas are considered sensitive and granted a wider study area.

The "envelope" approach and method of reporting impact values results in values that are quite large and not useful for decision making (e.g., 9,627 acres of impact to wetlands along the San Jose to San Francisco alignment for the high speed train alternative alone). EPA recognizes that the values presented offer a basis for understanding the existing environment and potential indirect impacts, rather than the direct impacts of a proposed train system. However, because these large impact values obscure an understanding of potential direct impacts resulting from the project, quantified estimates that more accurately reflect potential direct impacts to biological and water resources are necessary to understand potential impacts.

**Recommendations:**

Distinguish direct and indirect impacts to biological and water resources in the Final PEIS (see 40 CFR 1508.8(b)). Discuss which resources are indirectly impacted by the project footprint and how they are affected (e.g., reduced hydrologic connectivity, habitat fragmentation, headcutting and downcutting from culverts, changes in sediment transport capacity, etc.). As discussed in previous interagency meetings, EPA recommends including an additional analysis of the potential direct impacts to resources by assuming impacts to all resources within a potential 50-foot right-of-way and compare these values to potential indirect impacts already presented.

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Water Resources

As described above, the Clean Water Act Section 404(b)(1) Guidelines at 40 CFR Part 230.10(a) state that "...no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences." FRA and CHSRA should demonstrate that each alignment moved forward to the Tier 2 stage is most likely to contain the least environmentally damaging practicable alternative, consistent with our Interagency MOU.

Recommendations:

Identify all protected resources with special designations and all special aquatic sites and waters within state, local, and federal protected lands. If these resources cannot be avoided, the Draft PEIS should clearly demonstrate how cost, logistical, or technological constraints preclude avoidance and minimization of impacts for alternatives that are advanced to Tier 2.

March Air Reserve Base to Mira Mesa

EPA is concerned with potential impacts to the Santa Margarita Ecological Reserve and the Santa Margarita River. The river is not listed on p. 3.15-14 as a water resource, although it is listed on p. 3.15-17 as a wildlife corridor. The Draft PEIS does not disclose what impacts the proposed route would have on the Santa Margarita River and other habitat and wildlife movement corridors between March Air Reserve Base and Mira Mesa.

Recommendations:

Describe the impact of the proposed high speed train alignment to the Santa Margarita River and Ecological Reserve and to the wildlife habitat and movement corridors in this region. Identify techniques and design variations to avoid these resources.

Carroll Canyon and Miramar Road

The two inland routes proposed for connecting Mira Mesa to San Diego may affect downstream lagoons. A high speed train route through Carroll Canyon will affect the ability of this floodplain to absorb seasonal and annual flooding, will increase erosion and sedimentation, and may negatively impact the water quality of the downstream Los Penasquitos Lagoon. P. 3.15-28 states that the Carroll Canyon route would affect more vernal pools and more non-wetlands waters than the Miramar Road route. Each Mira Mesa to San Diego route has the potential to impact multiple rare vernal pools in San Diego County. Because of the rarity of the vernal pools, these impacts are an important factor for eliminating alignments in Tier 1.

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Recommendations:

EPA recommends avoiding placement of a high speed train route in canyons due to the significant permitting challenges such alternatives may face as a result of large amount of cut and fill, increased erosion and sedimentation, and downstream impacts.

Disclose the number and location of individual vernal pools and larger vernal pool complexes that would be affected by each remaining alignment.

Designated Impaired Waters

Under Section 303(d) of the Clean Water Act, the State of California has developed a list of impaired water bodies and a categorization of the reasons for their impairment. Direct and indirect impacts from the construction and operation of the high speed train system and additional road, station, and electrification infrastructure may add to current water quality problems and further impair beneficial uses.

Recommendations:

The Final PEIS should:

- Identify all 303(d) listed streams that are within the area of potential impact of the proposed project and identify the impairments to beneficial uses.
- Disclose whether the filling of these waters, or the project's "temporary" construction impacts, will aggravate impairments to these water bodies.
- Provide an estimate of the linear feet/ acres of impaired streams and waterbodies that would be affected by the project.
- Outline the methods that FRA and CHSRA will use to limit further impairment of waters.

Cumulative Impacts Analysis

Context for Understanding Cumulative Impacts

The cumulative impacts analysis provided in the Draft PEIS is, essentially, a summation and comparison of the direct and indirect impacts of the proposed alternatives. The cumulative impacts analysis should provide the context for understanding the magnitude of the impacts of the alternatives by analyzing the impacts of other past, present, and reasonably foreseeable projects or actions and then considering those cumulative impacts in their entirety. Where adverse cumulative impacts are identified, the Draft PEIS should disclose the parties that would be responsible for avoiding, minimizing, and mitigating those adverse impacts (CEQ's Forty Most Frequently Asked Questions #19). For some resources, the Draft PEIS identifies opportunities to avoid or minimize impacts through future project-level modifications. At the program-level, however, the Draft PEIS should focus on identifying landscape-level opportunities to avoid and minimize impacts, which may include working with other entities.

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Recommendations:

For each resource analyzed:

- Identify the current condition of the resource as a measure of past impacts. For example, the percentage of wetlands lost to date.
- Identify the trend in the condition of the resource as a measure of present impacts. For example, the health of the resource is improving, declining, or stasis.
- Identify the future condition of the resource based on an analysis of the cumulative impacts of reasonably foreseeable projects or actions added to existing conditions and current trends.
- Assess the cumulative impacts contribution of the proposed alternatives to the long-term health of the resource, and provide a specific measure for the projected impact from the proposed alternatives. For example, the Draft PEIS identifies the Modal alternative as having a "high potential impact on air quality" (p. 3.17-3). The qualitative description of "high" should be correlated with specific measure of air quality (e.g. atmospheric concentration of criteria pollutants) and placed within discrete categories defined using these measurements.
- Disclose the parties that would be responsible for avoiding, minimizing, and mitigating those adverse impacts.
- Identify landscape-level opportunities to avoid and minimize impacts, including working with other entities.

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Projects Considered in the Cumulative Impacts Analysis

The Draft PEIS correctly cites the 40 CFR Section 1508.8 definition of a cumulative impacts analysis as one that analyzes the direct and indirect effects of the proposed project or action added to the impacts of other past, present, and reasonably foreseeable projects/actions, regardless of what agency or person undertakes such projects or actions (p. 3.17-1). However, the Draft PEIS primarily considers other transportation projects and only a few non-transportation infrastructure projects and a single development project (Appendix 3.17-A). Other reasonably foreseeable development activities by public or private entities are not considered in this analysis. As an example, for the Merced region, the Draft PEIS currently only considers the development of the new University of California campus in Merced in the analysis. Other reasonably foreseeable projects identified within and around the City of Merced, as indicated in city and county planning documents, should be included in the analysis.

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Recommendations:

Include other reasonably foreseeable development activities identified in relevant city and county planning documents in the cumulative impacts analysis. For example, use the General Plan "projection" approach described in the Draft PEIS (p. 3.17-1) to project the environmental impacts of development activities in communities and counties traversed by the proposed alternatives.

Study Area and Methodology

The cumulative impacts analysis provides an assessment of impacts on a statewide basis only. While a macro approach to cumulative impacts is appropriate at this program-level, the inclusion of General Plan information should allow FRA and CHSRA to differentiate the severity of cumulative impacts to some resources by region.

With the exception of the Air Quality section (p. 3.17-2), the cumulative impacts analysis does not disclose the study areas or methodologies used to analyze cumulative impacts by resource. The Council on Environmental Quality handbook Considering Cumulative Effects Under the National Environmental Policy Act (1997) provides direction on the establishment of cumulative impacts study areas by resource and the selection of appropriate methodologies for the analysis.

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Recommendations:

Where possible, provide cumulative impacts assessments at the regional level, as well as the statewide level. For each resource, clearly identify the cumulative impacts study area and methodology utilized in the analysis. If the study areas and methodologies are the same as utilized elsewhere in the Draft PEIS, please provide a reference, as well as support for using the same study area and methodology in the project analysis as in the cumulative impacts analysis.

Cumulative Impacts to Waters

The Hydrology and Water Resources Section of the Cumulative Impacts Analysis does not discuss the quality, or values and functions, of waters potentially impacted by the alternatives. This section appears to treat all water resources equally. However, water resources in relatively undeveloped areas tend to be of higher quality. This is an important distinction that needs to be made in the program-level analysis.

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Recommendations:

Address the cumulative impacts to high quality water resources. The conclusion that the high speed train alternative could have fewer impacts on floodplains and water resources than the Modal alternative through design modifications (p.3.17-8), needs to account for the comparative impact of the high speed train alternative and Modal alternatives on high quality water resources.

Indirect Impacts

EPA commends FRA and CHSRA for focusing attention in the Draft PEIS to growth-inducing effects of the high speed train system and for completing a technical report in 2003 on this subject. Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable and may include growth inducing effects (40 CFR

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Part 1508.8). The growth inducing effects presented assumed a higher density of development around high speed train stations (p. 5-34). The Draft PEIS should discuss the basis for this land use assumption.

Recommendations:

Identify station locations that are currently zoned for high density development and those that are not. Disclose how, should higher density development not occur as modeled in the Draft PEIS, impacts would differ from those presented in Chapter 5. Discuss the nature of those impacts to environmental resources of concern. Address potential mitigation efforts to avoid and minimize impacts to the communities identified, including incentives for transit-oriented development, measures to increase the capacity of city/county planning efforts, and mechanisms to encourage transit oriented development.

Growth inducing impacts resulting from the different alignment options within the high speed train alternative are sometimes presented as differences on a statewide scale, rather than at a local level. The data presented is not sufficient to differentiate between alignments presented for the high speed train alternative at this Tier 1 level. For example, page 5-32 states that "impacts to biological species from the Palmdale, Diablo Range direct, and Irvine alignment scenarios are projected to exhibit nearly identical levels of potential impact on possible threatened and endangered species habitat" when compared to the other high speed train alignments. A similar summary is provided for wetlands potentially affected by induced growth. For both biological species and wetlands, it is critical to provide more station- and alignment-specific information if the intent of the Draft PEIS is to determine which high speed train alternative alignment option is less environmental damaging.

Recommendations:

Clarify the environmental impacts anticipated from induced growth in and near the Palmdale, Diablo Range Direct Alternative, Irvine, East Bay, and outlying stations scenarios. Present all impacts associated with each station location. Include a table identifying growth-inducing impacts expected from each alignment. Also, where supporting data is lacking, as in the Diablo Direct alignment, the analysis should be conservative and assume presence of all species designated rare, threatened and/or endangered under state and federal laws based on presence of appropriate habitat.

Tunneling Methodology and Impacts

The proposed high speed train system would result in 23 to 43 miles of tunneling for the northern and southern mountain crossings (Section 6.21 and 6.41). This would require extensive earthmoving and result in large amounts of material being removed from mountainous terrain. The Draft PEIS does not disclose an approximate amount of material to be removed per mile of tunnel and where material could be disposed or stored. The Draft PEIS also does not address the

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types of tunneling methods and material removal, the need for additional road access, or the need for any exploratory drilling. A general discussion of the methodology to be utilized and the corresponding environmental impacts is appropriate in the Tier 1 Draft PEIS to ensure that the full scope of environmental impacts associated with tunneling are disclosed.

Recommendations:

To the extent that impacts of tunneling is relevant to the selection of alternatives in Tier 1, discuss the methodology proposed for tunneling associated with the high speed train system alternative, including equipment and planned locations for staging tunnel operations. Identify how the tunnel equipment will be transported to each site where tunneling will begin. Identify the amount of material to be removed per mile tunnel. Estimate the number of temporary roads required for each mile of tunnel construction and proposed methods for removal and revegetation of these roads. Estimate the miles of roads required for operation and access for emergency personnel in tunneled areas. Disclose the environmental impacts of the additional information presented regarding tunneling in the appropriate PEIS section.

The Draft PEIS states that the tunnels in the high speed train system "could avoid or substantially reduce surface impacts on sensitive biological resources except at tunnel portal areas (p. 3.15-20)." The impacts of linear transportation projects on wildlife movement are presumed to be minimized in the areas where tunneling will occur. FRA and CHSRA should provide support for the assumption that the length and location of tunneling proposed will be adequate to sustain regional wildlife populations and movement corridors.

Recommendation:

Provide supporting evidence regarding tunneling of the high speed train and associated impacts regarding wildlife movement.

The assumptions that the use of tunnels will "avoid some groundwater resources" and "not substantially affect groundwater resources" are not fully explained (p. 3.14-13, 3.14-16). Discharges of shallow subsurface storm flow and shallow groundwater can be important contributors to surface flows of streams, particularly in the mountainous areas where tunneling for the high speed train system is proposed (Mount 1995, Dunne and Leopold 1978, Atkinson 1978). Should tunneling obstruct these subsurface flows, we would expect to see a reduction in frequency and duration of surface flows and, consequently, in the stream's capacity to support riparian ecosystems. A decrease in groundwater levels during the growing season in a dry year could intensify the effects of drought on sensitive riparian communities.

Recommendations:

Discuss the potential impacts of tunneling on the maintenance of stream flows. Address

AF008-23 cont.

AF008-24

AF008-25

AF008-25 cont.

AF008-26

AF008-27



**Comment Letter AF008 Continued**

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the potential for tunneling to affect riparian habitat, the direction of lateral movement of water through the soil profile, and the recharge of shallow, unconfined aquifers.

AF008-27 cont.

at a Tier 1 level, the Draft PEIS does not address nocturnal and diurnal impacts to wildlife activities such as foraging, predator avoidance, and nesting that may be affected by new sounds and vibrations introduced to natural habitats.

AF008-30 cont.

**Biological Resources**

The Draft PEIS does not consistently address wildlife corridor impacts from the high speed train alternative and it does not summarize the overall effect of miles of continuous barrier to animal movement that a fully grade-separated train system would cause. For example, the Draft PEIS states that because a proposed alignment is along existing rail corridors, "little impact on movement/migration routes would be anticipated (p. 3.15-21)." The Draft PEIS does not discuss how proposed restrictions to crossing high speed train tracks (fences, etc.) may limit wildlife movement, even along existing rail corridors (Jackson, 2000).

**Recommendations:**

Identify anticipated noise and vibration impacts to nocturnal and diurnal wildlife activities and address the impacts of new sounds introduced to natural habitats. Discuss methods utilized to mitigate noise and vibration impacts in countries where high speed trains pass in close proximity to natural areas.

**Recommendations:**

Identify landscape-level wildlife movement corridors and discuss proposed methods for protecting these corridors (see Morse, 2003). Outline how FRA and CHSRA plan to mitigate impacts by preserving ecological processes related to landscape continuity. Identify what connections would likely remain after an area is developed following construction of the high speed train system and highlight these areas as "connectivity zones" for future Tier 2 analysis. Disclose how fencing the train route will affect wildlife movement and discuss how fencing for safety purposes will be integrated with wildlife passages identified (culverts, bridges, viaducts, underpasses, overpasses, etc.).

AF008-28

**Mitigation and Avoidance**

The Draft PEIS provides little discussion of the potential mitigation measures or approaches which could be used to address the significant impacts associated with the proposed actions. While it may be premature to identify specific mitigation actions until a more clear understanding of the impacts is evaluated at the project level, the Final PEIS should propose reasonable mitigation measures or identify a suite of mitigation approaches that FRA and CHSRA could take to address the environmental impacts at the program scale. This programmatic, landscape-level plan provides an opportunity to identify and generally describe potential mechanisms to promote regional and statewide cooperation in identification of methods to avoid and minimize impacts to environmental resources and to mitigate those impacts that cannot be avoided. (See Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, March 23, 1981, Question #19b).

AF008-31

The Draft PEIS indicates that a station at March Air Reserve Base would potentially impact 90 acres of coastal sage scrub habitat (Appendix 3.15.D-13). It is unclear why a station at this location would result in such large impacts and methods to minimize impacts are not discussed. Given the fact that much previously disturbed habitat exists in the area of March Air Reserve Base, it may be possible to locate a station without impacting undisturbed coastal sage scrub.

AF008-29

**Recommendations:**

Outline the strategy that FRA and CHSRA will follow to work with cities and counties to plan landscape-level mitigation strategies as well as site-specific strategies (i.e., transit-oriented development around proposed station locations, and mitigation for community severance). Identify potential partnership opportunities and strategies for Tier 2 project development.

**Recommendations:**

Clarify the impacts associated with a proposed station at March Air Reserve Base and describe why this location would result in such large impacts to coastal sage scrub.

**Relationship to Other Plans**

EPA understands that a separate Draft EIS for the Los Angeles to San Diego (LOSSAN) corridor and planned improvements will be available for public comment sometime in 2004. EPA will be providing comments on the LOSSAN corridor at that time. The Draft PEIS for the high speed train alternative should be clear in the description of what decisions this Final PEIS and Record of Decision will make regarding LOSSAN improvements and what decisions the subsequent stand-alone Draft EIS for LOSSAN will make.

AF008-32

**Noise and Vibration Impacts**

The Draft PEIS assesses noise and vibration exposure to determine high, medium, and low severity of impacts to residences and other locations near the proposed high speed train route. Potential impacts to human health and welfare are important with a project of this magnitude, particularly in light of the maximum speed and resulting sounds and vibrations that the high speed train will produce throughout the train route. While noise impacts are addressed

AF008-30

**Comment Letter AF008 Continued**

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The Draft PEIS for the high speed train does not fully discuss the magnetic levitation proposal for high speed train service in Southern California and the need for both steel-wheel on steel-rail technology proposed for this project and the magnetic levitation technology proposed for a separate high speed train project in southern California. A full discussion of this issue and potential duplication of efforts and incompatibilities should be included in the Final PEIS.

**Recommendations:**

Clarify the relationship between the LOSSAN Draft EIS and this Draft PEIS prepared to analyze a high speed train system in California. Discuss other proposals by FRA for magnetic levitation technology high speed train service in California and identify integration and/or incompatibility of both projects.

AF008-32  
cont.**References**

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**SUMMARY OF EPA RATING DEFINITIONS**

This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS.

**ENVIRONMENTAL IMPACT OF THE ACTION****"LO" (Lack of Objections)**

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

**"EC" (Environmental Concerns)**

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

**"EO" (Environmental Objections)**

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

**"EU" (Environmentally Unsatisfactory)**

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

**ADEQUACY OF THE IMPACT STATEMENT****Category 1" (Adequate)**

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

**"Category 2" (Insufficient Information)**

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

**"Category 3" (Inadequate)**

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

\*From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."



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**Response to Comments of Enrique Manzanilla, Director – U.S. Environmental Protection Agency, August 31, 2004 (Letter AF008)**

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**AF008-1**

Acknowledged.

**AF008-2**

The FRA acknowledges the interagency MOU among cooperating federal agencies in this NEPA program environmental process, the general framework for the integration of NEPA review and Clean Water Act Section 404 issues, and expectations for future steps to satisfy NEPA, Section 404 and other permitting requirements.

**AF008-3**

The lead agencies are continuing to cooperate with US EPA to address Clean Water Act Section 404 issues. The Program EIR/EIS is based on available data bases and information, and a selection of a preferred alignment between the Bay Area and Merced has been deferred. Further study of this area is planned in a separate program EIR/EIS considering a broad corridor including Pacheco Pass generally in the south and Altamont pass generally in the north before identifying a preferred alignment for the proposed HST system to connect the Central Valley to the Bay Area. The referenced designation of "aquatic resources of national importance" (which is not a statutory designation) occurred in conjunction with the approval of the first phase of the extensive Diablo Grande residential and commercial development, was based on a broad literature review, and was not based on field review of resources in the area, parts of which have been in long term ranching and grazing use. Please see Standard Response 6.3.1.

**AF008-4**

See response to Comment AF008-12.

**AF008-5**

See response to Comment AF008-13.

**AF008-6**

To represent the potential for direct impact to water and biological resources for the System Alternatives (Modal and HST), additional GIS analysis has been completed for the approximate footprint of the alternatives. For the HST Alternative this analysis identified and quantified potential direct impacts based on the representative Draft Program EIR/EIS alignments within the broader GIS envelopes used to identify the potentially affected resources. For the Modal Alternative this analysis identified and quantified potential direct impacts for the highway improvements only. Airport improvements represented a relatively minor portion of the additional right of way required and were not included for this additional analysis. The quantifications are representative of the unmitigated potential for direct impacts that could occur within the corridor. Subsequent project level engineering and environmental studies would focus on further avoidance and minimization of potential impacts. The analysis is included in Section 3.14, Section 3.15, Chapter 6, and the Summary of the Final Program EIR/EIS.

**AF008-7**

Acknowledged.

**AF008-8**

The FRA acknowledges the regulatory context and expectations for future steps to satisfy Clean Water Act Section 404 permitting requirements. The FRA has concurred with the preferred alignments and stations and has consulted with the USEPA and USACE regarding their concurrence for compliance with the requirements of Section 404 of the Clean Water Act. Although no permit is being requested

at this time under the Clean Water Act, FRA has committed to obtaining USEPA and USACE concurrence that the selection of the preferred corridor and route (alignment) is likely to contain the “least environmentally damaging practicable alternative,” consistent with the USACE’s permit program (33 CFR Part 320-331) and USEPA’s Section 404(b)(1) Guidelines (40 CFR 230 – 233). The FRA, FHWA, EPA, USACE, and FTA executed a memorandum of understanding (MOU) outlining roles and responsibilities for preparation of the Program EIR/EIS and the integration of Section 404 of the Clean Water Act (July 2003 Federal Agency MOU for the California HST Program EIR/EIS).

**AF008-9 thru 11**

Please see standard response 6.3.1.

**AF008-12**

First, it should be noted that the length (835,296 linear feet) of potential impacted waters in the SR-58/Soledad Canyon Corridor that was listed in Section 6.4.1 of the Draft Program EIR/EIS was in error. The correct length of potentially impacted waters for this segment (Antelope Valley) is 64,562 linear feet. This has been corrected in the Final Program EIR/EIS.

Based on the data analyzed in the Draft Program EIR/EIS and additional footprint analysis described in the Final Program EIR/EIS, an alignment option more closely aligned with SR 14 to avoid impacts in Soledad Canyon would result in similar levels of direct impact to water resources overall. However, indirect impacts would be greater for the Soledad Canyon alignment option due to its proximity to the Santa Clara River. In the Final Program EIR/EIS the Authority has recommended that an alignment more closely following SR 14 be considered further in subsequent project level studies. Each section of Chapter 3 also outlines specific design features that will be applied to the implementation of the HST system to avoid, minimize, and mitigate potential impacts. See also responses regarding tunnel construction practices (AF008-25) and cumulative impacts (AF008-19-22).

Please also see standard response 3.15.6.

**AF008-13**

The Authority has identified a preferred alignment through the Central Valley, which maximizes the use of existing rail corridors, which is consistent with the Authority’s stated objectives (see page 1-4, Draft Program EIR/EIS). The Authority has identified preferred alignments that include potential “loop” lines at Stockton, and Castle AFB (for a potential Merced HST station). A new alignment is also proposed around Hanford, but no alignment is recommended through the city and no station is proposed for Hanford. Further evaluation of these three potential “loop” lines would occur at the project level. Although the Draft EIR/EIS also considered potential loop alignments at other Central Valley locations, as EPA has noted, the analysis indicated that such alignments would generally result in increased noise and visual impacts and increased impacts to water resources and agricultural lands, except at Hanford which would have only a loop alignment avoiding the town and not two alignments (i.e., one through and one around the town).

The concept of running HST express trains through Stockton was considered but rejected as part of the screening evaluation. As noted on page 2-63 of the Draft Program EIR/EIS, “Because of tight curves on the existing rail line through downtown Stockton that would limit maximum speeds, an express track outside of the urban area would be needed to provide high-speed service.” Such an express “loop” would reduce express travel times by over 7 minutes as compared to an alignment along the existing rail line through downtown Stockton. Due to existing curves and urban land use development, express trains on an alignment through downtown Stockton would require an impracticable level of new infrastructure and rights of way for dedicated service; otherwise, the express service would be subject to substantial delays by existing constraints and services.

The Castle AFB station site which has been identified as one of two preferred potential station sites to serve the Merced area, is located near, but not adjacent to the BNSF rail right-of-way. Further

analysis at the project level would lead to selection of one of these two sites for a Merced area station. In order to serve a potential HST station at the Castle AFB station site, a new "loop" alignment would (please see Figure 6.3-2B the Draft Program EIR/EIS) serve this site. However, a Castle AFB station option along the BNSF that does not include a new "loop" and a downtown Merced station option (which does not include a new loop) will also be investigated at the project specific level of study.

The HST alignment between Fresno and Bakersfield would diverge from the BNSF alignment on a new alignment around Hanford in order to maintain high-speeds because of the tight, speed restricting curves south of Laton, through Hanford, and to the south of Hanford (see Figure 2.7-6B of the Final Program EIR/EIS). An alignment through Hanford as described would add approximately 11 minutes to the estimated express travel time through the Central Valley as compared to the new alignment west of Hanford.

The Draft Program EIR/EIS did evaluate a few potential "loop" alignments not intended to maintain high-speeds, but potentially to reduce environmental impacts (Fresno, Merced, and Tulare). The Authority has not included these express loops as part of the preferred alignment. Please see standard response 6.20.5 regarding the "loop" line concept around Fresno.

Foreign HST experience (e.g., in France and Japan), the experience of the Northeast Corridor (Boston to New York to Washington D.C.), HST studies done elsewhere in the U.S., and the Authority's feasibility studies have all shown that to compete with air transportation and generate high ridership and revenue, the intercity HST travel times between major transportation markets must be below 3 hours (please also see standard response 2.9.1 and standard response 2.9.2). In order to operate HST services at high-speeds, very straight alignments with only mild curves are required. In the Bay Area, Sacramento, Los Angeles area and San Diego, existing transportation corridors are generally not straight enough over long enough distances to permit high-speed operations. Moreover, in these areas, there is generally no undeveloped land available that would allow for the development of a new "high-

speed" alignment through these areas. Serving these large urban areas is essential to the purpose and need of the HST system, therefore "bypassing" these areas is not a viable solution. New corridors through heavily urbanized areas were not considered to be practicable alternatives in this Program EIR/EIS. In California, the best opportunities for high-speed operations are primarily through the Central Valley, and through the mountain passes (please see Figure 4.3-2 in the Final Program EIR/EIS). Please see the Engineering Criteria technical report (January 2004) referenced in the Program EIR/EIS for more information regarding HST design criteria assumptions.

As noted, the Authority has identified a preferred alignment that maximizes the use of existing rail corridors, based upon the analysis in this Program EIR/EIS. For those few areas of the preferred alignment in the Central Valley which include a bypass loop (noted above), except for Hanford, further study during project-level (Tier 2) review would consider additional mitigation measures to reduce potential impacts and would consider alignment variations with and without bypasses. If a decision were made to move forward with the HST system, the Authority would seek agreements with freight operators to utilize portions of the existing rail right-of-way to the greatest extent feasible (Final Program EIR/EIS, Summary and Chapter 6A).

#### **AF008-14**

14a. Both the Program EIR/EIS and the regional technical reports identify and describe the sensitive areas in each region and corridor as part of the affected environment sections. The Program EIR/EIS includes maps illustrating general resources of concern and other sensitive areas. However, detailed maps depicting sensitive areas and specific corridor study widths are not included in the Program EIR/EIS due to the impracticality of presenting mapping over 2500 miles of HST alignment options and nearly 3000 lane miles of highway improvements in the Modal Alternative. In general, sensitive areas were identified and the envelope widths were defined to gauge impact potential and sensitivity between alignment options

considered at the regional level. Representative impacts estimated using envelopes that more closely reflect the actual footprint of the infrastructure proposed (as described in Response AF008-6 above) are compared in the Final Program EIR/EIS at the regional and system-wide level for consistency purposes. Also refer to response to Comment AF007-3 regarding the information included in the analysis.

14b. See Response AF008-6 above. The analysis of representative impacts indicates the approximate level of potential direct impacts in relation to the larger area where indirect effects are possible. However, due to the general nature of alignment location in this program level analysis it is not possible to quantify anticipated indirect impacts. The Final Program EIR/EIS discusses and describes potential direct and indirect impacts to water and biological resources in Sections 3.14 and 3.15, respectively, as well as Chapter 6 and the Summary.

#### **AF008-15**

See standard response 3.15.7 and standard response 3.15.1.

#### **AF008-16**

Along the I-215/I-15 alignment option, the HST alignment is proposed to be within the median of I-215. A portion of the Santa Margarita Ecological Reserve is located adjacent to the west side of the I-215 freeway. The HST alignment would not encroach upon the reserve. Potential for noise impacts and indirect impacts would be evaluated at the project level. See Section 3.14 for a description of the potential for impact. The I-215/I-15 alignment option crosses the Temecula Creek (an upstream tributary of the Santa Margarita River). The sensitivity of this watercourse is acknowledged and will be considered in subsequent project level environmental review. Thoughtful design practices (as described in Chapter 3 of the Final Program EIR/EIS) would avoid impacts to Temecula Creek at the crossing. Potential for wildlife movement would also be considered in the design of this crossing.

#### **AF008-17**

Acknowledged. The Authority has identified both the Carroll Canyon and Miramar Road alignment options as preferred for further project level analysis between Mira Mesa and San Diego. Either the Carroll Canyon or Miramar Road options would enable the HST system to directly serve downtown San Diego, whereas the I-15 to Qualcomm option would terminate about 8-miles from the city center at the Qualcomm Stadium (20 minutes by light rail). The Carroll Canyon and Miramar Road options would directly serve Downtown San Diego would provide better connections to the regional transit system and airport. SANDAG, NCTD, MTDB, Caltrans District 11, and the City of San Diego all support direct HST service to downtown San Diego via the Inland Empire (I-215/I-15 Corridor).

The Carroll Canyon and Miramar Road alignment options would have similar potential environmental impacts. However, the Carroll Canyon option could avoid and minimize potential impacts to Miramar Naval Air Station as compared to either the Miramar Road or I-15 alignment option. As compared to the I-15 option, the Carroll Canyon and Miramar Road options would have less potential impacts to parklands, and vernal pools (U.S. Fish & Wildlife Service, "Vernal Pools of Southern California, Draft Recovery Plan", 1997) and less potential for growth-induced impacts, but more potential visual, cultural, and floodplains impacts.

The United States Marine Corps has raised concern regarding the Miramar Road option which is directly adjacent to the Miramar housing complex and "sensitive habitats" and has noted that any efforts related to the proposed HST system that would limit or impact on the Marine Corps ability to perform its mission would be opposed. The City of San Diego commented that building the alignment below grade should be considered from Old Town to Downtown San Diego, which would be considered in subsequent project level environmental review.

Determining the number and location of individual vernal pools and larger vernal pool complexes that would be affected by each remaining alignment is beyond the scope of this program level

environmental process. Subsequent project level engineering and environmental studies would focus on further avoidance and minimization of potential impacts to specific vernal pools and larger vernal pool complexes.

**AF008-18**

See Standard Response 3.15.8.

**AF008-19 – 22**

Please see standard response 3.17.1.

**AF008-23**

Please see standard response 5.2.1 and Chapter 6B.

**AF008-24**

Please see standard response 5.2.2

**AF008-25**

The co-lead agencies recognize that the mountain crossings, through which extensive tunneling is proposed for the HST system, are primarily undeveloped and contain many sensitive resources and areas. Therefore the Program EIR/EIS recommends the Authority consider the least unobtrusive construction methods suitable and available to avoid and/or minimize impacts in these areas. In summary, the strategy for avoiding impacts to resources through sensitive mountain areas includes these basic elements: (1) place trains in tunnels to avoid resources; (2) design the tunnels so that the need for surface access is reduced and consider the placement of that access to avoid resources and to be near existing roads; (3) build the tunnels using in-line construction techniques to reduce surface disturbance and the need for access roads; and (4) use small sites (to be restored after use) and helicopter transport of equipment for needed geological exploration and small pilot tunnels where more extensive subsurface geological information is needed. Information regarding tunneling design features and construction methods has

been included in the Summary and Sections 3.14.5, 3.15.5 and 3.18.5, respectively, of the Final Program EIR/EIS.

**AF008-26**

See standard response 3.15.9. However, project-level documentation will be required to show that mitigation would be effective to sustain regional wildlife populations and movement corridors.

**AF008-27**

Most of the tunnel lengths are in the vicinity of water-bearing ground with the potential for high groundwater inflows and pressures in localized areas. The assumption in the Draft Program EIR/EIS that the proposed tunneling would “not substantially affect groundwater resources” was predicated on application of design features and construction methods outlined in the Tunneling Issues Report, January 2004. Measures to control water include inflow grouting, waterproof membrane installation, and full concrete lining. These or similar measures would be incorporated in the tunnel design and are included in the capital cost estimates. Design features such as these are addressed in the Summary and Section 3.14.5 of the Final Program EIR/EIS.

**AF008-28**

See Standard Response 3.15.9.

**AF008-29**

The Authority is no longer considering a station at March Air Force Base.

**AF008-30**

Please see standard response 3.4.1. Identification of anticipated noise and vibration impacts to nocturnal and diurnal wildlife would require project-level documentation.

**AF008-31**

Measures to mitigate potential impacts have been added to the Final Program EIR/EIS in each section of Chapter 3: Environmental Consequences. Further clarification and description of the design features of the proposed project have been added to the Summary of the Final Program EIR/EIS and each section of Chapter 3. Discussion of transit-oriented development is found in Chapter 6B of the Final Program EIR/EIS.

**AF008-32**

See Standard Response 6.41.1.



Comment Letter AF009

AF009

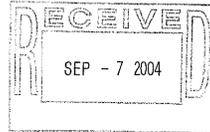
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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CALIFORNIA DIVISION
650 Capitol Mall, Suite 4-100
Sacramento, CA, 95814
August 30, 2004

IN REPLY REFER TO
HDA-CA
File # NEPA-CAHST
Document # P50392

Mr. Allan Rutter, Administrator
U. S. Department of Transportation
Federal Railroad Administration
M/S 20
1120 Vermont Avenue, NW
Washington, DC 20590



Attention: Mr. David Vallenstein

Dear Mr. Rutter:

The Federal Highway Administration (FHWA) has reviewed the Draft Program Environmental Impact Report/Environmental Impact Statement (DEIR/DEIS) for the California High Speed Train (HST) and offers the following comments and recommendations:

GENERAL COMMENTS:

- 1. The HST Program DEIR/DEIS blurs critical differences between the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) to such an extent that it is often difficult to evaluate the actual magnitude of the potential environmental impacts described in the document.
2. We recognize that the HST Program DEIR/DEIS is a program-level, Tier 1 environmental document that addresses the potential impacts of the proposed HST system at a broad, conceptual and planning level rather than at the more detailed project-specific level; however, there appears to be a predisposition towards using CEQA terminology as opposed to NEPA terminology. Differences between NEPA and CEQA are discussed throughout the document, but are never clearly discussed in one location.
3. Of particular concern is the use of the term "significant" throughout the document in a context more applicable to CEQA rather than to NEPA. Although 40 CFR Part 1500, the regulations issued by the Council on Environmental Quality (CEQ) to implement NEPA, defines significance as being a function of both context and intensity, we note that "significant" is defined in the HST Program DEIR/DEIS Glossary on Page 13-13 only in terms of CEQA usage. An explanation regarding the differences in the NEPA and CEQA definitions of the term is not provided until the Unavoidable Adverse Environmental Impacts chapter (see Page 7-1). Since impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA, the manner in which "significant" impacts are identified in the context of the HST Program DEIR/DEIS should be clearly and consistently articulated from the beginning of the document.

AF009-1

AF009-2

AF009-3

- 4. Although it may be entirely appropriate for this level of document to combine significance criteria based on federal and state regulations and guidelines for various resources rather than addressing them separately, it is not immediately clear in the HST Program DEIR/DEIS whether or not this hybrid approach is acceptable to the respective federal and state resource agencies involved. Although the methods of impact evaluation were developed with input from federal and state resource agencies, this is not disclosed until Page 3.0.2. The general approach of combining federal and state significance criteria should be introduced at the beginning of the document and the rationale used to determine the significance criteria for specific resources of concern should be addressed in their respective sections.
5. The maps and figures used in the HST Program DEIR/DEIS are of high quality and generally do a good job of quickly conveying environmental information. Many of the more noticeable problems with the graphics (such as illegibility) seem to result from the necessary reduction in scale made to accommodate the document format rather than technical inaccuracy. In some instances, however, the figures are misleading because they are labeled twice. For example, Figure 3.16-1, Bay Area Alignment Options and Major Section 4(f) and 6(f) Resources is also labeled Wetlands Bay Area to Merced Corridor. We suggest examination of all the figures to ensure clarity and accuracy prior to the release of the HST Program Final Environmental Impact Report/Final Environmental Impact Study (FEIR/FEIS).

AF009-4

AF009-5

SUMMARY:

The summary chapter of the HST Program DEIR/DEIS is clear, easy to read and provides a satisfactory overview. Table S.6-1 (Pages S.9 - S.14), Summary of Key Environmental Impacts and Benefits for System Alternatives, is particularly useful. The drawbacks to this section are that the summary lacks an explanation regarding the differences between NEPA and CEQA and that it does not explain that the significance criteria used for various resources examined in the document were determined by combining federal and state regulations and guidelines. As previously stated, the fact that the methods of impact evaluation were developed with input from federal and state resource agencies is not disclosed until Page 3.0.2.

AF009-6

PURPOSE AND NEED AND OBJECTIVES:

The Purpose and Need and Objectives chapter of the HST Program DEIR/DEIS adequately describes and explains the purpose and need for the proposed HST system. However, it is not clear on why it is considered necessary to include the "objectives" since the purpose and objectives should be identical.

AF009-7

ALTERNATIVES:

The Alternatives chapter of the HST Program DEIR/DEIS provides a thorough treatment of the topic. The discussion regarding how the alternatives were formulated and analyzed is particularly helpful, as is the Alternatives Summary. At a broad, conceptual level, this chapter works well; but the differences between an alternative, a design option and an alignment option could be explained more clearly.

AF009-8



U.S. Department of Transportation
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**Comment Letter AF009 Continued**

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AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION:

The Affected Environment, Environmental Consequences and Mitigation chapter is one of the more problematic portions of the HST Program DEIR/DEIS. While this chapter is well organized and easy to follow, the results of the analysis, as presented in the document, may still be too broad and speculative to enable the resource agencies to make an informed decision. Comments are provided only for those sections of the Affected Environment, Environmental Consequences and Mitigation chapter where it appears that either the information provided or the level of analysis may be inadequate.

3.12 Cultural and Paleontological Resources:

1. It would be preferable to discuss cultural resources and paleontological resources in separate sections. The nature of these resources, the methodology used to evaluate them and the laws that relate to them are very different. Including cultural resources and paleontological resources in the same section weakens the credibility of the discussion. AF009-9
2. The federal and state regulatory requirements related to cultural resources are not explained very well. In particular, the National Historic Preservation Act (NHPA) and 36 CFR 800, the regulations implementing the NHPA should be explained in a clear and concise manner. AF009-10
3. We suggest moving this section closer to 3.16 Section 4(f) and 6(f) Resources (Public Parks and Recreation). AF009-11
4. NEPA, CEQA and NHPA terminology is often mixed and/or used incorrectly, particularly the words "significant" and "adverse." AF009-12
5. The Antiquities Act of 1906 applies only to federal lands. AF009-13
6. On Page 3.13.3, the first paragraph under B., Method of Evaluation of Impacts, Archaeological Sites and Traditional Cultural Properties, states that Federal Railroad Administration (FRA) and the Authority requested the State Historic Preservation Officer (SHPO) to designate an appropriate area of potential effect. Under 36 CFR 800, the SHPO does not "designate an appropriate area of potential effect" rather, the area of potential effect is determined by the agency official in consultation with the SHPO. AF009-14
7. Coordination and consultation with Native American tribes/groups should be discussed in a separate section. The specific Native American tribes/groups involved in the consultation should be identified and indicate whether or not they are federally recognized. AF009-15
8. The methodology used to evaluate impacts to cultural resources is not particularly robust or readily verifiable. Although this is understandable in the absence of actual fieldwork and the conceptual nature of the overall environmental analysis, the speculative nature of the chosen methodology should be clearly disclosed. AF009-16

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9. The culture history discussions throughout this section are rather generic and would benefit from thoughtful and judicious editing. AF009-18
  10. Although the use of a phased approach is mentioned on Page 3.13.3 B., Method of Evaluation of Impacts, Archaeological Sites and Traditional Cultural Properties, there is no follow-through discussion. AF009-19
  11. The discussion provided under 3.12.6, Subsequent Analysis (Page 3.12.27) is very weak. The requirements for the NHPA and requirements under CEQA should be addressed separately, even if the CEQA requirements are ultimately derived from the NHPA requirements. As currently presented, the steps involved in any subsequent analysis seem to have been given very little thought. We suggest a thoughtful revision of this discussion, using the appropriate terminology provided in 36 CFR 800. AF009-20
- 3.14 Hydrology and Water Resources:
- This section should be more fully integrated with the following section, 3.15 Biological Resources and Wetlands. AF009-21
- 3.15 Biological Resources and Wetlands:
1. Biological resources and wetlands are presented together, but there is little or no attempt to synthesize the information. It is also unclear why wetlands are discussed in this section rather than in 3.15, Hydrology and Water Resources. AF009-22
  2. Geospatial data analyzed at a broad, regional level has produced laundry lists of "sensitive" species that are difficult to interpret. At best, the current analysis merely points out the dangers inherent in using a presence/absence methodology over large geographic areas. AF009-23
  3. Table 3.15.1, Summary of Potential Impacts on Biological Resources for Modal and HST Alternatives, provides a good "snapshot" of potential impacts but it is unclear how the reader is supposed to interpret this information. AF009-24
  4. An ecosystem analysis, performed at the watershed level, might be a more useful approach to inform the decision-making process and should be considered for future analyses. AF009-25
  5. Using generic terms like "sensitive species" and "special status species" is not very helpful in conveying the true sensitivity of a given area and could lead to misinterpretations regarding the true sensitivity of an area. The reader should not have to guess which species are threatened or endangered under the federal Endangered Species Act and which species are threatened or endangered under the California Endangered Species Act. AF009-26

Comment Letter AF009 Continued

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6. Note that since the HST Alternative (and the Modal Alternative) are likely to include infrastructures, such as bridges and trestles that could necessitate for pile driving, there may be to be certain areas where barotrauma may be of concern. Consider identifying and discussing these areas in the FEIR/FEIS.

3.16 Section 4(f) and 6(f) Resources (Public Parks and Recreation):

- 1. We suggest removing "Public Parks and Recreation" from the heading of this section since Section 4(f) resources include historic sites and waterfowl refuges, as well as public parks and recreational areas.
- 2. It is not always clear what sort of information 3.16 Section 4(f) and 6(f) Resources (Public Parks and Recreation) is trying to convey. We suggest moving this section closer to 3.12 Cultural and Paleontological Resources, in order to better synthesize related information.
- 3. Regulatory Requirements and Methods of Evaluation, Regulatory Requirements, (Page 3.16-1). Although the DEIR/DEIS is a joint document, Section 4(f) and Section 6(f) are federal considerations. There is no need to compare Section 4(f) and Section 6(f) with state laws.
- 4. Regulatory Requirements and Methods of Evaluation, Method of Evaluation of Impacts, (Page 3.16-2). The methodology employed to determine potential direct and proximity impacts seems speculative at best. Of particular concern is the manner in which the High, Potential Direct Impact (0-150 ft.) and the Medium, Proximal Impact (150-450 ft.) qualitative rankings were arrived at.
- 5. Table 3.16-2, Number of Potential High Impacts on Section 4(f) and 6(f) Resources by Regions and Alternatives (Page 3.16-6) is of limited utility.

3.17 Cumulative Effects:

- 1. The methodology used to determine cumulative effects is unclear. We suggest referring to the Council on Environmental Quality's "Considering Cumulative Effects Under the National Environmental Policy Act" (1997).
- 2. While required NEPA analysis is mentioned, it appears that cumulative effects were analyzed using CEQA guidelines (see second and third paragraphs under 3.17.3, Introduction to Cumulative Impacts, Page 3.17.1). The reason for using this approach should be explained and the level of analysis should be reconsidered.

HIGH-SPEED TRAIN ALIGNMENTS COMPARISON:

Like the alternatives chapter, the High Speed Train Alignments Comparison chapter provides a full, but not exhaustive, treatment of its topic. At a broad, conceptual level, this chapter works well, but the differences between an alternative, a design option, and an alignment option could be explained more clearly.

AF009-27

AF009-28

AF009-29

AF009-30

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AF009-32

AF009-33

AF009-34

AF009-35

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UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS:

The first paragraph of this chapter (see Page 7-1) states that the chapter "...describes any potentially significant environmental effects that may be unavoidable if the proposed High-Speed Train (HST) Alternative is selected for implementation and any unavoidable adverse impacts of the alternatives, as required by CEQA and NEPA, respectively." The meaning of this paragraph is open to interpretation and, unfortunately, this initial paragraph typifies the entire chapter. Although NEPA is invoked, it appears that most of the chapter is intended for purposes of satisfying CEQA requirements. If this is the case, it should be clarified.

Thank you for the opportunity to review the HST Program DEIR/DEIS. If you have any questions or concerns, please feel free to call Stephanie Stoermer, Environmental Coordinator, at (916) 498-5057 or via e-mail at [stephanie.stoermer@fhwa.dot.gov](mailto:stephanie.stoermer@fhwa.dot.gov).

Sincerely,  
*Gene K. Fong*  
For  
Gene K. Fong  
Division Administrator

AF009-36



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**Response to Comments of Gene K. Fong, Division Administrator – U.S. Department of Transportation, Federal Highway Administration, September 7, 2004 (Letter AF009)**

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**AF009-1**

In general, the content of an EIS prepared under NEPA differs very little from an EIR prepared under CEQA. Both documents must include a description of the proposed activity, the environmental setting, and analysis of significant environmental impacts (direct, indirect and cumulative), and a discussion of mitigation measures to reduce or avoid those impacts. (40 C.F.R. secs. 1502.11-1502.25) "Mitigation" is defined exactly the same way under NEPA and CEQA. The key difference is the treatment of alternatives, where NEPA requires a more rigorous evaluation and comparison of all alternatives that is substantially equal to the proposed action evaluation. Under CEQA the comparative merits of the alternatives must be evaluated, however, in less detail than the proposed project. Another key difference is that CEQA requires a separate analysis of growth inducing impacts and mitigation, but does not require an analysis of economic or social effects of the project or alternatives, where NEPA does. Thirdly, CEQA requires avoidance or mitigation for significant impacts if feasible, where NEPA requirements for discussion of mitigation measures are more general and the justification for mitigation decisions appear in the record of decision. This document is intended to satisfy the content requirements of both NEPA and CEQA, and all of these topics are addressed in the document.

**AF009-2**

The document uses both NEPA and CEQA terms where appropriate. Each environmental topic describes and defines the method of analysis, including any thresholds used for determining the significance of a potential impact. Please also see response to Comment AF009-1.

**AF009-3**

To describe the relationship between context and intensity, in general, the more sensitive the context (i.e., the specific resource in the project area, or area of potential impact) the less intense an impact needs to be in order to be considered significant. This relationship is described in the method of evaluation of impacts in each of the topic areas. Discussions of the differences in magnitude of potential impacts for this Program Level Tier I document generally err on the conservative side for the broad comparison of alternative corridors.

**AF009-4**

The responses to the first two general comments, above, will be added as a brief introduction to Section 3.0. The rationale used to determine the significance criteria for specific resource topics are already included under 'methods used for analysis' in each section of Chapter 3.0.

**AF009-5**

All figures in the Final Program EIR/EIS have been examined for clarity and accuracy. The title for Table 3.16-1 has been revised.

**AF009-6**

The summary section presents information appropriate to each environmental topic to distinguish key differences between alternative corridors that describes the relationship between context and intensity of potential impacts. The method of analysis was developed in consultation with cooperating and responsible agencies who will use this information in selecting a preferred corridor for HSR.

**AF009-7**

Acknowledged. The Draft Program EIR/EIS states, "CEQA requires that an EIR identify the project sponsor's objectives, which are similar to the purpose required by NEPA (CEQA Guidelines, C.C.R., Title 14, & 15124 [b]). The objectives provide benchmarks for selecting a reasonable range of alternatives for analysis, as required by CEQA." (page 1-3)

**AF009-8**

Acknowledged. The terms "Alternative", "design option" and "alignment option" are defined in Section 2.1 and described in more detail in subsequent sections of Chapter 2 of the Final EIR/EIS.

**AF009-9**

See responses which follow regarding to specific issues raised in the letter, identified as AF009-10 through AF009-34.

**AF009-10**

The subheading headings provided in Section 3.12 separate these major resource types (Cultural and Paleontological). The Cultural resources are further subdivided into subheadings for the historical built environment and the archeological resource types. The overall organization of the document remains the same.

**AF009-11**

Section 3.12 of the PEIR/S has been edited and redrafted consistent with this comment.

**AF009-12**

Moving Section 3.12 closer to the sections regarding 4(f) and 6(f) would require major document reorganization and renumbering and cannot be readily accomplished.

**AF009-13**

Section 3.12 of the PEIR/S has been edited and revised. Revisions also considered other terms such as the use of "impacts" and "effects," as well as "resources" and "properties."

**AF009-14**

The Draft PEIR/S and Final PEIR/S indicate "on federal land" in two locations in the Paleontology Section, where this act is referenced.

**AF009-15**

Section 3.12.3 has been edited consistent with this comment.

**AF009-16**

New subsections have been created in the PEIR/S. A header has been added to 3.12.1.b called "Traditional Cultural Properties and Native American Consultations" to discuss methods. A header has been added to 3.12.2.c called "Traditional Cultural Properties" to present results.

**AF009-17**

This section of the PEIR/S has been edited per this comment.

**AF009-18**

The section has been edited. The section now provides a more consistent approach to the history of each region within a general context commensurate in detail to the nature of this sensitivity study.

**AF009-19**

Section 3.12.16 has been edited to discuss when phased approach is appropriate and allowed under Section 106 of the National Historic Preservation Act.

**AF009-20**

Section 3.12.6 has been edited and augmented. Requirements are addressed separately for CEQA and NHPA, and terminology in 36 CFR 800 has been integrated into the text.

**AF009-21**

The Co-lead agencies understand the relationship between water resources and biological resources and wetlands. Although for purposes of organizing the information in the PEIR/S there are two separate sections on Hydrology and Water Resources and Biological Resources and Wetlands, it is recognized that the two are intimately related. Development of impact analyses and mitigation measures at a project level will reflect this relationship.

**AF009-22**

Please refer to response to Comment AF009-21. Wetlands are discussed in the section on biological resources because of the importance of wetlands as wildlife habitat.

**AF009-23**

The Co-lead agencies have produced the environmental analyses to enable a reasonable comparison of project alternatives and HST alignments and their respective potential for environmental effects. While this overall approach tends to generalize some of the impacts, it does provide information critical to making overall alternative and alignment decisions leading to subsequent more detailed analyses in project-level, Tier 2 review. Please see standard response 3.15.2 for a discussion of level of detail in the PEIR/S and standard response 3.15.13 for a discussion of the overall purposes of the PEIR/S and the planned project-level, Tier 2 evaluation.

**AF009-24**

As noted in standard response 3.15.13, the data in Table 3.15.1 allow for a reasonable comparison of project alternatives and HST alignments and their respective potential for environmental effects. This approach provides information critical to making overall

alternative and alignment decisions leading to subsequent more detailed analyses in the project-level, Tier 2 environmental review. Please also see standard response 3.15.7 regarding the use of wide "envelopes" for this programmatic evaluation.

**AF009-25**

Consistent with this comment, the Co-lead agencies anticipate reviewing ecosystem impacts in site-specific detail and at the watershed level in the project-level, Tier 2 analyses.

**AF009-26**

A list of potentially affected threatened and endangered species and their federal and state individual status are provided in each of the regional technical studies that were used as the basis for the PEIR/S. The technical studies were not circulated as appendices to the Draft PEIR/S given their size and detailed technical content. The detailed content of the studies was rather summarized and synthesized into their respective topic area sections of the Draft PEIR/S. The technical studies (and screening reports) for each of the five HST corridors were made available on the California High Speed Rail Authority website

([http://www.cahighspeedrail.ca.gov/eir/regional\\_studies/default.asp](http://www.cahighspeedrail.ca.gov/eir/regional_studies/default.asp)), and the Final PEIR/S incorporates these technical studies (and screening reports) by reference. Use of terms such as "sensitive species" and "special status species" reflects the fact that the PEIR/S summarized and consolidated information in the technical studies. Use of these terms does not diminish the adequacy of the information provided in the PEIR/S, which enables general evaluation and comparison of major project alternatives and general HST alignments. More detailed evaluations of threatened vs. endangered, for example, will occur during the project-level, Tier 2, evaluations.

**AF009-27**

There may be potential for localized wildlife barotrauma associated with the construction of the proposed HSR project. This issue would be addressed during subsequent project level environmental review, based on more precise information regarding location and design of the facilities proposed (e.g., bridge pier locations and foundation design options) and field data for wildlife species.

**AF009-28**

Section 3.16 of the Final Program EIR/EIS has been renamed "Section 4(f) and 6(f) Resources (Public Parks and Recreation, Waterfowl Refuges and Historic Sites)."

**AF009-29**

Section 3.16 will remain in the same sequence in the Final Program EIR/EIS, due to its relationship to multiple environmental areas.

**AF009-30**

While this section is titled Section 4(f) and 6(f) resources, which is a federal requirement, it also covers possible effects on state, regional and local parks and addresses other related state laws.

**AF009-31**

This methodology was developed to identify and highlight areas of potential impact to be avoided and/or considered further during subsequent project level environmental review. If this proposed project is advanced to project level of environmental review, preliminary engineering will be prepared allowing for a greater precision in the location of the proposed HST facilities and their associated right-of-way (ROW) requirements. The project level review will provide a more detailed analysis of the 4(f) and 6(f) potential direct and indirect effects. The greater engineering detail associated with the project level environmental analysis will allow the Authority to further investigate ways to avoid, minimize and mitigate potential effects to 4(f) and 6(f) resources.

The Authority followed FRA guidance when the analysis was initiated that specified a screening distance of 900 feet for new rail corridors in rural areas. The Authority and FRA believe that this screening distance of 900 feet is sufficient to estimate the number and extent of potentially noise affected parks and recreation areas at a program level of analysis. It is unlikely that potential indirect impacts would extend beyond this distance; however, subsequent project specific studies would consider potential noise related impacts related to specific sensitive receptors based on specific alignment and operating characteristics, as the proposed HST facilities and operation are further defined. The purpose of the screening analysis undertaken is to provide a measure of noise-sensitive receivers that are close enough to the proposed alignments for noise impact to be possible. Specific HST noise levels will be determined during the project level noise assessment.

**AF009-32**

Acknowledged. A new table with all the potentially affected parks, recreation areas and waterfowl refuges and their relative proximity to the HST alignment options has been added to the Appendix 3.16-A.

**AF009-33**

See Standard Response 3.17.1.

**AF009-34**

See Standard Response 3.17.1.

**AF009-35**

The High-Speed Train Alignments Comparison chapter is intended to provide a summary of the key differences between alignment and station options. Alternatives are systemwide improvement scenarios (No Project, Modal, and HST). Alignment options are specific HST alignments that were considered and evaluated. Design options represent specific design issues (e.g., a key overcrossing or

undercrossing, or section of trench/aerial) related to an alignment option.

**AF009-36**

Specific NEPA language will be added to the first paragraph of Section 7.0, consistent with CEQ's NEPA regulations Section 1502.16, "an adverse environmental effect which cannot be avoided should the proposal be implemented" and any "irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented."

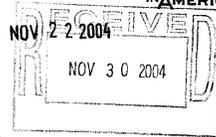
Comment Letter AF010

AF010



United States Department of the Interior

OFFICE OF THE SECRETARY  
Washington, DC 20240



ER 04/91

Mr. David Valenstein  
Federal Railroad Administration  
1120 Vermont Avenue, MS-20  
Washington, DC 20590

Dear Mr. Valenstein:

The Department of the Interior has reviewed the Draft Program Environmental Impact Report and Environmental Impact Statement (DPEIR/EIS) for the Proposed California High-Speed Train System, extending from Sacramento and the San Francisco Bay Area through the Central Valley to Los Angeles and San Diego, California. We have the following comments.

**GENERAL COMMENTS**

The Department is concerned that the DPEIR/EIS is written in such general terms that it is difficult to reliably assess the impacts of the proposed action or to compare effects among alternatives. The document presents little or no difference between the No Action and Modal Alternatives. Please include more specific information to improve the analysis of impacts in the final EIR/EIS. This will allow the Department to assess and compare impacts of the alternatives in the final EIR/EIS.

AF010-1

**Best Available Information**

We are also concerned that many of the Modal Alternatives are not based on the most current information. A number of projects listed as Modal Alternatives are currently in the planning stage and are often more extensive than presented in the DPEIR/EIS. For example, the widening of I-5 between Oceanside and the I-5/805 split is currently in the NEPA/404 integration process with the resource agencies. The preferred alternative currently proposed by the California Department of Transportation (Caltrans) and the San Diego Association of Governments (SANDAG) includes five general-purpose lanes in each direction and two High-Occupancy-Vehicle (HOV) lanes for a total of fourteen lanes. This is significantly different than the Modal Alternative presented in the DPEIR/EIS, which includes the existing eight lanes (four in each direction) and two additional lanes (one in each direction) for a total of ten lanes. Please update the discussion and analysis of Modal Alternatives in the final EIR/EIS so that the impacts can be better understood and all alternatives can be meaningfully compared.

AF010-2

**Endangered Species Act (ESA)**

There are a large number of Departmental Habitat Conservation Plans (HCPs), fashioned through the FWS, under section 10(a)(1)(B) of the ESA (1969) as amended, which are in place or will be in place in the near future for southern California but not mentioned in the DPEIR/EIS. The implementation and future success of the following HCPs may be impacted by the proposed HST system: City and County of San Diego Multiple Species Conservation Program (MSCP); North San Diego Coastal Cities Multiple Habitat Conservation Program (MHCP); North San Diego County MSCP Subarea Plan; Western Riverside Multiple Species Habitat Conservation Program (MSHCP); Southern Orange County Natural Community Conservation Program (NCCCP)/HCP; Tejon Ranch HCP; and Central/Coastal Orange County NCCP/HCP. Please include an assessment of impacts to implementation and potential success of these and other ongoing HCPs in the final EIR/EIS.

AF010-3

The DPEIR/EIS does not evaluate potential impacts to designated and/or proposed critical habitat for federally listed species including: the Quino checkerspot butterfly (*Euphydryas editha quino*), bay checkerspot butterfly (*Euphydryas editha bayensis*), tidewater goby (*Eucyclogobius newberryi*), California condor (*Gymnogyps californianus*), least Bell's vireo (*Vireo bellii pusillus*), coastal California gnatcatcher (*Poliophtila californica californica*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*), Alameda whipsnake (*Masticophis lateralis euryxanthus*), California red-legged frog (*Rana aurora draytonii*), vernal pool tadpole shrimp (*Lepidurus packardii*), vernal pool fairy shrimp (*Branchinecta lynchi*), and San Diego fairy shrimp (*Branchinecta sandiegonensis*). A number of federally listed species [i.e., arroyo toad (*Bufo californicus*), California tiger salamander (*Ambystoma californiense*), Riverside fairy shrimp (*Streptocephalus woottoni*), southwestern willow flycatcher (*Empidonax traillii extimus*), Buena Vista Lake shrew (*Sorex ornatus relictus*) and Santa Ana sucker (*Catostomus santaanae*) will have proposed and likely final critical habitat designated in the next few years, which will require re-analysis of potential impacts. The attached maps (Figures 1, 2, and 3) show areas of critical habitat with the potential to be impacted by the proposed HST. Please address potential impacts to designated and proposed critical habitat for federally listed species (above) in the effects and/or cumulative effects section(s) of the final EIR/EIS.

AF010-4

The DPEIR/EIS is unclear as to how, or whether, the Federal Railroad Administration (FRA) and the U.S. Corps of Engineers (Corps) will satisfy the requirements of Section 7 of the ESA. We recommend that the FRA prepare and submit a Biological Assessment (BA) for consultation on this proposal to the FWS as early as possible in the environmental planning/analysis process. This would provide the FRA the opportunity to better and more efficiently integrate their responsibilities under Section 7(a)(1) of the ESA at the program level. Within the action area (all areas to be affected indirectly or directly by the proposed action): 1) identify the conservation needs of each listed species with the potential to be impacted by the proposal; 2) identify the threats to

AF010-5

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U.S. Department of Transportation  
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Comment Letter AF010 Continued

each listed species' conservation, both range-wide and within the action area; 3) identify species conservation or management units and the threats affecting those units; 4) identify species' conservation goals framed within the context of the HST program; and 5) develop conservation/management unit strategies for implementing future (project-level) activities.

Fish and Wildlife Coordination Act (FWCA)

Pursuant to the FWCA, the Department (via the FWS) often advises the Corps on projects involving dredge and fill activities in "waters of the United States." Following the HST programmatic effort (i.e., during development of the individual HST project elements), it is likely that portions of the project affecting wetlands and riparian areas will require Corps permits pursuant to Section 404 of the Clean Water Act (CWA) and/or Section 10 of the Rivers and Harbors Act (RHA) of 1899. Please refer to Appendix 1 for a list of criteria for dredge and fill activities used by the FWS. The FWS has recommended that you include these criteria in the preferred alternative of the final EIR/EIS and use these criteria when selecting and designing HST project elements and locations to avoid or minimize wetland, riparian, fish/wildlife, and water quality impacts. Doing so would not only enhance coordination under the FWCA, but would be prudent given the absence of more specific information on the exact locations and overall extent of dredge and fill activities in the DPEIR/EIS.

Grasslands Ecological Area and Wetlands

The DPEIR/EIS makes no mention of the Grasslands Ecological Area (Grasslands), a 160,000-acre area located roughly in a triangle with the towns of Dos Palos, Los Banos and Gustine along the base of the triangle and Merced at the apex of the triangle. It is recognized for its diverse habitats and importance to a variety of wetland species. The habitat types present at Grasslands include seasonally flooded wetlands, semi-permanent marsh, woody riparian habitat, wet meadows, vernal pools, native uplands, grasslands, and native brush lands. Hundreds of thousands of shorebirds migrate through the area. Grasslands was officially recognized in 1991 by the Western Hemisphere Shorebird Reserve Network as one of only 15 internationally significant shorebird habitats and was recognized in 1999 by the American Bird Conservancy as a Globally Important Bird Area. In addition, it is currently being nominated as a Wetland of International Importance under the Ramsar Convention due to its importance to a variety of wildlife, including several rare and endangered species, its critical role as wintering habitat for Pacific Flyway waterfowl, and its status as the largest remaining block of wetlands in what was once a vast Central Valley ecosystem. Please be sure to recognize the importance of the Grasslands in the final EIR/EIS and, if possible, include alternatives that will fully avoid or minimize impacts to the Grasslands (please refer to Appendix 2 for more information on this critical ecological area).

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AF010-5 cont.

AF010-6.

AF010-7

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Cumulative Impacts Analyses

The DPEIR/EIS does not fully address the growth inducement/accommodation that could result from the HST. Please address the potential inducement/accommodation of new development along the HST corridors in the effects and/or cumulative effects section(s) of the final EIR/EIS. Please discuss the possibility that commute time would not provide a strong disincentive for relocation to outlying areas, and that local or overall development demands would increase.

The DPEIR/EIS does not address current efforts to expand existing, or construct new, airport facilities. Please address current and planned airport facility expansion in the cumulative effects section of the final EIR/EIS. Examples include current planning efforts for: (a) expansion of Los Angeles International Airport (LAX); (b) expansion of Lindberg Field and/or construction of a new airport in the San Diego region; and (c) expansion of the San Francisco International Airport (SFO).

SPECIFIC COMMENTS

Page S-5: Please evaluate the effects of growth inducement/accommodation on biological resources in the final EIR/EIS, particularly as implied for the Northern and Southern Mountain Crossing areas, and for small communities in the San Joaquin Valley. The DPEIR/EIS states that "the Antelope Valley SR-58/Soledad Canyon could provide superior connectivity and accessibility to the Antelope Valley and would have a higher potential for serving long-distance commuters to Los Angeles." We are concerned that by encouraging long-distance commuting, the HST system could be facilitating urban sprawl and the negative environmental impacts associated with it.

Table S.5-1: This table predicts minimal population growth attributable to the proposed HST system. However, potential growth of smaller rural communities along the route (e.g., Gilroy, Merced, Los Banos, Modesto, Hanford and Visalia) is not predicted. Please include estimates of potential growth in the numerous smaller communities along the proposed HST corridor, and relate that growth to potential impacts to species and habitats identified in maps (Figures 1, 2, and 3) for the final EIR/EIS. [Figures 1, 2, and 3 are oversized maps and are being sent under separate cover.]

Page S-7: Table S-6.1 also states that the HST will "result in denser development...on less land," and "controlled growth around stations, urban in-fill; compatible with transit-first policies." We believe this model may be appropriate for major metropolitan areas, but it does not fit well for smaller towns. Table S-6.1 indicates that the Modal Alternative would encourage urban sprawl throughout the Central Valley, and the HST system only around Merced. Please discuss the likelihood of impacts from suburban sprawl around the proposed station locations in the Final EIR/EIS.

AF010-8

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AF010-12



**Comment Letter AF010 Continued**

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Page S-15: The third paragraph suggests that growth rates for given areas will be determined by the HST alternative approved for construction. However, the DPEIR/EIS does not address potential cumulative growth inducement due to operation of the other Modal Alternative projects. Please include an assessment of the effects of the other Modal Alternative projects that will occur regardless of the status of the HST in the final EIR/EIS.

AF010-13

**Purpose and Need**

Page 1-6: In the Purpose and Need section is a discussion about increasing air travel from 1992 to the present. However, since September 11, 2001, air travel has dropped off significantly. Has this trend reversed completely, i.e., has air travel increased over pre-September 11 travel? What date does the term "present" represent? Please clarify this discussion in the final EIR/EIS.

AF010-14

Pages 1-6&7: It is not immediately evident in the DPEIR/EIS that there will be a future need for increased infrastructure to support the HST ridership. How will rail travelers access and utilize the new rail system without a planned increase in local infrastructure? Please identify and evaluate impacts associated with necessary infrastructure and supporting mass transit system for the HST in the final EIR/EIS.

AF010-15

Pages 1-6&7: The Department understands that there are current, ongoing consultations with the regulatory agencies on expansion of LAX. Based on those consultations, it appears that the current planning efforts for LAX are not identified in this DPEIR/EIS. As such, many of the assumptions in the DPEIR/EIS may be based on older data. Please update the final EIR/EIS with more recent information on current plans, including likely consultation outcomes, for LAX.

AF010-16

**Alternatives**

The Department believes the range of alternatives in the DPEIR/EIS is not wide enough to encompass the conflicting resource issues, planning complexities, and wide variety of environmental impacts and concerns raised during scoping (see specific technical, procedural and biological comments below). The Department recommends the development and analysis of a Lower Impact Alternative using alternative transport options of train, air, and highway improvements. This Alternative would not only better focus transportation efforts on the areas of greatest need, it would eliminate costly and unnecessary expenses (such as hundreds of miles of rail), move people off the highway system, and reduce the negative environmental impacts which are predicted to occur otherwise across the California landscape.

AF010-17

Page 2-16: If air travel trips greater than 150 miles in length would be competitive, we suggest this type of travel be included in the mix of the Low Impact Alternative.

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Page 2-18: The Department supports the concept of constructing aerial lanes over existing lanes whenever feasible to reduce impacts to the natural environment.

AF010-18

Table 2.5-1: The highway improvements presented are not based on the best available information. Many of the projects in this table are currently being planned as much wider thoroughfares. In addition, more recent regional transportation plans (RTPs) and NEPA/CEQA documents discuss larger projects than are presented in the table (e.g., SANDAG's 2030 Mobility Plan, Southern California Association of Government's Destination 2030). Please include all projects currently in the planning phase in the No Project Alternative for the final EIR/EIS.

AF010-19

Table 2.5-2: The Aviation Improvements presented in this table are not consistent with local planning efforts in San Diego, Orange, Los Angeles, Riverside, and Imperial Counties. Please update the final EIR/EIS to include local planning efforts.

Page 2-25: Please clarify in the final EIR/EIS whether the number of trains per day is in each direction or total trains on the track.

AF010-20

Page 2-35: The Department believes that further analysis of the Altamont Pass alignment alternative from the Bay Area to the Central Valley is warranted; however, serious environmental concerns are likely for a proposed bridge crossing of South San Francisco Bay. Please evaluate an alternative that would traverse the Diablo Range at the Altamont Pass, loop south to San Jose, then continue north to San Francisco, avoid a bay crossing, or one which tunnels under the bay. We suggest the existing (or an improved) Bay Area Rapid Transit (BART) system and other mass transit could easily serve the Oakland area from the stop in Hayward.

This paragraph suggests that the Altamont Pass alignment was eliminated because it does not avoid or substantially reduce potential environmental impacts. However, the impacts of the Altamont Pass alignment (if combined with no bay crossing or a tunneled bay crossing) would be lower, while the impacts associated with all of the proposed Northern Mountain crossings would be higher overall and would require substantially more mitigation. We recommend you include a more in-depth analysis of the relative environmental impacts of each of the considered and proposed alignments in the final EIR/EIS. Also, if possible, please reconsider the Altamont Pass alignment.

AF010-21

Page 2-38: The third paragraph states that an Altamont Pass alignment would have higher potential impacts on threatened and endangered species, but fewer impacts on major water crossings, parks and recreation, and visual impacts. The other proposed Northern Mountain crossings are in undeveloped areas, and would have significant impacts on threatened and endangered species. An Altamont Pass alignment with no bay crossing (or tunneled bay crossing) would result in a substantial reduction over the environmental impacts associated with the other proposed crossings (Diablo Range

**Comment Letter AF010 Continued**

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direct and Pacheco Pass alignments), while still providing for HST service to East Bay communities, the San Francisco peninsula, and San Jose.

AF010-21  
cont.

Page 2-40: Please edit the statement in the second bullet from top to reflect that the lagoons are also home to a number of resident avian species that are protected under State and Federal law.

AF010-22

Page 2-51: The California red-legged frog and the San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) are known to inhabit areas near SFO and could be potentially impacted by the San Francisco-San Jose alignment along the Caltrain Corridor. In the area of San Bruno Mountain, listed butterfly species could potentially be impacted, including the calippe silverspot butterfly (*Speyeria callippe callippe*), the mission blue butterfly (*Icaricia icarioides missionensis*), and the San Bruno elfin butterfly (*Callophrys mossii bayensis*). These potential impacts should be discussed in the final EIR/EIS.

AF010-23

Page 2-52: The proposed Hayward/Niles/Mulford alignment would result in significant environmental impacts to the San Francisco Bay National Wildlife Refuge (SFBNWR). Construction and operation of the HST system along this alignment would result in substantial impacts to existing tidal marshes/salt ponds as well as areas being considered for tidal marsh restoration. The full extent of these impacts cannot be accurately determined without more specific project information for this area coupled with a better understanding of future tidal marsh restoration efforts that will be undertaken in this area. Additionally, along the Mulford Line on Station Island is the ghost town of Drawbridge, which is an important cultural resource that would be impacted by this proposed alignment. For all of the above reasons, we suggest the Hayward/Niles/Mulford alignment be removed from further consideration and the Hayward/I-880 alignment be used instead.

AF010-24

Page 2-53: The Northern Mountain crossings, as proposed, are at odds with the Purpose and Need Statement on page S-2, which states that the HST system "should maximize the use of existing transportation corridors and rights-of-way..." The rejected Altamont Pass alignment alternative is along an existing transportation corridor, but the Diablo Range direct alternative and the Pacheco Pass alignment alternatives do not follow existing transportation corridors or rights-of-way, and will therefore have unnecessary additional environmental impacts. Please explain in the final EIR/EIS how you projected that the Pacheco Pass alignment would have 1.1 million more intercity riders per year than the Altamont Pass alignment. Please consider and evaluate, in the final EIR/EIS, potential use of the Altamont Pass alignment by the large and rapidly growing population centers at Stockton and Tracy. The projected 1.1 million difference between these two routes is only two-percent of the estimated total ridership of 68 million and could be within the margin of error for this projection. Additionally, the stated reason for rejection of the Altamont Pass alignment is the three-way split at Newark/Fremont; however, this may provide opportunities for an improved intra-Bay

AF010-25

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Area transportation system, which would have lower overall environmental impacts (see Page 2-35 comments).

Page 2-53: The potential impacts to wildlife, listed species, and undeveloped lands (which provide very important wildlife habitat in the region) in the Diablo Range would be substantial and compensating for these impacts would be extremely difficult. Critical habitat for the bay checkerspot butterfly and proposed critical habitat for the California red-legged frog could be adversely affected or destroyed. Recovery efforts for both of these species may be compromised by these losses, particularly for the bay checkerspot butterfly, which has a very limited distribution. The loss of any serpentine habitat could be a substantial impact. Most direct impacts to serpentine habitat could be avoided by completely tunneling under areas containing serpentine habitat and by placing tunnel entrances/exits outside of this habitat type. Please include an alternative that completely avoids direct impacts to critical habitats for these two species.

AF010-25  
cont.

Page 2-53: The portion of the Diablo Range to be impacted by these proposed crossings has been recognized for its important natural resources. The Nature Conservancy owns fee title and easements on 61,000 acres in this area, as part of its Mount Hamilton Project. The FWS has helped to fund that effort, and has identified the same area as a potential addition to the National Wildlife Refuge System. Please describe impacts of the Diablo Range direct alignment in the final EIR/EIS, with these concerns and conservation efforts in mind.

Page 2-81: The DPEIR/EIS does not clearly and accurately address wildlife issues along the I-215/I-15 corridor, from Riverside to San Diego. This corridor has numerous habitat types occupied by a variety of species covered by the western Riverside MSHCP, the in-progress North San Diego County MHCP, and the existing San Diego County and City of San Diego MSCPs. In particular, and as described in each of these HCPs, there are a number of core habitat areas, linkages and constrained linkages, and a variety of endangered species using the corridor. There are also complex planning issues that have not been addressed by the DPEIR/EIS. Please include in the final EIR/EIS a discussion of how the HST planning effort relates to the Federal Highway Administration priority streamlining projects in the Community and Environmental Transportation Acceptability Process (CETAP) for Western Riverside County. For example, CETAP projects we are aware of include major improvements along Winchester Road and the widening of I-15 and I-215.

AF010-26

Page 2-82: We are concerned with the alignment connecting the HST from the I-15 corridor to the LOSSAN corridor through Carroll Canyon open space within the city of San Diego's MSCP preserve. The Mira Mesa alternative avoids the Carroll Canyon open space and would be consistent with the City of San Diego MSCP. In addition, the alignment where Carroll Canyon and Mira Mesa routes combine should be designed to avoid impacts to endangered species habitat (coastal California gnatcatcher, vernal pool species) along the northern border of Miramar.

AF010-27

**Comment Letter AF010 Continued**

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Page 2-82: The southern border of Qualcomm Stadium is the San Diego River, which is occupied by numerous least Bell's vireo. Therefore, we recommend that the HST terminate north of the river and all project construction impacts at the Stadium occur within existing disturbed and developed areas. Seasonal restrictions on construction and maintenance activities, and reduced project operation (limited or reduced scheduling) would probably need to be considered and implemented between September 15 and March 14 to avoid the least Bell's vireo breeding season.

AF010-28

Page 2-94: In Orange County, there are likely to be serious concerns with the alignment that follows Trabuco Creek. Based on LOSSAN planning documents for this area, the route presented will directly impact the unchannelized portion of Trabuco Creek. To build this alternative, the creek channel would require armament to protect the rail line from flood events in the Trabuco Creek Watershed. This would pose significant threats to the southern steelhead (*Oncorhynchus mykiss*) recently detected in Trabuco Creek. Therefore, alternatives that avoid this impact should be included and evaluated in the final EIR/EIS.

AF010-29

**Land Use Planning**

The Modal Alternative discusses expansions at LAX and widening projects along I-5, I-10, I-15, I-215, and SR-163 that are likely to occur regardless of the construction of the HST project. Please discuss the relationship with HCP planning efforts (see General Comment 2) that are either already approved or will likely be approved prior to start of tiered level planning for constructing the HST in the final EIR/EIS. In particular, there are numerous wildlife corridors and linkages that are not addressed in the DPEIR/EIS (e.g., Carrol/Soledad Canyons identified in the western Riverside MSHCP, and Sandy Mush Road area in Merced County identified in the Recovery Plan for Upland Species of the San Joaquin Valley). Please explain the relationship of the various alternatives to completed and ongoing HCP planning efforts in the final EIR/EIS.

AF010-30

Please refer to and address the information contained on maps attached to these comments both in the final EIR/EIS and when making subsequent decisions on land use planning, project design elements and corridor locations (see attached Figures 1-3).

AF010-31

**Hydrology and Water Resources**

This section does not sufficiently address potential impacts to estuarine functions and processes in the coastal lagoons in San Diego County. Current planning efforts with SANDAG, Caltrans and local resource agencies are evaluating other transportation projects along Pacific Coast Highway, I-5, and El Camino Real that could also impact these lagoons. Please discuss in the final EIR/EIS how double tracking along the LOSSAN corridor will be integrated with these other transportation projects to minimize individual and cumulative impacts on estuarine functions and processes.

AF010-32

Please refer to maps attached to these comments when evaluating hydrologic and water quality impacts from project design elements and corridor locations. (See attached Figures 1-3). Other hydrologic information relevant to this effort includes the National Wetland Inventory maps available at <http://www.NWFI.fws.gov>.

Figure 3.14-4: Please include the coastal lagoons in San Diego County as surface waters in the final EIR/EIS, as the discussion on page 3.14-4 correctly describes surface waters as including coastal estuaries and lagoons.

Figure 3.14-8: Erodeable soils will be a significant issue for both the LOSSAN alignment and the inland route from Los Angeles to San Diego. This issue needs to be more clearly discussed in the final EIR/EIS because sediment accretion in the coastal waters is a major threat to State- and federally-listed species and those species covered under local HCPs.

AF010-32 cont.

Page 3.14-8: Please add Los Penasquitos Lagoon to the list of surface waters. Project level design should avoid all impacts from locating the HST in flood plains. Please include in all alternatives the use of bridges that are adequately designed for crossing over all surface waters and tributaries to avoid or minimize potential impacts to hydraulic functions and processes as well as allow for migratory corridors and habitat linkages.

Page 3.14-9: The DPEIR/EIS appears inconsistent with regional transportation planning efforts in San Diego County. The No Project alternative includes widening projects that will be designed to improve surface water and floodplain constrictions that currently exist due to past construction practices. Please update the final EIR/EIS to include efforts currently being coordinated with transportation planners and resource agencies to alleviate problems created by past construction practices. For example, the Modal Alternative description in the DPEIR/EIS appears out of date with current plans. Please update the Modal Alternative to reflect recent changes in the planning process.

AF010-33

Page 3.14-18: While the tunneling under Camino Del Mar and opening up areas of the rail structure across Los Penasquitos Lagoon would potentially improve estuarine functions and processes, removing the rail from Los Penasquitos by tunneling under I-5 would avoid impacts to the lagoon and significantly improve Los Penasquitos Lagoon hydrologically, as wildlife habitat, and for visual aesthetics. Similarly, running the rail line south of and along the existing road along the south side of San Dieguito Lagoon would result in limited lagoon impacts.

AF010-34

**Biological Resources and Wetlands**

Please include an analysis in the final EIR/EIS of impacts to biological resources and wetlands including, but not limited to, indirect effects from increased speed and frequency of trains along all of the corridors. As trains become faster and more

AF010-35

**Comment Letter AF010 Continued**

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frequent, the probability of striking wildlife inhabiting these areas increases. Both the HST and the double tracking of the LOSSAN corridor would have significant impacts on wildlife from increased train traffic and speed. Though the train corridor would be fenced in areas where the train travels at grade, fences do not ensure that wildlife will not gain access to fenced rights-of-way. Fences often contribute to mortality by trapping animals that manage to circumvent the fence. Additionally, fencing will not keep smaller amphibians, reptiles and mammals from accessing the rail right-of-way. Larger animals will be able to access the right-of-way by circumventing the ends of the fence and by exploiting areas where the integrity of the fence has been compromised. We recommend that consideration be given to the use of tunnels or elevated track in important wildlife habitat and migration areas to reduce potentially significant mortality impacts as well as to maintain habitat connectivity.

Please refer to maps (Figures 1-3) to these comments both in the final EIR/EIS and when making subsequent decisions on project alternatives, design elements and potential corridor locations. Other relevant information to evaluate project impacts on wetlands includes the National Wetland Inventory maps available at <http://www.NWI.fws.gov>.

**Figure 3.15-1:** This figure inadequately outlines areas of San Joaquin kit fox habitat. The figure does not identify important population linkage areas that connect core and satellite San Joaquin kit fox populations. Please refer to Figures 1 and 2 which identify these areas within the San Joaquin Valley. Populations of San Joaquin kit fox lying outside of the San Joaquin Valley (i.e., San Benito County) not shown in these figures, should also be included. Documented sightings of San Joaquin kit fox are also shown on these figures.

**Figure 3.15-3A:** See above comments for Figure 3.15-1.

**Page 3.15-6:** Please address impacts to the San Francisco Bay National Wildlife Refuge (SFBNWR) in the final EIR/EIS. For example, impacts along the Mulford alignment could substantially hinder the attainment of recovery objectives for the California clapper rail (*Rallus longirostrisobsoletus*) and the salt marsh harvest mouse (*Reithrodontomys raviventris*). Additionally, other federally listed species such as the western snowy plover (*Charadrius alexandrinus nivosus*), and Contra Costa goldfields (*Lasthenia conjugens*), and vernal pool species have the potential to be impacted by the proposed Mulford alignment.

**Page 3.15-7:** There are significant natural resource concerns related to the proposed Northern Mountain crossings. The Diablo Range alignments would result in substantial direct and indirect impacts to federally listed wildlife species in the region, including the endangered San Joaquin kit fox, the threatened California red-legged frog, the threatened bay checkerspot butterfly, and the threatened California tiger salamander, as well as various threatened and endangered plant species. The HST corridor (as well as

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cont.

AF010-36

AF010-37

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any access roads needed for construction/ operations/ maintenance) would result in fragmented wildlife habitat, noise impacts to wildlife, direct and indirect loss of habitat, hydrologic changes that may negatively impact wildlife/plant species, increased risk of colonization by invasive plant species, and disruption of seasonal and daily wildlife movements. Noise associated with the HST may cause many species of wildlife (including the San Joaquin kit fox) to avoid a substantial area of otherwise suitable habitat near the rail line, resulting in habitat loss above and beyond the actual project footprint.

**Page 3.15-12:** The DPEIR/EIS is missing important information on significant biological resources along the Los Angeles to San Diego Inland Empire corridor. For example, there are numerous areas of natural vegetation (particularly south of Temecula) and wildlife corridors and linkages that occur along this proposed corridor. Please coordinate any planning efforts for HST along this route with the western Riverside MSHCP and the North San Diego County MHCP.

**Page 3.15-14:** The Carroll Canyon area is an important feature in the San Diego County regional conservation strategy. Please consider and include an alternative to placing a new HST corridor along or through this important wildlife corridor/linkage in the final EIR/EIS.

**Page 3.15-14:** The Conservation Plans discussion is lacking important information. Please ensure that the proposed HST will be consistent with the existing and proposed HCPs (see General Comment 2).

**Page 3.15-15:** The information provided in the DPEIR/EIS regarding critical habitat is mostly incorrect. Arroyo toad critical habitat was designated in 2001 (66 FR 9414, 66 FR 13656), but has since been vacated until a new final rule is issued. Quino checkerspot critical habitat was designated on April 15, 2002 (67 FR 18356). Riverside fairy shrimp critical habitat was designated on May 30, 2001 (66 FR 29384), but was remanded and vacated until a new final rule is issued. San Bernardino kangaroo rat critical habitat was designated on April 23, 2002 (67 FR 19812). San Diego fairy shrimp critical habitat was designated on October 23, 2001 (65 FR 63438), and was remanded but not vacated until a new final rule is issued. Southwestern willow flycatcher critical habitat was designated on July 22, 1997 (62 FR 39129), and was set aside until a new final rule is issued. Tidewater goby critical habitat was designated on June 28, 2000 (65 FR 39850), and was remanded and partially vacated for Agua Hedionda Lagoon (Unit 10) until a new final rule is issued.

**Page 3.15-16:** Federally listed species that may occur along the LOSSAN corridor and not addressed in the DPEIR/EIS include San Diego ambrosia (*Ambrosia pumila*), San Diego mesa mint (*Pogogyne abramsii*), and thread leaved brodiaea (*Brodiaea filifolia*). In addition, there are a number of species and habitat types not mentioned that occur

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AF010-42

**Comment Letter AF010 Continued**

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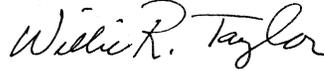
along various portions of the proposed alignments that are State listed species and/or species covered under HCPs (e.g., Belding's savannah sparrow).

Page 3.15-28: There are a number of wildlife corridors and linkages that are described in regional conservation planning documents that are not included in this document including Temecula Creek, Trabuco Creek and Carroll Canyon. Please include all of the wildlife corridors and linkages designated in local and regional conservation planning efforts in the final EIR/EIS.

Page 3.15-31: The Environmental Consequences and Mitigation Strategies should include all of the wetland impacts and mitigation measures across the coastal lagoons in San Diego County that will result from double tracking the LOSSAN corridor. Current planning efforts along the LOSSAN corridor include removing areas of existing fill and running extended causeways to offset new impacts associated with new fill for double tracking. There will be improvements in the lagoons when existing bridges and their wooden pilings are replaced with single span concrete piling structures. In addition, these new bridges would not require clearing and maintenance activities currently necessary to protect existing wooden piling structures from fire.

We appreciate the opportunity to provide these comments and apologize for the lateness of them.

Sincerely,



Willie R. Taylor  
Director, Office of Environmental Policy  
and Compliance

Attachments: Appendices 1 and 2  
[Figures 1, 2 and 3 are oversized maps sent under separate cover to FRA only]

cc:  
California High-Speed Rail Authority  
EIR/EIS Comments  
925 L Street, Suite 1425  
Sacramento, California 95814

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cont.

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AF010-44

**Appendix 1**

The U.S. Fish and Wildlife Service's (FWS) Mitigation Policy of January 23, 1981, as issued in the Federal Register Vol. 46(15): 7656-7663, outlines how the agency will work with partners to help mitigate any adverse impacts from land and water development projects on fish, wildlife, and their habitats. Its purpose is to help assure consistent and effective recommendations by outlining policy for the levels of mitigation needed, as well as the various methods for accomplishing the mitigation. In addition, it allows Federal action agencies and private developers to anticipate FWS recommendations and plan for mitigation measures early, thus avoiding delays late in the planning process. The policy is meant to provide guidance for FWS personnel; variations appropriate to individual circumstances are expected and permitted.

The FWS reviews a variety of criteria to outline mitigation recommendations and determine the agency's position on a specific project or proposal. The criteria are not mutually exclusive, and are meant to provide a framework for the FWS to fulfill its technical assistance role to partner Federal action agencies and the public. The action agencies are then charged with making the final decision to approve the proposal and require some level of mitigation, if appropriate. In this process, the FWS considers whether:

- (1) Proposals are ecologically sound;
- (2) The least environmentally damaging reasonable alternative is selected;
- (3) Every reasonable effort is made to avoid or minimize damage or loss of fish and wildlife resources and uses;
- (4) All important recommended means and measures have been adopted with guaranteed implementation to satisfactorily compensate for unavoidable damage or loss consistent with the appropriate mitigation goal; and
- (5) For wetlands and shallow water habitats, the proposed activity is clearly water dependent and there is a demonstrated public need.

In addition, Council on Environmental Quality regulations for implementing the National Environmental Policy Act define mitigation to include: (1) avoiding the impact; (2) minimizing the impact; (3) rectifying the impact; (4) reducing or eliminating the impact over time; and (5) compensating for impacts. The FWS supports and adopts this definition and considers the specific elements to represent the desirable sequence of steps in the mitigation planning process. The FWS strives to help achieve the goal of no net loss of wetland habitats.



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**Comment Letter AF010 Continued**

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**Appendix 2**

Additional information concerning Grasslands Ecological Area (Grasslands)

The Grasslands is a critical area for Pacific Flyway waterfowl populations, providing wintering habitat for 20 percent of the total population. Waterfowl populations wintering in the Grasslands average a half-million, with peak waterfowl numbers at one million. Several federally listed or proposed threatened and endangered species are known to occur either seasonally or year-round. As one of the largest remaining vernal pool complexes, Grasslands is home to many rare species associated with this disappearing habitat. San Joaquin kit fox (*Vulpes macrotis mutica*), Aleutian Canada geese (*Branta canadensis leucopareia*), Swainson's hawks (*Buteo swainsoni*), and tri-colored blackbirds (*Agelaius tricolor*) are also dependent upon the area. Less than five percent of the original four million acres of Central Valley wetlands remain. In recognition of the rich and critically important natural resources of the Grasslands, the conservation agencies have focused more attention and funding on this area than most areas of the State. There is a significant level of investment in maintaining the area's natural heritage, including two FWS national wildlife areas encompassing approximately 35,000 acres, a FWS conservation easement program that encompasses 70,000 acres on 170 separate private properties, six units of the California Department of Fish and Game wildlife areas encompassing approximately 25,000 acres, a California Department of Parks and Recreation state park, and an extremely active Natural Resources Conservation Service program. This area has garnered numerous habitat restoration and enhancement grants totaling millions of dollars, and is one of the most active areas statewide for conservation group involvement.

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**Response to Comments of Willie Taylor, Director, Office of Environmental Policy and Compliance, U.S. Department of the Interior, November 22, 2004 (Letter AF010)**

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**AF010-1**

The Co-lead Agencies respectfully disagree that the Program EIR/EIS presents little difference between the alternatives. The Program EIR/EIS reliably assesses the potential for environmental impact from each of the alternatives at an appropriate level of detail. Please see Standard Response 3.15.13

**AF010-2**

The Modal Alternative is a hypothetical set of infrastructure improvements to the existing state transportation system (e.g. additional highway lanes and additional airport runway construction) to accommodate the forecast intercity travel demand. The improvements that are part of the Modal Alternative are not currently programmed and are not necessarily identified in other planning documents. It is beyond the scope of this review and would be speculative and impractical to account for all site-specific highway and airport improvements that are being planned by other entities, but were not programmed and funded when the Program EIR/EIS analysis was done. Please see response O024-28. Subsequent project level analyses will incorporate the current status of such projects.

**AF010-3**

Acknowledged. Additional information is provided in Section 3.15 of the Final Program EIR/EIS regarding habitat conservation plans. Please see Standard Response 3.15.10.

**AF010-4**

Evaluation of potential impacts to designated critical habitat for federally listed species was considered in the analysis through use of CNDDDB GIS data. The results of the analysis are presented in

Section 3.15. Please see Standard Response 3.17.1 and responses O034-8, 9

**AF010-5**

The FRA would initiate Section 7 consultation to satisfy the requirements of the Endangered Species Act when and if the proposed HST System is advanced to project level environmental review and Section 404 permitting activities commence. Preparation of a Biological Assessment for the program study area (much of the state of California) would be impractical given the geographic extent of the alternatives and the number of habitats. For this Program EIR/EIS, potentially affected biological resources were identified using CNDDDB GIS data and representative impacts to listed species habitat areas were estimated to inform a comparison of system alternatives and HST alignment and station options. This information has been made available to the DOI, FWS, USACE and EPA through the program environmental process.

Upon project level initiation of Section 7 consultation, for project study areas the FRA and the Authority would in principle accomplish the steps identified by DOI by: 1) identifying the conservation needs of each listed species with the potential to be impacted by the proposal; 2) identifying the threats to each listed species' conservation related to the proposed action; 3) identifying species conservation or management units and the threats affecting those units; 4) identifying species' conservation goals framed within the context of the HST program; and 5) developing conservation/management unit strategies. The FRA and the Authority would prepare Biological Assessments to address the affected conservation/management units identified during the second-tier, project-level environmental reviews, when more specific data will be available for HST design parameters and HST alignment options.

**AF010-6**

Agreed. After conclusion of the Program EIR/EIS, project-level environmental review would incorporate Section 404 permitting activities. The criteria for dredge and fill activities provided by the FWS have been incorporated in Section 3.14 of the Final Program EIR/EIS.

**AF010-7**

Please see Section 3.15 of the Final Program EIR/EIS and response AL072-9.

**AF010-8**

The Co-lead Agencies believe that the Program EIR/EIS fully addresses potential growth impacts at an appropriate level of detail in Chapter 5. Also please see Section 3.17 of the Final Program EIR/EIS.

**AF010-9**

Please see Chapter 5. A primary conclusion of the growth inducement analysis is that a considerable amount of growth will be occurring in the "outlying" areas of California with the No Project Alternative. Please also see standard response 5.2.5.

**AF010-10**

Please see response AF010-2 above and Section 2.4.2 and Section 2.5.2 of the Final Program EIR/EIS. Please also see standard response 3.17.1.

**AF010-11 and 12**

While these comments were made on the summary, Chapter 5 of the Program EIR/EIS provides a more complete description of potential effects of the system alternatives and HST alignment options on growth and urban development. Please see Standard Responses 5.2.1, 5.2.2, 5.2.5, and 5.2.6. Please also see standard response 6.23.1 and standard response 2.1.12.

**AF010-13**

The analysis described in Chapter 5 does address the Modal Alternative. It is unlikely that both the Modal and HST Alternatives would be needed and implemented. Please see Chapter 5 and Section 3.17 of the Final Program EIR/EIS.

**AF010-14**

As stated on page 1-6 of the Draft Program EIR/EIS, "...federal, state, and regional transportation plans forecast recovery from this reduction and continued growth in air travel over the next 20 years." The statement, "to the present" has been deleted from Section 1.2.2A of the Final Program EIR/EIS.

**AF010-15**

The PEIR/EIS and the ridership forecasts which are referenced in the PEIR/EIS did not assume any improvements to local mass transit beyond those improvements included in the No Project Alternative. Travelers would access HST stations using existing and planned local and regional transit, by automobile, shuttle services, and some would walk. Potential HST station sites have been selected primarily at existing transportation hubs. Please see standard response 2.1.12.

**AF010-16**

Please see Standard Response 3.17.1 and response AF010-2 above. Please also see footnote on Page 1-7 of Final Program EIR/EIS and the discussion of LAX in Chapter 6A.

**AF010-17**

A lower level of rail improvement would not meet the purpose and need. Lower speed rail technologies were considered and rejected in section 2.6.6 of the Program EIR/EIS. Air and highway travel would continue to play a major role as described for the No Project Alternative. The Modal Alternative is not planned and programmed, but represents an alternative program to the HST Alternative. Please see Standard Response 2.9.1 and response AS004-8

**AF010-18**

Acknowledged.

**AF010-19**

The Modal Alternative is a hypothetical set of infrastructure improvements to the existing state transportation system (e.g. additional highway lanes and additional airport runway construction) to accommodate the forecast intercity travel demand. The improvements that are part of the Modal Alternative are not currently programmed and are not necessarily identified in other planning documents. The data in these tables lists improvements that are part of the Modal Alternative, not other planning efforts that are looking at individual facilities and a variety of travel needs. It would be speculative to incorporate project plans being made by others that are not programmed and funded. Please see Standard Response 2.2.1.

**AF010-20**

The text in section 2.6.2. of the Draft Program EIR/EIS says 86 trains per day in each direction.

**AF010-21**

Please see Standard Response 2.18.1.

**AF010-22**

Acknowledged. The Final Program EIR/EIS notes the lagoons as "habitat to resident avian species protected under state and federal law."

**AF010-23**

Please see section 3.15 Biological resources and Wetlands for discussion of threatened and endangered species.

**AF010-24**

Acknowledged. The Hayward/I-880 alignment option has been identified as preferred between Oakland and San Jose.

**AF010-25**

Please see Standard Response 6.3.1.

**AF010-26**

Additional information has been added to Section 3.15 of the Final Program EIR/EIS regarding habitat conservation plans and wildlife movement corridors. Potential impacts to specific species and habitats will be addressed in subsequent project level environmental review when the proposed facilities and alignments are more precisely defined.

**AF010-27**

Acknowledged. Carroll Canyon's status as a San Diego MSCP preserve is noted in chapter 6A in the Final Program EIR/EIS. Both the Carroll Canyon and Miramar Road alignment options are identified as preferred for further study in project level environmental review. Please see response AF008-17.

**AF010-28**

The Qualcomm alignment option is not preferred for further study at the project-level.

**AF010-29**

Please see Standard Response 6.41.1

**AF010-30**

Regarding consideration of habitat conservation plans please see Standard Response 3.15.10. Regarding wildlife corridors please see Standard Responses 3.15-2 and 3.15.9, responses AS04-51 and AS012-19 and Section 3.15.2 of the Program EIR/EIS.

**AF010-31**

Acknowledged.

**AF010-32**

Please see Standard Response 6.41.1.

**AF010-33**

The Modal Alternative is a hypothetical set of infrastructure improvements to the existing state transportation system (e.g. additional highway lanes and additional airport runway construction) to accommodate the forecast intercity travel demand. The improvements that are part of the Modal Alternative are not currently programmed and are not necessarily identified in other planning documents.

**AF010-34**

Please see Standard Response 6.41.1.

**AF010-35**

The potential for the HST Alternative to result in increased mortality of listed species will depend upon field studies and incorporation of avoidance and minimization measures at the project level. Wildlife crossings would be incorporated where necessary to supplement wildlife movement already accommodated by grade-separated sections of the HST system. Please see Sections 3.15.5-6 of the Final Program EIR/EIS regarding design practices and mitigation strategies to address potential impacts to biological resources and protected species.

**AF010-36**

Additional GIS data regarding San Joaquin Kit Fox habitat was provided by the FWS and incorporated in the Final Program EIR/EIS.

**AF010-37**

The Hayward/I-880 alignment option has been identified as preferred between Oakland and San Jose. Please also see Standard Response 2.18.1.

**AF010-38**

See Response AF010-26 above.

**AF010-39**

Acknowledged. Carroll Canyon's status as a San Diego MSCP preserve is noted in chapter 6A in the Final Program EIR/EIS. Both the Carroll Canyon and Miramar Road alignment options are identified as preferred for further study in project level environmental review.

**AF010-40**

Please see Standard Response 3.15.10.

**AF010-41**

The information presented in the Final Program EIR/EIS is based on the California Natural Diversity Database (2003). The specific species raised in your comments will be considered and further addressed during subsequent project level environmental review.

**AF010-42**

Please see Standard Response 6.41.1.

**AF010-43**

Please see Standard Response 3.15.10. Please also see Figures 3.15-1A and 3.15-1B in the Final Program EIR/EIS.

**AF010-44**

Please see Standard Response 6.41.1.