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BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 35724
CALIFORNIA HIGH-SPEED RAIL AUTHORITY
– CONSTRUCTION EXEMPTION –
IN MERCED, MADERA AND FRESNO COUNTIES, CALIFORNIA

PROTEST/OPPOSITION STATEMENT
OF
CITIZENS FOR CALIFORNIA HIGH-SPEED RAIL ACCOUNTABILITY
TO
PETITION FOR EXEMPTION OF
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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I. PROTESTING PARTY.

Citizens for California High-Speed Rail Accountability (CCHSRA or the Committee) is a non-profit mutual benefit corporation whose members principally live in Kings County, California and who will be affected by the California High-Speed Rail Authority's (CHSRA or Authority) proposed rail project through the Central Valley.

The Committee respectfully protests and opposes the Authority's Petition for Exemption under 49 U.S.C. §10502, which it filed on March 27, 2013, for the reasons set forth below. The Committee also adopts and incorporates by reference the protests/oppositions filed by other parties to this proceeding.

II. BACKGROUND AND OVERVIEW.

The Authority has been supplied with \$6.0 billion in state and federal funding, which it intends to use to construct an additional railroad line through approximately 130 miles of the Central Valley of California during the next five years.¹ This 130-mile section is referred to by the Authority as its "Initial Construction Section" (ICS), and has been divided into two segments, with each one currently at a different stage of progress.²

The first segment is what the Authority describes as the "Merced to Fresno HST Section." When the Authority applied in 2009 for a grant of over \$900 million with the Federal Railroad Authority's (FRA) HSIPR Program, it described its project as a 50-mile new rail line starting in downtown Merced "close to the existing UPRR line ... and ending before SR180 close to the UPRR line through Fresno."³ The Authority was granted these funds for the project as it was described in

¹CCHSRA November 3, 2011 Funding Plan (FP), pp. 1 (pdf 8), 2 (pdf 9), 6 (pdf 13), 7 (pdf 14), and 8 (pdf 15), <http://www.cahighspeedrail.ca.gov/funding.aspx>. The Funding Plan is attached as Exhibit A.

²FP, p. 2 (pdf 9); see also Authority's Revised 2012 Business Plan (RBP), pp. ES-3 (pdf 11), ES-7(pdf 15), http://www.cahighspeedrail.ca.gov/Business_Plan_reports.aspx. See Exhibit B.

³Federal Stimulus Update: Merced to Fresno Design/Build Application (10/1/09) p. 5 (pdf 5), http://www.cahighspeedrail.ca.gov/fed_stimulus.aspx. See Exhibit C.

the application. But the Authority has since changed the scope of the project by using the same grant funds to construct only a 29-mile section from Madera to Fresno (21 miles shorter). Although the Authority's Petition for Exemption declares that its Project is the construction of the "Merced to Fresno HST Section," and that construction will be occurring in Merced County, this is simply not true. Its ICS construction will not begin in Merced and it will carry on no construction whatsoever in Merced County.

Rather, the northern end of the Authority's ICS project begins in Madera County where Avenue 17 dead ends into the west side of the BNSF right of way (see Map M4458), with the new rail line departing from the BNSF rail line just east of the town of Madera and then heading south into Fresno County (See Right of Way Appraisal Map Exhibit for Madera County).⁴ The Authority also fails to forthrightly disclose in its Petition for Exemption that it will not be constructing the 31-mile section between Merced and Madera with the funding it has, and that it will not be proceeding with construction between those two points until it secures funding beyond what it currently has.⁵

The Authority has already accepted design/build bids for this Madera to Fresno section and has recently announced the best-ranked bidder, which is also the least technically competent. It is believed the Authority has also commenced appraising right-of-way parcels for this 29-mile section prior to their acquisition and is already making offers to right-of-way landowners. The extent of these acquisition activities is unknown due to lack of discovery and the Authority's lack of transparency.

The other segment of the Authority's ICS is a 100-mile section from Fresno to north of Bakersfield, which the Authority calls the "Fresno to Bakersfield HST Section." The Authority claims that its \$6.0 billion in state and federal funding is sufficient to also construct this section from

⁴The references maps are included in Exhibit J.

⁵FP, p. 6 (pdf 13); RBP, p. 3-8 (pdf 88).

Fresno to some presently undetermined point north of Bakersfield.⁶ The Authority and the FRA released a Revised EIR/EIS for that “Section,” on which public comments have been received. CCHSRA and many other local agencies and individuals were among those submitting a large amount of public comment expressing a multitude of environmental concerns. Attached are a couple of our members’ comment letters to give the Board an idea of the kinds of environmental concerns that have been expressed. See Exhibits K and L. The Authority has not completed its responses to these comments and will not be releasing its Final EIR/EIS for a number of months, so the environmental review process for this 100-mile section is pending. The Petition for Exemption of just the 30 or 29 mile Madera to Fresno “section” is an improper segmentation or piecemealing of Board oversight over the entire HSR system that the Authority purports to plan to build. It is as if the Authority is seeking to escape Board review and oversight.

There will be two phases to the passenger train operations intended to be conducted on the Authority's new ICS rail line: The first will be the operation of non-high-speed, diesel locomotive-pulled passenger trains once construction of the 130-mile ICS is completed.⁷ For some reason, the Authority decided to downplay in its petition the Authority's entire ICS plan, which is to continue the new rail line south from Fresno, where it will eventually rejoin the BNSF rail line somewhere north of Bakersfield. If the entire ICS is considered, as it should, impacts to Amtrak service seems unavoidable. This will come about by the transferring of an undetermined number, and possibly all, of the current Amtrak passenger trains off of the BNSF rail line and on to the new rail line.⁸ These Amtrak trains are to leave the BNSF tracks at Madera and use the new rail line until they rejoin the BNSF tracks somewhere north of Bakersfield. Much of the new rail line for the ICS will run two to four miles distant from the existing BNSF rail lines and will involve bypassing three cities in which Amtrak passenger stations are located and which Amtrak currently serves. They are

⁶FP, p. 6 (pdf 6).

⁷FP, p. 4 (pdf 11); RBP, pp. ES-3 (pdf 11), ES-7 (pdf 15).

⁸FP, p. 4 (pdf 11); RBP, pp. ES-3 (pdf 11), ES-7 (pdf 15), 2-14 (pdf 58), and 3-2 (pdf 82).

Hanford, Corcoran and Wasco. We have not found evidence in documents posted by the Authority that it has funds allocated to the construction of replacement stations at these cities.⁹ Currently, the BNSF tracks carry fourteen daily Amtrak passenger trains and an unknown number of freight trains. Because the Authority's Project will not improve the single-track sections of BNSF track that currently exist north and south of the ICS, this Project will not increase the overall train-carrying capacity of the BNSF line. If the Authority were to make sure that the number of Amtrak trains serving the Hanford, Corcoran and Wasco stations remained unreduced, and if there are limited capacity problems, then new Amtrak trains could not be added to the new track. But how likely is it that the Authority would expose itself to ridicule by building this \$6.0 billion project and not using it? Otherwise it is a stranded investment, or a cynical ploy to force continued funding under the theory that once the project starts, it must continue.

Because of this and because the Authority has all along insisted that Amtrak trains will be operated on the Authority's new line, the prospect of Amtrak trains being pulled off the BNSF line looms large, thereby reducing or eliminating passenger service at these three stations. Hanford, Corcoran and Wasco may be small towns by many people's standards, but they are the closest stations for hundreds of thousands of people who reside in large towns such as Visalia and Tulare, and in the rural areas and countless smaller communities of Kings, Tulare and Kern Counties.

In a January 2, 2013 Fresno Bee newspaper article, attached as Exhibit D, Amtrak sources showed that ridership for the year 2012 at the Hanford station was 210,682, while the ridership at the Corcoran and Wasco stations were 29,072 and 21,117, respectively. In short, the Authority is proposing a scenario in which it is difficult to see how Amtrak service, convenience and ridership will not be significantly affected and diminished as compared to what is presently provided.

Non-high-speed, conventional passenger operations are intended to continue on the Authority's new rail lines for an indefinite number of years, to be ended only when, and if, another

⁹Authority's Revised Draft Fresno-Bakersfield EIR/EIS, http://www.cahighspeedrail.ca.gov/Lib_Fresno_Bakersfield.aspx.

\$25.3 billion to \$30.6 billion is obtained from the state and federal governments, and possibly private sources to complete the IOS.¹⁰ Until the Authority secures this additional funding (which it does not currently have) to complete construction of the 300-mile IOS from Merced to the San Fernando Valley, it cannot and will not construct additional rail line from Madera to Merced and from north of Bakersfield to the San Fernando Valley.¹¹ It also admits that it does not have the funding needed to purchase and operate electric-powered high-speed train sets over the new rail line, and that it does not have the funding for the electrification, signaling and control systems necessary to operate a HST system.¹²

The Government Accountability Office (GAO) is not optimistic about the prospects of the Authority getting additional funding. In testimony presented to the House Committee on Transportation and Infrastructure on December 6, 2012, the GAO testified that “One of the biggest challenges facing California's high-speed rail project is securing funding beyond the first construction segment. [. . .] However, given that the HSIPR grant program has not received funding for the last 2 fiscal years, and that future funding proposals will likely be met with continued concern about federal spending, the largest block of expected funds is uncertain.”¹³ Even the Authority admits that the prospects of securing funding beyond its present \$6.0 billion is uncertain and is a risk to its ability to complete the IOS.¹⁴

¹⁰RBP, pp. ES-13 (pdf 21), ES-15 (pdf 23), 3-2 (pdf 82), and 3-11 (pdf 91).

¹¹RBP, pp. ES-13 (pdf 21), ES-15 (pdf 23), 3-2 (pdf 82) and 3-11 (pdf 91).

¹²FP, p. 2 (pdf 9); RBP, pp. ES-13 (pdf 21), ES-15 (pdf 23) and 3-2 (pdf 82).

¹³“High-Speed Passenger Rail; Preliminary Assessment of California’s Cost Estimates and Other Challenges,” Statement of Susan A. Fleming, Director, Physical Infrastructure Issues, delivered to the House Committee on Transportation and Infrastructure, on Dec. 6, 2012 at pp. 10, 11 (pdf 12, 13), <http://www.gao.gov/products/GAO-13-163T>. See Exhibit E.

¹⁴RBP, p. 8-10 (pdf 178).

III. THE GENERAL REQUIREMENT OF OBTAINING A CERTIFICATE.

49 U.S.C. §10901(a) declares that a party may construct an additional railroad line and/or provide transportation by means of it only if the Board issues a certificate authorizing such activity. The Authority admits in its Petition for Exemption that it intends to construct a new rail line, and that rail passengers are to be transported across this additional rail line. Thus, it admits that both elements described in subsections (2) and (3) of §10901(a) are present with respect to its Madera to Bakersfield ICS.¹⁵

IV. THE AUTHORITY SEEKS AN EXEMPTION INSTEAD OF A CERTIFICATE.

Although the Authority's Petition (p. 10) recognizes that "Construction of a new rail line requires prior Board approval pursuant to 49 U.S.C. § 10901," and although it admitted that it was indeed constructing a new rail line, it nevertheless sought an exemption regarding its Project (which it misdescribes throughout as the "Merced to Fresno" segment) under 49 U.S.C. § 10502, instead of applying for a certificate.

Oddly, the Authority is just seeking an exemption for this short 29-mile section of its ICS. Clearly, at some point it is going to have to approach the Board as to the other section - the rest of its 130-mile ICS. It makes no sense for the Authority to parcel this matter into two discrete elements, and the Board should not have to look at this matter piecemeal; it needs to evaluate the full project and its cumulative impacts and implications. One part cannot be properly assessed without assessing the other.

¹⁵FP, p. 4 (pdf 11); RBP, pp. ES-3 (pdf 11), ES-7 (pdf 15), 2-14 (pdf 58), and 3-2 (pdf 82). For example, the Authority states on p. ES-3 (pdf 11): *Through collaborative planning and implementation with the California Department of Transportation (Caltrans), Amtrak, Altamont Commuter Express (ACE), BNSF Railway, and Union Pacific, the San Joaquin rail service (fifth busiest in the nation) will be shifted to the first construction segment upon its completion, resulting in a 45-minute time savings.* This contradicts the Petition wherein it states the Authority has no current contracts or negotiations with Amtrak. It is clearly the intent of the Authority to shift Amtrak San Joaquin service to the "first construction segment." Also noted is that the Authority has no agreements with UPRR or BNSF though these agreements are required to be in place before the Authority can spend any money, whether federal, state or local.

The Authority seeks expedited consideration of its Petition by the Board because of the supposed “urgent” need to proceed rapidly with its Project. Yet, it knew of the need to go before the Board at least three and a half years ago. In its October 1, 2009 application for a High-Speed Intercity Passenger Rail (HSIPR) grant for its Merced to Fresno section, the Authority stated that “Additionally, CHSRA will address potential jurisdiction of the Surface Transportation Board (STB) over any aspect of the HST project and work to ensure timely completion [of] all prospective regulatory oversight responsibilities consistent with the project delivery schedule.”¹⁶ Although knowing of its obligations with respect to the Board, it failed to file any petitions until five weeks ago. And it appears it did so only because Congressman Denham called the problem to the Authority's and the Board's attention.¹⁷ When the Authority filed its Petition for Exemption with the Board on March 27, it was poorly done, rife with omissions and misrepresentations, and was sorely lacking in needed detail and factual support. It is easy to see why the members of CHSRA are nervous and apprehensive about how this agency will proceed with the construction and implementation of this project, especially with respect to the potentially adverse effect it will or may have on the future passenger service that we, the train-traveling public, will be provided in contrast to the service the public has heretofore enjoyed from Amtrak's current operations.

V. THE AUTHORITY FAILS TO SHOW COMPLIANCE WITH ALL POLICIES OF § 10101.

The Authority begins its request for exemption by paraphrasing the relevant provisions of 49 U.S.C. §10502(a):

“Under 49 U.S.C. §10502 (a), however, the Board shall exempt a proposed rail line construction from the detailed application procedures of § 10901 if it finds that (1) those procedures are not necessary to carry out the transportation policy of 49 U.S.C.

¹⁶See the Authority's “Merced/Fresno HSR Design/Build High-Speed Intercity Passenger Rail (HSIPR) Program Track 2–Corridor Programs: Application Form” dated 10/01/09, at p. 23 (pdf 23) http://www.cahighspeedrail.ca.gov/fed_stimulus.aspx. See Exhibit C.

¹⁷See Congressman’s Denham’s letter attached as Exhibit F.

§ 10101 and (2) either (a) the transaction or service is of limited scope; or (b) regulation is not needed to protect shippers from the abuse of market power.”

The Authority's Petition argued that its “Merced to Fresno” Project should be exempted from the requirements of § 10901 “because regulation under §10901 is not needed to protect shippers from the abuse of market powers,” and because “the Project will provide passenger rail service and not freight service, [so] no shippers need protection against potential market power abuses.” It further argued (though without evidence) that “construction of new rail lines only seems to enhance competitive options.”¹⁸ The Authority further argued that “exemption of the construction of the Project from regulation under 10901 will further the goals of the nation's rail transportation policy [§10101].” The Authority confirmed that these are its sole arguments for an exemption by concluding: “Accordingly, under the standards for exemption set forth in 10502, this Petition [for Exemption] should be granted.”

Let us examine, therefore, how the Authority went about supporting its argument sans evidence that its project will “further the goals of the nation's rail transportation policy.” There are fifteen different railroad industry policy elements set forth in §10101, any one of which can give the Board justification to become involved in order to ensure that these policy elements will be promoted and protected.

While the Authority mentioned the language set forth in subsections (2), (4), (5), (7) and (14) of the §10101 policies, it conveniently ignored others that would be the most troublesome. The policy elements that it conveniently failed to mention or glossed over, but which are very relevant in this matter, are (emphasis added):

- (1) to allow, to the maximum extent possible, competition and the demand for services to establish reasonable rates for transportation by rail.
- (4) to ensure the development and continuation of a sound rail transportation system with effective competition among rail carriers and other modes, to meet the needs of the public and the national defense.

¹⁸Authority’s Petition for Exemption, p. 2.

- (8) to operate transportation facilities and equipment without detriment to the public health and safety. (Emphasis added)

The Committee is very concerned about how the new rail line will be used and what its effect on Amtrak passenger train service might be. Committee members know of local people who use Amtrak for interstate travel into other states, and of visitors from other states who use Amtrak to travel into Kings County.

As already mentioned, the Authority's new line will bypass the current Amtrak stations at Hanford, Corcoran and Wasco, and the Authority has no funding or plans to construct replacement stations at these three locations (there is also a self-service Amtrak station in Madera). The Authority should have to show that future operations on the new rail line will not diminish or have an adverse effect on passenger train service or convenience for the train-traveling public living in or near these towns. Based on what the Authority discloses, with its disavowal of any agreements or discussions with Amtrak, the proposed rail road does not meet the needs of the public.

With respect to policy element (1) above, we need to know how future operations on the new line might affect the reasonability of rates or fares charged both on Amtrak and the Authority's rail road. If changes in the Amtrak system produce reductions in ridership by eliminating service in Hanford, Corcoran and Wasco, can suppressed use put increased pressure on the raising of fares/rates above what would have occurred had no changes in the current Amtrak service been instituted?

With respect to policy element (4) above, we also need to know whether the operation of the new rail line will "meet the needs of the public." How will passenger service be different and how will such differences affect the public's needs or meet them better than they now are? This issue again points up the need for discovery and Board oversight in this case.

With respect to policy element (8) above, we must point out that Corcoran recently closed its only hospital. A person in Corcoran who has no car can presently board Amtrak in Corcoran and for a fare that is less than the cost of driving can get off the station in Hanford only a few hundred yards from the hospital. With the new line by-passing current stations in these two towns, how will it affect such persons?

The burden should be on the Authority to lay out in detail what changes to passenger service will or may occur. The Authority has not specified in its Petition how passenger trains will run each day on its new rail line - a rail line that will not have passenger stations at Hanford, Corcoran and Wasco - nor how many trains will continue to run on the BNSF line so that passengers can board and detrain at the stations that currently serve Hanford, Corcoran and Wasco. Nor has it specified how fares might be affected in comparison to the fares that Amtrak currently charges. It needs to show that interstate Amtrak passengers will not be importuned or otherwise adversely affected by the new system and its operation. Rather than provide such information, the Authority says in its Petition that it is not seeking "operating authority over the Project at this time because the Authority has no contracts, memoranda of understanding or any arrangements to permit any operations within the Board's jurisdiction over the Project."¹⁹ This is an astonishing declaration, and it is difficult to know what to make of it. Is it suggesting that, because it has no detailed, firm plans regarding passenger train operations, there is no need for the Board to inquire whether the operation of the new line would be anathema to the policies of §10101 or harmful to the train-traveling public?

In the absence of such vital information, how can the Board be expected to decide whether, upon applying all of the rail policies set forth in § 10101, this Project should be exempted from the need for a certificate? It is difficult to see how the Board can possibly be won over by such an audaciously vacuous, disingenuous and unsupported argument for exemption.

VI. THE AUTHORITY FAILS TO COMPLY WITH THE REQUIREMENT UNDER THE FRA GRANT/COOPERATIVE AGREEMENT THAT THE AUTHORITY HAVE AGREEMENTS WITH THE AFFECTED RAILROADS.

The most recent amendment to the Grant Agreement between the Authority and the FRA (dated 12/06/2012), states on page 8 that "The Grantee [Authority] represents that it has entered into and will abide by, or will enter into and abide by, a written agreement, in form and content satisfactory to FRA, with any railroad owning property on which the Project is to be undertaken,

¹⁹Petition, p. 5.

. . . The Grantee may not obligate or expend any funds (federal, state, or private) for final design and/or construction of the Project, or any component of the Project, without receiving FRA's prior written approval of the executed railroad agreement satisfying the requirements of this section."²⁰ (Emphasis added)

The Authority's project will encroach upon the BNSF lines, and will cross it at various locations. Further, there will need to be coordination and agreement with the BNSF regarding future passenger train traffic. The project will also encroach upon and cross the UPRR's rail lines at various locations.

In the Authority's 2009 Revised Final Program EIR/EIS for the Bay Area to Central Valley section, it noted the UPRR's unwillingness to allow the use of its rights-of-way for the Authority's HST project.

The UPRR submitted a comment letter dated October 12, 2011 in response to the Authority's Draft EIR/EIS, Merced to Fresno section. The letter expressed its opposition and objection to the new HST rail line where it would encroach upon and interfere with the full use of UPRR's rights-of-way and operations. A copy of the letter was included in the Authority's Response to Public Comment in its Final EIR/EIS Merced to Fresno section.²¹

In its October 1, 2009 Application for FRA/HSIPR funds for its Merced to Fresno HST project, the Authority declared that "an initial MOU with Burlington Northern for the LOSSAN corridor and Central Valley to exchange information has been signed. The Authority is currently

²⁰FRA Grant/Cooperative Agreement for ARRA Funding (Amendment 12/6/12), p. 8 (pdf 10), <http://www.cahighspeedrail.ca.gov/funding.aspx>. See Exhibit G.

²¹See the Authority's Final EIR/EIS Merced to Fresno, Chapter 20: Response to Comments from Businesses and Organizations, pp. 20-922 to 20-924 (pdf 922-924, <http://www.cahighspeedrail.ca.gov/assets/0/152/407/413/8fe27cbe-1533-4436-92fb-771061d42d13.pdf>). The UPRR letter dated October 12, 2011 is attached as Exhibit H.

working with Burlington Northern to establish a more detailed MOU dealing with the operation within their boundaries and the rules and regulations that are needed.”²²

Also attached as Exhibit I is a letter from the BNSF to the Authority, dated April 16, 2013. At the beginning of its letter, the BNSF states:

We have generally reviewed and looked over these plans, but we are at a point in our understanding of intercity passenger rail planning in the San Joaquin Valley that we are at present unable to proceed to more specific planning or review of these materials. This is in light of frankly a great deal of ambiguity and contradictions in the different materials that have been forwarded, in the public statements being made and in the absence of any kind of understanding or agreement with the public agency sponsors of these programs. It is unclear what plans are ready to be progressed on behalf of the Authority and under what terms we should consider them.²³ (Emphasis added)

The BNSF letter strongly suggests that the “railroad agreement” with BNSF that is required under the FRA Grant/Cooperative Agreement has not yet been developed and finalized. There is no evidence in the letter suggesting that any plans or coordination have been concluded or achieved regarding future passenger train service using BNSF tracks. Indeed, the letter suggests the lack of a fruitful or harmonious relationship between the two parties at this time.

The BNSF letter is significant and deserves further scrutiny. The letter²⁴ continues:

In that regard, six intercity rail service options have been forwarded which may be internally inconsistent with respect to the extent to which they would involve BNSF right of way, trackage, or the construction of new railroad sometimes adjacent

²²Federal Stimulus Update: Merced to Fresno HST Design/Build Application (10/1/09), p. 25. http://www.cahighspeedrail.ca.gov/fed_stimulus.aspx. See Exhibit C.

²³BNSF Letter, p. 1 (pdf 1). See Exhibit I.

²⁴BNSF Letter, pp. 1-3 (pdf 1-3); all emphasis added. See Exhibit I.

to and sometimes over BNSF right of way. It is also unclear the extent to which these options would use conventional FRA compliant rolling stock at speeds below 90 MPH or other alternatives.

With respect to truly high speed passenger rail service, elements of the options under consideration appear to be inconsistent with materials or plans that the Authority has submitted in descriptions to the Surface Transportation Board for exemption, and what the Authority has submitted for environmental review. Thus, there appears to be too much ambiguity at this time for a productive review of these plans.

In order to progress this effectively, we ask that the Authority provide us with a draft engineering agreement that contains a scope of work and budget that can be reviewed and for the Authority to specify the corridor alignment that is the realistic plan they might be advancing. As we have emphasized since our first discussions with prior officers of the Authority, it will also be essential to address the safety implications, risk mitigation strategy and liability associated with any construction near or adjacent to our track as well as for future operations. We would then be in a better position to have meaningful discussions on how this could progress. **BNSF has not agreed to or acquiesced in any proposed or potential alignment or change in service in the San Joaquin Valley involving our railroad, whether on, near, or adjacent to, our current right-of-way, or which could affect current or future rail service on our line, or could affect access to our line by present or future freight customers.** In order for BNSF to progress any particular segment we will need to understand how these issues are addressed as to the entire proposed line through the San Joaquin Valley.

By the same token, we are not clear with whom we are actually negotiating or what agency would be the responsible entity progressing these plans, whether they

are for truly high speed service or for what is being called Blended Service. [. . .]

With respect to the Authority's two Blended Service options and Caltrans' three service options A, B, and C, we believe it is necessary for the appropriate public agency intercity passenger rail sponsors to make some key decisions:

- Determine which one of the five conventional train speed options should be used as the foundation for any additional service agreement negotiations;
- Confirm that the service option selected consists of Amtrak service as part of its existing network and normal operations, whether operating on BNSF track or facilities constructed by the Authority;
- Identify a lead agency with which BNSF would negotiate;
- Provide BNSF with a projected timeline for the implementation of the proposed additional service; and,
- **Confirm, as discussed in recent meetings, that Design-Build will not be used as a project delivery method where CHSRA construction will impact BNSF property or customers.**²⁵

²⁵Yet the Authority has already let its RFP for a design-build contract for the route from Avenue 17 and the BNSF tracks and East American Avenue alignment and the BNSF tracks. The Authority announced "Apparent Best Value" rankings on April 12, 2013. These rankings gave the highest combined price and technical competence ranking to a joint venture comprised of Tutor Perini, Zachry Construction, and Parsons Corporation ("Tutor Perini"). Tutor Perini was rated lowest in technical competence, and made the lowest bid, so it received the highest score. The rating was conducted in violation of Resolution # HSR 12-04 adopted by the Authority's Board on March 1, 2012. Under Resolution # HSR 12-04, "**The Executive Director/Chief Executive Officer is hereby authorized to use a two-step RFP evaluation process that includes a technical evaluation resulting in the qualification of three of the five proposer teams followed by a combined technical/price evaluation of these top three proposer teams.**" (Emphasis added)

In a Board memorandum dated March 1, 2012, the Authority's Chief Counsel stated:

In the evaluation of the proposals it is in the best interests of the HSR Authority to assure technically competent proposals and assure the best value is received. HSR staff is recommending a two-step RFP evaluation process that includes a technical evaluation resulting in the qualification of three of the five proposer teams followed by a combined technical/price evaluation of these top three proposer teams. (Emphasis added)

The different options and scenarios of your various alternative plans, some of which are very aggressive levels of passenger train service, could require significantly different capital infrastructure requirements to permit service and analysis of impacts on future freight service capacity and even access to our own line as a result of potential parallel structures along the right-of-way. In a similar vein, if the agencies envision something along the lines of the Amtrak metrics and standards to apply to this service for measurement of on-time performance, that will also involve significantly increased infrastructure and capital investment to ensure future intercity passenger rail service compatible with the preservation of freight capacity and mobility.

While we appreciate the work Parsons Brinckerhoff has been doing on this project, it is now essential that we have direct contact with whatever authority we would be negotiating definitive agreements if these projects are to be progressed. [. . .] When we are advised with whom at the appropriate agency we should discuss how best to progress this, we can plan a follow-up call or meeting . . . as we coordinate these efforts for BNSF, consistent with our previous direct meetings with prior representatives for and officers of the California High Speed Rail Authority.

This very recent letter discloses that any agreement(s) with BNSF are nowhere near fruition, nor does BNSF appear aware that the Authority is already proceeding on a design-build basis in letting contracts. Under the FRA Grant/Cooperative Agreement, the Authority is not allowed to spend ANY FUNDS, whether federal, state or local. Since money cannot be expended on construction without the required agreements, the Petition should be denied.

By changing the process without Board approval, the bidder of lowest technical competency will now design the remaining 70% of the project.

Looking at the Authority's website, in a section entitled "Caltrans and Railroad Agreements," and the only agreement appearing there is an agreement between the Authority and Caltrans regarding the latter's highways. No agreement between the Authority and either railroad is listed. Hence, it appears that the Grant Agreement requirement concerning written agreements with the involved railroads (BNSF, UPRR, Amtrak) has not been fulfilled. Without these required agreements, the Authority cannot spend any federal, state, or local funds. Therefore no urgency hangs over the timing of the Board's decision on the Petition.

The Fresno-Bakersfield Revised Draft EIR acknowledged that the impacts of interim Amtrak service will need to be studied, which they admittedly did not perform.

The interim use of the IOS first construction track for upgraded Amtrak service could have environmental impacts that differ from those analyzed in this EIR/EIS. However, there are no plans for this service at this time and such plans will require future cooperative agreements between the Authority and entities associated with operation of the Amtrak San Joaquin service.

As a result, the operational characteristics of that interim use are unknown at this time and an analysis would be speculative. For that reason, interim use has not been analyzed in this EIR/EIS. Service upgrades for the Amtrak San Joaquin service and its potential for environmental impacts would be assessed, as appropriate, by the operating agency before the initiation of that service.” Source: Fresno-Bakersfield Revised DEIR/Supplemental DEIS, Volume I, Page 1-32. <http://cahighspeedrail.ca.gov/assets/0/490/491/ddd39cc1-c36c-4201-ae1b-4160e72a6450.pdf>.

VII. THE PRESENT CASE IS DISTINGUISHABLE FROM DESERTXPRESS.

The Authority argued that it should be granted an exemption because its Project is similar to the DesertXpress case,²⁶ where the Board granted an exemption. There are a number of distinguishable differences, however, the most significant of which is that DesertXpress proposed adding a new passenger train service between Victorville and Las Vegas, mostly along the I-15 corridor, a service that does not currently exist. In the Authority's case at hand, a robust Amtrak service does currently exist and a large number of people depend upon it. The Authority is planning to change it, and it is these changes that must not be allowed to go forward without scrutiny.

VIII. THE ENVIRONMENTAL REVIEW PROCESS IS INSUFFICIENT AND INCOMPLETE.

As mentioned earlier, the environmental process for the Authority's ICS and IOS is incomplete. Not only has the Authority not certified its Final EIR/EIS for the Fresno to Bakersfield section, it has not even released its Draft EIR/EIS for its Bakersfield to Palmdale section or its Palmdale to Los Angeles section. The Committee contends that the environmental concerns for a project of this scale are enormous, and a full, methodical review by the Board is essential.

The Committee's members are not residents along the Merced to Fresno section, so the Committee did not submit public comment letters in response to that section's EIR/EIS. However, the Committee and some of its members have submitted comments in response to the Draft EIR/EIS for the Fresno to Bakersfield section. These comments are, for the most part, equally applicable to the Merced to Fresno EIR/EIS. Therefore, attached hereto are a couple of these comment letters submitted in response to the Fresno to Bakersfield EIR/EIS. See Exhibits K (Michael E. LaSalle letter) and L (Aaron Fukuda letter). The Committee would like to submit more environmental comments but would need more time. While the May 8 deadline is appreciated, it is simply inadequate to sufficiently address the environmental issues involved in this matter. This would

²⁶DesertXpress Enterprises, LLC's Petition for Exemption before the Surface Transportation Board, Docket no. FD 35544.

include the time needed for discovery to obtain documents not available on web sites, and not made available in response California Public Records Act requests.

There are additional, significant, reasons why the Petition should be denied, and why the “urgency” claimed by the Authority does not exist.

IX. THE AUTHORITY IS EMBROILED IN SIGNIFICANT LITIGATION IN THE CALIFORNIA STATE COURTS.

The Authority omits to disclose to the Board that significant litigation is pending in the California state courts that will impact the proposed “High-Speed Rail Project” (Project). For the Board’s information these cases are:

1. John Tos, et al. v. CHSRA, et al., Case No. 2011-00113919, filed November 14, 2011. This case is known as the “Prop. 1A” case, after Proposition 1A which was approved by the California voters at the November 4, 2008 General Election. This case alleges various violations of Prop. 1A by the CHSRA, including that the high speed train will need an illegal operating subsidy, and that the train can never meet the legally required travel time of 2 hours, 40 minutes between the San Francisco Transbay Terminal and Union Station in downtown Los Angeles, and that it would be illegal for Prop. 1A bond funds to be spent on the project. Plaintiffs ask the Court to rule that such use of Prop. 1A funds would be illegal and that all defendants must be prevented from expending any Prop. 1A funds. The case is set for hearing on May 31, 2013. Bonds will not be purchased by investors while this case is pending. If plaintiffs prevail, the CHSRA cannot proceed with the Project until it has the funding committed to build the entire Project. It should be noted that the California courts have already adjudicated that Proposition 1A was illegally placed on the November 4, 2008 ballot. See, Howard Jarvis Taxpayers Association v. Debra Bowen, et al. (2011) 192 Cal.App.4th 110.
2. High-Speed Rail Authority, et al. v. All Persons, etc., Case No. 2013-00140689, filed March 19, 2013. This case is a “validation” action filed to “confirm” the validity of issuing the Prop. 1A bonds. The scope of issues the Authority seeks to adjudicate in this case are vague,

ambiguous, and unlimited. Paragraph 4 of the prayer for relief requests an injunction “permanently enjoin and restrain all persons or entities, public or private, from the institution of any action or proceeding challenging, inter alia, [. . .] any matters herein adjudicated or **which ever could have been adjudicated against Plaintiffs, the State, and against all other persons.**” This relief, if granted, would give carte blanche to the State against all parties, public or private, for all time. This relief would bar this Board, and other federal agencies with jurisdiction, from exercising their regulatory and supervisory functions. It is fantastic that such relief could even be contemplated.

The Authority filed a motion to consolidate the Prop. 1A case and the validation action to be heard May 10, 2013. The Authority obtained an ex parte order approving form of summons and service by newspaper publication on three occasions (less than the number for a petition for probate of a will) in only five of the 58 counties in California. None of the landowners whose land is targeted to be taken by the Authority have received any actual summons. This lack of notice is deliberate and is part of a pattern and practice of orchestrating procedures and processes to reduce the scope of public participation. The form of summons and manner of its “service” by newspaper publication represents a massive denial of procedural due process under Mullane v. Central Hanover Bank & Trust Co., 339 U.S. 306 (1950) (Fourteenth Amendment requires best notice reasonably calculated to give actual notice).²⁷ The Kings County Water District has filed a motion to quash service of summons (form of and manner of publication). This motion to quash raises a fundamental constitutional issue that must be decided at the outset of the case. It is clear from Mullane that the service in the case must be much broader including actual as opposed to the fictitious, “constructive” notice of newspaper publication.

²⁷“An elementary and fundamental requirement of due process in any proceeding which is to be accorded finality is notice reasonably calculated, under all the circumstances, to apprise interested parties of the pendency of the action and afford them an opportunity to present their objections.” Mullane, *supra*, 339 U.S. at 314.

The above cases are pending in the Sacramento County Superior Court. It is reasonable to anticipate appeals from the trial court's rulings, and that the State general obligation bonds authorized by Prop. 1A may not be marketable until the full, final resolution of these cases. Given the time required for appeal, there is no urgency for action on the Petition now pending, particularly as the Authority delayed filing its Petition until the eleventh hour. There is no reason why the Authority could not have filed a petition for exemption in 2009 when applying for FRA/ARRA funding. At that time the Authority acknowledged the jurisdiction of the Board. But it was only after Congressman Denham's letter that this proceeding was filed.

X. CONCLUSION: THE PETITION SHOULD BE DENIED ON ACCOUNT OF NUMEROUS SUBSTANTIAL ISSUES THAT REQUIRE RESOLUTION IN A PROCEEDING BROUGHT UNDER 49 U.S.C. § 10901.

One cannot see how, under present circumstances, including the virtual absences of any supporting evidence, the Authority can expect the Board to exempt the Authority from its review, evaluation, guidance and supervision. Yet, the Authority seems to think so. The Authority's attitude is not surprising. In the Committee's and its members' past experience and dealings, they have consistently found the Authority to be arrogant, imperious, presumptuous, and less than forthright - the very same institutional personality traits that we find expressed throughout its Petition for Exemption. The Committee has dealt with the Authority for almost three years, and our unsavory experiences have caused us to conclude that it cannot be trusted. Their superficial and unsubstantiated assertions should be regarded with deep skepticism, and is a compelling reason why the Board should exercise its jurisdiction over this Project. It should involve itself in this project to ensure that the Authority will not trample upon any of the policy elements enumerated in §10101, and that it will do no harm to public convenience and need.

It should also be mentioned that the Authority has not yet demonstrated that there will be sufficient investors willing to purchase California Prop. 1A bonds, the proceeds of which not only are needed to fund the construction of the ICS, but must also serve as matching funds to the federal FRA/ARRA grant. In other words, if there are no Prop. 1A funds, then no federal funds will be

available either. The Board is in a position to explore this important issue and to prevent the frightening possibility that this Project will end up as a "stranded investment" or a scandalous environmental disaster of destroyed homes, divided farms and weed-growing piles of abandoned dirt.²⁸ The Board is in a position to not only deny the Authority's petition for exemption, but also to require a certificate so that this project becomes subject to important protective conditions imposed by the Board.

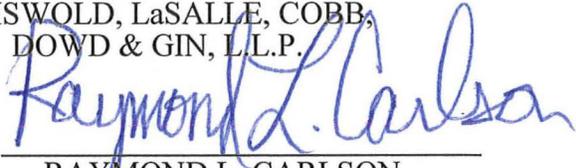
Therefore, CCHSRA requests:

1. That the Petition be denied;
2. That the Authority be ordered to file for permission to construct the new rail road;
3. That the Board conduct the necessary or appropriate proceedings;
4. That the Authority be ordered that it is not to commence construction until it has obtained the certificate required by 49 U.S.C. § 10901.

DATED: May 6, 2013.

Respectfully Submitted,

GRISWOLD, LaSALLE, COBB,
DOWD & GIN, L.L.P.

By: 

RAYMOND L. CARLSON
Attorneys for Citizens for California
High-Speed Rail Accountability

²⁸See RBP, p. ES-2 (pdf 10). Solitudinem faciunt, pacem appellant. Tacitus, Agricola
30.

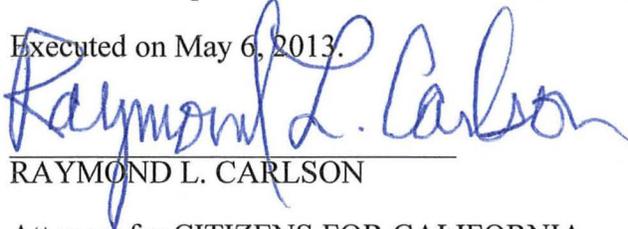
EXHIBIT LIST AND EXHIBITS

- NOTE: In some cases, due to their length and internet accessibility, the form of the Exhibits attached includes the cited pages or the cited pages plus other select pages. The intent in identifying these Exhibits is that the entirety of each Exhibit is included for purposes of the record of this proceeding.
- EXHIBIT A CHSRA Funding Plan (FP) dated November 11, 2011 (entire)
- EXHIBIT B CHSRA Revised Business Plan (RBP) dated April 2012 (selections attached)
- EXHIBIT C CHSRA Merced/Fresno HSR Design/Build High-Speed Intercity Passenger Rail (HSIPR) Program Track 2–Corridor Programs: Application Form dated 10/01/09 (selections attached)
- EXHIBIT D January 2, 2013 Fresno Bee article “Record Ridership in the Valley”
- EXHIBIT E “High-Speed Passenger Rail; Preliminary Assessment of California’s Cost Estimates and Other Challenges,” Statement of Susan A. Fleming, Director, Physical Infrastructure Issues, delivered to the House Committee on Transportation and Infrastructure, on December 6, 2012 (selections)
- EXHIBIT F Letter of Congressman Jeff Denham dated March 22, 2013 to Daniel R. Elliot III, Chairman, Surface Transportation Board
- EXHIBIT G FRA Grant/Cooperative Agreement for ARRA Funding (Amendment 12/6/12) (pdf 10), <http://www.cahighspeedrail.ca.gov/funding.aspx> (selections attached)
- EXHIBIT H Letter of Union Pacific Railroad dated October 12, 2011 with comments on the Authority’s Merced to Fresno Section of the High-Speed Train Project EIR/EIS
- EXHIBIT I Letter of BNSF Railway Company dated April 16, 2013 regarding PB-BNSF-3146–California High Speed Rail Authority Rail Service Concepts for 2018-2025 BNSF Network Capacity Models
- EXHIBIT J Right of Way Maps from Addendum 9 dated January 1, 2013, to “Request for Proposal for Design-Build Services, RFP No.: HSR 11-16, Book 3, Part E, Subpart 4 - Right of Way Acquisition Plan”
- EXHIBIT K Letter of Michael E. LaSalle dated October 12, 2012 commenting on the Fresno to Bakersfield Revised DEIR/Supplement DEIS
- EXHIBIT L Letter of Aaron Fukuda dated October 18, 2012 commenting on the Fresno to Bakersfield Revised DEIR/Supplement DEIS

VERIFICATION

I, Raymond L. Carlson, verify under penalty of perjury that the foregoing is true and correct and that I am qualified and authorized to file this verification.

Executed on May 6, 2013.



RAYMOND L. CARLSON

Attorney for CITIZENS FOR CALIFORNIA
HIGH-SPEED RAIL ACCOUNTABILITY

PROOF OF SERVICE

CCP §§ 1011, 1013, 1013a, 2015.5; FRCP 5(b); 49 C.F.R. § 1104.12(c)

I am employed in the County of Kings, State of California. I am over the age of 18 years and not a party to the within action; my business address is 111 E. Seventh Street, Hanford, CA 93230.

On May 6, 2013, I served the following document(s): PROTEST AND OPPOSITION OF CITIZENS FOR CALIFORNIA HIGH-SPEED RAIL ACCOUNTABILITY TO PETITION FOR EXEMPTION OF CALIFORNIA HIGH-SPEED RAIL AUTHORITY on the interested parties in this action by placing a true and correct copy thereof enclosed in a sealed envelope addressed as follows:

BY E-MAIL & MAIL

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Kevin M. Sheys
Peter W. Denton
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BY MAIL—SEE ATTACHED CERTIFICATE OF SERVICE

(By Mail) As follows: I am "readily familiar" with the firm's practice of collection and processing correspondence for mailing. Under the practice it would be deposited with the U.S. Postal Service on the same day with postage thereon fully prepaid at Hanford, California, in the ordinary course of business.

(By Mail) I deposited such envelope in the United States mail at Hanford, California. The envelope was mailed with postage thereon fully prepaid.

(By Overnight Delivery) I deposited such envelope in the Federal Express/UPS Next Day Air/U.S. Mail Express Mail depository at Hanford, California. The envelope was sent with delivery charges thereon fully prepaid.

(By Electronic Mail) I caused such documents to be sent to the stated recipient via electronic mail to the e-mail address as stated herein.

(By Personal Service) I caused such envelope to be hand delivered to the offices of the addressee(s) shown above.

(By Facsimile) I caused each document to be delivered by electronic facsimile to the offices listed above.

(State) I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct.

(Federal) I declare that I am employed in the office of a member of the Bar of this Court at whose direction the service was made.

Executed on May 6, 2013, at Hanford, California.


KATIE ASKINS

CERTIFICATE OF SERVICE

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Hanford, CA 93230

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Corcoran, CA 93212

Descary, William C.
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Valadao, Honorable David G.
United States House Representatives
1004 Longworth House Office Building
Washington, DC 20515

Denham, Honorable Jeff
Subcommittee On Railroads, Pipelines, And
Hazardous Materials Committee On
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U.S. House Of Representatives
Washington, DC 20515

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Maddalena, Dan
Chowchilla Water District
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Chowchilla, CA 93610

Stout, Karen J.
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Laton, CA 93242-9620

I certify that I have this day served copies of documents upon all parties of record in this proceeding, by United States mail.


KATIE ASKINS

EXHIBIT “A”

**PROTEST/OPPOSITION STATEMENT
OF
CITIZENS FOR CALIFORNIA HIGH-SPEED RAIL ACCOUNTABILITY
TO
PETITION FOR EXEMPTION OF
CALIFORNIA HIGH-SPEED RAIL AUTHORITY**



November 3, 2011

The Honorable Mark Leno, Chair
Joint Legislative Budget Committee
Senate Budget & Fiscal Review Committee

The Honorable Bob Blumenfield, Chair
Assembly Budget Committee

The Honorable Bob Blumenfield, Vice Chair
Joint Legislative Budget Committee

The Honorable Bob Huff, Vice Chair
Senate Budget & Fiscal Review Committee

The Honorable Jim W. Nielsen, Vice Chair
Assembly Budget Committee

The Honorable Bonnie Lowenthal, Chair
Assembly Transportation Committee

The Honorable Kevin Jeffries, Vice Chair
Assembly Transportation Committee

The Honorable Mark De Saunier, Chair
Senate Transportation and Housing

The Honorable Ted Gaines, Vice Chair
Senate Transportation and Housing

Mr. Will Kempton, Chair
CHSRA Board Peer Review Group

Ms. Ana J. Matosantos, Director
California State Department of Finance

Board Members:

Thomas J. Umberg
Chairperson

Lynn Schank
Vice-Chairperson

Thomas Richards
Vice-Chairperson

Robert Balgenorth

Russell Burns

Jim Hartnett

Dan Richard

Michael Rossi

Matthew Toledo

Roelof van Ark
CEO

Dear Members:

The California High-Speed Rail Authority (the Authority) approved the enclosed Funding Plan on [November 3, 2011] for transmittal to the above parties as required by Streets and Highways (S&H) Code section 2704.08, subdivision (c), prior to the request for appropriation of bond proceeds for certain purposes. Such bonds were authorized under the Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century, chapter 20 (commencing with section 2704) of Division 3 of the S&H Code (the Bond Act).

The Authority proposes to invest bond proceeds in a Usable Segment, as described in the enclosed Funding Plan under the section entitled "A. The Usable Segment." Two such Usable Segments are the subject of this Funding Plan. The Authority has selected for construction, in accordance with S&H 2704.08, subdivision (f), these two Usable Segments.

The enclosed Funding Plan incorporates by reference the detailed information provided in the draft 2012 Business Plan dated as of November 1, 2011. The Authority wants to ensure readers of this Funding Plan have the full benefit of the details provided in the draft 2012 Business Plan that are relevant to the current Funding Plan, without any confusion that might be created by summaries or inadvertent omissions.

JERRY BROWN
GOVERNOR



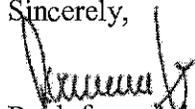
The Authority's initial request for appropriation of proceeds of bonds authorized by the Bond Act for these Useable Segments will be in the amount of \$2.684 billion, including \$66.0 million for pre-construction period activities and \$2.618 billion for construction period activities related to the Initial Construction Section (ICS) described further in the attached.

Each Useable Segment includes a portion of the high-speed train system defined in the draft 2012 Business Plan as the Initial Construction Section. The Authority's initial request for appropriation in the amount of \$2.684 billion is the amount needed to supplement \$3.316 billion in federal funds awarded for use on the Initial Construction Section. The combined funding of \$6.0 billion represents the full amount of funding the Authority believes is needed to complete the Initial Construction Section.

Although the Authority is not yet requesting the full amount of bond proceeds to complete these Usable Segments at this time, this Funding Plan nonetheless provides information for these Usable Segments required by S&H section 2704.08, subdivision (c).

The Authority respectfully requests favorable consideration of this Funding Plan in order to meet its responsibilities to implement a high-speed rail system in California.

Sincerely,



Roelof van Ark
CEO

Enclosure: Funding Plan;

Draft 2012 Business Plan of November 1, 2011
http://www.cahighspeedrail.ca.gov/Business_Plan_reports.aspx;

Resolution # HSRA11-22-Resolution Selecting for Construction Certain Usable Segments Pursuant to Streets and Highways Code Section 2704.08, Subdivision (f); and

Resolution # HSRA11-23-Resolution Approving Funding Plan for Submission Pursuant to Streets and Highways Code Section 2704.08, Subdivision (c)

Cc:

- The Honorable Mark DeSaulnier, Joint Legislative Budget Committee
- The Honorable Bill Emmerson, Joint Legislative Budget Committee
- The Honorable Bob Huff, Joint Legislative Budget Committee
- The Honorable Christine Kehoe, Joint Legislative Budget Committee
- The Honorable Mark Leno, Joint Legislative Budget Committee
- The Honorable Alex Padilla, Joint Legislative Budget Committee
- The Honorable Mimi Walters, Joint Legislative Budget Committee
- The Honorable Lois Wolk, Joint Legislative Budget Committee
- The Honorable Robert Blumenfeld, Joint Legislative Budget Committee
- The Honorable Bill Berryhill, Joint Legislative Budget Committee
- The Honorable Julia Brownley, Joint Legislative Budget Committee
- The Honorable Wesley Chesbro, Joint Legislative Budget Committee
- The Honorable Felipe Fuentes, Joint Legislative Budget Committee
- The Honorable Diane L. Harkey, Joint Legislative Budget Committee
- The Honorable Holly J. Mitchell, Joint Legislative Budget Committee
- The Honorable Jim W. Nielson, Joint Legislative Budget Committee
- The Honorable Elaine Kontominas Alquist, Senate Budget & Fiscal Review Committee
- The Honorable Joel Anderson, Senate Budget & Fiscal Review Committee
- The Honorable Mark DeSaulnier, Senate Budget & Fiscal Review Committee
- The Honorable Bill Emmerson, Senate Budget & Fiscal Review Committee
- The Honorable Noreen Evans, Senate Budget & Fiscal Review Committee
- The Honorable Jean Fuller, Senate Budget & Fiscal Review Committee
- The Honorable Loni Hancock, Senate Budget & Fiscal Review Committee
- The Honorable Doug LaMalfa, Senate Budget & Fiscal Review Committee
- The Honorable Carol Liu, Senate Budget & Fiscal Review Committee
- The Honorable Alan Lowenthal, Senate Budget & Fiscal Review Committee
- The Honorable Michael Rubio, Senate Budget & Fiscal Review Committee
- The Honorable Joe Simitian, Senate Budget & Fiscal Review Committee
- The Honorable Lois Wolk, Senate Budget & Fiscal Review Committee
- The Honorable Roderick D. Wright, Senate Budget & Fiscal Review Committee
- The Honorable Luis Alejo, Assembly Budget Committee
- The Honorable Michael Allen, Assembly Budget Committee
- The Honorable Bill Berryhill, Assembly Budget Committee
- The Honorable Susan Bonilla, Assembly Budget Committee
- The Honorable Julia Brownley, Assembly Budget Committee
- The Honorable Joan Buchanan, Assembly Budget Committee

- The Honorable Betsy Butler, Assembly Budget Committee
- The Honorable Gil Cedillo, Assembly Budget Committee
- The Honorable Wesley Chesbro, Assembly Budget Committee
- The Honorable Roger Dickinson, Assembly Budget Committee
- The Honorable Mike Feuer, Assembly Budget Committee
- The Honorable Richard S. Gordon, Assembly Budget Committee
- The Honorable Diane L. Harkey, Assembly Budget Committee
- The Honorable Jared Huffman, Assembly Budget Committee
- The Honorable Kevin Jeffries, Assembly Budget Committee
- The Honorable Brian Jones, Assembly Budget Committee
- The Honorable Dan Logue, Assembly Budget Committee
- The Honorable Allan R. Mansoor, Assembly Budget Committee
- The Honorable Holly J. Michell, Assembly Budget Committee
- The Honorable William W. Monning, Assembly Budget Committee
- The Honorable Mike Morrell, Assembly Budget Committee
- The Honorable Brian Nestande, Assembly Budget Committee
- The Honorable Sandre Swanson, Assembly Budget Committee
- The Honorable David Valadao, Assembly Budget Committee
- The Honorable Donald P. Wagner, Assembly Budget Committee
- The Honorable Katcho Achadjian, Assembly Transportation Committee
- The Honorable Robert Blumenfield, Assembly Transportation Committee
- The Honorable Susan Bonilla, Assembly Transportation Committee
- The Honorable Joan Buchanan, Assembly Transportation Committee
- The Honorable Mike Eng, Assembly Transportation Committee
- The Honorable Warren T. Furutani, Assembly Transportation Committee
- The Honorable Cathleen Galgiani, Assembly Transportation Committee
- The Honorable Dan Logue, Assembly Transportation Committee
- The Honorable Jeff Miller, Assembly Transportation Committee
- The Honorable Chris Norby, Assembly Transportation Committee
- The Honorable Anthony Protantino, Assembly Transportation Committee
- The Honorable Jose Solorio, Assembly Transportation Committee
- The Honorable Tom Harman, Senate Transportation and Housing
- The Honorable Bob Huff, Senate Transportation and Housing
- The Honorable Christine Kehoe, Senate Transportation and Housing
- The Honorable Alan Lowenthal, Senate Transportation and Housing
- The Honorable Fran Pavley, Senate Transportation and Housing
- The Honorable Michael J. Rubio, Senate Transportation and Housing
- The Honorable Joe Simitian, Senate Transportation and Housing
- Mr. Chris Holtz, Assembly Republican Fiscal
- Mr. Ted Morely, Senate Republican Office of Policy
- Ms. Rocel Bettencourt, Senate Republican Fiscal
- Mr. Gregson Porteous, Assembly Republican Office of Policy

- Mr. John Chalker, California High Speed Rail Authority Board Peer Review Group
- Mr. Lou Thompson, California High Speed Rail Authority Board Peer Review Group
- Mr. Walter Bell, California High Speed Rail Authority Board Peer Review Group
- Ms. Diane Eidam, California High Speed Rail Authority Board Peer Review Group
- Mr. Frieder Seible, California High Speed Rail Authority Board Peer Review Group
- Mr. Michael Cohen, Chief Deputy Director, Budget, California State Department of Finance
- Mr. Pedro R. Reyes, Chief Deputy Director, Policy, California State Department of Finance



**CALIFORNIA
HIGH-SPEED RAIL
AUTHORITY**

California High-Speed Rail Authority

Funding Plan

[November 3, 2011]

** Submitted pursuant to Streets and Highways Code section 2704.08, subdivision (c)*

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Introduction

The "Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century" (the Bond Act) is codified in Streets and Highways Code Section (S&H) 2704 et seq. S&H 2704.08, subdivision (c)(1) requires that, [n]o later than 90 days prior to the submittal to the Legislature and the Governor of the initial request for appropriation of proceeds of bonds authorized by this chapter for any eligible capital costs on each corridor, or usable segment thereof, identified in subdivision (b) of Section 2704.04, other than costs described in subdivision (g), the authority shall have approved and submitted to the Director of Finance, the peer review group established pursuant to Section 185035 of the Public Utilities Code, and the policy committees with jurisdiction over transportation matters and the fiscal committees in both houses of the Legislature, a detailed funding plan for that corridor or a usable segment thereof.

The Authority is submitting this Funding Plan in satisfaction of the above-referenced requirement. The Authority proposes to invest bond proceeds in a Usable Segment, as described in this Funding Plan under the section entitled "A. The Usable Segment." Two Usable Segments are the subject of this Funding Plan. The Authority has selected for construction, in accordance with S&H 2704.08, subdivision (f), these two Usable Segments. A decision will be made in the future as to which of the two segments will be constructed first. The two segments presented have an overlapping sub-segment, namely the section from Merced to Bakersfield, so figures presented in this funding plan should not be added. Each of the two Useable Segments are identical to the associated Initial Operating Sections defined in the draft 2012 Business Plan Each Useable Segment includes a portion of the high-speed train system defined in the 2012 Business Plan as the Initial Construction Section.

This Funding Plan incorporates by reference the detailed information provided in the attached draft 2012 Business Plan dated November 1, 2011. The Authority wants to provide readers of this Funding Plan the full benefit of the details provided in the draft 2012 Business Plan that are relevant to the current Funding Plan, without any confusion that might be created by summaries or inadvertent omissions.

The Authority's initial request for appropriation of proceeds of bonds authorized by the Bond Act for the initial Useable Segment will be in the amount of \$2.684 billion, which is the amount needed to supplement \$3.316 billion in federal funds awarded for use on the Initial Construction Section. The combined funding of \$6.0 billion represents the full amount of funding the Authority believes is needed to complete the Initial Construction Section.

Although the Authority is not yet requesting the full amount of bond proceeds to complete the Usable Segments at this time, this Funding Plan nonetheless provides information for these Usable Segments required by S&H section 2704.08, subdivision (c).

A. The Usable Segment

Streets and Highways Code section 2704.08, subdivision (c)(2)(A) requires identification of the corridor, or usable segment thereof, in which the authority is proposing to invest bond proceeds.

As described in the attached draft 2012 Business Plan, the Authority is advancing a detailed phasing plan that contains two options for its Initial Operating Section (the IOS). The selected IOS will become the initial Usable Segment in which the Authority is proposing to invest bond proceeds. The other Usable Segment would follow thereafter, as described in the 2012 Business Plan in **Chapter 2, A Phased Implementation Strategy: Linking Northern and Southern California**. This document is a Funding Plan for both.

Initial Operating Section – North (IOS North or IOS-N) (Central Valley to Bay Area).

This Usable Segment consists of the portion of the corridor defined as Phase 1 in the Bond Act between and including a Bakersfield station and a San Jose station. It would run approximately 290 miles from a Bakersfield station in the South to a San Jose station in the North, through four additional stations including Gilroy, Merced, Fresno, and Kings/Tulare. The six planned stations also provide vital connections with other rail and transit services throughout the State. This Usable Segment is described in the draft 2012 Business Plan as the IOS-North.

Initial Operating Section – South (IOS South or IOS-S) (Central Valley to Los Angeles Basin).

This Usable Segment consists of the portion of the corridor defined as Phase 1 in the Bond Act between and including a Merced station and a San Fernando Valley station. It would run approximately 300 miles from a Merced station in the North to a San Fernando Valley station in the South, with four additional stations including Fresno, Kings/Tulare, Bakersfield, and Palmdale. The six planned stations also provide vital connections with other rail and transit services throughout the State. This Usable Segment is described in the draft 2012 Business Plan as the IOS South.

The future appropriation for \$2.684 billion in proceeds of bonds authorized under Proposition 1A is proposed to be invested in the portion of each Usable Segment described in the draft 2012 Business Plan as the Initial Construction Section (the ICS). The ICS is proposed to cover a distance of approximately 130 miles of new high-speed rail alignment from just north of Bakersfield at the southern end to north of Fresno at the northern end. The ICS includes the Fresno and Kings/Tulare stations. The ICS is included in both the IOS North Usable Segment and the IOS South Usable Segment.

Regardless of which of these IOS options is selected in completing the initial Usable Segment, the ICS must be completed as a first step toward completion of these Usable Segments.

See the attached draft 2012 Business Plan for additional information about the IOS North, the IOS South and the Initial Construction Section for which the Authority is requesting an appropriation of bond proceeds as described in this Funding Plan. In particular, see Chapter 2, A Phased Implementation Strategy: Linking Northern and Southern California.

B. Lease or Franchise Agreements

Streets and Highways Code section 2704.08, subdivision (c)(2)(B) requires a description of the expected terms and conditions associated with any lease agreement or franchise agreement proposed to be entered into by the authority and any other party for the construction or operation of passenger train service along the corridor or usable segment thereof.

The attached draft 2012 Business Plan describes the Authority's planned business model and the anticipated roles of various parties in the development of the System, including for the IOS North Usable Segment and IOS South Usable Segment that are the subject of this Funding Plan. ***See Chapter 5, Business Model.***

There will be numerous agreements associated with completion of these Usable Segments, which agreements may include one or more lease agreements or franchise agreements of the types referenced in S&H 2704.08, subdivision (c)(2)(B). However, no such lease or franchise agreements are being proposed to be entered into by the Authority at this time.

The Initial Construction Section is anticipated to be developed using one or more design-build contracts (the DB Contracts). The terms of the DB Contracts and any other necessary contracts for the ICS have been developed as part of the procurement process, commencing with a planned release of a request for qualifications in October/November 2011. No lease or franchise agreement is anticipated for the Initial Construction Section.

Furthermore, as discussed in Chapter 2 and Chapter 5 of the attached draft 2012 Business Plan, the Authority does not plan to operate high-speed service along the ICS. Such service will only occur upon completion of the Initial Operating Section that will serve as the initial Usable Segment. At that time the Authority intends to enter into franchise, operating or lease agreements with private operators to operate the system. ***See Chapter 2, A Phased Implementation Strategy, and Chapter 5, Business Model.***

Although not proposed at this time, the Authority is exploring the potential to allow Amtrak to operate its passenger train service on an interim basis, using the Authority's ICS. There would be an agreement required with this approach. Discussions with Amtrak have taken place and a general letter of support has been received dated October 8, 2010. However, any final decision regarding such potential interim Amtrak service would be made in the future and therefore is not applicable at the time of this Funding Plan. This alternative is further discussed in Chapter 2 of the draft 2012 Business Plan.

C. Capital / Construction Cost

Streets and Highways Code section 2704.08, subdivision (c)(2)(C) requires presentation of the estimated full cost of constructing the corridor or usable segment thereof, including an estimate of cost escalation during construction and appropriate reserves for contingencies.

As presented in the attached draft 2012 Business Plan, the Authority has obtained updated estimates of costs to complete the System. **See Chapter 3, Capital Costs; Chapter 4, Business Planning Schedule; and Chapter 8, Funding and Financing.**

Exhibits C-1 and C-2 below present the estimated full cost of the Initial Construction Section and the incremental capital costs required to complete the IOS North Usable Segment and the IOS South Usable Segment, based on the Capital Cost Scenario 1 costs described in **Chapter 3, Capital Cost**. Exhibit C-1 presents the capital costs in 2010 dollars, and Exhibit C-2 presents the capital costs in year-of-expenditure dollars. The IOS North and IOS South figures should not be added, but should be seen as stand-alone values. They contain an overlapping sub-segment, namely the section from Merced to Bakersfield.

Except where noted, the figures in this Funding Plan are based on these Scenario 1 capital cost estimates. An alternative estimate of capital costs also has been presented in the draft 2012 Business Plan, reflecting the highest cost alignment options under consideration, and the associated environmental mitigation costs. This scenario also is described in the draft 2012 Business Plan as Capital Cost Scenario 2. **See Chapter 3, Capital Cost.**

The Capital Cost Scenario 1 year-of-expenditure figures in Exhibit C-2 are based on the phased delivery schedule described in **Chapter 4, Business Planning Schedule**. The Authority plans to commence construction activities for the ICS by late 2012. For purposes of presentation, these costs are combined with costs in 2013, the first full year in which construction would be underway.

Exhibit C-1: Cost to Construct Initial Usable Segment (2010 dollars in millions)

	ICS	IOS North	ICS	IOS South
Incremental capital cost by section	5,200	19,400	5,200	21,400
Cumulative capital cost ¹	5,200	24,600	5,200	26,600
Year of construction start ²	2013	2015	2013	2015
Year of construction end	2017	2021	2017	2021

¹ Cumulative figures may not foot due to independent rounding

² First full year of construction

Exhibit C-2: Cost to Construct Initial Usable Segment (year-of-expenditure dollars in millions)

	ICS	IOS North	ICS	IOS South
Incremental capital cost by section	6,000	24,700	6,000	27,200
Cumulative capital cost ¹	6,000	30,700	6,000	33,200
Year of construction start ²	2013	2015	2013	2015
Year of construction end	2017	2021	2017	2021

¹ Cumulative figures may not foot due to independent rounding

² First full year of construction

The above-referenced capital costs include both allocated contingencies and unallocated contingencies, as well as costs related to rolling stock and systems testing and commissioning before operations (pre-operating costs). Furthermore, the year-of-expenditure costs include escalation at a rate of 3 percent per annum, representing a long-term average annual rate of inflation.

The detailed breakdown of these projected costs by category of expenditure can be found in the draft 2012 Business Plan. **See Chapter 3, Capital Cost.**

D. Sources of Funds

Streets and Highways Code section 2704.08, subdivision (c)(2)(D) requires presentation of the sources of all funds to be invested in the corridor, or usable segment thereof, and the anticipated time of receipt of those funds based on expected commitments, authorizations, agreements, allocations, or other means.

As described in the attached draft 2012 Business Plan, the Authority intends to commence with the Initial Construction Section, to be completed between 2012 and 2017. All necessary funding sources for the ICS have been identified, with distribution subject to satisfaction of the various conditions associated with each of the following sources:

- ***State general obligation bonds authorized under the "Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century" (Bond Act) approved by California voters as Proposition 1A in 2008.*** This includes \$66.0 million for pre-construction period activities and \$2.618 billion for construction period activities. Total state bond funding to be applied to the ICS combines to \$2.684 billion.
- ***Federal grants authorized under the American Recovery and Reinvestment Act (ARRA) and under the "High-Speed Intercity Passenger Rail Program (HSIPR) for federal fiscal year 2010.*** This includes \$66.0 million for pre-construction period activities and \$3.25 billion for construction period activities. Total federal grants funding to be applied to the ICS combines to \$3.316 billion.

Exhibit D-1, below, presents the above-referenced sources of funds for the Initial Construction Section.

Exhibit D-1. Initial Construction Section Funding Sources¹

Funding Sources¹ (\$ MM)	Amount	Subtotals
<i>Pre-construction² (e.g., planning, engineering, environmental clearance)</i>		
ARRA Pre-construction Funding	66.0	
- State matching funds	66.0	
<i>Total ARRA Pre-Construction</i>		<i>132.0</i>
<i>Construction</i>		
ARRA Construction Funding	2,321.0	
- State matching funds	2,258.0	
<i>Subtotal ARRA Construction</i>		<i>4,579.0</i>
FY 2010 Appropriations Construction Funding	929.0	
- State matching funds	360.0	
<i>Subtotal FY 2010 Construction Funding</i>		<i>1,289.0</i>
<i>Total Construction Funding</i>		<i>5,868.0</i>
<i>Total Initial Construction Section</i>		
<i>Total Pre-construction and Construction Periods</i>		<i>6,000.0</i>

¹ Figures are subject to rounding

² Pre-construction costs reflect estimated ICS share, excluding any station design costs

The timing of distribution and receipt of funds will coincide with the anticipated timing of construction discussed previously, with certain pre-construction activities already in process, and certain construction activities commencing for the ICS by late 2012 and continuing into 2017.

Upon identification of additional funding sources, the Authority intends to continue construction beyond the ICS to commence either the IOS North or the IOS South. For planning purposes, construction of the remainder of the IOS North or IOS South is estimated to be performed between 2015 and 2021 to reach completion of the initial Usable Segment. The anticipated timing of the identification of these additional funds for the initial Usable Segment would be not later than 2015 to enable procurement of construction-related services at that time. The timing of distribution and receipt of the funds then would correspond to the timing of anticipated expenditures.

The draft 2012 Business Plan discusses the potential future funding sources and the timing of the funding needs, to construct the Usable Segments. ***See Chapter 8, Funding and Financing.***

E. Projected Ridership and Operating Revenue Estimates

Streets and Highways Code section 2704.08, subdivision (c)(2)(E) requires presentation of the projected ridership and operating revenue estimate based on projected high-speed passenger train operations on the corridor or usable segment.

This Funding Plan incorporates by reference the projected ridership and related revenue estimates presented in the attached draft 2012 Business Plan. **See Chapter 6, Ridership Revenues, and Chapter 7, Operating and Maintenance Costs.** The chapter also includes sensitivity analysis, reflecting revenue estimates for high, medium and low scenarios for ridership.

Furthermore, this Funding Plan also incorporates by reference the information regarding the net operating profit (net revenues after operations and maintenance expenses) presented in the draft 2012 Business Plan. **See Chapter 8, Funding and Financing.** The chapter also includes sensitivity analysis, reflecting the net operating profit resulting from both revenue estimates and operating and maintenance cost estimates for high, medium and low scenarios for ridership.

The draft 2012 Business Plan uses as its "Planning Case" the "medium" scenario for ridership, revenues and associated operating and maintenance (O&M) costs. This Funding Plan adopts the same approach, and incorporates by reference the results of the financial analysis presented. Under the three revenue and O&M cost scenarios analyzed in Chapter 8 (planning case, high revenue and low revenue) there is a net operating profit commencing in the first year of operations under each scenario. This is a consistent finding across scenarios once an initial operating section is achieved. **See Chapter 8, Funding and Financing.**

Exhibits E-1, E-2, and E-3 present Revenues, O&M Costs, and Net Operating Profit, respectively for the two Usable Segments in year of expenditure dollars. As noted previously, IOS North and IOS South figures should not be added, but should be seen as stand-alone values.

Exhibit E-1. Revenues – Planning case (year of expenditure dollars in millions)

Revenues		2025	2030	2035	2040	2045	2050	2055	2060
Usable Segment	Operating Year								
IOS North	2022	759	1,074	1,277	1,514	1,804	2,145	2,549	3,018
IOS South	2022	1,002	1,422	1,691	2,005	2,389	2,840	3,375	3,996

Exhibit E-2. O&M Costs — Planning case (year of expenditure dollars in millions)

O&M Costs		2025	2030	2035	2040	2045	2050	2055	2060
Usable Segment	Operating Year								
IOS North	2022	474	643	808	988	1,193	1,362	1,456	1,751
IOS South	2022	539	713	927	1,132	1,362	1,548	1,683	1,953

Exhibit E-3. Net Operating Profit — Planning case (year of expenditure dollars in millions)

Net Operating Profit		2025	2030	2035	2040	2045	2050	2055	2060
Usable Segment	Operating Year								
IOS North	2022	285	431	469	526	612	783	1,094	1,268
IOS South	2022	464	710	764	873	1,027	1,292	1,693	2,043

F. Known or Foreseeable Risks

Streets and Highways Code section 2704.08, subdivision (c)(2)(F) requires presentation of all known or foreseeable risks associated with the construction and operation of high-speed passenger train service along the corridor or usable segment thereof and the process and actions the authority will undertake to manage those risks.

This Funding Plan incorporates by reference the risks and mitigation strategies presented in the attached draft 2012 Business Plan. **See Chapter 9, Risk Identification and Mitigation.**

The information presented therein includes the known or foreseeable risks associated with the Usable Segments, including the Initial Construction Section, that are the subject of this Funding Plan. The draft 2012 Business Plan identifies both program-level risks associated with revenue, ridership, approvals and other program-level matters, as well as the specific delivery risks associated with the ICS portion of an initial Usable Segment, in particular.

The categories of key risks identified in Chapter 9 include the following:

- Cost and Schedule
- Staffing and Organizational Structure
- Approvals
- Demand/Ridership and Revenues
- Funding
- Financing
- Right-of-Way
- Stakeholder Agreements, Interface and Integration

For each category, the draft 2012 Business Plan describes the risk and its potential impact, and presents a mitigation and management approach. It also describes fundamental risk mitigation principles, objectives for balanced risk transfer, and contracting strategies. Finally, it describes key elements of the Authority's Risk Management Plan. **See Chapter 9, Risk Identification and Mitigation**, for additional details on these topics.

G. Authority Certifications

Streets and Highways Code section 2704.08, subdivision (c)(2)(G) through subdivision (c)(2)(K) requires presentation of various certifications of the Authority regarding the corridor or usable segment thereof, as noted below:

(G) Construction of the corridor or usable segment thereof can be completed as proposed in the plan.

(H) The corridor or usable segment thereof would be suitable and ready for high-speed train operation.

(I) One or more passenger service providers can begin using the tracks or stations for passenger train service.

(J) The planned passenger service by the authority in the corridor or usable segment thereof will not require a local, state, or federal operating subsidy.

(K) The authority has completed all necessary project level environmental clearances necessary to proceed to construction.

Based on the various estimates, plans and other information presented in the attached draft 2012 Business Plan, which is incorporated by reference in this Funding Plan, the Authority certifies the following:

- **Construction of these Usable Segments, and the Initial Construction Section within them, can be completed as proposed by the Authority.**
 - *Furthermore, such Usable Segments will commence with the construction of the Initial Construction Section. The future completion of these Usable Segments can proceed thereafter on a phased basis, as described in detail the attached draft 2012 Business Plan.*

- **Upon completion of each Usable Segment, such segment would be suitable and ready for high-speed train operation.**
 - *Furthermore, such Usable Segments will be designed and constructed for the purpose of high-speed passenger rail service.*

- **Upon completion of each Usable Segment, one or more passenger service providers can begin using the tracks or stations for passenger train service.**
 - *Furthermore, in the case of each Usable Segment, it is the Authority’s intent to have high-speed passenger rail service operating such that there would be no need for other passenger service providers, such as Amtrak, to begin using the tracks or stations.*
 - *Nonetheless, it is the Authority’s belief that in the event it became necessary or advantageous, such other passenger service provider could use each Usable Segment (or a portion thereof) for passenger train service, subject to the satisfaction of appropriate conditions and agreements.*
 - *In addition, although the Authority does not presently plan to have any passenger service commence on the Initial Construction Section prior to completion of a Usable Segment, the Authority has planned that a passenger service provider could use the Initial Construction Section for passenger train service, should this at some future time seem advisable, subject to satisfaction of appropriate conditions and agreements.*

- **The planned passenger service by the Authority for the Usable Segments will not require a local, state, or federal operating subsidy.**
 - *Furthermore, each Usable Segment is projected to generate positive net operating profit (revenues less operations and maintenance expenses) commencing in the first year of operations.*

- **In connection with the Initial Construction Section¹, the Authority will have, prior to expending Bond Act proceeds requested in connection with this Funding Plan, completed all necessary project level environmental clearances necessary to proceed to construction.**
 - *Furthermore, in connection with the Initial Construction Section, the Authority already has completed the following necessary steps: The draft environmental impact reports / environmental impact statements for the Merced to Fresno and Fresno to Bakersfield segments were released for public comment on August 9, 2011. Public comment closed on October 13, 2011. The revised draft environmental impact reports / environmental impact statements for the Fresno to Bakersfield segment will be reissued in spring of 2012 for further public comment.*
 - *The following steps are scheduled to be completed before construction is to commence: The Record of Decision/Notice of Determination (ROD/NOD) is expected to be obtained for the Merced to Fresno segment by April 2012, and for the Fresno to Bakersfield section by November 2012.*

¹ The ICS is the only portion of the Usable Segments for which Bond Act proceeds for construction are requested in this Funding Plan.



CALIFORNIA
HIGH-SPEED RAIL
AUTHORITY

Resolution #HSRA11-22

Resolution Selecting for Construction Certain Usable Segments Pursuant to Streets and Highways Code Section 2704.08, Subdivision (f)

WHEREAS, the authorization and responsibility for planning, construction, and operation of high-speed passenger train service at speeds exceeding 125 miles per hour in this State is exclusively granted to the High-Speed Rail Authority (the "Authority");

WHEREAS, the Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century, chapter 20 (commencing with section 2704) of Division 3 of the S&H Code (the "Bond Act") was approved by the voters of the State in November 2008;

WHEREAS, the Bond Act authorized bonds for purposes of developing a high-speed train system (as defined in the Bond Act);

WHEREAS, the Bond Act added section 2704.08, subdivision (f), to the Streets and Highways Code, which requires the Authority consider certain criteria in selecting for construction corridors or usable segments (each as defined in the Bond Act) of the high-speed train system;

WHEREAS, the Authority was presented with information and reports bearing on each required criterion and such other criteria, if any, the Authority has deemed appropriate to consider; and

WHEREAS, the Authority has considered such information and reports and evaluated such criteria in accordance with Streets and Highways Code section 2704.08, subdivision (f).

NOW, THEREFORE, BE IT RESOLVED by the High-Speed Rail Authority, as follows:

Pursuant to Streets and Highways Code section 2704.08, subdivision (f), the Authority hereby selects for construction each of the following usable segments:

- The portion of the Phase 1 corridor (described in Streets and Highways Code 2704.04, subdivision (b)(2)) between and including a San Jose station and a Bakersfield station; and
- The portion of the Phase 1 corridor between and including a Merced station and a San Fernando Valley station.

Vote: 6-0

Date: November 3, 2011



**CALIFORNIA
HIGH-SPEED RAIL
AUTHORITY**

Resolution #HSRA11-23

Resolution Approving Funding Plan for Submission Pursuant to Streets and Highways Code Section 2704.08, Subdivision (c)

WHEREAS, the authorization and responsibility for planning, construction, and operation of high-speed passenger train service at speeds exceeding 125 miles per hour in this State is exclusively granted to the High-Speed Rail Authority (the "Authority");

WHEREAS, the Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century, chapter 20 (commencing with section 2704) of Division 3 of the S&H Code (the "Bond Act") was approved by the voters of the State in November 2008;

WHEREAS, the Bond Act authorized bonds for purposes of developing a high-speed train system (as defined in the Bond Act);

WHEREAS, the Bond Act added section 2704.08, subdivision (c), to the Streets and Highways Code, which requires that no later than 90 days prior to the submittal to the Legislature and the Governor of the initial request for appropriation of proceeds of high-speed rail bonds authorized by the Bond Act for any eligible capital costs (as defined in the Bond Act) on each corridor (as defined in the Bond Act), or usable segment (as defined in the Bond Act) thereof, identified in Streets and Highways Code section 2704.04, subdivision (b), other than costs described in Streets and Highways Code section 2704.08, subdivision (g), the Authority shall have approved and submitted to the Director of Finance, the peer review group established pursuant to Public Utilities Code Section 185035, and the policy committees with jurisdiction over transportation matters and the fiscal committees in both houses of the Legislature, a detailed funding plan for that corridor or usable segment thereof;

WHEREAS, the Authority on this date adopted its Resolution **#HSRA11-22**, selecting for construction each of the usable segments (the "Usable Segments") described therein;

WHEREAS, the Authority was presented with a form of funding plan for each Usable Segment; and

WHEREAS, the Authority desires to approve and submit a funding plan for each Usable Segment.

NOW, THEREFORE, BE IT RESOLVED by the High-Speed Rail Authority, as follows:

The Authority hereby approves the funding plan presented to this meeting and relating to each Usable Segment. The Authority hereby authorizes and directs the Executive Director to submit the funding plan to the recipients set forth in Streets and Highways Code section 2704.08, subdivision (c).

Vote: 6-0

Date: November 3, 2011

EXHIBIT “B”

**PROTEST/OPPOSITION STATEMENT
OF
CITIZENS FOR CALIFORNIA HIGH-SPEED RAIL ACCOUNTABILITY
TO
PETITION FOR EXEMPTION OF
CALIFORNIA HIGH-SPEED RAIL AUTHORITY**



California High-Speed Rail Program Revised 2012 Business Plan

APRIL 2012

Building California's Future

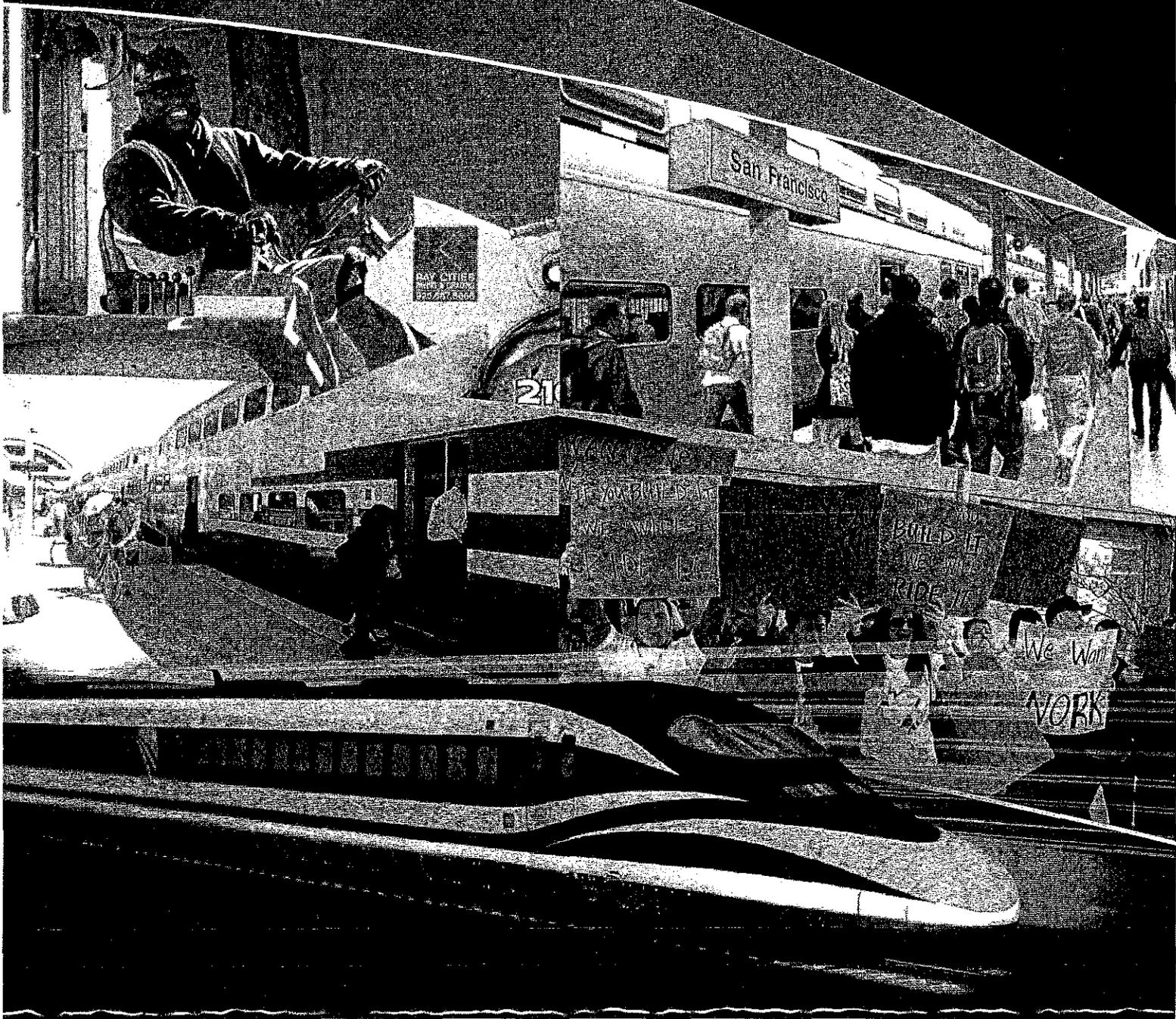


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Acronyms and Abbreviations

ACE	Altamont Commuter Express
ARB	Air Resources Board
ARRA	American Recovery and Reinvestment Act of 2009
ASCE	American Society of Civil Engineers
Authority	California High-Speed Rail Authority (see also "CHSRA")
AVE	Alta Velocidad Española (Spanish HSR service)
AVTA	Antelope Valley Transit Authority
B2B	Bay to Basin
BART	Bay Area Rapid Transit
BCA	benefit-cost analysis
BNSF	Burlington Northern Santa Fe
CADWR	California Department of Water Resources
CAFE	corporate average fuel economy
CALPIRG	California Public Interest Research Group
CALTRANS	California Department of Transportation
CEO	chief executive officer
CHSRA	California High-Speed Rail Authority (see also "Authority")
CHSRP	California High-Speed Rail Program
CTC	California Transportation Commission
DBB	design-bid-build
DBE	Disadvantaged Business Enterprise
DBF(O)M	design-build-finance-operate-maintain
DVBE	Disabled Veterans Business Enterprise
EIA	U.S. Energy Information Administration
EIR/EIS	environmental impact report/environmental impact statement
EPA	U.S. Environmental Protection Agency
ERR	economic rate of return
FAX	Fresno Area Express
FR	<i>Federal Register</i>
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GDP	Gross Domestic Product
GET	Golden Empire Transit
GHG	greenhouse gas
HSIPRP	High-Speed Intercity Passenger Rail Program
HSR	high-speed rail
HUD	U.S. Department of Housing and Urban Development

ICE	InterCityExpress (German HSR)
IOS	Initial Operating Section
IRJ	<i>International Railway Journal</i>
IRR	internal rate of return
JR Central	Central Japan Railway Company
KART	Kings Area Rural Transit
LACTMA	Los Angeles County Metropolitan Transportation Authority
LDV	light-duty vehicle
Metrolink	Southern California Regional Rail Authority
MB	Microbusiness
MOU	memoranda of understanding
MPH	miles per hour
MPO	metropolitan planning organization
MTC	San Francisco Bay Area Metropolitan Transportation Commission
MTS	San Diego Metropolitan Transit System
MUNI	San Francisco Municipal Railway Transit System
NCTD	North County Transit District
NPV	net present value
O&M	operating and maintenance
OCTA	Orange County Transportation Authority
PMT	Program Management Team
PPP	public-private partnership
QTCB	qualified tax credit bonds
RASP	Regional Aviation System Planning
RCTC	Riverside County Transportation Commission
RENFE	Red Nacional de los Ferrocarriles Españoles
RFEI	Request for Expression of Interest
ROW	right-of-way
RPA	Regional Plan Association
RRIF	Railroad Rehabilitation and Improvement Financing
RT	Sacramento Regional Transit District
RTA	regional transportation agencies
SANBAG	San Bernardino Association of Governments
SANDAG	San Diego Association of Governments
SB	Senate Bill
SB	Small Business
SCAG	Southern California Association of Governments
SDCRAA	San Diego County Regional Airport Authority
SHCC	Self-Help Counties Coalition

SJRRC	San Joaquin Regional Rail Commission
Socal ICG	Southern California Inland Corridor Group
TAV	Trem de Alta Velocidade (Planned Rio-Sao Paulo HSR)
TC	Transportation California
TCAT	Tulare County Area Transit
TGV	Train à Grande Vitesse (French HSR service)
TIFIA	Transportation Infrastructure Finance and Innovation Act
TOD	transit-oriented development
TRIP	The Road Information Program
UIC	International Union of Railways
UKDT	United Kingdom Department of Transport
UP	Union Pacific Railroad
UPRR	Union Pacific Railroad
USBEA	U.S. Bureau of Economic Analysis
USDOT	U.S. Department of Transportation
VTA	Santa Clara Valley Transportation Authority
YOE	year of expenditure

Executive Summary

Better. Faster. Cheaper.

That has been the charge to the California High-Speed Rail Authority (CHSRA/Authority) in revising the Draft 2012 Business Plan (Draft Plan). Following release of the Draft Plan on November 1, 2011, Governor Jerry Brown affirmed the importance of moving forward with high-speed rail (HSR) as an important investment in California's future. But, he and others called for changes to the Draft Plan so that the utility of the system and its connectivity with regional/commuter rail systems will be improved; so that Californians will realize benefits sooner; and, so that the costs to taxpayers will be reduced.

The responsibility of the Authority, as established in Proposition 1A, is clear—to implement the program approved by the voters.

It is the intent of the Legislature by enacting this chapter and of the people of California by approving the bond measure pursuant to this chapter to initiate the construction of a high-speed train system that connects the San Francisco Transbay Terminal to Los Angeles Union Station and Anaheim, and links the state's major population centers, including Sacramento, the San Francisco Bay Area, the Central Valley, Los Angeles, the Inland Empire, Orange County, and San Diego...

The Draft Plan laid out a roadmap for how such a high-speed program could be implemented. Following its release, the Authority solicited, reviewed, and considered comments from a broad range of interested parties. Public meetings to receive comments were held in Sacramento, Merced, and Los Angeles. The Draft Plan was the focus of several legislative hearings that included public participation. Numerous meetings and discussions were held around the state with a wide range of stakeholders. Input was received from the California High-Speed Rail Peer Review Group, the Legislative Analyst's Office, and the Bureau of State Audits. More than 250 comments were submitted to the Authority's website and through letters.

There was widespread acknowledgement that the Draft Plan was an improvement over previous versions; that it was realistic, transparent, and that it presented a logical and feasible means of delivering the program through phased implementation. That realism and transparency also meant that the public and decision-makers were confronted with higher cost estimates, longer time frames, and a frank assessment of the current funding outlook, which includes contentious issues at the federal level.

The critiques, commentaries, and suggestions yielded a number of consistent themes:

- Broad support was voiced for a phased implementation strategy to deliver the system
- The cost for the full-build system was too high
- A blended approach to both construction and operations, reducing costs and impacts, is the preferred path forward
- Near-term investment in the "bookends" (the Los Angeles and San Francisco Bay Area metropolitan regions) would produce immediate benefits and enhance the ultimate utility of high-speed rail

- Closing the intercity rail gap across the Tehachapi Mountains between Bakersfield and Palmdale should be a priority to connect the state via rail
- The benefits of the initial investment in the Central Valley were not clear enough and were seen by some as imposing a risk of stranded investment if the program did not continue
- Ridership estimates remain a question for some
- The opportunity to bring in private-sector investment earlier should be re-evaluated
- Some of the technical analyses, such as the presentation of the cost of alternative capacity on freeways and airports, were not clearly presented, leading to misunderstanding or skepticism
- The near-term federal budget scenario raises questions about when and how new federal funding will be provided to support the implementation of the next steps of the program

Key changes from the Draft 2012 Business Plan

The wide array of input, along with further analysis by the Authority, has resulted in significant changes to the Draft Plan. With these changes, the 2012 Revised Business Plan (Revised Plan) provides for an implementation strategy that delivers greater value, broader benefits, and earlier results by more quickly and effectively integrating HSR into an expanded, improved statewide rail network, as shown in Exhibit ES-1.

The overall passenger rail system will be significantly ***better*** because of two commitments in the plan. First is the commitment to build not just an initial construction segment but in fact an Initial Operating Section (IOS) of high-speed rail. This IOS, which can be completed within 10 years, will connect the Central Valley to the Los Angeles Basin. This segment will bring high-speed, electric passenger operations to California, tying together the Central Valley with the Los Angeles Basin as a first step toward a statewide high-speed rail system. Second, the Revised Plan provides for the integration, or blending, of high-speed rail improvements with existing and upgraded rail systems. Passengers will have more options, faster travel times, and greater reliability and safety. By leveraging new infrastructure and systems with existing and upgraded systems, taxpayers will benefit from greater cost efficiency and more effective use of state investment dollars.

Benefits will be delivered ***faster*** through the adoption of the blended approach and through investment in the bookends. Across the state, transportation systems will be improved and jobs will be created through the implementation of those improvements. The Central Valley will see the initial construction of the nation's first high-speed rail system and will benefit from an expanded and integrated passenger rail system that uses that infrastructure. The San Francisco Bay Area will see the benefits of improved safety, reliability, efficiency, and air quality through the long-awaited electrification of the Caltrain corridor, targeted by Caltrain for 2020. Southern California will see near-term improvements in the Metrolink system, better connectivity of transit and rail services in Los Angeles, San Diego, and the Inland Empire through cooperative early investments, using allocations from the \$950 million in Proposition 1A connectivity funds and other sources.

Exhibit ES-1. Summary of key changes in Revised 2012 Business Plan

Revision from Draft Plan	Description	Benefits
Commitment to blended system	Focuses new high-speed infrastructure development between the state's metropolitan regions while using, to the maximum extent possible, existing regional and commuter rail systems in urban areas.	Cost reduction, reduced community impacts, better leverage of resources/ investments
Commitment to blended operations	At all phases of development, seeks to use new and existing rail infrastructure more efficiently through coordinated delivery of services, including interlining of trains from one system to another, as well as integrated scheduling to create seamless connections.	Maximizes benefits of all investments, accelerates improvements, provides seamless travel for users, enhances connectivity to system
Investment in bookends	Makes improvements in existing rail systems in the metropolitan regions prior to or, in some cases, in lieu of, high-speed infrastructure. Connects high-speed rail to already existing modes of transportation.	Delivers improved service—reliability, safety, efficiency—to users of existing rail systems, providing tangible benefits in the near-term and building rail ridership for the long-term
Initial Operating Section (IOS)—South	<p>Based on factors including ridership and revenue forecasts, capital and operating costs, public input, and potential for private-sector investment, the Revised Plan identifies the IOS-South as the preferred implementation strategy. This will close the gap between Bakersfield and Palmdale and connect the Central Valley to the Los Angeles Basin at San Fernando Valley, creating the first fully operational high-speed rail system. This will be coupled with investments in Northern California to provide near-term benefits and lay the foundation for high-speed rail service to San Jose and San Francisco. Upgrades to the existing San Joaquins service will provide further time savings.</p> <p>Cap and trade funds are available, as needed, upon appropriation, as a backstop against federal and local support to complete the IOS.</p>	<p>Clarity of focus for development work, development of funding strategies, engagement with private sector interests, connecting the regions via a statewide rail network</p> <p>Close the rail gap between Northern and Southern California, the state's highest priority for intercity rail</p> <p>Connect the state's largest population (Los Angeles Basin) with the fastest growing part of the state (Central Valley)</p>
IOS First construction segment—put into service	Through collaborative planning and implementation with the California Department of Transportation (Caltrans), Amtrak, Altamont Commuter Express (ACE), BNSF Railway, and Union Pacific, the San Joaquin rail service (fifth busiest in the nation) will be shifted to the first construction segment upon its completion, resulting in a 45-minute time savings; through complementary improvements, this will tie with ACE to provide new, expanded, and improved rail service throughout northern California, connecting the Central Valley with the San Francisco Bay Area and Sacramento regions.	Enhanced utility of initial investment, providing improved service to the more than 1 million San Joaquin riders, and opening up regional rail service

The benefits of investing in high-speed rail will be delivered far *cheaper* than previously estimated. Through the adoption of a blended approach, the Authority has confidence that the cost of delivering the San Francisco-to-Los Angeles/Anaheim system, in accordance with Proposition 1A performance standards, is reduced by almost \$30 billion, now estimated at \$68.4 billion. Under the phased approach, and consistent with Proposition 1A, construction of any segment would only proceed when funding is identified and the Legislature has approved the use of additional state funding.

A blended system with broader, earlier benefits

The most consistent and widespread recommendation from those commenting on the Draft Plan was to fully adopt the “blended” approach in which existing metropolitan rail infrastructure would be used as much as possible and upgraded as needed to provide connections into the urban areas. For example, the legislatively mandated California High-Speed Rail Peer Review Group, in its January 3, 2012, letter to the Legislature (www.cahsrprg.com/index.html), stated the following,

We congratulate the CHSRA on its recognition of the viability of the blended option. Given the adamant environmental opposition to the full build-outs on either end of the system and the enormous added costs involved, we question the value of retaining the full Phase 1 build-out at all in any of the CHSRA’s more immediate plans.

The implementation strategy in the Revised Plan draws on international experience in building high speed rail systems and has been tailored to address the unique circumstances in California through collaboration with state, regional, local, and private transportation partners. It is a phased strategy with three key elements:

- **“Blending”** high speed with existing rail systems to accelerate and broaden benefits, improve efficiency, minimize community impacts, and reduce construction costs while enhancing rail service for travelers throughout the state
- Making **early investments** in the “bookends,” or San Francisco Bay Area and Los Angeles Basin regions, to upgrade existing services, build ridership, and lay the foundation for expansion of the high-speed system
- Delivering **early benefits** to Californians by using and leveraging investments as they are made

After issuing the Draft Plan which introduced the Phase 1 Blended option, the Authority prepared additional analysis on the capital costs, the operating and maintenance plan and costs, and ridership/revenue forecasts for this option. In addition, the Authority collaborated with other transportation providers, including Caltrans, Caltrain, ACE, and Metrolink, to further develop this option for implementation. This additional work and analysis has enabled the Authority to fully embrace the Phase 1 Blended option in this Revised Plan.

For Phase 1, as described in Proposition 1A, the blended system means building the “Bay-to-Basin” system, with new, dedicated HSR infrastructure connecting San Jose and the San Fernando Valley, and then to Los Angeles’ Union Station. Improvements will be made to the existing Amtrak/Metrolink rail corridor between Union Station and Anaheim to improve safety, reliability, capacity, and travel times in that corridor. In the San Francisco Bay Area, the existing Caltrain corridor will be upgraded through

grade separations, electrification, and passing tracks (to be studied) to provide the connection north from San Jose to the new Transbay Transit Center in Downtown San Francisco. This blended system will allow a one-seat ride (meaning passengers will not have to change trains) between San Francisco and Los Angeles and provide greater connectivity with existing regional and local transit systems. These benefits will be the foundation for implementation of a high-speed program in phases, as described in detail in Chapter 2, The Implementation Strategy: Blending, Phasing, Investing in Early Benefits, as follows:

- (1) **Early investments/statewide benefits**—First construction of the IOS, improvements to existing regional/commuter systems, new Northern California unified passenger service, and an accelerated closure of the rail service gap between Northern and Southern California
- (2) **Initial high-speed rail operations**—Completion of the IOS and operation of the first high-speed rail revenue service in the United States
- (3) **The Bay-to-Basin system**—Linking the state’s major metropolitan areas with high-speed rail service while incorporating improved regional service

What does “blended” mean?

The 2012 Business Plan refers to blended systems and blended operations, which describe the integration of high-speed trains with existing intercity and commuter/regional rail systems via coordinated infrastructure (the system) and scheduling, ticketing and other means (operations).

Blended systems—integrated infrastructure investments

Existing rail systems already serve intercity, commuter, and regional trips throughout California. A blended system would leverage these systems by tying them together with a HSR backbone through the Central Valley and connecting to major metropolitan areas. Although improvements to the regional and commuter rail systems are intended to improve or facilitate connections and integration with the high-speed rail system, they do not need to be implemented sequentially. Regional or local improvements to the existing systems, such as elimination of at-grade crossings and the addition of new passing tracks, have independent utility that will benefit regional and commuter passengers prior to connection to the high-speed rail system. Where possible, these improvements should move ahead independently and as quickly as feasible to accelerate benefits to California travelers.

Blended operations—integrated service

The blended system will allow rail operators to take advantage of new and improved infrastructure to enhance existing service, delivering benefits sooner. Blended operations will evolve over time, as infrastructure is developed. Utilization will progress from the operation of existing services over new high-speed rail infrastructure prior to the initiation of revenue service, to the coordination of high-speed and conventional rail services, to the interoperability of high-speed and conventional rail over shared infrastructure. In each phase, the goal will be to maximize and accelerate the benefits of investments in the most cost-effective manner.

- (4) **The Phase 1 system**—Connecting San Francisco, the Central Valley, and Los Angeles/Anaheim through a combination of dedicated high-speed rail infrastructure blended with existing urban systems
- (5) **Phase 2 expansion**—Bringing high-speed rail to Sacramento, San Diego, and the Inland Empire. Through the blended approach to Phase 1, these areas will see improvements in rail service and access to high-speed rail service far earlier than previously planned

Early investments, statewide benefits

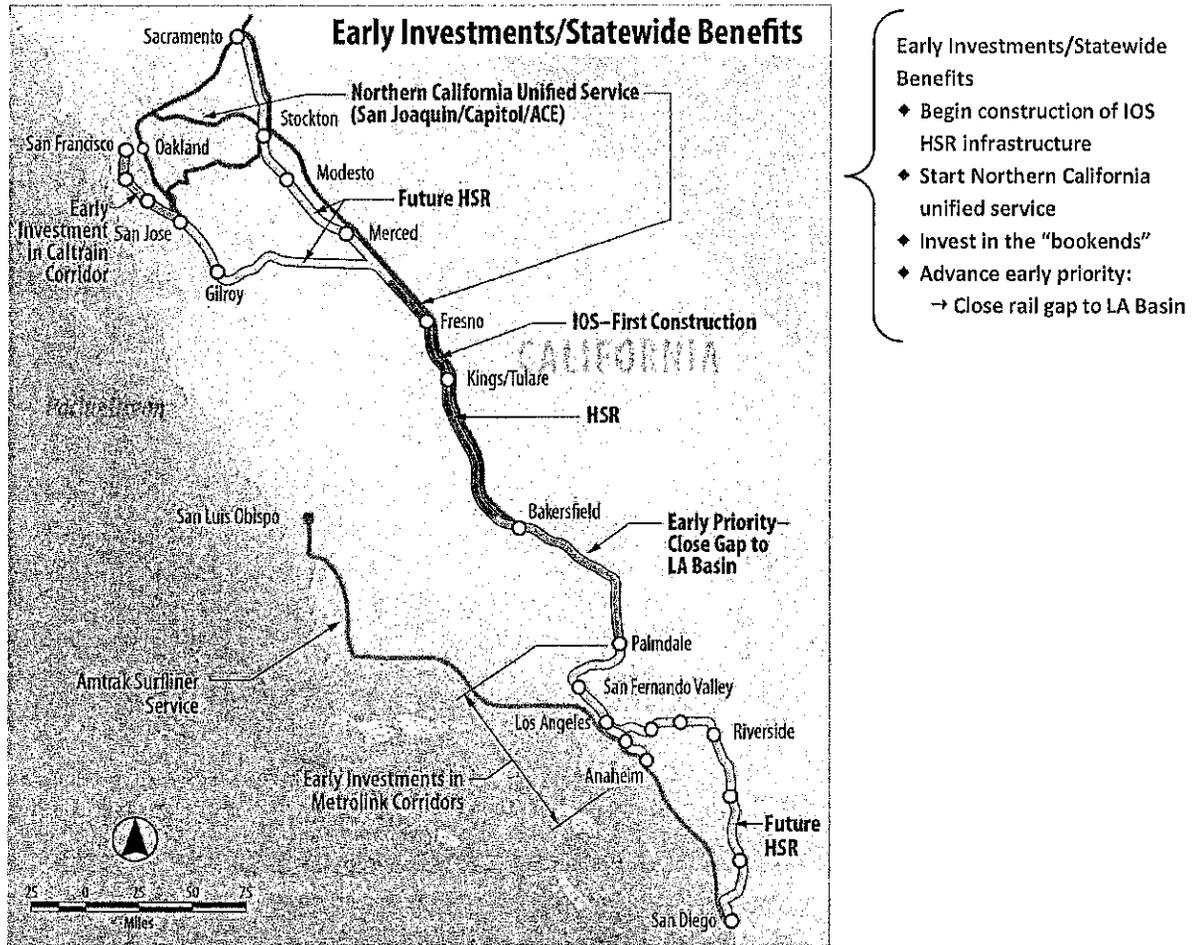
Under the Draft Plan, the initial investments of Proposition 1A bond proceeds and matching federal funds were focused primarily in the Central Valley, with subsequent extensions reaching other areas of the state in phases. This Revised Plan retains the start of construction of new high-speed infrastructure in the Central Valley but introduces simultaneous investments to produce immediate benefits throughout the state (Exhibit ES-2). Working collaboratively with regional transportation partners, advanced investments will be made in the existing Los Angeles Basin and San Francisco Bay Area rail systems. These early improvements will accomplish two key goals:

- First, these improvements will lay the foundation for the high-speed rail system as it expands to reach those areas and connect the state.
- Second, because these improvements can proceed independently of the high-speed rail system, they will provide near-term benefits to travelers in metropolitan areas.

Benefits will be realized sooner and more efficiently, not only in metropolitan Los Angeles and the San Francisco Bay Area, but also in the Los Angeles–San Diego corridor, the Inland Empire, and the Sacramento region—all of which would see improvements much earlier than under any previous plan. This approach represents a significant evolution of thinking about how high-speed rail best fits into California’s transportation system and best serves the people of the state. More specifically, rather than being planned, designed, and implemented largely as a stand-alone system, high-speed rail in California will be integrated into a comprehensive and seamless statewide passenger rail network. Leveraging and partnering with intercity and regional systems results in a wide range of benefits, including the following:

- Accelerated delivery of advantageous investments
- Expanded early benefits for rail passengers
- Reduced costs
- Greater cost-effectiveness
- Fewer construction and operating impacts on communities
- Coordinated planning and investments among state, regional, and local agencies
- Improved transportation and reduced congestion in metropolitan areas
- Reduced air pollution, including greenhouse gas emissions

Exhibit ES-2. Early investments/statewide benefits



New Northern California Unified Service

The first construction segment of the IOS will be put into use immediately upon completion for improved service on the San Joaquin intercity line. This service, the fifth busiest Amtrak line in the nation, already serves more than 1 million riders a year and will link with other systems, such as ACE and Caltrain, to create a new, improved network reaching from Bakersfield to the San Francisco Bay Area and Sacramento. Immediately, California’s rail network will be able to carry passengers faster and more reliably than ever before.

Begin building the Initial Operating Section

The IOS of the California high-speed rail system will connect Merced to the San Fernando Valley gateway to Los Angeles. This facility will be transformational in creating a passenger rail nexus between one of the fastest growing regions in the state with the state’s largest population center. Among its many benefits will be the realization of the state’s highest intercity passenger rail priority— closing the state’s single largest gap in intercity rail service—linking north and south at Bakersfield to Palmdale. Immediate steps toward this goal include the prioritization of environmental clearance and other preliminary work necessary for this gap closure.

Improve service in the “bookends”

This will be achieved by putting the \$950 million in Proposition 1A funding for connectivity to work. The Authority will work with the California Transportation Commission, Caltrans, and regional rail systems to gain approval this fiscal year for funds that can be used to make near-term improvements that will tie to eventual HSR service. Millions of travelers throughout the state will benefit from faster, more frequent, and more reliable services associated with the expansion of key transit investments throughout the state.

Additionally, the Authority is working with regional transportation agencies through memoranda of understanding and other mechanism to identify and implement additional improvements beyond the \$950 million in connectivity funds that can provide near-term benefits to commuters on Metrolink and Caltrain and pave the way for the future HSR system.

Electrify the Caltrain corridor

Electrifying Caltrain will result in a faster, more efficient, and more environmentally friendly rail system that will eventually allow for a one-seat ride between San Francisco and Los Angeles.

Electric trains can stop and start faster than diesel trains, which can reduce travel time and/or increase service to stations between San Francisco and San Jose. As Caltrain has already demonstrated, decreased travel time results in increased ridership. As more people ride Caltrain, congestion on freeways and surface streets in the San Francisco Bay Area will be reduced. In addition, the switch to electric power will lower air pollutant emissions from trains by up to 90 percent while significantly reducing power consumption. Electric-powered trains also are significantly quieter, which will benefit those living and working near the rail corridor.

Investing for California’s next generations

The need for a new generation of transportation improvements in California is clear. Today, the state’s transportation systems are straining to meet current demand. Congestion on roads results in \$18.7 billion annually in lost time and wasted fuel. Air flights between the Los Angeles and San Francisco metropolitan areas—the busiest short-haul market in the U.S.—are the most delayed in the country,

with approximately one of every four flights late by an hour or more.



Continued population and economic growth will place even more demands on California’s already overburdened mobility systems. Over the next 30 to 40 years, California is projected to add the equivalent of the current population of the state of New York. There is no question: meeting the demands of that growth will require *major* investments in transportation infrastructure over the next generation. Those investments will measure in the tens of billions of dollars. The question

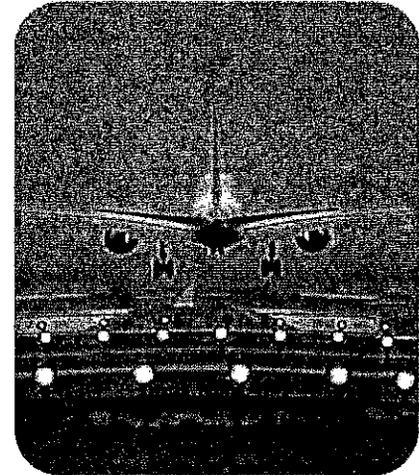
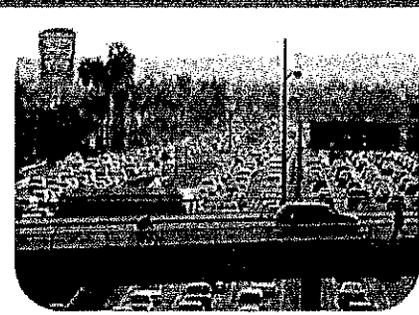
will not be *if* those investments need to be made, but *how* those investments can provide the greatest benefits.

As has been proven around the world, high-speed rail, when integrated into a balanced transportation system, can meet a significant portion of increased demand in a manner that is sustainable and cost-effective.

As detailed in this Revised Plan, a statewide HSR system can be delivered to the citizens of California that will produce economic benefits, enhance and support environmental and energy goals, create near and long-term employment, improve mobility, and save money. Such a system also advances the state toward the attainment of goals established by landmark legislation such as California Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008, and Assembly Bill 32, the Global Warming Solutions Act of 2006. In its scoping plan for implementation of AB 32, the California Air Resources Board supports implementation of a high-speed rail system as “part of the statewide strategy to provide more mobility choice and reduce greenhouse gas emissions.”¹

Chapter 9 of this Revised Plan, Economic Analysis, shows that the benefits of high-speed rail far outweigh the costs of building, operating, and maintaining it. Californians will begin to see these benefits next year, when initial construction of the IOS will provide a much needed economic boost to the Central Valley, the fastest growing part of the state and the region hardest hit by unemployment. Almost 100,000 job-years of employment will be generated by the initial construction work. The \$2.7 billion initial investment will give the state a net economic impact of \$8.3 to \$8.8 billion—a 3:1 return on its initial investment—and state and local governments would earn more than \$600 million back in tax revenue, or nearly 25 percent of how much the state will spend.

It also has become clear that the key to a successful high-speed rail program is to focus on putting an operational, high-speed segment in place and then using that segment as a building block for the full system. The IOS can be built within 10 years, generating positive cash flows from operations, carrying millions of riders, and serving as a launch pad for private participation in the construction and operation of the system.

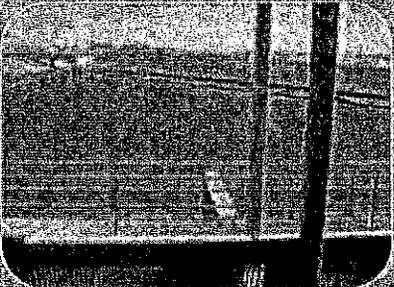


With 20 million more people expected to be in California within the next 40 years, we can't build enough highways and airport runways to accommodate the demand.

Joseph C. Szabo, Federal Railroad Administrator

The two keys to cost-effective and timely achievement of a statewide high-speed rail system are as follows:

- Dividing the program into a series of smaller, discrete projects that build upon each other but also provide viable high-speed rail service independently
- Making advance investments in regional and local rail systems to leverage existing infrastructure and benefit travelers by providing interconnecting blended services



Phasing the California State Water Project: "50 Years and Counting"

The California State Water Project is the largest state-built and state-operated multipurpose water and power system in the United States. It encompasses 701 miles of canals and pipelines that provide drinking water for 25 million people and irrigation for 750,000 acres of farmland. It began in 1960 and its expansion continues today, with the newest reservoir beginning construction in 2006.

Funding began with the approval of \$1.75 billion in bonds. Since that time, the 29 contracting agencies that deliver the water locally have made cumulative payments totaling more than \$9 billion.

By implementing the program in phases, work can be matched to available funding. Each segment can be delivered through a business model that transfers significant design, construction, cost, and schedule risks to the private sector and maximizes efficiency by capturing the advantages of private-sector innovation. Importantly, the phased approach means that decisions made today will not tie the state's hands tomorrow. With the state's success in securing over \$3 billion in federal funding, the first step can be taken now toward construction of the IOS. This money will be used to create jobs, obtain right-of-way, position the system for future expansion, and preserve options for future decision makers.

The decision to move ahead with the initial step does not commit the state to proceeding with the full program as outlined in this Revised Plan. By providing decision-makers with the flexibility to change course or timing, the plan preserves flexibility and can adapt to changing economic and budgetary realities or new opportunities. This approach is consistent with how other major infrastructure programs are implemented. The Interstate Highway System was designated in whole at the outset but constructed in phases over more than 50 years based on availability of funds, economic conditions, and other factors. The same has been true with the California freeway system and the state water project. HSR systems in other countries have been delivered this way as well. In Japan, for instance, initial plans provided an outline for full development, but implementation took place in segments, sometimes with years between the completion of one segment and the initiation of the next.

This Revised Plan has been developed by applying this and other successful implementation strategies that have evolved over the last half-century of experience throughout the world.

Starting up a new high-speed service is challenging, as was the case in Japan in 1964; however, it is very rewarding for the country in the longer term Step-by-step extension of high-speed rail construction is common in Japan, too. For example our Tohoku-Shinkansen line, which runs through the northern part of Japan, has been constructed step-by-step. The initial section up to Morioka was completed in 1982, and the line was extended to Hachinohe in 2002 and to Aomori in 2011.

Masaki Ogata, Vice Chairman, East Japan Railway Company

How will California benefit from high-speed rail?

Economy

High-speed rail will bring significant benefits to California, both in the near term and in the long run. Benefits will be realized statewide and will encompass both economic and environmental concerns.

The Central Valley will experience the earliest positive impacts of this investment. Indeed, the economic growth associated with construction of the first segment of the IOS will create jobs in a region that is home to the highest unemployment rate in the state. As noted earlier, moving forward with initial construction will generate approximately 100,000 job-years of employment for people who need them most.

Along these lines, California's construction industry, the sector hardest-hit by the economic recession, will see a boost in business associated with high-speed rail construction.

Connecting the Los Angeles and San Francisco metropolitan areas will generate approximately 800,000 to 900,000 job-years and will eventually result in more than 1 million job-years. High-speed rail is a major job generator, both in the short and long terms.

Transportation infrastructure

With the completion of high-speed rail, California's drivers will see significant relief in traffic congestion. HSR will lead to a reduction of 320 billion vehicle miles traveled over the next 40 years. That will translate into 146 million hours saved for Californians each year—time spent doing better things than sitting in traffic. Similarly, airport congestion will be reduced. Ample precedent for this exists around the world.

SFO is a strong supporter of High-Speed Rail. Connecting SFO to HSR will provide outstanding service to our passengers, providing quick and convenient connections to the rest of California. HSR will put SFO on [a] par with other world airports already benefiting from HSR, including Hong Kong, Shanghai, Tokyo, Frankfurt, and Zurich.

*John L. Martin, San Francisco
Airport Director*

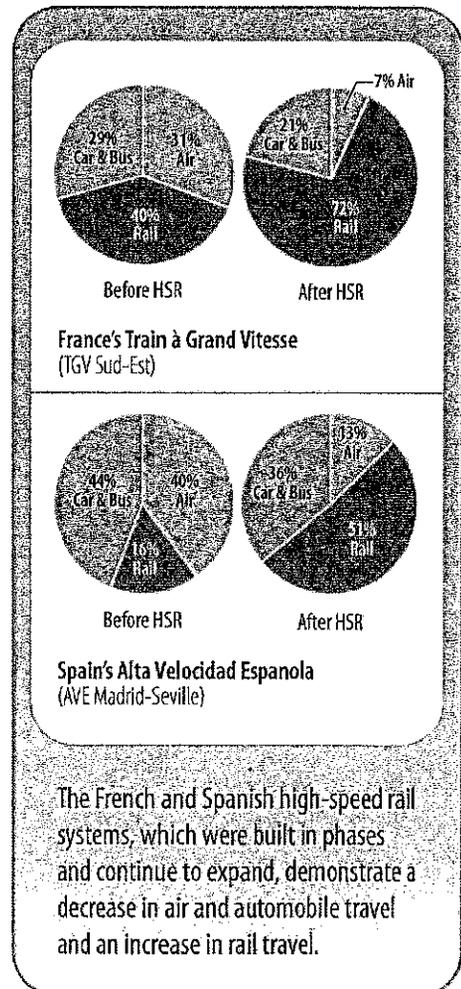


When high-speed rail service was introduced between Madrid and Seville, Spain, the share of trips taken by plane was reduced from 40 percent to 13 percent, and rail trips grew from 16 percent to 51 percent. This reduction in air travel means that limited airport capacity can be used more efficiently for longer-haul routes where aviation is more cost-effective and energy efficient. This type of shift from automobiles and airplanes to high-speed trains has been the consistent experience internationally, from Taiwan to Germany, France, and Spain.

Moreover, HSR also has generated an overall growth in travel, not just a reallocation between modes. The increased mobility from HSR prompts greater travel, generating more economic activity. On the high-speed route between Paris and Lyon, France, for example, half of the trips taken were new trips. The efficiency, reliability, and connectivity between economic centers provided by HSR contribute to long-term economic benefits. With implementation of the HSR system in California, as many as 400,000 long-term jobs could be created as the state's economy becomes more efficient.

Funding and finance

Funding for the system will come from a mix of federal, state, and private sources and will benefit from innovative program delivery models that allow the private sector to design, build, and operate the system. Specific funding approaches are detailed in this Revised Plan; potential program delivery models are explained as well. Delivery approaches rely on the private sector to perform the final design and to provide operations, ultimately resulting in a concession to operate the full system and private capital to support construction of future phases. This private-sector involvement is feasible because each of the operating sections generates a positive cash flow from operations. Chapter 4, Business Model, includes a discussion of proven delivery and financing methods applicable to the high-speed rail program. Based on projected cash flows from operations, over \$10 billion in potential private-sector capital is anticipated once the IOS is in operation. These funds can provide a significant contribution toward completion of the Bay-to-Basin system.



Phased implementation provides two additional benefits with respect to project funding and finance:

- The funding required to advance any individual section is significantly less than if the system were to be constructed all at once.
- Risk is reduced for each subsequent section because of the successful performance of HSR operations on prior sections. In this way, success feeds on success and enhances the ability to attract private capital and operating expertise.

Exhibit ES-3. Summary of each phased implementation section

Section	Length (approx)	Endpoints	Service Description	Service Start	Cumulative Cost (VOE\$, billions)
Initial Operating Section	300 miles	Merced to San Fernando Valley	<ul style="list-style-type: none"> • One-seat ride from Merced to San Fernando Valley • Closes north-south intercity rail gap, connecting Bakersfield and Palmdale and then into Los Angeles Basin • Begins with construction of up to 130 miles of HSR track and structures in Central Valley • Private sector operator • Ridership and revenues sufficient to attract private capital for expansion • Connects with enhanced regional/local rail for blended operations, with common ticketing 	2022	\$31
Bay to Basin	410 miles	San Jose and Merced to San Fernando Valley	<ul style="list-style-type: none"> • One-seat ride between San Francisco and San Fernando Valley¹ • Shared use of electrified/upgraded Caltrain corridor between San Jose and San Francisco Transbay Transit Center • First HSR service to connect the San Francisco Bay Area with the Los Angeles Basin 	2026	\$51
Phase 1 Blended	520 miles	San Francisco to Los Angeles/ Anaheim	<ul style="list-style-type: none"> • One-seat ride between San Francisco and Los Angeles¹ • Dedicated HSR infrastructure between San Jose and Los Angeles Union Station • Shared use of electrified/upgraded Caltrain corridor between San Jose and San Francisco Transbay Transit Center • Upgraded Metrolink corridor from LA to Anaheim 	2029	\$68

¹ One-seat ride means that passengers do not need to switch trains, even if the train operates over two systems (e.g., moving north on dedicated high speed rail infrastructure and then moving onto Caltrain tracks at San Jose, assuming electrification of Caltrain corridor by 2020 as proposed by Caltrain)

Funding for the initial construction of the IOS will be a combination of federal funding and Proposition 1A funding. As the program proceeds, the state will continue to see significant federal support and private-sector capital investment once operations have commenced. Cap and trade funds are available, as needed, upon appropriation, as a backstop against federal and local support.

Planning scenario

This Revised Plan includes a planning scenario for use in projecting performance of the system. In order to generate key performance data, this planning scenario includes several basic assumptions regarding the Bay-to-Basin and Phase 1 Blended operating sections:

- The system will be completed by 2028.
- The average ticket fare between San Francisco and Los Angeles will be \$81 (83 percent of anticipated airline ticket prices) in 2010 dollars, with up to eight trains per hour during the peak period (four trains per hour from San Francisco, two trains per hour from San Jose, and two trains per hour from Merced).

For this Revised Plan, a planning schedule (Exhibit ES-4) was adopted that extended the date for completion of Phase 1 Blended from 2020 to 2028 to mitigate funding and other risks. Based on this schedule, costs have been inflated to assess the total costs in the year-of-expenditure.

Exhibit ES-4. Construction schedule

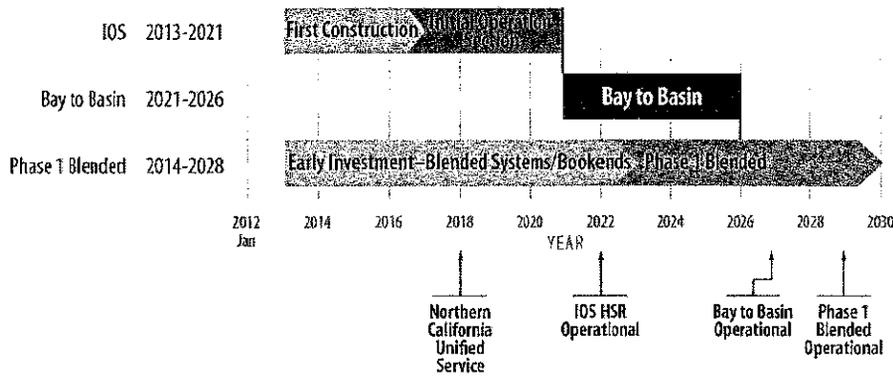


Exhibit ES-5 presents a planning case showing the impact of a 2028 schedule on year-of-expenditure cost.

If required, a Full Build option for Phase 1 could be completed by 2033 at an incremental cost of \$23 billion in year-of-expenditure dollars, for a cumulative cost of \$91.4 billion.

Exhibit ES-5. Planning case showing impact of planning schedule on year-of-expenditure cost

Section	Incremental Capital Cost (billions 2011\$)	Cumulative Capital Cost (billions 2011\$)	Completion of Section	Incremental Year-of-Expenditure Capital Cost	Cumulative Year-of-Expenditure Capital Cost
IOS	26.9	26.9	2021	31.3	31.3
Bay to Basin	14.4	41.3	2026	19.9	51.2
Phase 1 Blended	12.1	53.4	2028	17.2	68.4

Ridership and revenue

As is the case with any similar program, the forecasts of ridership and revenue continue to be the subject of extensive and intense review. Areas of focus include the model used to generate the forecasts, the assumptions and data used as inputs to the model, and the outcomes of the model. A number of steps have been taken to respond to comments and to continue to improve the reliability of the forecasts, and they are reflected in this Revised Plan. Those steps include the following:

- Inputs to the model have been updated and refined to use recent data reflect a broader range of scenarios.
- An independent panel of experts continues to review the model and its inputs.
- Post-model adjustments have been eliminated to reduce the potential for error, bias, or inconsistency.
- The model itself has been tested against actual conditions and external forecasts and demonstrated its reliability.
- Data and reports have been made available for public review.

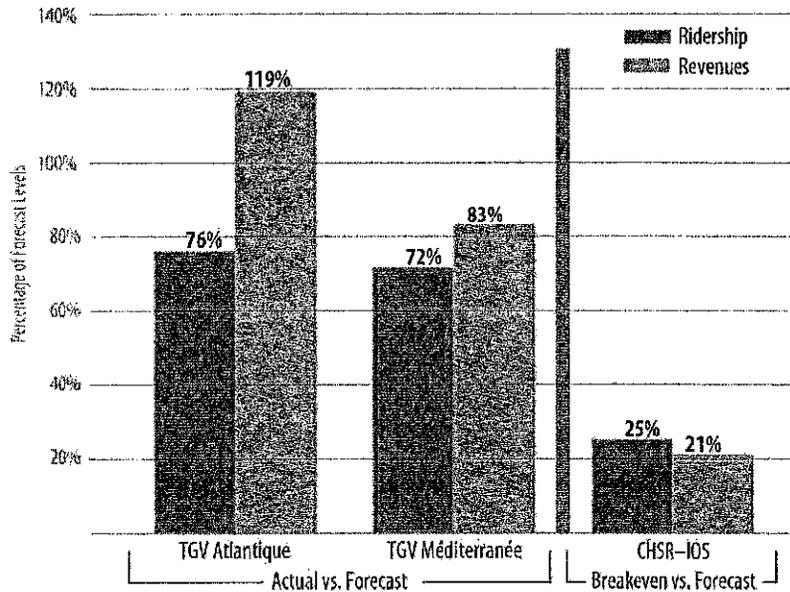
Details of these actions are provided in Chapter 5, Ridership and Revenue. An important step forward to demonstrate the viability of the model and the reliability of its outputs was the use of it to test actual conditions in the Northeast Corridor. This test demonstrated the sensitivity of the model to inputs and the reasonableness of the outcomes.

Another important aspect to consider is the performance of both domestic and international rail systems against their forecasts. Studies have been conducted on toll roads, high-speed rail systems, and quasi-high-speed rail systems. One of the most widely cited is a 2003 Cambridge University report titled *Megaprojects and Risk* by Flyvbjerg, et al. This report found that a common element in projects that failed to reach forecast results was an optimistic assumption of a particular event that would lead to higher ridership. For example, ridership forecasts for the French TGV system assumed significant spikes in motor fuel prices, which would cause more people to leave their cars and use high-speed rail. When the anticipated increase in prices did not occur, ridership did not materialize as projected.

This and other lessons were considered in developing the ridership and revenue modeling for the California high-speed rail program. Accordingly, there is no such reliance on singular and unsubstantiated factors such as an assumed spike in gasoline prices. Key inputs that are drivers of ridership, such as fuel prices, airline ticket prices, and population, are all conservative and based on external sources.

It is also important to understand what the performance of other HSR systems against forecasts might mean for the California system. In particular, international experience illustrates that disciplined management through a private-sector operator leads to stronger financial performance, even in the face of changing circumstances. For example, the French TGV Atlantique line initially was 24 percent below projected ridership, but exceeded revenue forecasts by 19 percent. Similarly, the TGV Méditerranée line ridership fell 28 percent below initial forecasts, but revenues were off by only 17 percent. As shown in Exhibit ES-6, the performance of California’s system against forecasts would have to be approximately three times worse than the French examples to fall below the breakeven point at which the system will function without an operating subsidy.

Exhibit ES-6. Percentage of forecast levels



Three ridership scenarios were modeled in this Revised Plan: Low, Medium, and High. As described in Chapter 5, Ridership and Revenue, conservative assumptions for key factors, such as population and the cost of driving, were used throughout the modeling. Operating and maintenance costs are highly correlated to the number of riders and use of the system; that is, the more riders, the more trains needed and the higher the cost of operating and maintaining them.

Analysis of the three scenarios shows that there is a net positive cash flow from operations (revenues minus operating and maintenance costs) from the first year of operation under each phasing scenario (Exhibit ES-7). This is a consistent finding across operating segments, phases, and development scenarios once an IOS is achieved.

Exhibit ES-7. Operating results for IOS, year 2025

Ridership Scenario	Ridership (millions)	Revenue (millions)	Operating and Maintenance Cost (millions)	Net Cash Flow from Operations (millions)	Operating Subsidy?
High	10.5	\$1,096	\$556	\$540	No
Medium	8.1	\$844	\$499	\$345	No
Low	5.8	\$591	\$376	\$215	No

Projections demonstrate that high-speed rail in California will be viable, even at the very conservative low scenarios. Under all forecasted scenarios, each operating section of the California high-speed rail system is projected to operate without a subsidy. This is not only important in terms of achieving the Proposition 1A criteria, but it supports investment of private capital for construction.

Cost control

Implementation of the program will be affected by a range of external factors over time. As such, this and future business plans should be seen as part of a dynamic process. One area where this will be especially pronounced is the continual process of managing the program to deliver benefits more cost-effectively.

The Authority will maintain and reinforce internal cost-control procedures and use external reviews to regularly evaluate options for reducing costs and accelerating improvements. Ongoing value engineering, collaborative planning, and focused use of procurement tools to incentivize efficiencies are among the tools that will be used.

The role of the private sector

The Authority's long-term business model is founded on a strong public-private partnership relying on the private sector to design, build, operate, and maintain a high-speed system that is funded by a combination of government investments and future revenues from riders that support the investments of capital from the private sector. Risk is transferred to the private sector immediately beginning with design and construction, and the transfer of risk increases as the system is developed and opened to incorporate operating performance and profit and loss.

The private sector will be brought on board through design-build contracts to finalize the design of the first segment of the IOS and then construct it. This will result in the transfer of key risks from the public to the private sector, where they can be better managed—an important part of the program's cost-containment strategy.

As explained in Chapter 7, Financial Analysis and Funding, this Revised Plan assumes capital investment when the IOS is in place and generating revenues. This is the point in the program at which risks have been reduced sufficiently to allow access to more private capital at lower costs. Following up on recent questions posed by stakeholders, the Authority reevaluated private-sector interest in early 2012 by interviewing a number of the respondents who indicated interest in investing in the project and through

one-on-one interviews with firms that responded to the Request for Qualifications for the first construction package. Responses from the Request for Expressions of Interest and recent discussions with interested companies confirmed the private sector's interest in the project and the conditions and timing required to attract the significant private-sector investment reflected in the Revised Plan.

Alternative financing and delivery processes, including early investment by the private sector, continue to be developed and adapted both domestically and in other countries. Although more prevalent outside the United States, innovative public-private partnerships are being introduced and used more frequently here. Adoption of a policy to encourage unsolicited proposals for private-sector involvement in the high-speed rail program will be an important tool to accelerate the development of the IOS and projects related to blended system improvements.

Summary

This Revised Plan considers the comments on the Draft Plan and reflects those calls for change. It presents a **better** way to build the system incrementally and in partnership with regional/commuter rail systems. Implementation of the plan will deliver benefits to Californians **faster**. By leveraging existing systems, it will be significantly **cheaper** to deliver the high-speed rail program. The revisions go beyond these important improvements. By investing in electrification of the San Francisco Peninsula rail system and paving the way for more efficient operations around the state, HSR will help contribute to a **cleaner** transportation system. In addition, focusing early investments on the elimination of high-priority at-grade crossings and other improvements will help make California's growing passenger rail network **safer**.

Contents of the Revised Plan

This Revised Plan addresses the requirements in Section 185033 of the Public Utilities Code and includes summaries of key changes in implementation strategy, ridership, and costs from the 2009 Business Plan. In addition to the major revisions discussed previously, throughout this Revised Plan there are modifications that respond to comments and address technical, editorial, and other issues. Supporting technical documents and appendices have been updated both to reflect and provide expanded explanation of these changes. Those documents will be posted on the Authority's website at www.cahighspeedrail.ca.gov/business_plan_reports.aspx.

As part of the Authority's commitment to transparency and accountability, a new supporting document, *Addressing Comments from Reviewing Entities*, summarizes the comments from the Legislative Analyst Office and the California High-Speed Peer Review Group on the Draft Plan and how the Revised Plan addresses those comments. The Draft Plan remains available as a reference document. Both of these and other supporting technical documents can be found at www.cahighspeedrail.ca.gov/business_plan_reports.aspx.

Central Tenets of the 2012 Business Plan

Analysis

- A thorough re-evaluation and review of ridership models, with international peer review of the model and methodology
- An update of project capital and operating costs using conservative inflation assumptions and a large contingency budget
- A re-examination of whether a revenue guarantee would be required
- A re-thinking of the critical relationships between HSR and local/regional transit systems
- An analysis of whether the system could be built in segments, with each having independent utility
- A reassessment of the federal and state funding environment, particularly over the short term
- A realistic appraisal of when and how private capital will be available

Conclusions

- The ridership model is sound and can be used for business planning. Projections show that the Initial Operating Section will generate a net operating profit.
- The capital costs have grown, as more engineering and environmental analysis has been done. However, the new capital costs are an accurate, current reflection of the cost of building out the segments and the system, with sufficient contingency to address foreseeable changes.
- Under this plan an operating subsidy will not be required. California HSR will be able to sustain operations going forward, consistent with HSR systems around the world. Profits will be able to contribute to future construction costs.

- Criticism that HSR has failed to leverage existing regional rail systems has been justified. The 2012 Business Plan moves toward a much fuller integration with those systems toward realizing the benefit of advanced investment in upgrading those existing lines. The Authority plans to use those systems for strategic connections in the early years and to run "blended service" (i.e., HSR trains running at appropriate urban-area speeds on existing or improved tracks where possible).

- It is both desirable and necessary to construct HSR in phases—adding lateral segments and later service-level upgrades. This can be done so that each segment has independent value and so that funding confidence can be achieved before each segment is commenced.

- The Authority realizes that the current funding environment is challenging. However, there are sufficient funds to construct the foundation segment of HSR and secure important rights-of-way. Moreover, progress toward fully funding the all-important Initial Operating Section can be secured from a variety of potential sources.

- The private sector will play a major role in HSR. This project neither can nor should be built entirely with public funds. We expect private-sector operations and maintenance in the near term. Significant private capital is available upon completion of the IOS and demonstration of ridership, and the Authority actively working with the private sector to explore innovative, cost-effective ways to secure private participation for all elements of the program.

End notes

¹ *Climate Change Scoping Plan: A Framework for Change*. Prepared by the California Air Resources Board for the State of California Pursuant to AB 3, The California Global Warming Solutions Act of 2006. December 2008.

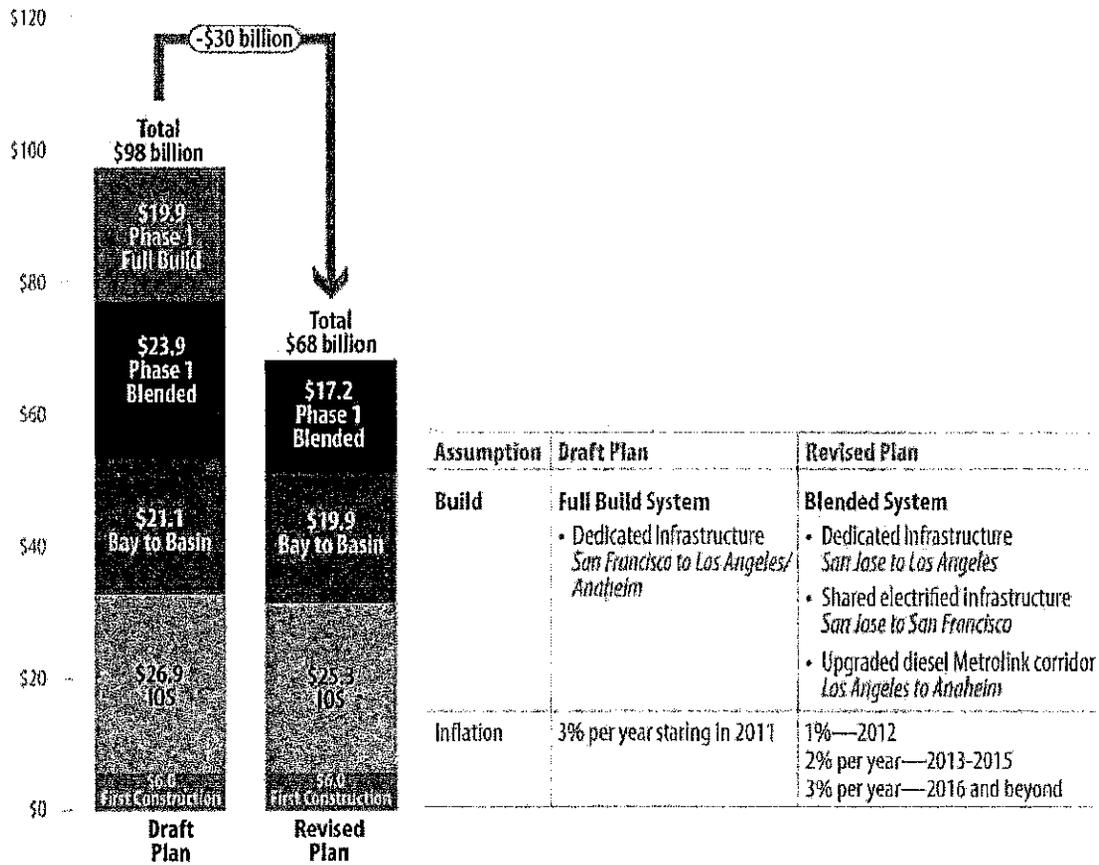
In addition to meeting the federal funding criteria, beginning construction in the Central Valley is an important first step for the HSR system. The “spine” of the statewide high-speed rail system will be created, which can then be extended north and south, creating the first true high-speed rail system in the nation. Starting construction in the Central Valley is a cost-effective way to use initial funding. As detailed in Chapter 3, Capital Costs, the per-mile cost of building this section is significantly lower than the cost per mile of construction in developed and densely populated metropolitan areas. Moving ahead in the Central Valley, which is the fastest-growing area of the state, will allow the acquisition of necessary right-of-way before more development occurs, thus avoiding further increases in land costs or re-routing to avoid impacts on newly established residential areas. The state will own this right of way—an asset of more than \$400 million that will increase in value over time.

The first IOS segment will be built using a design-build approach under which the private sector will assume responsibility for completion of design and construction. This will allow the state to transfer significant design, construction, schedule, and cost risks to the private sector and obtain the benefits of the current highly competitive bidding market. Furthermore, construction in the Central Valley is relatively straightforward from a construction standpoint compared to construction in dense urban areas. This allows local contractors to become familiar with the new requirements related to construction of high-speed infrastructure, which should translate into efficiencies in later stages. It also will enable small and disadvantaged businesses to begin developing valuable experience that will help position them to be involved in future extensions to the system.

The segment will become operational by allowing Caltrans to operate expanded San Joaquin service between Bakersfield and Merced on the first IOS section. To achieve this, track connections would be built to connect to the BNSF Railway line at the northern and southern ends of the first constructed segment. Relatively minor investments would be made in rail systems (signaling, positive train control) and other investments to augment the base infrastructure so that the San Joaquin service can operate on it. Combined with improvements described earlier, this would allow trains to travel at speeds up to 125 mph or more in the Central Valley, which would reduce travel times on the San Joaquin service between Northern and Southern California—already one of Amtrak’s five busiest corridors in the country—by at least 45 minutes and likely well over one hour.

Planning for early interim service on the IOS segment is already underway, with the goal of commencing Amtrak operations as soon as possible after construction is complete in 2017. The Authority is already collaborating with its transportation partners to identify and address the technical and policy issues that would be associated with developing early service. Through this process, agreements will be worked out on a range of issues, including how and where the service would operate, how it would be integrated with other systems, and how to transition to revenue HSR service as the IOS is completed.

Exhibit 3-1. Phase 1 construction cost comparison—Draft and Revised Business Plan (YOE\$)



Presentation of capital costs

The capital costs for the high-speed rail system are presented in this chapter in two ways:

- **Constant dollars**—Estimates are initially provided in 2011 dollars to serve as a baseline for conversion to YOE dollars and for comparison with other projects.
- **Year-of-expenditure dollars**—Estimates are then converted into year-of-expenditure dollars by using the baseline 2011 costs and projecting them into the future, using the schedule and implementation approach described in Chapter 2, The Implementation Strategy: Blending, Phasing, Investing in Early Benefits.

A range of costs is associated with each phase of the program because until final environmental approval of all preferred alignments, stations, and maintenance facilities is received, a number of key decisions will remain unresolved. When those decisions are finalized, the final costs also will be determined. For example, for the Central Valley alone, more than 20 alignment options have yet to be finalized, and each option has different costs. To show the range of potential costs, the low cost estimate includes the cumulative lowest cost options, and the high cost estimate includes the cumulative highest cost options, both including environmental mitigation.

Initial Operating Section

The IOS is approximately 300 miles long and will permit operation of high-speed rail from Merced to the San Fernando Valley. In addition to constructing the first segment of the IOS between Merced and Bakersfield and extending the tracks to the San Fernando Valley, the IOS includes passenger stations, maintenance and support facilities, traction electrification systems, and train control and communication systems for the entire system, as well as the necessary high-speed trains required for service. Exhibit 3-3 presents construction costs for the IOS broken out by FRA cost category in 2011 dollars.

Exhibit 3-3. Cost to construct IOS—Central Valley to San Fernando Valley (base year fiscal year 2011 dollars)

FRA Standard Cost Categories	Low-cost Option (millions)	High-cost Option (millions)
10—Track structures and track	\$14,319	\$17,275
<i>Civil (10.04–10.06, 10.08, 10.18)</i>	\$1,470	\$1,712
<i>Structures (10.01–10.03, 10.07)</i>	\$11,719	\$14,298
<i>Track (10.09, 10.10, 10.14)</i>	\$1,132	\$1,267
20—Stations, terminals, intermodal	\$618	\$618
30—Support facilities: yards, shops, administrative buildings	\$433	\$433
40—Sitework, right-of-way, land, existing improvements	\$4,667	\$5,341
<i>Purchase or lease of real estate (40.07)</i>	\$1,461	\$1,523
50—Communications and signaling	\$518	\$559
60—Electric traction	\$1,699	\$1,830
70—Vehicles	\$871	\$871
80—Professional services (applies to categories 10–60)	\$2,805	\$3,309
90—Unallocated contingency	\$935	\$1,103
100—Finance charges	\$0	\$0
Total	\$26,865	\$31,339

Subtotals for information only

Finance, *Engineering News Record* Construction Cost Index historical and forecast indexes, and medium/long-term federal inflation targets.

The planning schedule (Exhibit 3-6) was used to develop year-of-expenditure estimates.

Exhibit 3-6. Construction schedule

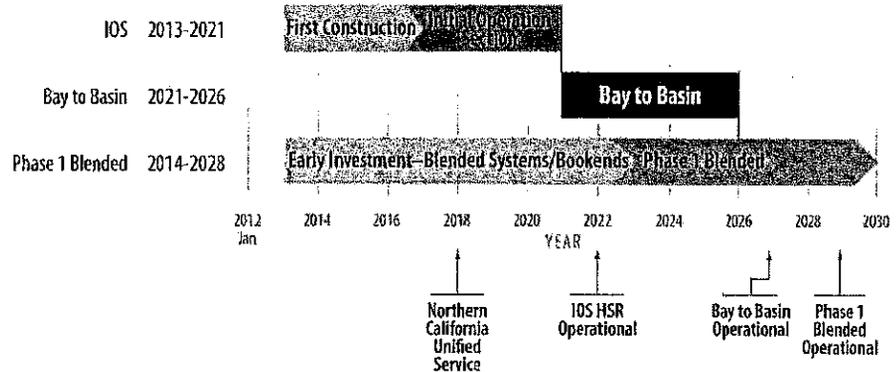


Exhibit 3-7 and Exhibit 3-8 show cost estimates in 2011 and year-of-expenditure dollars for the low-cost options and the high-cost options previously shown in Exhibit 3-3, Exhibit 3-4, and Exhibit 3-5.

Exhibit 3-7. Year-of-expenditure cost for the low-cost options

Section	Incremental Capital Cost (billions 2011\$)	Cumulative Capital Cost (billions 2011\$)	Completion of Section	Incremental Year-of-Expenditure Capital Cost	Cumulative Year-of-Expenditure Capital Cost
IOS	26.9	26.9	2021	31.3	31.3
Bay to Basin	14.4	41.3	2026	19.9	51.2
Phase 1 Blended	12.1	53.4	2028	17.2	68.4

Exhibit 3-8. Year-of-expenditure cost for the high-cost options

Section	Incremental Capital Cost (billions 2011\$)	Cumulative Capital Cost (billions 2011\$)	Completion of Section	Incremental Year-of-Expenditure Capital Cost	Cumulative Year-of-Expenditure Capital Cost
IOS	31.3	31.3	2021	36.6	36.6
Bay to Basin	17.7	49.0	2026	24.3	60.9
Phase 1 Blended	13.3	62.3	2028	18.8	79.7

Funding

Description

A number of risks exist related to funding. Failure to receive the anticipated amount of public funding at the requisite time could threaten the pace of development and ultimately the viability of the full program. In addition, the amount and timing of public funding impacts many other aspects of the program, including the chosen business model, project schedule, phased implementation, staffing and management approach, and technical aspects, such as operating speed and travel time.

Potential impact

The impact to the program could be wide ranging and include the following:

- Delay or inability to complete the program
- Significant increase to program costs
- Loss of stakeholder support

Mitigation and management approach

The Authority acknowledges the risk associated with the receipt of public funding and has taken a number of steps to mitigate and manage this risk. The Authority's risk mitigation and management approach includes the following:

- **Securing backup funding for the full IOS.** The Authority has been working with state stakeholders, including the California Department of Finance, to develop backup funding support for the full IOS should federal funding support fall short of the amount needed to complete the IOS. Cap-and-Trade funds are available, as needed, upon appropriation, as a backstop against federal and local support to complete the IOS. This is a major milestone in the mitigation efforts to decrease the risk related to funding the IOS.
- **Developing the system in functional phases and placing completed sections into immediate service.** The phased implementation of the system mitigates the risk of funding delays by providing decision points for state policy makers to determine how and when the next steps should proceed while leaving a fully operational phase that generates economic benefits. For example, the completion of the first IOS construction segment will be used by Amtrak San Joaquin service and potentially other operators. Similarly, when the gap between Bakersfield and Palmdale is closed, it will be available for immediate use by others. Once the full IOS is commissioned there will be fully operational high-speed rail service that is forecast to generate a strong level of net operational cash flow from the start of operations. This would allow the timing of the schedule to deliver Bay to Basin to be flexible to match the availability of funding. For more information, see Chapter 2, The Implementation Strategy: Blending, Phasing, Investing in Early Benefits.
- **Focusing on maintaining stakeholder support for the program.** This involves, among other things, completing the environmental documentation for the statewide program, achieving 15 percent design for selected ARRA program sections, and environmental processing leading to issuance of the environmental clearance for two program sections.

EXHIBIT “C”

**PROTEST/OPPOSITION STATEMENT
OF
CITIZENS FOR CALIFORNIA HIGH-SPEED RAIL ACCOUNTABILITY
TO
PETITION FOR EXEMPTION OF
CALIFORNIA HIGH-SPEED RAIL AUTHORITY**

Corridor Program Name: CA-MERCED/FRESNOHSR-DESIGN/BUILD Date of Submission: 10/01/09 Version Number: 1

High-Speed Intercity Passenger Rail (HSIPR) Program

Track 2—Corridor Programs:

Application Form

Welcome to the Application Form for Track 2—Corridor Programs of the Federal Railroad Administration's High-Speed Intercity Passenger Rail (HSIPR) Program.

This form will provide information on a cohesive set of projects—representing a phase, geographic segment, or other logical grouping—that furthers a particular corridor service.

Definition: For purposes of this application, a "Corridor Program" is "a group of projects that collectively advance the entirety, or a 'phase' or 'geographic section,' of a corridor service development plan." (Guidance, 74 Fed. Reg. 29904, footnote 4). A Corridor Program must have independent utility and measurable public benefits.

In addition to this application form and required supporting materials, applicants are required to submit a Corridor Service Overview.

An applicant may choose to represent its vision for the entire, fully-developed corridor service in one application or in multiple applications, provided that the set of improvements contained in each application submitted has independent utility and measurable public benefits. The same Service Development Plan may be submitted for multiple Track 2 Applications. Each Track 2 application will be evaluated independently with respect to related applications. Furthermore, FRA will make its evaluations and selections for Track 2 funding based on an entire application rather than on its component projects considered individually.

We appreciate your interest in the HSIPR Program and look forward to reviewing your entire application. If you have questions about the HSIPR program or the Application Form and Supporting Materials for Track 2, please contact us at HSIPR@dot.gov.

Instructions for the Track 2 Application Form:

- Please complete the HSIPR Application electronically. See Section G of this document for a complete list of the required application materials.
- In the space provided at the top of each section, please indicate the Corridor Program name, date of submission (mm/dd/yyyy), and an application version number assigned by the applicant. The Corridor Program name must be identical to the name listed in the Corridor Service Overview Master List of Related Applications. Consisting of less than 40 characters, the Corridor Program name must consist of the following elements, each separated by a hyphen: (1) the State abbreviation of the State submitting this application; (2) the route or corridor name that is the subject of the related Corridor Service Overview; and (3) a descriptor that will concisely identify the Corridor Program's focus (e.g., HI-Fast Corridor-Main Stem).

the subsequent 800-mile Full System adding Sacramento and San Diego. (See map in Supporting Documents.) A brief description of the California HST system follows the Merced/Fresno Design/Build narrative; more extensive information is contained in the CA-Phase I HSR Program-PE/NEPA/CEQA application, and on the Authority's website www.cahighspeedrail.ca.gov.

The Merced/Fresno corridor would start south of downtown Merced in the vicinity of the Mission Avenue and SR99 junction, close to the existing UPRR line which it will parallel to a junction with the high-speed line coming in from the west from the Bay Area. (The exact site, expected between Chowchilla and Fresno, is to be finalized in the PE/CEQA/NEPA work). The corridor design and construction will make provision for this high-speed connection, and will continue southward to the north side of Fresno ending before SR180 close to the UPRR line through Fresno. The corridor will also be coordinated with the continuation sections north and south to the new HST stations in Merced and Fresno. These require significant lengths of specialized viaduct and structure for high-speed service and will be funded outside this Program request.

The line will be built predominantly at-grade with roads that cross the line placed on a new bridge over the high-speed line, and where appropriate over the adjacent UPRR and parallel roads, or consolidated with these new bridge crossings. Approximately five existing major road crossings of the UPRR main line will be separated, and 11 will be consolidated with them. Additional stream, small river, and other crossings will be built on culverts or short bridges capable of handling high-speed 220 mph service as planned, as well as heavier US-standard passenger trains at 125 mph. Unlike the long structures needed in the metro Fresno and Merced sections, the cost for the added strength for heavier trains on these short structures is less than 5% of their cost and is included in the Program. Equally important, the cost of building at-grade alignment, with suitable sub-grade preparation for both high-speed light-weight operation as planned and 125 mph heavier trains is not significantly more than for the former alone.

The Program will fund the full alignment, sub-grade preparation and track structure to operate light-weight trains at the design speeds of over 220 mph, as well as the heavier US-standard passenger trains at 125 mph. Train controls and communications, and line electrification will be provided suitable space by the Program, but their installation will be done in separate funding.

In addition to the final design and construction of the line described above, the Program will fund acquisition of: land for the alignment, temporary easements for access and construction activities, and land needed for storage of equipment and materials for periodic maintenance and renewal of the alignment. However the Program will not acquire land that may be identified in the PE/CEQA/NEPA work preceding this design/build Program for electric power substations and related facilities outside of the standard alignment right of way, or for central control and vehicle maintenance activities that may be identified in the pre-construction work above.

The statewide system will provide a new state-of-the-art intercity transportation service.

The California HST program will be a new transportation service creating major benefits for mobility, economic activity, air quality, and land use development, as documented in the 2005 CAHST Statewide Program EIS/EIR and the 2008 Bay Area-Central Valley Program EIS/EIR.

Existing commuter, Amtrak, and freight rail services will benefit from grade separations, fencing and other safety improvements where services closely parallel each other. Amtrak, commuter rail, and other transit services will see growth in traffic where HST travelers use them to get to and/or from their final destinations.

In fully implementing the new system, a new fleet of FRA-approved trainsets will be capable of reliable and safe 220 mph day-to-day operation. Schedules, up to five times faster than current rail services, would be competitive with air in many major markets. A California-specific fare structure may include different fares based on class of service and reflect time of day, week, and seasonal peaks, as well as advance booking. In general fares will be higher than current rail and bus fares and driving cost, reflecting value in time saved, but not higher than air fares. Service quality will be a major improvement over current modes of transportation, with near 100% on time performance, smooth comfortable rides, and the highest safety of any mode, as shown by the nearly 50 years of fatality-free high-speed rail transportation in Japan. Station amenities will be appropriate for the various user markets.

Formal planning of the HST has been a continuous process of over a decade.

Following implementation attempts in the 1980s, state studies and a temporary commission, a permanent state agency – the California High-Speed Rail Authority – was established in 1996 to move high-speed rail forward. The Authority conducted a state-wide planning effort, bringing in local/regional MPOs, cities, and other interested parties, then a formal EIS/EIR process with the FRA as federal lead agency and with state appropriations paying the cost of developing the Statewide Programmatic EIS/EIR Federal Record of Decision and State Notice of Decision issued in 2005. The subsequent Bay Area-Central Valley Program EIS/EIR was finished in July 2008.

The California HST Corridor Program is included in the State Long Range Transportation Improvement Plan, and the State Rail Plan, as well as in MPO plans for the Bay Area MTC, SACOG, Central Valley, SCAG, SANBAG, and SANDAG.

The Merced/Fresno Corridor Program provides independent utility.

In the event of significant delays or abandonment of the HST program, the Merced/Fresno Program would have created rail crossing benefits, as well as provided the potential for significant improvement to the existing San Joaquin intercity passenger rail

service operated by Amtrak and underwritten in part by the state.

The HST cost-effectively meets Purpose and Need as defined in the Bay Area–Central Valley statewide program EIR/EIS.

The high-speed train system will cost about half as much to build as alternative investments providing the same capacity—about 3,000 freeway miles, five airport runways, and 90 departure gates over the next two decades. The HST will provide reliable and rapid service to the major areas of the state from northern to southern California.

The California HST will use technologies that are decidedly innovative for US passenger rail network, although proven in high-speed rail passenger service around the globe. These include full grade separation, trainsets, control systems, other core system elements, structure design and construction practices, intrusion and hazards detection, operations rules, and preventive maintenance practices that provide the highest level of safety assurance and allow safe operations at speeds today of 320 kph, and planned operations at 350 kph (220 mph).

Opportunities for shared use of railroad rights-of-way and public lands will be of mutual benefit.

Use of railroad properties in this corridor is mostly limited to opportunities for sharing corridors and rights-of-way. The Authority will reach agreement with each private or public railroad or asset owner and will not involve operation on tracks used by operating railroads in this corridor.

Use of public lands is generally limited to grade-separated crossings of public roads and highways and use of rail facilities designed for the HST. Agreements will be reached with each public owner on terms and conditions of use.

The Phase 1 System will provide service from San Francisco to Anaheim; the Full System will include extensions to Sacramento and San Diego.

The Phase 1 System will operate over a 520-mile length from the San Francisco Transbay Terminal to Anaheim. Stations to be considered include: San Francisco (Transbay Terminal and potentially 4th & King for some service); Millbrae; Redwood City or Palo Alto options; San Jose Diridon Station; Gilroy or Morgan Hill; Merced; Fresno; Potentially Visalia/Hanford; Bakersfield; Palmdale or Lancaster; Sylmar or Santa Clarita; Burbank; LAUS; Norwalk or Fullerton; and ARTIC.

The Full System will extend service from Sacramento to Merced, and from Redondo Junction into San Diego. Stations to be considered include: Sacramento; Stockton; Modesto; City of Industry; Ontario; Riverside or Corona or San Bernardino; Murrieta; Escondido; University City; and San Diego (downtown Santa Fe or new Lindberg intermodal facility).

The Authority is poised for and capable of managing the construction and operations.

The California HST System will be built with a mix of state, federal, private, and local funds, under the direction of the Authority, a state agency. The state will acquire and own the right-of-way, using its eminent domain power as needed. The infrastructure and systems will be built and installed in a series of competitively tendered design-build packages, some of which may include maintenance and/or operations of the system. The Authority, with its management team of experienced high-speed rail planning, engineering, and construction management consultant firms, has the organizational structure and the capacity to move the HST system into construction and operations.

(5) Describe the service objective(s) for this Corridor Program (check all that apply):

- Additional Service Frequencies
- Improved Service Quality
- Improved On-Time performance on Existing Route
- Reroute Existing Service
- Increased Average Speeds/Shorter Trip Times
- New Service on Existing IPR Route
- New Service on New Route
- Other (Please Describe): HST on fully-grade separated, dedicated tracks designed to 250-mph

(6) Right-of-Way-Ownership. Provide information for all railroad right-of-way owners in the Corridor Program area. Where railroads currently share ownership, identify the primary owner. *If more than three owners, please detail in Section F of this application.*

Type of Railroad	Railroad Right-of-Way Owner	Route Miles	Track Miles	Status of agreements to implement projects
Class 1 Freight	Adjacent to but not in UPRR Right-of-Way	50	50	Host Railroad Consulted, but Support no

delivering projects on-time and on-budget. The Authority will use traditional performance bonding and create incentives for contractors to fulfill contract obligations. Additionally, CHSRA will address potential jurisdiction of the Surface Transportation Board (STB) over any aspect(s) of the HST project and work to ensure timely completion all prospective regulatory oversight responsibilities consistent with the project delivery schedule.

The Authority's construction staging approach will provide independent utility sections that could function as operable segments prior to Phase 1 completion. This will further mitigate stakeholder risk.

- Frequency of Service (stations served, stopping patterns per hour during peak and off peak period);
- Travel Time Objectives (between city pairs);
- On Time Performance Targets (number of trains arriving at their final terminal stations on time as a percent of total trains operated);
- Service Quality Standards (e.g., cleanliness of interior and exterior of trains and stations, on board announcements, station announcements etc.);
- Operating and Safety Rules Qualification & Compliance; and
- Efficiency and Cost Effectiveness.

Service, operations and safety performance-based categories will be defined with quantified measureable objectives and there may be incentives for innovative approaches and for exceeding certain performance goals.

As explained above, it is intended that the operator franchise will submit a financial plan which will contribute to the building and/or operations of the line.

2C. Selection of Operator – If the proposed operator railroad was not selected competitively, please provide a justification for its selection, including why the selected operator is most qualified, taking into account cost and other quantitative and qualitative factors, and why the selection of the proposed operator will not needlessly increase the cost of the Corridor Program or of the operations that it enables or improves. *Please limit response to 3,000 characters.*

Not applicable.

2D. Other Stakeholder Agreements – Provide relevant information on other stakeholder agreements including State and local governments. *Please limit response to 3,000 characters.*

To complement high-speed train service in California, the Authority is pursuing partnerships with local and regional agencies and transit providers to propose mutually beneficial or joint use relationships. In addition to the Memorandum of Understanding (MOU) and Cooperative Agreements (CA with owners of right of way or potential operating agreements, the Authority has worked proactively to engage every area that will benefit from high-speed rail service in the state. The following represents a list of local entities with whom the Authority has engaged in an MOU or CA, related to the Merced-Fresno section:

- Council of Fresno County Governments and the Authority entered into a cooperative agreement to provide funding for the Authority to study possible rail consolidation and its impacts on the high-speed system. The Fresno County of Governments agreed to reimburse the Authority for the costs associated with the study in the corridor not to exceed \$250,000.

In addition to stakeholder agreements from local governments, the Authority has signed MOUs with the relevant foreign governments including the following:

- Ministry of Land, Infrastructure and Transport of Japan
- German Ministry of Transport, Building and Housing
- Italian Ministry of Infrastructure and Transportation
- French Ministry for Ecology, Energy, Sustainable Development and Land Planning
- Spanish Ministry of Development

2E. Agreements with operators of other types of rail service - Are benefits to non-intercity passenger rail services (e.g., commuter, freight) foreseen? Describe any cost sharing agreements with operators of non-intercity passenger rail service (e.g., commuter, freight). *Please limit response to 3,000 characters.*

An initial MOU with Burlington Northern for the LOSSAN corridor and Central Valley to exchange information has been signed. The Authority is currently working with Burlington Northern to establish a more detailed MOU dealing with the operations within their boundaries and the rules and regulations that are needed.

The Authority is similarly working with the California Division of Rail concerning operating rules and regulations as they are affected in the LOSSAN corridor and the Central Valley.

(3) Financial Information

3A. Capital Funding Sources. Please provide the following information about your funding sources (if applicable).

EXHIBIT “D”

**PROTEST/OPPOSITION STATEMENT
OF
CITIZENS FOR CALIFORNIA HIGH-SPEED RAIL ACCOUNTABILITY
TO
PETITION FOR EXEMPTION OF
CALIFORNIA HIGH-SPEED RAIL AUTHORITY**



CRAIG KOHLRUSS/THE FRESNO BEE

A rider boards a southbound San Joaquin Amtrak train Monday. Amtrak's San Joaquin trains posted a record year in 2012, attracting more than 1.1 million riders in the federal fiscal year that ended Sept. 30. That's up 7.2% over 2011. *FRESNO BEE 1/2/13*

By Tim Sheehan
The Fresno Bee

Amtrak's San Joaquin line, the Valley's only passenger train service, posted record ridership in 2012, attracting more than 1.1 million passengers last year.

The record number of people riding the rails comes even as controversy continues to boil over plans to run high-speed trains through the region from San Francisco to Los Angeles.

The Amtrak San Joaquins — six daily trains northbound and six southbound between Bakersfield and the Bay Area and Sacramento — also saw revenue from ticket sales rise in the 2012 fiscal year to about \$38.7 million. That's a boost of about \$3 million, or 8.3%, over 2011.

The growth in ridership on the Valley trains corresponds to similar increases seen by Amtrak nationwide — a record 31.2 million passengers, said Christina Leeds, an Amtrak spokeswoman.

Much of the growth nationwide was

in the Northeast Corridor and on the West Coast. Three of Amtrak's six busiest corridors were in California — the Pacific Surfliner trains that run from San Diego to San Luis Obispo, the Capitol Corridor line that links Sacramento to San Jose, and the San Joaquins, which saw a 7.2% jump in ridership.

Amtrak attributes the growth to improving passenger services including e-tickets and WiFi aboard its trains, and travelers who are weary of high fuel prices for automobiles as well as congested highways and airports.

Amtrak's station in downtown Fresno, along the BNSF Railway tracks near Fresno City Hall, saw a significant increase in passenger activity on the 12 daily trains that ply the San Joaquin Corridor.

Amtrak reported that more than 394,000 passengers either boarded or got off trains in Fresno last year, up from almost 372,000 in 2011. Passenger counts also increased at all of the other

See **AMTRAK**, Page A4

Amtrak California ridership, revenue

Train ridership on Amtrak's San Joaquin line reached more than 1.1 million last year — a record for the route.

Service	2012		2011	
	Ridership	Revenue	Ridership	Revenue
Pacific Surfliner	2,640,342	\$58.6 mil	2,786,972	\$55.3 mil
Capitol Corridor	1,746,397	\$27.9 mil	1,708,618	\$25.7 mil
San Joaquin	1,144,616	\$38.7 mil	1,067,441	\$35.7 mil
San Joaquin station boardings / alightings			2012	2011
	Sacramento*		1,186,958	1,175,046
	Lodi		8,439	7,422
	Stockton (downtown)		40,056	38,401
	Stockton (San Joaquin St.)		277,926	260,115
	Modesto		118,226	104,647
	Merced		125,316	114,401
	Madera		24,770	21,739
	Fresno		394,074	371,875
	Hanford		210,682	199,291
Corcoran		29,072	27,424	
Wasco		21,117	18,209	
Bakersfield		507,058	476,767	

* Sacramento serves both the San Joaquin and Capitol Corridor lines

Source: Amtrak

THE FRESNO BEE

AMTRAK

Continued from A1

istle-stops in the central San Joaquin Valley, including Merced, Madera, Hanford and Corcoran.

Yet despite the rising ridership and revenue from ticket sales, the San Joaquins — along with Amtrak's other California lines and many others across the country — remain money-losing propositions. In its 2013 budget projections, the National Railroad Passenger Corp. — the formal name for Amtrak — estimated a loss of \$5.79 for every passenger riding on the San Joaquin trains.

Of 45 Amtrak passenger train lines across the U.S., only five make money. Among the money losers, only three lose less per passenger than the San Joaquins.

The San Joaquins, along with the Pacific Surfliner and Capitol Corridor trains, are run by Amtrak under contracts with Cal-

trans, the U.S. Department of Rail, which subsidizes the service. Caltrans supports the San Joaquin Corridor to the tune of about \$90 million a year.

Valley leaders are maneuvering to take policy-making decisions from Caltrans by forming a new regional rail agency, the San Joaquin Joint Powers Authority. The authority would be modeled after the Capitol Corridor, a similar joint agency comprising transportation agencies along that route.

Amtrak's San Joaquin line has grown from eight trains per day in 1998 to 12 last year under the California Department of Transportation's rail administration.

But the Capitol Corridor line quadrupled during the same time, from eight daily trains to 32, under a consortium of Sacramento-area rail leaders who wrested control from the state and became more responsive to travelers' needs, say Valley officials

who hope to do the same.

Local control could "result in improved service and increases in ridership and revenue," Modesto Mayor Garrad Marsh wrote in a letter to Gov. Jerry Brown. Marsh also predicted more jobs and better air quality with improved train service.

Six of the region's transportation agencies must sign on to make the new authority a reality. Five in the north end of the corridor — from Contra Costa, Merced, Sacramento, San Joaquin and Stanislaus counties — already have agreed.

Fresno, Tulare, Madera and Alameda counties have yet to vote. Those in Kings and Kern counties, where opposition to high-speed rail runs high, may not go along, but their participation is not required.

So sure are leaders of a sixth partner joining in January or February that the

future authority has scheduled a March 22 public kickoff meeting in Merced.

The local push to take over the San Joaquin Corridor is not directly related to high-speed rail, although the bullet-train system would lean on regional commuter rail lines to bring passengers to it.

Smaller towns along the route fear that the California High-Speed Rail Authority's proposed plans will not only bypass their communities but also close down the Amtrak service on which their residents rely.

Earlier this year, however, Caltrans officials pledged to maintain Amtrak service on the existing corridor.

► Modesto Bee staff writer Garth Stapley contributed to this report. The reporter can be reached at (559) 441-6319, tsheehan@fresnobee.com or @tsheehan on Twitter.

FURNITURE REFINISHING
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EXHIBIT “E”

**PROTEST/OPPOSITION STATEMENT
OF
CITIZENS FOR CALIFORNIA HIGH-SPEED RAIL ACCOUNTABILITY
TO
PETITION FOR EXEMPTION OF
CALIFORNIA HIGH-SPEED RAIL AUTHORITY**

GAO

Testimony
Before the Committee on
Transportation and Infrastructure,
House of Representatives

For Release on Delivery
Expected at 9:30 a.m. EST
Thursday, December 6, 2012

**HIGH-SPEED
PASSENGER RAIL**

**Preliminary Assessment of
California's Cost Estimates
and Other Challenges**

Statement of Susan A. Fleming, Director
Physical Infrastructure Issues



G A O

Accountability * Integrity * Reliability

awarded for the initial construction in the Central Valley in 2013. The bids for the first 30-mile construction package are due in January 2013 and will provide a check on how well the Authority has estimated the costs for this work as well as provide more information on potential risks that cost estimates of future segments may encounter.

California High-Speed Rail Project Faces Financial and Other Challenges

In addition to challenges in developing reliable cost estimates, the California high-speed rail project also faces other challenges. These include obtaining project funding beyond the first construction segment, continuing to refine ridership and revenue estimates beyond the current forecasts, and addressing the potential increased risks to project schedules from legal challenges associated with environmental reviews and right-of-way acquisitions.

Challenges To Securing Project Funding

One of the biggest challenges facing California's high-speed rail project is securing funding beyond the first construction segment. While the Authority has secured \$11.5 billion from federal and state sources for project construction, almost \$57 billion in funding remains unsecured. A summary of funding secured to-date can be found in Table 1.

Table 1: Funding Secured for Constructing the High-Speed Rail Project

(Dollars in billions)	
State high speed rail bonds	\$8.2 ^a
Federal HSIPR grants	3.3 ^b
Total secured funding	\$11.5

Source: GAO analysis of FRA grant information and the California High Speed Rail Authority April 2012 Revised Business Plan.

^aThe Authority expects approximately \$8.2 billion in proceeds from the \$9.95 in authorized Proposition 1A high-speed rail bonds to be available for construction of high-speed rail. The remainder is for connectivity projects and engineering and environmental work.

^bApproximately \$3.3 billion of \$3.5 in obligated HSIPR grants is available for construction of high-speed rail project. The remainder is for engineering and environmental work.

As with other large transportation infrastructure projects, including high-speed rail projects in other countries, the Authority is relying primarily on public financial support, with \$55 billion or 81 percent of the total construction cost, expected to come from state and federal sources. A summary of the Authority's funding plan can be found in table 2.

Table 2: California's Funding Plan for Construction of the High-Speed Rail Project, according to the April 2012 Revised Business Plan

(Dollars in billions)

Funding source	First construction	Initial operating segment	Bay-to-Basin	Phase 1 blended	Total	
Federal	\$3.3	\$20.3	\$8.4	\$10.0	\$42.0	(61%)
State high-speed rail bond	2.7	4.4	0.0	1.1	8.2	(12)
Locally generated	0.0	0.7	1.2	3.1	5.0	(7)
Subtotal public	6.0	25.4	9.6	14.2	55.2	(81%)
Private investment	0.0	0.0	10.1	3.0	13.1	(19)
Operating cash flow	0.0	0.0	0.2	0.0	0.2	(0)
Subtotal private investment and operating cash flow	0.0	0.0	10.3	3.0	13.3	(19%)
Total	\$6.0	\$25.4	\$19.9	\$17.2	\$68.5	(100%)

Source: GAO analysis of California High Speed Authority's April 2012 revised business plan.

Of the total \$55 billion in state and federal funding, about \$38.7 billion are uncommitted federal funds, an average of over \$2.5 billion per year over the next 15 years. Most of the remaining funding is from unidentified private investment once the system is operational—a model that has been used in other countries, such as for the High Speed One line in the United Kingdom. As a result of the funding challenge, the Authority is taking a phased approach—building segments as funding is available. However, given that the HSIPR grant program has not received funding for the last 2 fiscal years and that future funding proposals will likely be met with continued concern about federal spending, the largest block of expected funds is uncertain. The Authority has identified revenues from California's newly implemented emissions cap and trade program in the event other funding is not made available, but according to state officials, the amounts and authority to use these funds are not yet established.¹⁷

¹⁷California's Legislative Analyst's Office has evaluated the risks of applying cap and trade revenues to the high-speed rail project. See Legislative Analyst's Office, *The 2012-2013 Budget: Funding Requests for High Speed Rail* (Sacramento, CA: Apr. 17, 2012).

EXHIBIT “F”

**PROTEST/OPPOSITION STATEMENT
OF
CITIZENS FOR CALIFORNIA HIGH-SPEED RAIL ACCOUNTABILITY
TO
PETITION FOR EXEMPTION OF
CALIFORNIA HIGH-SPEED RAIL AUTHORITY**



Committee on Transportation and Infrastructure
U.S. House of Representatives

Bill Shuster
Chairman

Washington, DC 20515

Nick J. Rahall, III
Ranking Member

Christopher P. Bertram, Staff Director

February 22, 2013

James H. Zeln, Democrat Staff Director

The Honorable Daniel R. Elliot III
Chairman
Surface Transportation Board
395 E St., SW
Washington, DC 20423

Dear Chairman Elliott:

I write as Chairman of the Subcommittee on Railroads, Pipelines, and Hazardous Materials regarding the California High-Speed Rail Authority's (Authority) planned construction of a passenger rail line to connect the San Francisco Transbay Terminal to Los Angeles Union Station (project). As you may know, the Authority expects to begin construction on the initial construction segment of the project this summer.

Under the Interstate Commerce Act, as amended, the Surface Transportation Board (Board) must approve the construction and operation of rail lines. The Board has jurisdiction over such activity if it involves transportation by rail carriers (1) between a place in a state and a place in another state, and (2) between a place in a state and another place in the same state, as long as it is carried out as part of the interstate rail network. I understand that whether the Board has jurisdiction over construction and operation of an intrastate passenger rail line is a fact-specific determination. Therefore, in similar situations in the past, entities have come before the Board to determine jurisdiction and, if necessary, apply for construction authority prior to beginning any construction-related activities.

As I understand it, the Authority has not sought such a determination by the Board regarding its proposed project. The Authority's *California High-Speed Rail Program Revised 2012 Business Plan* states, however, that the project will connect to Amtrak, and existing intercity passenger rail service, and provide coordinated ticketing and marketing. While I pass no judgment on whether the Board has jurisdiction over the construction of the project—indeed, that is a determination properly left to the Board—I believe it is imperative that the authorities set forth in the Interstate Commerce Act, including the requirement for construction authority, be followed. I therefore request that the Board take all reasonable action to ensure the Authority is complying with the Interstate Commerce Act.

If you or your staff have any questions or need further information, please contact [REDACTED]
[REDACTED] of the Subcommittee on Railroads, Pipelines, and Hazardous Materials at [REDACTED]

Sincerely,

A handwritten signature in black ink, appearing to read "JD", written over a faint, illegible background.

Jeff Denham

Chairman

Subcommittee on Railroads, Pipelines, and Hazardous
Materials

EXHIBIT “G”

**PROTEST/OPPOSITION STATEMENT
OF
CITIZENS FOR CALIFORNIA HIGH-SPEED RAIL ACCOUNTABILITY
TO
PETITION FOR EXEMPTION OF
CALIFORNIA HIGH-SPEED RAIL AUTHORITY**



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

Grant/Cooperative Agreement

1. RECIPIENT NAME AND ADDRESS California High-Speed Rail Authority 925 L St Ste 1425 Sacramento, CA 95814-3704		2. AGREEMENT NUMBER: FR-HSR-0009-10-01-05	3. AMENDMENT NO. 5
1A. IRS/VENDOR NO.		4. PROJECT PERFORMANCE PERIOD: FROM 08/17/2010 TO 09/30/2017	
1B. DUNS NO. 011075376		5. FEDERAL FUNDING PERIOD: FROM 08/17/2010 TO 09/30/2017	
7. CFDA#: 20.319	6. ACTION Administrative Supplement/Change		
8. PROJECT TITLE California High-Speed Train Program ARRA Grant	9. TOTAL OF PREVIOUS AGREEMENT AND ALL AMENDMENTS		2,552,556,231.00
	10. AMOUNT OF THIS AGREEMENT OR AMENDMENT		0.00
	11. TOTAL AGREEMENT AMOUNT		2,552,556,231.00
12. INCORPORATED ATTACHMENTS THIS AGREEMENT INCLUDES THE FOLLOWING ATTACHMENTS, INCORPORATED HEREIN AND MADE A PART HEREOF: Amended Terms and Conditions, Attachment 1			
13. STATUTORY AUTHORITY FOR GRANT/ COOPERATIVE AGREEMENT American Recovery and Reinvestment Act of 2009, Public Law 111-5 (February 17, 2009)			
14. REMARKS			
GRANTEE ACCEPTANCE		AGENCY APPROVAL	
15. NAME AND TITLE OF AUTHORIZED GRANTEE OFFICIAL Mr. Jeff Morales		17. NAME AND TITLE OF AUTHORIZED FRA OFFICIAL Ms. Gina Matrassi-ao	
16. SIGNATURE OF AUTHORIZED GRANTEE OFFICIAL Electronically Signed	16A. DATE 12/05/2012	18. SIGNATURE OF AUTHORIZED FRA OFFICIAL Electronically Signed	18A. DATE 12/05/2012
AGENCY USE ONLY			
19. OBJECT CLASS CODE: 41010		20. ORGANIZATION CODE: 9013000000	
21. ACCOUNTING CLASSIFICATION CODES			
DOCUMENT NUMBER	FUND	BY	BPAC
FR-HSR-0009-10-01-00	2709120718	2010	91010029Y0
FR-HSR-0009-10-01-00	2709120718	2011	91010029Y0
			AMOUNT
			0.00
			0.00

3. OMB Circular A-122, “Cost Principles for Nonprofit Organizations” (applies to private non-profit organizations)
4. Federal Acquisition Regulation, 48 C.F.R. Chapter I, Subpart 31.2, “Contracts with Commercial Organizations” (applies to for-profit organizations)

These identified circulars and regulations are hereby incorporated into this Agreement by reference as if fully set out herein.

17. Buy America:

The Grantee shall comply with the Buy America provisions set forth in 49 U.S.C. §24405(a) for the Project requiring the use of steel, iron, and manufactured goods produced in the United States, in accordance with the conditions therein set forth.

2. Attachment 1A is deleted in its entirety, and the following is substituted therefor:

PRIIA Clauses for Corridor Programs, Attachment 1A

Section 1. Railroad Agreements.

The Grantee represents that it has entered into and will abide by, or will enter into and abide by, a written agreement, in form and content satisfactory to FRA, with any railroad owning property on which the Project is to be undertaken, in accordance with 49 U.S.C. 24405(c)(1) and section 4.2.6 of the High Speed Intercity Passenger Rail (HSIPR) Program Interim Guidance published in the Federal Register on July 1, 2010 (75 FR 38344). Such agreement shall provide for compensation for use, assurance regarding the adequacy of infrastructure capacity, a commitment to keeping railroad collective bargaining agreements in full force and effect, and compliance with liability requirements consistent with 49 U.S.C. 28103. The Grantee shall not enter into or agree to any substantive changes to the FRA approved written agreement with the railroad on which the Project is undertaken without FRA’s prior written consent. The Grantee may not obligate or expend any funds (federal, state or private) for final design and/or construction of the Project, or commence any part of the final design and/or construction for the Project, or any component of the Project, without receiving FRA’s prior written approval of the executed railroad agreement satisfying the requirements of this section.

Section 2. Service Outcome Agreements with Infrastructure Owners and Operators.

a. The Grantee represents that it has or will have satisfactory continuing control over the use of Project improvements and the capability and ability to maintain the Project improvements for the useful life of the Project, in accordance with 49 U.S.C. 24402(b)(1) and (c)(1)(B). Satisfactory continuing control may be established by either the direct ownership of Project improvements or through a written agreement(s) in form and content satisfactory to FRA with the owners of infrastructure on which the Project is to be undertaken and the proposed service operator of any rail passenger service that benefits

EXHIBIT “H”

**PROTEST/OPPOSITION STATEMENT
OF
CITIZENS FOR CALIFORNIA HIGH-SPEED RAIL ACCOUNTABILITY
TO
PETITION FOR EXEMPTION OF
CALIFORNIA HIGH-SPEED RAIL AUTHORITY**

Submission 586 (Jerry S. Wilmoth, Union Pacific Railroad, October 12, 2011)



Jerry Wilmoth
General Manager Network Infrastructure

California High-Speed Rail Authority
Re: UPRR Comments to Merced to Fresno Draft EIR/EIS
October 12, 2011
Page - 2

586-1

October 12, 2011

California High-Speed Rail Authority
770 L Street, Suite 800
Sacramento, CA 95814

Re: Union Pacific Railroad Comments to Merced to Fresno Draft EIR/EIS

Dear High-Speed Rail Authority:

Union Pacific Railroad Company (Union Pacific) submits the following comments related to the Merced to Fresno Draft Environmental Impact Report/Statement (DEIR) in accordance with the guidelines on the California High-Speed Rail Authority's (Authority) website. Replies or requests for additional information from Union Pacific should be addressed to the undersigned.

1. Failure to Accurately and Consistently Address Union Pacific's Property Rights.

As Union Pacific has already stated in previous comments, no part of the high-speed rail system may be located on Union Pacific's property. This has not changed -- Union Pacific requires preservation of its entire operating right of way.

One of the difficulties in reviewing the DEIR is that it contains incomplete and contradictory information about property issues touching on Union Pacific's rights. While the DEIR makes statements about not encroaching on Union Pacific's property, its drawings show unmistakable encroachments in the Fresno and Merced station areas. A stark example is an emergency vehicle access road for the Authority's use that would be located on the Union Pacific right of way near the Fresno station. The Authority's plans show this emergency vehicle access road crossing Union Pacific's mainline tracks at grade at two locations. For safety and public policy reasons, Union Pacific opposes the addition of any new grade crossings over its tracks.

Another example of a possible encroachment is that drawings related to the BNSF Alternative are mislabeled in a way that shows part of Union Pacific's right of way belonging to BNSF. This error misleads a person reviewing the plans to believe that the high-speed rail alignment will be adjacent to BNSF right of way along a three-mile stretch leading into the Merced station when in fact this section of the high-speed rail alignment is adjacent to Union Pacific's property.

Other examples of encroachments and inconsistencies exist, but it is not possible to fully evaluate and comment on them because the Authority's materials do not provide sufficient detail to identify property lines and measurements. This is a pervasive problem throughout the DEIR. From Union Pacific's review, it does not appear that right of way boundaries are depicted on any of the Authority's maps, and they are shown with insufficient precision on its drawings. To offer one example of the problem, Sheet T3003-A depicts features near the proposed Merced station. The drawing makes no reference to Union Pacific property or facilities, but this station would be located immediately adjacent to and apparently encroach upon the Union Pacific right of way. Remarkably, the DEIR does not address the extent of such potential acquisitions. To the contrary, it states that the plans call for no encroachments at all and relies on avoidance of encroachments as a basis for avoiding environmental impacts.

As a further example of this kind of inconsistency, the DEIR asserts that encroachments will be avoided while also stating that the project design "[u]ses shared right-of-way when feasible." (DEIR Executive Summary, p. S-9.) While this statement may be intended to refer to sharing right of way with other operators, the DEIR does not say so. Clarity on this point is essential.

2. Failure to Acknowledge Acquisitions for Eminent Domain Purposes.

Union Pacific reserves the right to make further comments and defend its interests against any eminent domain or other action related to the Authority's plans that would involve an encroachment upon or acquisition of Union Pacific's operating property. Union Pacific will not surrender or convey any property that could be used to support freight railroad operations.

Compliance with the California Environmental Quality Act (CEQA) is a prerequisite for the exercise of eminent domain authority. Accordingly, the Authority cannot attempt to condemn any Union Pacific property in reliance on an EIR that claims to avoid any acquisitions of such property. If this document is finalized without addressing such acquisitions and the Authority later wishes to pursue condemnation, a Supplemental EIR/EIS would be necessary.

3. Failure to Evaluate Impacts of Alignments Adjacent to Union Pacific's Right of Way.

There are three alternative high-speed rail alignments identified between Merced and Fresno: the UPRR/SR 99 Alternative, the BNSF Alternative, and the Hybrid Alternative. All three alternative alignments are adjacent to Union Pacific's Fresno Subdivision in the Fresno and Merced areas. In the Fresno area, the high-speed rail line passes over Union Pacific's main line at Herndon (San Joaquin River) and parallels the railroad's right of way on the west all the way into the Fresno station. At Merced the BNSF alternative utilizes the west side of Union Pacific's right of way from the south city limits.

The UPRR/SR 99 alternative is adjacent to Union Pacific almost the entire distance between these station areas. The BNSF alternative is adjacent to BNSF's main line between these areas. The Hybrid alternative is essentially the UPRR/SR 99 alignment with a wide bypass around downtown Madera, some of which would utilize the BNSF main line.

In short, even if there were no encroachments, all three alternatives would materially impact Union Pacific's right of way and operations. Yet the DEIR fails to recognize or evaluate any potential impacts, temporary or permanent, on Union Pacific's operations.

586-1

UNION PACIFIC RAILROAD 10021 Foothills Blvd., Roseville, CA 95747 ph. (916) 789-9266

UNION PACIFIC RAILROAD 10021 Foothills Blvd., Roseville, CA 95747 ph. (916) 789-6360



CALIFORNIA
High-Speed Rail Authority



U.S. Department
of Transportation
Federal Railroad
Administration

Submission 586 (Jerry S. Wilmoth, Union Pacific Railroad, October 12, 2011) - Continued

California High-Speed Rail Authority
Re: UPRR Comments to Merced to Fresno Draft EIR/EIS
October 12, 2011
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As the HST alternatives do not encroach on the freight rail corridors, they would not have a direct effect on freight operations. After construction, freight operation would continue as it currently does and vehicle miles would change in accordance with service plans of the UPRR and BNSF. No effects on freight rail operations are anticipated. DEIR Section 3.2 Transportation, p. 36.

This conclusion is false. All three alternative alignments place the high-speed rail line immediately adjacent to Union Pacific's main line at various locations. Such placement permanently forecloses any expansion by Union Pacific on that side of its right of way. This would include both capacity expansion and new spurs to industrial and agricultural shippers.

Moreover, the DEIR is vague about just how close the project alignment would be to Union Pacific's line. Under the heading of "UPRR Adjacency" (p. 2-41), the DEIR states that "the alternative is designed to avoid the existing UPRR operations right-of-way and active rail spurs to the greatest extent possible." There is no clear explanation of the configuration or minimum separation where space constraints may bring the lines into close proximity, or even encroachments where avoidance is not possible. As an example, Figure 2-29 merely shows a 100 foot separation in one short segment. Even where the high-speed rail line would be 125 feet or more from Union Pacific's main line, the buffer zone would not be usable for capacity or customer service. The DEIR fails to recognize or evaluate these impacts.

These are substantial issues, but they are not new – Union Pacific raised them in previous comments. Any constraints on freight rail capacity and expansion opportunities impact state and federal public policies and Union Pacific's commercial interests. For the DEIR to summarily conclude that the proposed high-speed rail project would have no effect on freight rail operations shows that the Authority has not sufficiently investigated, analyzed, and addressed these issues.

4. Failure to Address Construction Encroachments and Adjacency Impacts

During construction of the high-speed rail line, impacts on adjacent freight rail operations could be significant. The DEIR states that "common construction impacts on all HST alternatives [include]: . . . Areas adjacent to freeways and/or existing rail lines where existing overcrossings would be modified or relocated" (p. 3.2-30) and that construction staging includes "structure construction to accommodate staged access of traffic across highway and rail right-of-way" (p. 3.2-33). The DEIR also notes that: "After construction, freight operation would continue as it currently does" (p. 3.2-36). Yet there is no analysis of impacts on freight rail during construction itself, beyond those brief statements, and no mitigation is provided for such impacts. Work on the high-speed rail line not only could physically affect Union Pacific's property, but also could affect the ability to conduct freight operations. Given the close proximity of the Union Pacific line, measures to avoid or reduce such impacts are essential.

To further illustrate this deficiency, one would anticipate that the Authority may wish to address the high-speed rail line from Union Pacific's property at some locations during construction. This would require acquiring temporary access rights from Union Pacific and may disrupt freight operations. Yet, while the DEIR (p. 3.2-30) acknowledges encroachments and the need for temporary construction easements affecting parking areas, roadways, pedestrian lanes, bicycle lanes and parks, this list does not include freight railroad lines (p. 3.2-30).

California High-Speed Rail Authority
Re: UPRR Comments to Merced to Fresno Draft EIR/EIS
October 12, 2011
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586-1

Union Pacific notes that the Draft EIR/EIS for the Fresno to Bakersfield section of the high-speed rail project acknowledges the potential construction impacts on freight operations and the need for temporary "shoofly" tracks to divert freight rail lines as a specific mitigation measure:

10. Protection of freight and passenger rail during construction. Repair any structural damage to freight or public railways, and return any damaged sections to their original structural condition. If necessary, during construction, a "shoofly" track would be constructed to allow existing train lines to bypass any areas closed for construction activities. Upon completion, tracks would be opened and repaired, or new mainline track would be constructed, and the "shoofly" would be removed. Draft EIR/EIS, Fresno to Bakersfield Section, page 3.2-83.

Similar language would appear to be necessary to include in the DEIR for the Merced to Fresno section.

586-2

5. Failure to Evaluate Safety Risks and Mitigation

In addition to inadequate evaluation of operational impacts, the DEIR fails to adequately discuss and evaluate the safety impacts inherent in high-speed operation. Along significant portions of all three alternative alignments, the high-speed corridor will be immediately adjacent to Union Pacific's right of way. Elsewhere, the plans call for high-speed trains to operate within 100 feet of Union Pacific freight trains. The DEIR does not clearly identify the proposed separation between track centerlines and right of way lines for each of the three alternatives. The failure to clearly identify separations and encroachments prevents Union Pacific from fully evaluating the safety implications of the different high-speed alignments.

The Authority proposes placing no safety barriers of any kind along the high-speed rail right of way where adjacent freight tracks are more than 102 feet away. (DEIR Section 3.11 Safety and Security, p. 23.) Where freight tracks are closer, the DEIR merely offers that some type of barrier "may" be required. It lists types of barriers that may be appropriate but provides almost no information about the standards to which they would be built. This leaves the railroad unable to evaluate and comment on the sufficiency of the suggested barriers.

The Federal Railroad Administration will likely require definite barriers and other safety measures between high-speed rail and freight trains. The DEIR fails to mention the jurisdiction and potential involvement of the FRA.

Union Pacific notes that the Authority's decision to require no barriers when freight and high-speed rail tracks are at least 102 feet apart appears to be based entirely on the use of random factual assumptions rather than an engineering study or other reliable authority. The Authority likewise cites no study or other authority for its standard that would permit freight and high-speed tracks to be as close to each other as 29 feet as long as a barrier is in place between them. The distance separating tracks is among the most important safety considerations for this project. Standards related to track spacing and the plans based on them cannot be valid and reasonable unless they are based on reliable authorities.

Submission 586 (Jerry S. Wilmoth, Union Pacific Railroad, October 12, 2011) - Continued

California High-Speed Rail Authority
Re: UPRR Comments to Merced to Fresno Draft EIR/EIS
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586-2

The deficiencies related to safety described above render the DEIR inadequate for all of the proposed alternative alignments. In short, while the DEIR acknowledges the possibility of high-speed rail and freight derailments (pp. 3.11-15, 23), it provides inadequate analysis of the risk that a derailment on one system may pose to trains and people on the other.

586-3

6. Any Flyover Must Comply With Union Pacific's Engineering Standards.

All three of the Authority's proposed alignments call for the high-speed tracks to cross over the Union Pacific right of way on a flyover structure at Herndon. If the Castle Air Base site is selected for the high-speed rail maintenance facility, the DEIR calls for additional construction at the north end of Merced, including an additional flyover of the Union Pacific tracks and some parallel high-speed rail operation. The drawings attached to the DEIR lack sufficient detail to permit Union Pacific to fully evaluate the proposed design of these flyovers. Any such structure must meet Union Pacific's engineering standards. These standards require that a flyover clear-span the right of way with no intermediate support structures and maintain a minimum vertical clearance of 23 feet 4 inches between the top of the freight rail and the bottom of the flyover structure for the full width of the right of way. A copy of Union Pacific's vertical clearance standard is enclosed for reference. Any pier located within 15 feet of Union Pacific's property must meet AREMA heavy pier construction (crash wall) standards. Footings for piers may not encroach onto Union Pacific's property.

7. The Authority's Plans for Grade-Separated Road Crossings May Not Preclude Future Grade Separation of Adjacent Union Pacific Tracks.

The Authority's plans call for multiple grade-separated road crossings. Where these grade separations are constructed near Union Pacific's right of way, they may prevent future grade separation of crossings on Union Pacific's line. For example, in Madera, the design of at least one high-speed rail flyover above a public street will leave insufficient space for construction of a future grade separation of an existing public grade crossing. Federal and state public policies as well as Union Pacific's safety standards call for elimination of grade crossings wherever practicable. The Authority's project must be designed in such a way that grade separation of nearby freight lines remains possible.

8. Failure to Ensure Sufficient Area for Required Freight Operational Activities.

Union Pacific conducts a number of activities on its rights of way that are ancillary to the operation of trains. Many of these activities are undertaken to comply with standards administered by the Federal Railroad Administration. For example, under 49 C.F.R. Part 213, Union Pacific must comply with minimum safety requirements for railroad tracks, signal systems, roadbeds, and adjacent areas. Certain requirements imposed by the California Public Utilities Commission also apply to conditions on a railroad right of way. In addition to following these regulatory standards, Union Pacific has adopted its own standards for the safe and efficient operation of the railroad.

In areas of proximity between the Union Pacific right of way and the high-speed rail alignment, sufficient space must be maintained for such operational and maintenance activities. Space must also be preserved for access and activities related to improvements that Union Pacific makes to its property from time to time, including construction of new facilities. Union Pacific reserves the right to make more specific comments about these issues as the Authority clarifies its proposals through a revised DEIR.

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California High-Speed Rail Authority
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9. Failure to Adequately Address Other Environmental Issues.

Union Pacific notes several other elements of the DEIR that appear to be deficient but are of a more technical nature that would require significant discussion to fully address here. Given the necessity for the Authority to revise and recirculate the DEIR to correct the deficiencies described above, Union Pacific elects only to briefly flag these additional issues in these comments. It does so in an effort to help guide the Authority's further development of its documentation and to preserve Union Pacific's ability to address these issues in more detail if they remain unaddressed in the revised DEIR and if their resolution may have a possible effect on Union Pacific's interests.

586-4

A. The DEIR does not adequately address land use, displacement, and environmental justice impacts of the proposed project. This is another consequence of the lack of consistency and clarity about potential land acquisitions that would be required for the Authority's project.

586-5

B. The DEIR does not adequately address impacts on natural resources, such as sensitive species and habitat, wetlands, hydrology, and water quality that could result from the Authority's efforts to avoid safety and operational problems due to overlapping or close alignments.

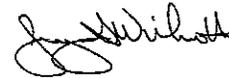
586-6

C. The Authority appears to omit, understate, or under-analyze several aspects of construction, maintenance, and operation of the proposed project that will have an impact on the DEIR's air-quality analysis.

10. Conclusion.

For the sake of efficiency, after the Authority addresses the deficiencies described in these comments, Union Pacific invites the Authority to share its proposed plans with Union Pacific for informal review in order to identify potential issues and solutions before circulating a revised DEIR.

Sincerely,



Jerry S. Wilmoth
General Manager Network Infrastructure

Attachment - 1) UPRR Vertical Clearance Standards

UNION PACIFIC RAILROAD 10021 Foothills Blvd. Roseville, CA 95747 ph. (916) 789-6360

EXHIBIT “I”

**PROTEST/OPPOSITION STATEMENT
OF
CITIZENS FOR CALIFORNIA HIGH-SPEED RAIL ACCOUNTABILITY
TO
PETITION FOR EXEMPTION OF
CALIFORNIA HIGH-SPEED RAIL AUTHORITY**



DJ Mitchell II
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April 16, 2013

Mr. Joseph J. Metzler
Manager- Operations and Maintenance
Project Management Team for CAHSRA
On the behalf of the NCRPWG
Parsons Brinckerhoff
303 Second Street
Suite 700 North
San Francisco, CA 94107

RE: PB-BNSF-3146--California High Speed Rail Authority-Rail Service Concepts for 2018-2025 BNSF Network Capacity Models

Dear Mr. Metzler:

This is in reference to your letter and the request you forwarded in February on behalf of the California High Speed Rail Authority for modeling and review of various proposed passenger rail blended service plans

We have generally reviewed and looked over these plans, but we are at a point in our understanding of intercity passenger rail planning in the San Joaquin Valley that we are at present unable to proceed to more specific planning or review of these materials. This is in light of frankly a great deal of ambiguity and contradictions in the different materials that have been forwarded, in the public statements being made and in the absence of any kind of understanding or agreement with the public agency sponsors of these programs. It is unclear what plans are ready to be progressed on behalf of the Authority and under what terms we should consider them.

In that regard, six intercity rail service options have been forwarded which may be internally inconsistent with respect to the extent to which they would involve BNSF right of way, trackage, or the construction of new railroad sometimes adjacent to and sometimes over BNSF right of way. It is also unclear the extent to which these options would use conventional FRA compliant rolling stock at speeds below 90 MPH or other alternatives.

With respect to truly high speed passenger rail service, elements of the options under consideration appear to be inconsistent with materials or plans that the Authority has submitted in descriptions to the Surface Transportation Board for exemption, and what the Authority has submitted for environmental review. Thus, there appears to be too much ambiguity at this time for a productive review of these plans.

In order to progress this effectively, we ask that the Authority provide us with a draft engineering agreement that contains a scope of work and budget that can be reviewed and for the Authority to specify the corridor alignment that is the realistic plan they might be advancing. As we have emphasized since our first discussions with prior officers of the Authority, it will also be essential



to address the safety implications, risk mitigation strategy and liability associated with any construction near or adjacent to our track as well as for future operations. We would then be in a better position to have meaningful discussions on how this could progress. BNSF has not agreed to or acquiesced in any proposed or potential alignment or change in service in the San Joaquin Valley involving our railroad, whether on, near, or adjacent to, our current right-of-way, or which could affect current or future rail service on our line, or could affect access to our line by present or future freight customers. In order for BNSF to progress any particular segment we will need to understand how these issues are addressed as to the entire proposed line through the San Joaquin Valley.

By the same token, we are not clear with whom we are actually negotiating or what agency would be the responsible entity progressing these plans, whether they are for truly high speed service or for what is being called Blended Service. For that reason I am copying Frank Vacca of CAHSRA and Bill Bronte of Caltrans to help us understand how all of this is to progress, and please feel free to forward this letter to the various parties copied on your initial letter to us as appropriate. With respect to the Authority's two Blended Service options and Caltrans' three service options A, B, and C, we believe it is necessary for the appropriate public agency intercity passenger rail sponsors to make some key decisions:

- Determine which one of the five conventional train speed options should be used as the foundation for any additional service agreement negotiations;
- Confirm that the service option selected consists of Amtrak service as part of its existing network and normal operations, whether operating on BNSF track or facilities constructed by the Authority;
- Identify a lead agency with which BNSF would negotiate;
- Provide BNSF with a projected timeline for the implementation of the proposed additional service; and,
- Confirm, as discussed in recent meetings, that Design-Build will not be used as a project delivery method where CHSRA construction will impact BNSF property or customers.

The different options and scenarios of your various alternative plans, some of which are very aggressive levels of passenger train service, could require significantly different capital infrastructure requirements to permit service and analysis of impacts on future freight service capacity and even access to our own line as a result of potential parallel structures along the right-of-way. In a similar vein, if the agencies envision something along the lines of the Amtrak metrics and standards to apply to this service for measurement of on-time performance, that will also involve significantly increased infrastructure and capital investment to ensure future intercity passenger rail service compatible with the preservation of freight capacity and mobility.

While we appreciate the work Parsons Brinckerhoff has been doing on this project, it is now essential that we have direct contact with whatever authority we would be negotiating definitive agreements if these projects are to be progressed. Therefore, as indicated earlier, we are copying Messrs. Vacca and Bronte for their determination of which agency we should be working with



on which agreement for which service. When we are advised with whom at the appropriate agency we should discuss how best to progress this, we can plan a follow-up call or meeting to include myself and Rick Weicher as we coordinate these efforts for BNSF, consistent with our previous direct meetings with prior representatives for and officers of the California High Speed Rail Authority.

Sincerely,

A handwritten signature in black ink, appearing to read "DJ Mitchell II", written over a circular scribble.

DJ Mitchell II
Passenger Operations

- cc: Frank Vacca, Chief Program Manager, California High-Speed Rail Authority
Bill Bronte, Division Chief, Division of Rail, Caltrans
Karen Greene Ross, Assistant Chief Counsel, California High-Speed Rail Authority
Gil Mallery, Parsons Brinkerhoff
Rick Weicher, BNSF Railway
Walt Smith, BNSF Railway

EXHIBIT “J”

**PROTEST/OPPOSITION STATEMENT
OF
CITIZENS FOR CALIFORNIA HIGH-SPEED RAIL ACCOUNTABILITY
TO
PETITION FOR EXEMPTION OF
CALIFORNIA HIGH-SPEED RAIL AUTHORITY**

California High-Speed Train Project



Request for Proposal for Design-Build Services

RFP No.: HSR 11-16

Book 3, Part E, Subpart 4 - Right-of-Way Acquisition Plan

Revision(s)	Date	Description
0	03/22/2012	Initial Release
1	04/30/2012	Addendum 1
2	07/01/2012	Addendum 3
3	08/22/2012	Addendum 4
4	11/13/2012	Addendum 6
5	12/17/2012	Addendum 7
6	1/7/2013	Addendum 9

Legend

-  HST Track Footprint
-  Roadways, Drainage, and Wayside Items Footprint
-  Elevated HST Alignment
-  Trench HST Alignment
-  Existing Railroad
-  City Limit



**PRELIMINARY DRAFT/SUBJECT TO CHANGE
ALIGNMENTS ARE NOT DETERMINED**

EXHIBIT “K”

**PROTEST/OPPOSITION STATEMENT
OF
CITIZENS FOR CALIFORNIA HIGH-SPEED RAIL ACCOUNTABILITY
TO
PETITION FOR EXEMPTION OF
CALIFORNIA HIGH-SPEED RAIL AUTHORITY**

MICHAEL E. LASALLE

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lasallem@lightspeed.net

October 12, 2012

Board Members
California High-Speed Rail Authority
770 L Street, Suite 800
Sacramento, CA 95814

David Valenstein
Federal Railroad Administration
1200 New Jersey Avenue SE MS-20
Washington, DC 20590

Re: Comments regarding the July, 2012 Draft EIR/EIS for the Fresno-Bakersfield High-Speed Rail Section.

Dear CHSRA Board Members and Mr. Valenstein:

I am a farmer and land owner in Kings County whose farm will be bisected and negatively affected by your proposed high-speed rail project if you select the western alignment through Kings County. I am also a retired attorney, having practiced law in the county for over 38 years.

To begin with, I wish to object to the inexcusably short period of time granted to the public to review the draft EIR/EIS dated July, 2012. On August 14, 2012, I wrote you a letter asking that you extend the period another four months – to January 20, 2013. Given the years that your staff spent researching and drafting this document, and given its length of about 30,000 pages, a 90-day public comment period is insufficient. It is an egregious denial of due process to give me and other members of the public inadequate time to study the document, engage expert consultants, and adequately develop our comments.

To the extent that this unsatisfactory amount of time has permitted, I have reviewed some of your EIR/EIS regarding the Fresno-Bakersfield section of your proposed high-speed rail project, and have developed the following comments:

- 1. The EIR/EIS should evaluate and discuss the environmental impact of operating the project as a non-HST system, and discuss the mitigation of such impacts, but it fails to do so.**

You do not have commitments for the \$68 billion needed to construct the entire high-speed train (HST) system from San Francisco to Los Angeles. You concede you only have enough funding to build a short segment of about 117 miles through the middle of the San Joaquin Valley. Because of its short distance and because you do not have the funding to electrify this system, you admit that you plan on operating this San Joaquin Valley segment as a non-HST system that will be pulled by diesel-fueled locomotives traveling at about half the speed of a true high-speed train. You imply that you will continue to operate it as a non-HST system until such time, if ever, when you secure the funding needed to connect the system to the Bay Area or the Los Angeles area.

CEQA and NEPA require the evaluation and discussion of the project in light of how it is to be operated, including its environmental consequences and proposed mitigations. Suppose I wanted to build and operate a nuclear power plant, but because of limited funding, I could only construct a portion where I would have to initially operate it as a coal-fired power plant. Would I not be required to describe and evaluate its coal-fired operation, as well as its nuclear operation? Absolutely.

Your EIR/EIS only describes the operation of a HST system and its environmental consequences and mitigations. It does not describe or evaluate your operation of a stand-alone, non-HST system and its environmental consequences and mitigations. As one example, it evaluates the hazard of HST derailments to nearby residences, saying that, "This hazard is associated with the physical mass and speed of the train. Because the HST carries passengers and would be electric-powered, there would be no safety hazard associated with HST cargo or fuel." (EIR, section 3.11.5.3, p. 3.11-40) This is fine as an analysis of the operation of an electric HST system, but your document fails to analyze the hazards associated with the operation of a non-HST system that will carry and use diesel fuel. One finds this deficiency throughout the EIR/EIS. As a result, your 2012 draft EIR/EIS is legally flawed because of its failure to also assess the project as a stand-alone, non-HST system and operation. It must be rewritten to rectify this problem.

2. The CHSRA Business Plan and draft EIR/EIS uses estimates for population, ridership, and revenues that are out-of-date, obsolete, incorrect and misleading.

Your Business Plan and your EIR/EIS both use a March, 2010 report prepared by the State Department of Finance (DOF), which estimates the state's population growth. This report estimates population levels for 2020, 2030 and for each decade beyond. You use the DOF projections as the reason for the urgent need to construct a HST system. You also base your ridership and revenue estimates on this March, 2010 report.

In April, 2012, however, the USC School of Public Policy released its own population growth projections for the state. While it noted the DOF study, USC reported that the situation in the state has changed significantly. New information now reveals that the state is growing at a significantly lower rate than the DOF estimate of two years earlier. Here is a comparison of how the two studies project the state's population :

	<u>DOF</u>	<u>USC</u>
2020	44 million	41 million
2030	49 million	45 million

Using the most current projections, it can be seen that the state is now expected to reach a certain population level about eight years later than your Business Plan and EIR/EIS contemplates. Hence, the USC study suggests that the urgency to commence building an HST system is profoundly diminished and that the ridership and revenue projections are erroneous and must be revisited and revised accordingly.

Your EIR erroneously evaluates the value of HST service in the Central Valley. The document reveals an appalling lack of understanding concerning what the average Fresno, Kings, and Kern County resident will consider when deciding whether to use your proposed HST system. Most know that they can drive their own vehicle to either the Bay or Los Angeles areas in an average of two to three and a half hours, depending on where they live. To use the HST system, they would have to drive to the HST station in either Fresno or Bakersfield. Then they would have to park, buy a ticket and wait for the train. Upon arrival at the terminal where they would de-train, most will not be where they want to go. They will need to hire a taxi, rent a car or take a complicated, slow-moving public transportation system to get to their final destination. All of this represents additional time and expense. If a family is traveling by automobile, the cost of driving is static, but if they use the HST, they will have to buy multiple train tickets. It is difficult to imagine many instances where Valley travelers would choose HST over driving their own vehicle. Despite the reality of these impediments to using HST, the EIR fails to mention them as if they don't exist. This is another reason why, at best, your Valley ridership projections are unforgivably whimsical.

3. The 2012 EIR/EIS fails to examine all feasible alignment alternatives, namely, it fails to evaluate the I-5, SR-99 and 2005 BNSF corridors.

CEQA and NEPA declare that projects must not be approved and carried out if there are feasible alternatives which would substantially lessen the adverse environmental effects of the project. Both laws require the environmental document to identify and evaluate all project alternatives. Does the 2012 draft EIR/EIS do this? No.

You may argue that the 2012 draft EIR/EIS is not required to consider the I-5 and SR-99 corridors because your 2005 Program EIR/EIS already evaluated and eliminated them. But such an argument does not stand scrutiny. You cannot use the 2005 PEIR as authority for not considering the I-5 and SR-99 alignments in the 2012 draft EIR/EIS, for the following reasons:

(a) The 2005 PEIR did not evaluate any of the alignments being evaluated in the 2012 draft EIR/EIS.

The 2005 PEIR evaluated a completed Phase 1, electrified, high-speed train system that connected San Francisco with Los Angeles. In sharp contrast, and because of limited funding, your two EIR/EISes propose and evaluate a short-distance system from Merced to Bakersfield that, for the foreseeable future, will operate as a non-high-speed, diesel-pulled train system. These are entirely different premises and circumstances.

The 2005 PEIR/EIS examined three alignment alternatives through the Central Valley: I-5, SR-99, and one running along the Burlington Northern Santa Fe railway corridor (BNSF). The BNSF alignment described in the 2005 PEIR traveled *through* the towns of Hanford, Corcoran and Wasco and, according to the PEIR, it would "serve a downtown station site." Your 2005 PEIR favored this BNSF alternative because it "would likely avoid impacts on social and economic, natural and cultural resources." (2005 PEIR, section 2.6.8, p. 2-64)

Your 2012 EIR states that the 2005 PEIR “selected the BNSF railway route as the preferred alternative for the Central Valley between Fresno and Bakersfield.” (2012 EIR, section 2.1.2, p. 2-3) You also state that the Hanford West Bypass Alternative “was the preferred alternative identified in the [2005] Program EIR/EIS.” (2012 EIR, section 2.3.2.2, p. 2-25) That is not true; you did not consider a Hanford West Bypass Alternative in 2005.

The BNSF alignment touted in your 2005 PEIR is different from the BNSF alternatives you are now evaluating in your 2012 EIR/EIS. You are now proposing to build lines that deviate from the BNSF railway route for about 90 of its 117 mile length, ones that generally run one to two miles distant from it. In sharp contrast to the 2005 BNSF alignment, your new BNSF variations plow through a great deal of prime farmland and bypass the towns of Hanford, Corcoran and Wasco, including their Amtrak stations. This is fundamentally different from the alignment recommended in your 2005 document, which treated “avoiding impacts on social and economic, natural and cultural resources” as important and significant. You do not even mention these factors in your 2012 EIR.

You also suggest in your Executive Summary that you compared your 2012 BNSF alternatives with your 2005 BNSF alignment (2012 EIR/EIS Executive Summary, p. 11) but you really didn't. Look at Table 2-2 and Figure 2-19 and the discussion on pages 2-22 to 2-28 of your 2012 EIR. You will not find any re-analysis of the original 2005 BNSF alignment or any comparison with the recent BNSF alternatives, and you provide no reason why this BNSF alignment, favored in the 2005 PEIR, is not now being considered.

(b) The 2005 PEIR corridor evaluations were based on data and projections that are now old, obsolete and erroneous.

Your 2005 PEIR explained that its evaluations, conclusions and recommendations were “informed by previous studies.” (2005 PEIR, section 2.6, p. 2-24) These previous studies were the *High-Speed Rail Corridor Evaluation* prepared by the High-Speed Rail Commission in 1996, the *High-Speed Rail Corridor Evaluation* prepared by your High-Speed Rail Authority in 1999, and the Charles River Associates ridership projections developed in 1999.

Section 2.3.2, p. 2-8, of the 2005 PEIR stated that these foregoing evaluations of potential HST corridors and alignments used the following criteria: construction costs, impacts on natural resources, compatibility with land use policies, costs to secure rights-of-way, connectivity and ridership/revenue projections. Many of the facts associated with these issues have changed drastically since 1996 and 1999, thirteen to sixteen years ago. As just one example, prime farmland in the Central Valley has doubled since 2005 and quadrupled since 1996, mostly due to the increased profitability of permanent crops such as grapes and nuts. A profound change like this can tip the scales. For the most part, I-5 travels through poorer quality and lower valued land, while, in contrast, your BNSF alignments travel mostly through this high-value farmland. Therefore, the cost analyses

of acquiring rights-of-way in the 2005 document are no longer meaningful or relevant, and should be ignored and discarded.

Government Code, section 21166 suggests that a subsequent or supplemental EIR is needed when there are substantial changes in circumstances or new information. Given the passage of so much time, with such dramatically changed facts, projections and circumstances, and because of all this the new information, you can no longer fall back on the 2005 PEIR to justify eliminating those earlier corridors from consideration. Indeed, it may now be concluded that a new PEIR is required as a prelude to consideration of the section EIRs now being considered.

(c) The 2012 draft EIR/EIS should include a new assessment of the I-5 alignment as an alternative.

For the reasons set forth above, the I-5 corridor should be added to your 2012 alignment evaluations. In July, 2012, the *Los Angeles Times* reported that SNCF, a French firm and the developer of France's high-speed rail system, expressed the opinion that an I-5 alignment was a far more direct and cost-effective route to connect the Bay Area and Southern California.

If one drives along both I-5 and compares it to the currently proposed BNSF alignments, it is easy to observe the profound differences. An I-5 alignment involves far fewer road crossings and infinitely fewer homes, businesses and commercial buildings. The land adjacent to I-5 is, for the most part, uncultivated and/or is of much lesser agricultural value. This translates into far less cost in constructing road crossings, with substantially less destruction and costs attributable to uprooting people from their homes, commercial buildings and prime farmland. It would impose far less negative impact on county roads and services, and would involve significantly fewer waterway crossings that will have to be reviewed and permitted by the U. S. Army Corps of Engineers. With such dramatic cost savings, one cannot help but wonder if, with the currently authorized funding, an I-5 alignment would allow the construction of far more miles of the HST system - perhaps even to the extent of connecting the Bay Area to Los Angeles.

The 2005 PEIR criticized the I-5 corridor because of lower ridership potential. Today, some criticize it because they say it would require people in the Valley to travel a considerable distance to any station built along I-5. But what is wrong with that? How is that any different than the millions of people living in the Bay Area and Southern California who will be expected to travel considerable distances to reach their respective HST stations? Also, the system you currently propose will require people in Tulare, Visalia, and their vicinity to travel long distances to reach the nearest station, such as Fresno and Bakersfield, and that does not seem to trouble you.

In the end, the French firm's recommendation to use the I-5 corridor was dismissed out of hand without any meaningful analysis or scrutiny because, according to the *Times* article, an alignment down the center of the Central Valley had already been prematurely set, before current costs, conditions and circumstances could possibly have been known.

(d) The 2012 draft EIR/EIS should include a comprehensive, up-to-date assessment of the SR 99 alignment as an alternative.

In the Introduction to the “Transportation” section of your EIR/EIS, you state that one of the intents of the project’s design is to locate “the proposed project parallel to existing transportation features such as freeways and freight railroads.” (2012 EIR, 3.2.1, p. 3.2-1) Since the SR-99 route would run parallel and in close proximity to both SR-99 and the Union Pacific Railroad, the application of this criteria favors the SR-99 alignment over any of your BNSF alternatives.

While you describe problems with dealing with the Union Pacific Railroad and its right-of-way, you do not seem to explore or evaluate running the HST line on the other side (east side) of the SR-99 right-of-way.

You boast that the HST system will be financially self-sustaining once it becomes fully operational. I think your ridership estimates are pure fantasy, but if you wish to reduce the future financial drain that the HST system will heap upon the state in the future, it only makes sense, from a population point of view, to construct the project through Tulare County, along the SR-99 corridor, rather than pushing it through Kings County, as your current BNSF alignments do. Here is what your 2012 EIR/EIS shows as the DOF’s population estimates for Fresno, Kings and Tulare County for 2035 (2012 EIR, section 1.2.4.1, p. 1-8):

Fresno County	1,500,000
Kings County	285,000
Tulare County	810,000

You currently propose a possible station at Hanford, the center of Kings County. But from your above population estimates, you can see how using the SR-99 alignment and building a station near Visalia, at the intersection of SR-99, a north-south, three-lane freeway, and SR-198, an east-west, two-lane freeway, would establish a boarding point in close proximity to a much greater number of potential riders. It would produce much greater ridership and improve upon the dismal prospects of the system ever becoming financially self-sustaining. While you treated connectivity and ridership as significant factors in eliminating the I-5 corridor in your 2005 PEIR, your 2012 EIR does not compare the ridership potential of the SR-99 alignment to the ridership potential of the BNSF alternatives.

When compared to the BNSF alignments, an SR-99 alignment would also appear to possess some huge advantages in terms of construction costs. According to your 2012 EIR/EIS, your proposed alignment along or near the BNSF right-of-way will require the construction of almost 200 road and railroad crossings. (2012 EIR Executive Summary, p. 18) These new crossings would require taking a great deal of land, including homes, businesses and access roads to existing homes, businesses and parcels. This would be very expensive. In contrast, overpasses already exist for all east-west road crossings over

SR-99 and the Union Pacific rails. Significant portions of these existing crossing would not need to be built from scratch, and would represent an enormous cost savings, with much less interruption and adverse impacts caused by construction. You fail to explore or note these potential cost-savings and damage mitigations.

(e) State law requires you to minimize the taking of ag preserve land.

Government Code section 51292 (Williamson Act) prohibits a public agency from locating its project within an agricultural preserve unless it is shown to be unfeasible to locate it on non-agricultural preserve land. Most of the land through which you presently propose to run your HST system through Kings County, Tulare County and Kern County is farmland in an ag preserve. In contrast, constructing the HST system adjacent to and along either the I-5 or SR-99 corridors would likely involve taking far fewer acres of farmland in an ag preserve. Government Code section 51290 declares that even if the project cannot be entirely constructed on non-ag preserve land, it is the duty of a public agency to minimize the amount of ag preserve land taken. You appear to undertake such an evaluation with respect to your proposed BNSF alternatives (2012 EIR, section 3.14.4.2, p. 3.14-12 to 30) But by failing to compare these currently proposed BNSF alignments with the I-5, SR-99 and the old 2005 BNSF alignments, your EIR/EIS fails to comply with these California statutory imperatives.

(f) You incoherently and inconsistently apply your criteria for supporting or eliminating alternative alignments.

I searched in vain for coherence and consistency in your reasons for supporting or eliminating alignment alternatives. I didn't find it. It was almost comedic how incoherently and inconsistently you applied your criteria.

For example, your 2012 EIR mentions, without any detail or specificity, stated that one of the primary reasons the I-5 corridor alternative was eliminated in the 2005 PEIR was because it "would not be compatible with current land use planning in the Central Valley." (2012 EIR, section 2.3.2, p. 2-19) Your 2012 EIR addresses local land use planning, noting that the Kings County General Plan provides that "The County's overarching priorities are to protect prime agricultural land," and goes on to enumerate the County's "goals, objectives and policies for protecting agricultural lands." (2012 EIR, section 3.14.2.3, Table 3.14-1, p. 3.14-6) So what does your 2012 EIR say about whether its recommended BNSF alignments are compatible with Kings County's land use planning policies? Despite its recognition that land use priorities and policies are significant determinants, the EIR goes on to ignore them by failing to observe that your proposed BNSF alternatives significantly violate Kings County's land use priorities and policies.

Your 2012 EIR states that "the Hanford West Bypass alternative ... was the preferred alternative identified in the [2005] Program EIR/EIS." (2012 EIR, section 2.3.2.2, p. 2-25) This is incorrect; the 2005 PEIR's preferred alternative was the BNSF alignment that traveled *through* the city of Hanford. The point here, though, is that the primary reason

cited in support of running the line through the city of Hanford was to utilize an existing corridor, and in doing so, it could use the existing Amtrak station in Hanford.

When your 2012 EIR evaluates a Fresno West Bypass alignment, one that would run the HST tracks west of Fresno in order to avoid the city, you rule it out and support running it through the City of Fresno because the bypass “would not be consistent with the project purpose and need or with the objective of using existing transportation corridors to the maximum extent possible.” (2012 EIR, section 2.3.2.1, p. 2-21)

But from Fresno south, your 2012 does not consider or evaluate the old BNSF alignment through the city of Hanford. Rather, it only evaluates a Hanford West or a Hanford East alignment, neither of which travel through the city of Hanford. Why does the “need and objective of using existing transportation corridors to the maximum extent possible” suddenly disappear from consideration in the same document?

As mentioned earlier, the 2005 PEIR used lack of connectivity and ridership potential as significant factors in eliminating the I-5 corridor from further consideration. Indeed, the 2012 EIR proclaimed that I-5 “would result in lower ridership,” and “it is not where the bulk of the Central Valley population resides.” (2012 EIR, section 2.3.2, p. 2-19) If ridership is important, then why did your 2012 EIR ignore the greater ridership potential of an SR-99 alignment as compared to the BNSF alternatives?

In yet another example of your incoherent application of criteria, your 2005 PEIR eliminated the SR-99 alignment primarily on grounds of taking “farmlands.” (2005 PEIR, Table 2.6-7, p. 2-55) Your 2012 EIR also mentions how one of the Wasco bypass alternatives was dismissed because it would require acquiring “approximately 20 more acres of prime farmland.” (2012 EIR, section 2.3.2.2, p. 2-25) Yet, you do not mention that your 2012 BNSF alternatives will travel through more than 90 miles of farmland, nor do you use it as a reason for eliminating them from further consideration. You fail to compare all alternatives in terms of their acquisition of farmland.

There is no justifiable rationale for the 2012 EIR not comparing the various BNSF alternatives with the I-5, SR-99 and 2005 BNSF (*through* Hanford) alignments. The CHSRA and FRA are under a legal duty to ensure that taxpayer money is wisely and prudently spent, and that all laws are complied with. The I-5, SR-99 and 2005 BNSF alignments must be carefully, honestly and objectively examined as alternatives to the current BNSF alternatives described in the 2012 EIR, using up-to-date values, costs, projections, circumstances, and by even-handedly applying your criteria.

(g) You should evaluate, as an alternative, using your limited funds to construct HST tracks between Bakersfield and the Los Angeles Basin.

Since your Fresno to Bakersfield project is only an initial segment of a larger HST system, you need to evaluate whether the expenditure of these limited funds would better serve the State if you used them to construct a rail line between Bakersfield and the Los Angeles Basin. When you prepared the 2005 PEIR, the cost to build Phase 1 of the HST

system was unknown and the availability and source of funding was uncertain. You now know that you have only about 10% of what you estimate it will cost to build-out Phase 1. You really need to evaluate where and how the State will be best served with the expenditure of these available funds. You admit that there is no rail service currently connecting Bakersfield to the Los Angeles Basin, while we already have Amtrak rail service connecting Merced to Bakersfield. Your EIR should be required to evaluate the comparative benefits and adverse impacts of spending these limited funds on Fresno to Bakersfield, as compared to spending it on lines which would extend rail service from Bakersfield to Los Angeles.

4. The western alignment through Kings County will create a large number of small, inefficient, "remnant" parcels.

For the most part, the EIR/EIS maps show your proposed route from Madera to just south of Fresno as traveling contiguous to an existing transportation corridor, namely, adjacent to the BNSF rail line. However, once the project approaches northern Kings County, the maps show various alternative alignments, all of which diverge from the BNSF rail lines and slash their way across prime farmland for about 90 miles before returning to the BNSF route. What is even more striking is that both proposed alignments, starting just north of the northerly boundary of Kings County, do not correspond to the half-section lines. Rather, the center-line of the western alignment is plotted about 200 feet west of the half-section lines. Because many agricultural fields are 40, 80 or 160 acre parcels, the boundaries separating these fields tend to fall on the half-section lines. By proposing a right-of-way (ROW) whose center-line is about 200 feet west of current field boundaries, you are proposing to divide many farm fields into two fields, the smaller of which will be only 150 foot wide, east-to-west, and only about 3 to 4 acres in size (my situation).

By creating a large number of new and small parcels, this plan produces a number of significant adverse effects:

(a) Additional farm land adjacent to the HST rights-of-way will be removed from production because of road crossings and the need for field turn roads.

Your document contemplates the construction of overpasses or underpasses at just about every rural east-west county road. The maps indicate that, in addition to the HST ROW, a great deal of additional farmland will be taken out of production. We farmers conduct many different operations on our parcels; plowing, discing, irrigating, planting, pruning, fertilizing, spraying, and harvesting, to name just some. By dividing current fields, the project will create smaller, more inefficient parcels that will be separated by an impenetrable barrier. Tractors and implements (often 16 to 20 feet in width) need to turn at the end of each pass through a field, and employees need access to the ends of each field. Therefore, with one field being split into two fields, we landowners will lose not only that part of our field taken for the ROW, we will have to take another 20 to 30 feet more land out of production on either side of the ROW to serve as turn roads.

These road crossings, both over and under and about 200 in number, are designed to be about 2500 feet in length, such length being necessary to produce the height needed to clear the trains. This will compel us to take land out of production adjacent to these road crossings to give us access to the other ends of our fields. As a result, it seems that the amount of land that will have to be taken out of agricultural production could be almost twice the number of acres taken for the HST ROW itself.

(b) The railroad and overpasses will create travel and access problems.

Within a section (square mile) of farmland, there is a tremendous amount of tractor, farm equipment and employee traffic that moves on existing dirt farm roads from field to field. The HST system will establish a barrier that will force much of that travel onto county roads in order to reach our "remnant" parcels. In contrast to our current circumstances, we farmers will have to move tractors, equipment and employees in a roundabout way onto and across the proposed overpasses in order to reach these orphans. Entry onto these overpasses will be limited, ensuring further travel distances. Extra travel means more time, more fuel and more expense for the farmer, as well as substantially more tractor and farm implement traffic being forced onto the current county roads. The EIR/EIS egregiously understates the magnitude of this adverse effect, callously trivializing the burden as insignificant.

Much of this farm equipment is slow-moving and is 16 to 20 feet wide. Increasing the amount of it on the county roads and over the new overpasses will substantially increase the danger of injury and fatal accidents occurring on these roads, especially during periods of dense fog.

When one studies the EIR maps, it is evident that many of these newly created small parcels will be landlocked - inaccessible to the owner unless he gets permission from a neighboring landowner. It is naïve to assume that all neighbors will be cooperative. Some will be tempted to capitalize on our misfortune. Finding no one interested in buying a tiny, landlocked parcel without access, the damaged landowner would have no alternative but to sell the small parcel to a neighbor for a few cents on the dollar.

You estimated that the vehicle miles traveled in Kings County will be reduced by 10% to 15% by 2035 as a direct result of the operation of your HST system. (EIR, Table 3.2-13, p. 3.2-72) It is difficult to see how you can reach such a speculative estimate. But it seems certain that it is terribly inaccurate, particularly because you did not mention taking into account the following significant and countervailing factors:

- (a) Increased agricultural vehicle traffic forced onto county roads by the HST barriers built across almost 25 miles of Kings County farmland and by numerous county road closures.
- (b) Degree to which cost and inconvenience would cause Kings County residents to eschew your HST system, and instead drive to San Francisco or Los Angeles. (See my section 2, at top of page 3 herein)

- (c) Your estimate being based on outmoded DOF population projections for 2035. (EIR, 3.2.3.2, p. 3.2-6)
- (d) Effect that non-HST service would have on vehicle miles traveled, since the system will initially be operated as non-HST.

The remainder of your discussion of the effects on vehicular traffic is a quagmire of confusion and contradiction. You state on page 3.2-73 that the roads closed in Kings County along the "BNSF alternative" (Hanford East Bypass alignment) will be "Ninth Avenue, North, and Douglas." In contrast, you state on page 3.2-74 that you will close "Ninth Avenue, Jersey Avenue and Lansing Avenue." Which version is correct and which is incorrect? Or are they both incorrect? Regarding the Hanford West Bypass alternative, you state on page 3.2-75 what Kings County roads will have overcrossings and undercrossings. Your alignment crosses Elder, Flint, Fargo, 23th, Jersey and 11th avenues, but you do not list them as having either an overcrossing or an undercrossing. Are we to assume that they will be closed, too? Consistent with your theme of inconsistency, your maps then show overcrossings or undercrossings at Flint, Fargo, 13th, Jersey and 11th avenues. I implore you; please clear up these murky waters.

(c) In many cases the remnant parcels will be too small to be economically farmed.

In today's times, a 3-acre parcel may be too inefficient to farm, particularly if it requires its own independent irrigation system. Wells are extremely expensive to drill, and utility companies (PG &E and Southern Cal Edison) charge a great deal to run a new service and install a transformer and meter to a new well. Ordinarily, most irrigation wells can provide water to 80 acres, over which the costs can be spread. But it would be prohibitive and unfeasible to spread the cost of a well and new electrical service over 3 acres.

(d) Irrigation will be adversely affected.

There are a number of well drillers in the area, but because of the current demand for new wells, a farmer must now wait 6 months to a year to have a new well drilled. One must also wait 6 months to a year to get PG&E or Southern Cal. Edison to install a new electrical service to a new well. The EIR/EIS does not identify the number of wells that will be removed by this project, but the number will be large. The project will dramatically increase the requests made to well drillers and utility companies. Under such increased demand, how long will a farmer have to wait until he will have a replacement well and pump drilled and operating? Because a water supply is essential to keep his trees and vines alive, until he can get a new well drilled, a pump installed, and electrical service established, he cannot allow the removal his old well.

The EIR/EIS fails to make clear whether current underground irrigation water pipelines and surface water canals that convey irrigation water will be allowed to remain beneath the HST tracks. As a protection against terrorists sending explosive charges through these lines in order to detonate them beneath the tracks, we fear that all such underground lines will be removed from beneath the ROW. If so, this will sever current sources of irrigation water from portions of fields that find themselves on opposite sides of the ROW.

5. The high-speed rail project will produce a number of adverse effects on those farming adjacent to the ROW:

(a) Liability for accidental damage to high-speed ROW barriers.

The EIR/EIS is extremely vague about how the project's ROW and rail operations will be protected from intrusion. It is supposed that you intend to protect the ROW by a chain-link fence and motion detectors. Yet, our farming operations will be conducted adjacent to the ROW. We farmers are intimately familiar with how, no matter how careful we may be, we or our employees can accidentally run wide pieces of farm equipment into nearby obstacles. We deserve to know what the effect of such accidents would be. Would it trigger a shut-down of on-coming trains, and would we be held liable, even if the incident was unintentional? If the answer is yes, then is the Authority planning on taking additional land beside the ROW to serve as a protective buffer against such accidents? If the Authority is not prepared to take additional buffer land, then is it prepared to enter into a contractual obligation to not hold the farmer liable for accidents and to indemnify him from third party claims arising from accidents?

(b) Application of Herbicides and Pesticides.

Farmers are constantly having to spray and apply herbicides and pesticides to their fruit, nut, grape and row crops in order to control harmful weeds and insects. Even though pesticides are applied in strict accordance with all government approvals and regulations, perception by the public is an entirely different matter. Large numbers of construction workers will be operating in the areas adjacent to our crops. I have talked to the owner of a large custom ground and air applicator of agricultural chemicals, and he told me that he will not apply any spray applications within one-half mile of the rail construction because construction workers have a history of filing claims, alleging that they became sick when smelling such sprays. The likelihood of such claims would increase the chance of his insurance carrier cancelling his coverage, and he cannot take that risk. Your EIR/EIS neglects to discuss this area of concern and fails to present feasible measures designed to mitigate this problem.

(c) Weeds, Insects, and Ground Squirrels.

Weeds, insects and ground squirrels are constantly being controlled by farmers, and the expense of such control is an on-going and expensive process. The gusts generated by the passage of 200 mph trains will send billions of seed from noxious weeds into neighboring fields. A number of insects, especially lygus, spotted aphid, white fly and red spider mite, are hosted by and proliferate on many weeds if uncontrolled. The ROW could also become a protected breeding ground for ground squirrels, if uncontrolled. These squirrel populations produce large litters of young each year and will more than double in numbers each year if not constantly attacked. These squirrels will pour into neighboring orchards, where they will dig countless burrows, and into young corn and wheat fields,

where they can be especially damaging. Squirrels are also notorious for feeding on the eggs of ground-nesting birds, including the threatened Tri-colored Blackbird.

The EIR/EIS fails to specify how it intends to manage the land within its ROW so we can be allowed to assess the impact the intended management of these ROWs will have on us adjacent farmers. We need to be informed what you plan to do with respect to weed, insect and ground squirrel control, including what materials and processes it intends to use. If you fail to implement and/or continue effective measures against these pests, then adjacent farmers will be incurring substantially increased damage and expense in controlling the pests bred and generated within the protected confines of your ROW. We will take no comfort in your assurances that you will control these issues. I am convinced your operation will lose substantial money and you will be unable to carry out such promises.

(d) Wind gusts.

It is readily apparent how trucks and freight trains can generate a great deal of dust as they travel along county roads and railroad rights-of-way at 60 mph. The EIR/EIS does not analyze the dust production potential of high-speed trains traveling at 220 mph, more than three times that speed. Not only does the document appear to dismiss and downplay the effect of such gusts, it fails to present any feasible measures it proposes to implement to mitigate the adverse effects on adjacent farming caused by wind gusts and dust generation.

6. Loss of Topsoil.

You do not mention loss of topsoil, a most fertile and valuable resource, as a foreseeable and adverse effect of your project. A tremendous amount of fill-dirt will be needed to build up the ten-foot-high, fifty-foot-wide rail beds, not to mention the numerous overcrossings. You do not specify how much fill-dirt you will need or where it will come from. Undoubtedly, some of it will be excavated from farmland. You do not specify how many acres of farmland will be affected and how deep each excavation will be. How much of our precious topsoil will be lost as fill-dirt, and how do you plan to mitigate this significant adverse effect? How far will this fill-dirt have to be hauled and across what roads? How do you intend to mitigate the extra wear and tear on the county roads? From what agencies will you need to obtain the necessary permits for these excavations? Do you expect to obtain co-operation from Kings County in connection with these issues?

7. Safety and Security.

You are proposing the eventual operation of a large number of trains hurtling down a track at speeds in excess of 200 mph. The weight and speed involved is both mind-numbing and terrifying to anyone who will have the misfortune of living near the tracks. Despite whatever may or may not have occurred around the world in the past, one cannot deny that such a HST system, with 400 passengers traveling at such speeds, would be an alluring target for a terrorist, foreign or domestic. And it doesn't even have to be a terrorist. A deranged psychopath could

decide to try to derail a HST as a creative alternative to spraying bullets in a movie theater. As a result, we expect that massive security measures will be needed to protect the system. We deserve to know what will be done to protect us and our property. Has the Department of Homeland Security and/or Transportation Security Authority reviewed the EIR/EIS? If not, why not? If so, you must include in the EIR/EIS what have they required so that we can review and comment on their anticipated impacts.

Conclusion:

The EIR/EIS has failed to adequately discuss and evaluate the issues described above. In some cases, it did acknowledge them, but incorrectly dismissed them as insignificant and/or did not delineate what measures could or would be employed to mitigate them. As presented, your EIR/EIS miserably fails to meet the requirements prescribed by state and federal law.

I have no doubt you will find and point out how some of my comments were erroneous because of something I overlooked in your EIR/EIS. But I make no apologies. What can you expect when members of the public are given only 90 days to review such a gargantuan document?

As one who has lived in California since 1945 – all my life – I have one final observation: If the you could pick any proposal that would pose the greatest threat to the future build-out of the HST system, you picked the right one. By building it from Madera to Bakersfield and operating it substantially as a non-HST replacement or alternative to the present Amtrak system, but with fewer stations, you ensure operating a system with disheartening ridership and the need for even greater government subsidies. State employeess and services will come to resent the money taken out of their budgets to pay the interest on the HST bonds and to subsidize your operations. Your project will become a symbol of fictitious promises and ineptly executed government projects. It will be vilified as a great white elephant and an albatross. We will hear things like: “Never in the history of the state has so much been spent for the benefit of so few.” Your critics will condemn your false visions and failed promises, and will use the system’s dismal performance to thwart your efforts in the future to secure more funding. Congratulations!

Respectfully submitted,

Michael E. LaSalle

EXHIBIT “L”

**PROTEST/OPPOSITION STATEMENT
OF
CITIZENS FOR CALIFORNIA HIGH-SPEED RAIL ACCOUNTABILITY
TO
PETITION FOR EXEMPTION OF
CALIFORNIA HIGH-SPEED RAIL AUTHORITY**

AARON FUKUDA

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October 18, 2012

Fresno to Bakersfield DEIR/EIS Comments
Attention: California High Speed Rail Authority Board Members
770 L Street, Suite 800
Sacramento, California 95814

Subject: CEQA/NEPA Comments Concerning the DEIR/EIS for the Proposed Fresno to Bakersfield Section of the California High Speed Rail Project

Dear Chairman Richard and California High Speed Rail Authority Board:

My name is Aaron Fukuda and my wife and I are landowners within the proposed right-of-way for the BNSF Alignment through Kings County. My property resides at 7450 Mountain View Street, Hanford California (APN 014-920-017) and will be severely impacted to the point where I can no longer live on the property. Our property is uniquely situated in the county affording us a rural lifestyle with access to urban amenities in the city of Hanford. Our property and its characteristics are not a common commodity within the area and has recently been eliminated by Kings County in an attempt to preserve agriculture and minimize rural development. My wife and I had planed our future, including our dream home and family around this property. Like many other Americans, we have worked hard to enjoy the freedom to achieve our dreams, however we find this project and the process by which it is being implemented troubling both for our situation and our future, as it infringes upon the rights of our ownership and dreams without the single act of proper notification on behalf of the California High Speed Rail Authority (Authority).

I am a registered Professional Civil Engineer in the State of California with a background in project design and construction. My background also includes participation in numerous federal and state grant applications and project administration. Included in my daily work is the environmental review process for the California Environmental Quality Act (CEQA) and the National Environmental Protection Action (NEPA). With over 12 years of work experience in these areas, I have seen many small and large projects through the design, environmental review process and construction.

The following comments were developed based upon a review of the Draft Environmental Impact Report / Environmental Impact Statement (DEIR/EIS) for the Fresno to Bakersfield section of the California High Speed Rail (HSR) Project. **The comments contained in this letter will enumerate the numerous violations of CEQA and NEPA and provide clear evidence that the information provided in the DEIR/EIS does not comply with CEQA or NEPA. Therefore, under the guidelines and requirements of NEPA and CEQA the California High Speed Rail Authority (Authority) and the Federal Railroad Administration (FRA) may not approve the**

DEIR/EIS nor approve any preferred alternative until the comments provided are addressed and a adequate and comprehensive DEIR/EIS is prepared and circulated for public review and comment.

I would also like to caution the Authority that under my review I along with many others who attempted to read, comprehend and respond to this DEIR/EIS were unable to complete a full review. This hefty document presented a significant time commitment that simply could not be met when combined with my daily work schedule and other commitment. One of those commitments is assisting other landowners with their ability to read and comprehend this very technical document. The Authority should be prepared to accept, address and respond to future comments that I may submit as my review will continue beyond the deadline of October 19, 2012 set by the Authority.

GENERAL CEQA/NEPA FINDINGS

The intent of CEQA is to ensure that state and local agencies consider the environmental impacts of their decisions when approving a public or private project. Per my analysis and findings the following can be concluded in regards to CEQA:

1. The DEIR/EIS does not properly describe the current setting in which the project will be imposed upon. Missing information, incorrect descriptions and failure to identify features are all features the DEIR/EIS contains. Therefore the decision makers and public cannot appropriately ascertain the level of impacts or significance.
2. The DEIR/EIS does not appropriately disclose to decision makers and the public the significant environmental effects of the HSR Project.
3. The DEIR/EIS does not provide ways to avoid or reduce environmental damage when an impact is identified.
4. The DEIR/EIS does not prevent environmental damage by analyzing feasible alternatives or mitigation measures.
5. The DEIR/EIS has failed to foster interagency coordination in the review of the project.
6. The DEIR/EIS has failed to enhance the public participating in the planning process.

The intent of NEPA is to help public officials make decisions based on the understanding of environmental consequences and take actions that protect, restore and enhance the environment. Per my analysis and finding the following can be concluded in regards to NEPA:

1. The information provided does not provide an accurate representation of the project or the impacts, therefore misleading the decision maker and public.
2. There is an imbalanced review of the significant environmental impacts and a lack of reasonable alternatives which could avoid impacts or enhance the quality of the human environment.
3. The project does not realistically provide alternatives that can address impacts. Many so-called alternatives simply have the same impacts in a different location.
4. The DEIR/EIS was not fully vetted through coordination with local agencies to ensure that local policies and programs were not in conflict with the project.

DEIR/EIS COMMENTS

1. THE DEIR/EIS FAILED TO PROVIDE A MEANINGFUL AND APPROPRIATE PUBLIC COMMENT PERIOD

The Authority originally released the DEIR/EIS on July 20, 2012 for a 60-day public review period, which was soon extended to a 90-day review period leaving the public review to close on October 19, 2012. The Authority publically applauded the initial release of the document touting it as a generous review period for the public, which for typical public works project would be appropriate, however for the size and scope of this project and the DEIR/EIS, it is simply unrealistic to expect an effective public comment period to take place within 90 days.

Several observations would lead anyone, including decision makers to conclude that the public was not afforded the appropriate time to analyze and comment on this project. The complete DEIR/EIS is approximately 15,000 pages of documents, which translates to reading and comprehending approximately 167 pages per day. If the average reader can read and comprehend approximately 200 words per minute, and the average number of words per page in the DEIR/EIS is approximately 600 (verified by sampling various pages in the DEIR/EIS for word count), then the average reader would take 3 minutes per page to read and comprehend. It should be noted that this does not include the time needed to take notes or provide comments. A decision maker or the public reading the document would therefore need approximately 500 minutes per day (3 minutes x 167 pages) to completely read all the materials in the DEIR/EIS. ***This translates to 8.33 hours per day required to read and comprehend the DEIR/EIS.***

The normal working public in their attempt to read and comprehend the DEIR/EIS would have to an entire new workday within each day to accomplish reading the entire DEIR/EIS. The Authority further complicated the ability to afford the public a realistic review by releasing the DEIR/EIS during the summer season when many farmers in the Central Valley are working long hours to raise their crops, and more specifically the review period coincided with the harvest of many agricultural commodities including raisins (August), almonds (September), walnuts (September/October), silage corn (August, September, October), pistachios (September), and alfalfa (August/September/October). Landowners and farmers have had a difficult time accommodating enough time towards their normal work duties and reviewing and analyzing the DEIR/EIS.

What the above analysis does not include is the ability to read, correlate and comprehend thousands of pages included in the Technical Reports or the need to read previous documents such as the Program EIR/EIS which was conducted in 2005. These issues along with a request to extend the comment period to a 180 day review period was sent to the Authority on October 4, 2012 (See Attachment A). Given these reasons and numerous others that have all been highlighted to the Authority in public meetings and letters, the Authority severely restricted the ability of the public to fairly participate in the public review process. ***The DEIR/EIS should be revised based upon the comments provided and re-released for another 180-day review period, therefore allowing the public a total of 180 days to review the entire revised DEIR/EIS.***

2. THE DEIR/EIS IS BASED UPON INCOMPLETE DESIGN AND REVIEW PARAMETERS

The DEIR/EIS is based upon 15% construction plans and a failure of the Authority to meet with landowners to discuss impacts, including environmental impacts. The Authority and its consultants have only obtained 15% of the information needed to proceed with this project leaving the other 85% to be determined at a later day. CEQA and NEPA ask that the lead agency making a discretionary decision about a project weight the impacts, mitigation and benefits to determine an appropriate level of significance and appropriately choose a project alternative. Basing the largest infrastructure project in the State of California and potentially the nation on 15% design plans is simply irresponsible and fails to ensure that the principles and protections afforded in CEQA and NEPA are met. The DEIR/EIS cannot ensure that the decisions made based on this document comply with the law under CEQA and NEPA.

As evidenced in this comment letter and numerous others submitted, the DEIR/EIS is significantly deficient in the information required to make an appropriate determination of the baseline conditions, potential impacts and subsequent mitigation measures. Information regarding biological impacts, facility impacts, groundwater deepwell impacts, utility impacts and social impacts have all been disregarded by the DEIR/EIS. Soil studies required to determine the integrity of the project alignment have been left to be conducted at a later date. Biological investigations including surveys of endangered species and special status species have been deferred to a later date. Analysis of hydrologic impacts including potential to flood have been ignored. Traffic studies around road closures and changes in road alignments have not been conducted. This list of missing information only represents a small fraction of the data that is required in CEQA and NEPA to make determinations and a decision on the least impactful alternative, however remain elusive to the DEIR/EIS.

Other agencies such as the United States Army Corp of Engineers (USACE) require a certain level of design plans to make appropriate determinations of impacts. The following statement is taken from page B-5 of the Memorandum of Understanding signed between the USACE, FRA and Authority regarding the HSR Project¹:

"A 60 percent or greater engineering design as well as any additional information specified in the (a) October 23, 2006, CECW-PB Memorandum for Major Subordinate Commands, SUBJECT: Policy and Procedural Guidance for the Approval of Modification and Alteration of Corps of Engineer Projects and (b) November 17, 2008, CECW-PB Memorandum from the Director of Civil Works titled "Clarification Guidance on the Policy and Procedural Guidance for the Approval of Modifications and Alteration of Corps of Engineers Projects" is required for a USACE District to provide a preliminary recommendation."

The MOU highlights the substantial level of detail required for other agencies to provide an analysis and recommendation. It should also be noted that per the cited documents, the USACE

¹ Memorandum of Understanding. United States Department of Transportation, Federal Railroad Administration, California High-Speed Rail Authority, United States Environmental Protection Agency, United States Army Corp of Engineers. Integration Process for the California High-Speed Train Program. November 2010

cannot perform a legitimate analysis of the DEIR/EIS nor provide a recommendation towards the Least Damaging Project Alternative (LEDPA) without design plans at the 60% level.

The public and the decision makers have been forced to assess the environmental, social and economic impacts of this monumental project on the faintest quantity of information the Authority could muster. The format, information provided, and lack of clarity on issues forces one to believe that this project-level EIR/EIS is more suitable to being used as a programmatic-level EIR/EIS. Once this document is approved the Authority should move into higher levels of detail to ensure under CEQA and NEPA that the appropriate level of detail and analysis of the project is obtained. The DEIR/EIS cannot be accepted as a certified document until all studies and analysis are conducted that would yield the public and Authority the appropriate level of detail to ascertain the significance of the impacts and the feasibility and effectiveness of mitigation measures proposed to address impacts.

3. THE DEIR/EIS FAIL TO PROVIDE A REASONABLE AND COMPLETE PROJECT DESCRIPTION

The DEIR/EIS fails to provide a clear and concise Project Description for the public to clearly understand the nature of the project. Courts have clearly recognized the need for an accurate, stable and finite project description (*County of Inyo v. Yorty (1973) 32 Cal.App.3d795,810*). A comprehensive evaluation of the environmental ramifications of a project can only be achieved if a comprehensive project description is provided to the public in the DEIR/EIS. All current standards for environmental review require the DEIR/EIS to assess the following:

1. The precise location and boundaries of the proposed project.
2. A clear written statement of the projects objectives, including the underlying purpose of the project.
3. A general description of the project's technical, economic and environmental characteristics.

The DEIR/EIS does not provide a clear distinction of the boundaries that apply to the project. The DEIR/EIS makes clear the impacts that were analyzed pertain to the alignment and the various right-of-way widths required, but fails to clearly identify the ancillary appurtenances that are a part of the project. These other features that are required but not clearly denoted as a project component in include 1) overpass structures, 2) underpass structures. 3) overhead catenary system, 3) electrical power distribution system, 4) communication towers, 5) electrical buildings, and 6) access points to the alignment.

The DEIR/EIS also fails to include remnant parcels created by the alignment as impacted areas, therefore requiring them to be part of the project. As the project fragments properties the DEIR/EIS explains that they will be obtained and mitigated for, however they are not included in the project description. The DEIR/EIS also intertwines new project component as the document progresses, yet they are not included in the Project Description. For example the project includes the removal of existing transportation services such as the Corcoran, Wasco and Hanford Amtrak stations, yet they are not discussed in the Project Description.

The objectives of this project are not clearly stated and often become contradicted as the DEIR/EIS tries to navigate through the explanation of what is going to be built and what is going to be the outcome of the project. The DEIR/EIS makes no distinction of the lack of funding required to complete what is described in the Project Description. Therefore, the DEIR/EIS fails to properly describe the objectives. The DEIR/EIS then continues to introduce various other objectives, leading the public to believe that there are multiple uses of this project. The introduction of Amtrak service on the HSR project alignment leads the reader to confuse the intent of the project as a high-speed rail service or an improved Amtrak service. Given the current identified funding, the public and decision makers could conclude that the objective of the project is to provide new tracks for the Amtrak service.

The DEIR/EIS also includes a irrational approach to the objective of placing the HSR Project in urban setting to encourage Transportation Oriented Design projects and a more efficient transportation system for the State of California. The DEIR/EIS lauds this as a project objective and acclaims the benefits, yet quickly and briefly address the wandering alignments through Kings County. The proposed alignments through Kings County place the alignment several miles outside of Hanford, and place the "potential" Kings/Tulare HSR station several miles from any urban development or downtown center. It actually has a devastating impact on the community of Hanford by removing Amtrak service to downtown Hanford.

4. FAILURE TO ADDRESS AMTRAK SERVICE AS A COMPONENT OF THE PROJECT

The DEIR/EIS explains that the section of track that is being installed will not be utilized to operate the Amtrak service called the San Joaquin in the following statement:

The interim use of the IOS first construction track for upgraded Amtrak service could have environmental impacts that differ from those analyzed in this EIR/EIS. However, there are no plans for this service at this time and such plans will require future cooperative agreements between the Authority and entities associated with operation of the Amtrak San Joaquin service. As a result, the operational characteristics of that interim use are unknown at this time and an analysis would be speculative. For that reason, interim use has not been analyzed in this EIR/EIS. Service upgrades for the Amtrak San Joaquin service and its potential for environmental impacts would be assessed, as appropriate, by the operating agency before the initiation of that service.

This statement is contradictory to the details outlined in the Revised 2012 Business Plan which was approved by the Authority in April 2012. In this document the Authority clearly outlines that the section will become operational with the San Joaquin Amtrak Service traveling on the corridor. The Revised 2012 Business Plan² states the following:

The segment will become operational by allowing Caltrans to operate expanded San Joaquin service between Bakersfield and Merced on the first IOS section. To achieve this, track connections would be built to connect to the BNSF Railway line at the northern and southern ends of the first constructed segment. Relatively minor investments would be made in rail systems (signaling, positive train control)

² See Revised 2012 Business Plan, Page 2-14.

and other investments to augment the base infrastructure so that the San Joaquin service can operate on it. Combined with improvements described earlier, this would allow trains to travel at speeds up to 125 mph or more in the Central Valley, which would reduce travel times on the San Joaquin service between Northern and Southern California—already one of Amtrak's five busiest corridors in the country—by at least 45 minutes and likely well over one hour.

The HSR Project relies upon the ability to place Amtrak service on this section of track to obtain federal funding under the "independent utility" clause of the FRA. Given that the Amtrak service is being utilized as a component of the project to meet the "independent utility" clause, the DEIR/EIS should recognize it as a component of the project.

As a component of the project, the placement of Amtrak service on the newly placed HSR project should be analyzed for its environmental impacts. The DEIR/EIS recognizes that impacts will occur and further indicates that they would be different than those under HSR service. California law clearly indicates that projects cannot be segmented by limiting the analysis of proposed actions (and their effects) to discrete issues or geographic regions. CEQA requires that the DEIR/EIS must describe in its entirety the project, including all "reasonable and foreseeable" future actions (*14 Cal. Code Regs. § 15378. Thomas v. Peterson, 753 F.2d 754, 758 (9th Cir. 1985); Laurel Heights, 47 Cal.3d. 376-395 (1988)*). The omission of key parts of a project from an EIR analysis serves to hide potential important ramifications of a project from the view of the public and the decision maker. Withholding analysis of the potential to utilize Amtrak service on this section of track obscures the true aggregated impact of a comprehensive project proposal, and undermines the core goals of CEQA and NEPA, which ensure the sustainable development of an environmentally sensitive surrounding for both humans and nature.

California case law supports the inclusion of Amtrak service as a foreseeable action under the case of *San Joaquin Raptor Society v. County of Stanislaus*. In this case the Court rejected an EIR for a large subdivision for failure to include the plans and analysis for a nearby water treatment facility that was to service the subdivision. The Court found that the EIR, which did not contain any information about the water treatment plan knowingly omitted the analysis and had artificially segmented the project. It was determined that the treatment plant was a foreseeable component of the subdivision. Therefore, the Court ordered the EIR to analyze the subdivision and the treatment plan together within the EIR. Under this case the potential for Amtrak to become a passenger rail service on the installed alignment should be fully analyzed in the DEIR/EIS.

California case law has also clearly determined the process in determining what is a "foreseeable action" within an EIR analysis. In the case *Laurel Heights, 47 Cal.3d., 376-398 (1988)*, the Court determined that the movement of the University of California into building also included their future plans to expand the labs. The Court found substantial and credible evidence that the University intended to expand in the future and therefore the plans were deemed "reasonably foreseeable" consequences of the proposed action and the plans were ordered to be included in the EIR. Under these circumstances the Authority has clearly stated within the Revised 2012 Business Plan that the Amtrak service (commonly referred to as the San Joaquins) will be operated between Merced and Fresno on the Initial Operation Section (IOS), of which the Fresno to Bakersfield section of track is located. Other sources have also identified the utilization of Amtrak on the HSR Project, including Californians Advocating for Responsible Rail Design

(CARRD), which has clearly pointed out the involvement of the Amtrak service as a part of the communications between the Authority and the FRA.

At a federal level the inclusion of the Amtrak service on the HSR project is more critical. The Center for Environmental Quality (CEQ) guidelines require agencies to implement an expanded scope of review for cases that involve two or more connections, cumulative and similar actions within a single EIS (40 C.F.R. § 1508.25; *Thomas*, 753 F.2d at 758-59). These guidelines indicate that where one action would be "irrational or at least unwise" to undertake without the other, the actions are connected and therefore must be analyzed. Therefore under NPEA the agency should analyze the impact from both project components together. As the Authority wishes to use the Amtrak service to gain "independent utility" it is critical for the DEIR/EIS to provide a full analysis of its impacts within the document. If the DEIR/EIS fails to analyze the Amtrak Service as a part of this project, the ability to use the track need to be fully analyzed at a later date, and "independent utility" cannot be guaranteed. Without a guarantee of "independent utility" the Authority cannot access Federal funds for this project.

As was proven, under CEQA and NEPA the law requires the DEIR/EIS to analyze the impacts of Amtrak Passenger service if it is being proposed as a potential alternative to be implemented on the project rails.

5. DEIR/EIS FAILS TO PROVIDE AN ADEQUATE ANALYSIS OF, AND MITIGATION FOR IMPACTS OF THE PROPOSED PROJECT

CEQA requires that for each significant impact the DEIR/EIS must discuss the feasibility of the measure to avoid or substantially reduce the project's significant environmental effect. In practice the DEIR/EIS should clearly explain the objectives of each mitigation measure, which include how it will be implemented, who is responsible for its implementation, where it will occur and when will it occur. To be considered adequate, mitigation measure should be specific, feasible actions that will actually improve adverse environmental conditions.

The DEIR/EIS fails to provide a sufficient discussion of mitigation measure for significant impacts. Many constitute deferral or are otherwise unenforceable due to a local of specific standards or a commitment to achieve or maintain those standards. The DEIR/EIS fails to provide a general analysis of each mitigation measure identified. Each mitigation measure lacks the level of detail required under CEQA and NEPA to fully comprehend the measure being proposed and its reality of providing mitigation to an impact.

The DEIR/EIS fails to provide a sufficient level of detail in identifying mitigation measures, how they are implemented, when they are implemented and the outcome of each measure. A realistic description of a mitigation measure is key to the CEQA and NEPA process so that the public and decision maker have a clear idea of what is being proposed. Often the DEIR/EIS provides limited and confusing descriptions of mitigation measures. Most mitigation measure described also lack a discussion of how each measure will be carried and on what time frame they will be carried out. Lastly, there no description within the DEIR/EIS of how each mitigation measure

Most importantly it is unclear within the DEIR/EIS when mitigation measures will be implemented. Per the Revised 2012 Business Plan the Authority does not have full access to any funding and only has potential to utilize approximately \$6 billion in funding. It is unclear through the DEIR/EIS what is being funded within the Fresno to Bakersfield section as a part of the authorized \$6 billion. The DEIR/EIS should provide a discussion and analysis of the funding available and the realization of mitigation measures as key junctures of the project. This in essence provides assurance to the public that mitigation measures will be implemented and address impacts in a timely fashion.

The DEIR/EIS as currently presents mitigation measures that do not meet the threshold of CEQA. The public and decision makers cannot determine the feasibility of implementing any of the mitigation measures, nor their ability to successfully address any significant impacts. The DEIR/EIS is required to provide the standard level of information required of mitigation measures before being approved.

6. THE DECISION TO ELIMINATE THE INTERSTATE 5 AND HIGHWAY 99 WERE CAPRICIOUS AND ARBITRARY, THEREFORE SHOULD BE CONSIDERED AS A VIABLE ALIGNMENT FOR ANALYSIS IN THE PROJECT DEIR/EIS

California Public Resources Code Section 21001 states *"The Legislature finds and declares that it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives..."*. Based upon the 2005 Program EIR/EIS the Authority has eliminated the analysis of the Interstate 5, Highway 99 and BNSF through Hanford alternatives. Although these alternatives have been capriciously removed from the Draft EIR/EIS process, the conditions surrounding California and changes in the project scope and objectives would necessitate that a further review of these alternatives should be included in the DEIR/EIS.

a) Decisions Based on Program EIR/EIS were inconsistent with further justifications.

In Reviewing the Program EIR/EIS it is clear that decisions that eliminated or directed the Authority towards a certain alignment were guided by arbitrary and capricious information. For example the Program EIR/EIS on page 6A-16 stated the following:

"However, these results do not indicate a significant difference between the BNSF and UP alignment options that vary between 106 to 111 miles in length. The BNSF option was determined to have fewer potential impacts to floodplains (22,116-25,227 linear feet less), streams (500-850 linear feet less)..."

This same analysis was not provided when comparing the Interstate 5 options with the BNSF and UP alignment to arrive at a true alternative analysis. An alignment located on Interstate 5 would have significantly fewer impacts of waterways of the State or any critical water features. The alignment along Interstate 5 would also reduce conflicts with floodplains.

b) Conditions and circumstances surrounding the high-speed rail project have changed.

Since the Programmatic EIR/EIS was approved in 2005 the economic and details surround the project have changed. As planned in 2005 the project was to be executed under provisions that were later laid out in the Proposition 1A, which was put to a vote in 2008 and passed. The conditions under which the high-speed rail project were to be carried forth included a dedicated high-speed rail system from San Francisco to Los Angeles for approximately \$45 billion. Today the system is no longer a dedicated high-speed rail system and the cost for the project is liberally estimated at \$68 billion with experts warning that costs could soar upwards to \$150 billion.

The commitments and project components described in the Programmatic EIR/EIS are no longer being proposed by the Authority. The Authority recently adopted plans to utilize blended systems in the Bay Area and Southern California to appease local concerns over construction of a dedicated track. The adoption of this approach changes the level of service of the HSR system and the impacts on a Statewide scale. Therefore the project level DEIR/EIS cannot rely upon the Programmatic EIR/EIS for its basis.

7. THE AUTHORITY HAS FAILED TO ADDRESS THE EMOTIONAL AND PHYSICAL STRESS ASSOCIATED WITH THE IMPLEMENTATION OF THE HSR PROJECT

The Authority has been actively pursuing the HSR project for over 20 years. In the last 5-6 years the Authority has been aggressively pursuing this project in an attempt to award contracts and begin construction. When the concept of high-speed rail was introduced to citizens around the state the economy and the State were enjoying a blossoming economy and were sold the concept of high-speed rail between San Francisco and Los Angeles on "transportation corridors". What has historically and currently been lacking is a transparent and landowner focused approach to the implementation of high speed rail in California.

The HSR project is poised to be the large infrastructure project in the State of California and potentially the nation. The project will require large quantities of land and disrupt, if not eliminate from existence, significant number of homes and businesses. What has been ignored by the Authority, its staff and cadre of consultants is the human nature of the process to take personal property and the subsequent emotional and physical distress caused to landowners. These is a large case study and history surrounding the psychological and physical impacts to landowners subjected to the eminent domain process. Landowners often feel sadness and anger associated with being forced to leave behind many memories and attachments to the land and/or home³. Landowners associate a sense of safety and comfort as their identity to their property and the threat of losing this can cause emotional distress. These factors have been largely ignored by the Authority in implementing this project and fails to address the long-term impacts associated with large land takings within the DEIR/EIS.

A brief description of the current atmosphere established by the Authority prior to the release of the DEIR/EIS will help the establish the need for the DEIR/EIS to address this critical feature and ensure it is mitigated during the construction and implementation of high-speed rail service.

³ Student Article: The Psychological Cost of Eminent Domain Taking and Just Compensation, 30 Law & Psychol. Rev. 215, Jeffrey T. Power, Spring 2006.

Early in the outreach program led by the Authority many landowner attended meeting to discuss the project with Authority consultants. Landowners voiced concern and even offered advice, yet many walked away with no response and greater levels of frustration. Alignments proposed in Spring 2010 were later discovered on January 2011 to be invalid and new alignments were created in secrecy by Authority staff and consultants from Spring 2010 to January 2011. The public was not notified of a change in alignment until Spring 2011, at which time the public in Kings County began to ask critical questions. Comment cards were filled out, questions were submitted and an attempt to hold a public question and answer session were done. After the minimal effort was put forth landowners were left with more questions and an immense level of frustration. To date, many landowners are still asking the same questions, waiting for a semblance of an answer. Comment cards have never been responded to and the Authority continues to hold informational only meetings.

In order to address concerns of local citizens a group of landowners formed a grassroots organization, Citizens for California High Speed Rail Accountability, of which I am a Co-Chairman address the fears and concerns that landowners had. CCHSRA was implemented to find answers and provide some comfort to landowners. There was a recognition that people by nature will feel threatened with eminent loss of property and possessions and left unanswered can lead to anger, depression, anxiety and potentially overall physical and mental deterioration. As Co-Chairman of the group I have spent number hours talking with people who have shared their story of stress and anxiety with the potential to lose land and history, some of which have been moved to the point of crying. I have received frantic calls from landowners who had Authority consultants entering private property without permission. What I have come to discover is the power of an "answer". A questions left unanswered festers into anxiety, anger and can manifest itself in depression.

The Authority and its cadre of consultants have maintained a huge separation from landowners that stand to lose property to ensure an emotional disconnect. At every stage of the process legitimate concerns have been addressed with the following general category of response:

1. Your concern will be address in the EIR/EIS.
2. Your concern is a right-of-way acquisition question and we cannot talk to you about this until we appraise your property.
3. You will be paid "fair market value" for your property.

These three responses have been utilized by every staff and consultant working on this project. In relation to a question submitted by landowners, the reality that three responses address every concern is unrealistic and has elevated the anger and frustration of landowners. In the case of the Answer #2, I have approached the Authority and asked what law says they cannot talk to landowners about impacts. Current State and Federal law does not allow appraiser or Authority staff to enter into property acquisition contracts, however discussions with landowners is not forbidden by law, and is actually promoted amongst project advocates to ensure that as many impacts and details are discovered prior to construction.

The DEIR/EIS also does a minimal job at addressing environmental justice protocols within CEQA and NEPA, therefore concentrating mental stress impacts upon those communities that

lack the coping mechanisms that more affluent communities may have. Looking along the alignment the only alternatives being proposed impact agricultural land and lower income (environmental justice) communities. Many of these low income communities have not been properly notified and are still learning of the potential to lose their homes. No analysis was done by the DEIR/EIS to ensure that relocation efforts or housing stock met the need of low income communities. Often the tools and finances required to be utilized in the taking under eminent domain are not reasonable for low income people. Knowing the eminent domain process and ensuring that all impacts are addressed will induce a great deal of stress and worry amongst the low income communities. This is all information yet to be shared with most of the low income communities along the alignment.

The description above pertains to the process leading up to the DEIR/EIS and does not take into account the process conducted during construction. Given the complete lack of attention paid to personal emotions and concerns while planning the project, the inclusion of a discussion of the emotional and physical health of landowners associated with this project is paramount to a complete and effective DEIR/EIS.

8. THE DEIR/EIS FAILS TO CONTEMPLATE AND DISCUSS THE POTENTIAL OUTCOME OF A PARTIAL COMPLETION OF THE PROJECT VERSUS A COMPLETED PROJECT

The DEIR/EIS as stated above does not provide a clear and concise Project Description, therefore the public and decision maker are unclear of what is exactly being proposed for this project. Given the current combination of Federal and State funding available at this time, the Authority only has enough funds to install rolling stock, the associate track bed, and acquire right-of-way. It is unclear and highly unlikely that funding is available for the other features such as stations, mitigation measure, overpasses, relocation of public utilities and facilities, electrification, communication facilities, traction control system and acquisition of high-speed rail trainsets. The DEIR/EIS however is approached from the vantage that all of this is implemented.

The question becomes when will all of this be implemented, based upon funding and what is the potential that the entire project is not realized. A discussion of the timing and realistic ability to achieve all phase of the Fresno to Bakersfield section of the track in concert with the entire system, and the implementation of high-speed rail service is critical to determining the impacts and benefits of this project.

For example the DEIR/EIS claims that HSR service will drastically improve air quality in the state of California. At the same time the DEIR/EIS recognizes the immense amount of air pollution that will be created by the construction of the project. It is estimated that the construction of the HSR Project will add as much as 10 million metric tons of Carbon Dioxide per year⁴ during construction. If the HSR project is unable to attain funding to continue the project beyond the Fresno to Bakersfield section, the Central Valley will have a new increase in

⁴ California High-Speed Rail Will Increase Pollution, Baruch Feigenbaum, June 14, 2012, <http://reason.org/blog/show/california-high-speed-rail-will-inc>

air quality pollution. The DEIR/EIS does not contemplate a failure to achieve its projects goals and the impacts that will be encountered.

9. DEIR/EIS IMPROPERLY CHARACTERIZES SIGNIFICANT IMPACTS

The DEIR/EIS improperly identifies the impacts associated with NEPA in each section utilizing a criteria formulated around the term "substantial" versus significance. Traditionally NEPA analyzes impacts based upon its potential significance. The use of the term "substantial" confuses the public and decision maker. The DEIR/EIS is also inconsistent in the terminology utilized throughout the sections. In many of the sections under the NEPA analysis the term "substantial" is used, but in the cumulative section the term "significant" is used. The DEIR/EIS does not properly nor consistently apply the significance terminology utilized by NEPA.

The DEIR/EIS should be modified per the guidelines of NEPA to utilize the appropriate terminology. Once the adjustment has been made, along with the other comments provided in this letter, the DEIR/EIS should be provided to the public for another 180 day public review process.

10. LACK OF DETAIL REQUIRED FOR CLEAN WATER ACT SECTION 404 ANALYSIS

The DEIR/EIS recognizes the potential for impacts to natural waterways and wildlife habitat. The intent of the DEIR/EIS is to serve as the environmental documentation required for the United State Army Corp of Engineers (USACE) to complete their Section 404 permitting under the Clean Water Act (CWA). In order to meet these requirements the DEIR/EIS must meet the detailed requirements of CWA 404(b)(1) Guidelines of 40 CFR Part 230 (Guidelines). As such, the information provided in the DEIR/EIS fails to meet the requirements of the Guidelines

The Guidelines provide the following requirements:

1. An Alternatives Analysis - An investigation must be conducted to determine if there is a less environmentally damaging alternative that would protect waterways and habitat.
2. Protect the Water Quality of Sensitive Species - must prohibit the discharge of water that will degrade water quality.
3. Prohibit Long Term Degradation - Must eliminate or reduce the amount of long term discharges that would degrade water quality.
4. Provide Mitigation - Must be provided to reduce adverse impacts.

11. ENSURE US ARMY CORP OF ENGINEERS COMPLIANCE

In reviewing comments provided by the U.S. Army Corp of Engineers (USACE)the questions and clarification pertaining to the Fresno to Merced section of the project should be reviewed to ensure compliance with the requests of the USACE is maintained throughout the project, and

specifically in the Fresno to Bakersfield section of the project. Comments provided to the Authority are hereby submitted as Attachment B and I request that the questions listed in attached letter be accounted for and addressed in the Fresno to Bakersfield section of the HSR Project. Of notable mention the DEIR/EIS must address these items:

- Address Substrate conditions for aquatic features from Fresno to Bakersfield where the HSR Project will have an impact (40 CFR 230.11(a) and 230.20).
- Address impacts to substrate and the restoration of temporary fills around water features.
- Address the potential for contaminants in fill material and provide an analysis or procedure for identifying the quality of fill material (40 CFR 230.60, 230.61).
- The identification of turbidity and suspended particulates is not clearly analyzed as a potential contaminant in the DEIR/EIS. During construction and/or during operation there exists the potential for the introduction of turbid water impact streams and rivers, which should be analyzed and discussed in the DEIR/EIS (40 DFR 230.21)
- Impacts to non special-status species should be addressed. Included in this analysis should be fish, crustaceans, mollusks and other organisms in the food web (40CFR 230.021) and (40 CFR 230.32)
- Clarification needs to be provided for parking lots constructed for HSR stations. It is unclear if the Authority will be paying for parking lots of local jurisdictions. The DEIR/EIS should also clarify the timing and potential for full parking lot build out.
- The DEIR/EIS should specifically reference the screening criteria that was used in the elimination of alternatives. This includes the criteria utilized to eliminate the Interstate 5 and Highway 99 alternatives.
- The DEIR/EIS needs to clarify the criteria utilized to eliminate and analyze alternatives. The DEIR/EIS attempts to utilize the criteria of placing alignments near a transportation corridor, yet for many sections it depart from transportation corridors.
- Construction impacts near waterways need to be carefully examined as the DEIR/EIS characterizes these impacts as temporary. However given the length of construction near waterway the temporary impact may become a permanent impact without a proper reclamation plan.
- Indirect impacts to waters of the U.S. need to be addressed and to the degree possible quantified.
- The DEIR/EIS should provide specific elements of the Stormwater Pollution Prevention Plan Best Management Practices that will be implemented. In this fashion the public will know what to expect as a mitigation feature otherwise there is no way to determine if it will properly mitigation for the potential for pollution.

12. ENSURE US ENVIRONMENTAL PROTECTION AGENCY COMPLIANCE

In reviewing comments provided by the U.S. Environmental Protection Agency (EPA) the questions and clarification pertaining to the Fresno to Merced section of the project should be reviewed to ensure compliance with the requests of the U.S. EPA are maintained throughout the project, and specifically in the Fresno to Bakersfield section of the project. Comments provided to the Authority by the U.S. EPA are hereby submitted as Attachment C and I request that the questions listed in attached letter be accounted for and addressed in the Fresno to Bakersfield section of the HSR Project. Of notable mention the DEIR/EIS must address these items:

- The DEIR/EIS will be used to determine the Least Environmentally Damaging Practicable Alternative (LEPA) and based on the information in the document here is currently insufficient information to adequately compare the direct, indirect and cumulative impacts to jurisdictional waters resulting from an appropriate range of practicable range of alternatives. The EPA and the USACE had previously recommended that the Authority include alternatives that were once eliminated. It should be further noted that the DEIR/EIS should include the analysis of the Interstate 5 and Highway 99 alternatives given the change in times and the change in economic conditions.
- The DEIR/EIS should quantify indirect impacts to aquatic resources. In order to determine the LEDPA the EPA will require that there is a discussion of indirect impacts.
- The DEIR/DEIS clearly draws the conclusion that temporary impacts are associated with construction and permanent impacts are associated with HSR operations. This is not founded in any qualitative data provided in the DEIR/EIS and allows the document and the Authority to overlook permanent impacts that can be an outcome of construction activities. For example loss vegetation and biological resources will occur during construction, but the loss is a permanent impact. This clarification needs to be consistent throughout the DEIR/EIS and a renewed analysis of permanent versus temporary should be investigated.
- The DEIR/EIS points to stormwater being directed to urban stormwater collection system when located near a city or to drainage swales located in the rural areas. However, the DEIR/EIS provides not data or evidence that this is allowed or appropriate in each jurisdiction. The DEIR/EIS also further concludes that there are no water quality impacts associated with the stormwater from the alignment or the Heavy Maintenance Facility (HMF), however there is no evidence provided in the DEIR/EIS that the water quality of the stormwater runoff will be void of any contaminants.
- The DEIR/EIS does not provide a clear and concise description that would lead agencies permitting this project that water resources will not be degraded. According to 40 CFS 230.10(c) a permit cannot be issued to the project unless there is a reasoned, specific and detailed argument that the project will neither contribute nor cause any significant degradation of waters.
- The DEIR/EIS should assess and address the impact of air quality degradation on health impacts. Respiratory ailments in children and elderly people have been shown to be caused and heightened during poor air quality days.
- The DEIR/EIS does not recognize or analyze the increase farming expense to deal with the HSR alignment through farming operations. The DEIR/EIS also does not lend the appropriate level of impacts to dairies. The DEIR/EIS does not account properly for permitting and environmental concerns with relocating and retrofitting dairies to adjust for the HSR Project.

13. DEIR/EIS FAILS TO ADDRESS TRACK BED STABILITY AND CONCERNS FOR SPEED RESTRICTION, COST, AND SAFETY

Internationally the issue of track bed stability has caused high-speed train operators to operate at speeds below the capacity of the train system. This has caused a significant loss in income and

profitability to operators. The vibrations caused by high-speed train systems also induces and increased wear and tear on the equipment and structures that support high-speed rail systems, therefore significantly impacting operations and maintenance costs. International operators have also witnessed settlement of soils and facility damage outside of the high-speed rail footprint increasing safety concerns and limiting the ultimate speed of train systems. In order to combat the vibration impacts of high-speed train system, international operators have gone to very expensive and technical measures to prevent damage and safety issues. These measures are a significant cost item to be considered when balancing the cost/benefit of installing a high-speed rail system. The DEIR/EIS is deficient in its general acknowledgement of the safety, cost and stability issues facing high-speed trains traveling at speeds greater than 150 miles per hour and specifically fails to address any concerns with trains traveling at 220 miles per hour.

Train speeds on an international basis are currently averaging approximately 185 mi/hour (China, Germany, Italy, Japan and the UK). The highest speeds are 195 mi/hour in Spain and 200 mi/hour in France⁵. What is significant about the average and highest speeds achievable by steel-on-steel high speed rail is that California is relying upon 220 mi/hour speeds to accomplish its mandated goals per Proposition 1A. Given the international experience and limits, we can expect that the goal of 220 mi/hour will be either unachievable or come at a significant cost, which the Authority has not addressed technically nor in the Draft EIR/EIS.

If there are issues with achieving 220 mi/hour speed the ability of the HSR Project to reach it desired travel times of 2 hours 40 minutes between San Francisco are highly suspect. If the HSR Project is unable to achieve its time requirements then the ridership and foundation of the project begins to be unrealistic. Once the ridership and time requirements become anything other than what is proposed the environmental benefits will be reduced and the impacts will outweigh the benefits. The DEIR/EIS must address track stability to ensure the overall objectives of the HSR Project are upheld.

High Speed Train Vibration Impacts

The international high-speed rail community has been investigating and analyzing the impacts of speed on deformations of track due to the stiffness of the underlying track bed materials. What has been discovered is that rail deformation are a function of⁶:

1. Axle load
2. Thickness of the embankment fill
3. The elastic properties of the sub-soil and the dampening effects within the track bed system
4. Train speed

As trains move at high speeds there are significant vibration velocities that travel through the rails into the immediate track bed. The velocity of the vibrations are so high they often are not dampened by the ballast material and find their way into the underlying soils. Vibrations are introduced through different sources:

⁵ http://en.wikipedia.org/wiki/High-speed_rail

⁶ R.F. Woldringh & B.M. New. "Embankment design for high speed trains on soft soils". Geotechnical Engineering for Transportation Infrastructure, Barends et al. 1999 Baikema, Rotterdam

1. Train wheels are not entirely circular. Due to braking and other various interactions between the steel wheels and the steel track, the wheels tend to develop flat spots that can induce a vibration in the track when the flat spot is in contact with the track.
2. As trains move along the tracks there is an upward heaving of the track ahead of the train and an immediate downward movement as the train engages the upward track.
3. As trains move along the track and from one sleeper (the common term is railroad tie) to the other, the free span of the track is allowed to deflect.

Once vibrations are transmitted into soils can begin to compact and lose integrity. Soils that tend to have low shear wave velocities and would present a problem include: SM (Silty Sand), ML (Inorganic Silt and Very Fine Sand) and CL (Inorganic Clays of low to medium plasticity). Each of these soils are considered "soft" and as soft soils are exposed to vibrations on a frequent basis the strength of the soil will degrade. A situation will occur where the pore pressure within the soil will increase. An increase in pore pressure can cause soils to begin to collapse and settle. Settlement of the underlying soil will cause track deformation and significant risk to the train. Many of the soil types are characteristic of those found in the Central Valley and within the Fresno to Bakersfield section of the HSR Project.

Train Speeds

There are two critical speeds at which a train can have significant amplifications. One speed is at several hundred m/s and is controlled by the stiffness of the rail & embankment stiffness. The other speed is at the Rayleigh Wave Velocity of the soil. Rayleigh waves are a type of surface wave that travel near the surface of solids. Rayleigh waves include both longitudinal and transverse motions that decrease exponentially in amplitude as distance from the surface increases. There is a phase difference between these component motions. A study conducted in Canada found that train induced vibrations that approach the Rayleigh wave velocity of soils can cause significant amplifications in the soil and can cause soil instability⁷.

An important finding was that "resonance" occurs at a fairly slow speeds (270 km/h or 168 mi/h) which causes a significant deformation of the track rails, therefore causing excessive maintenance or reduction on train speeds. Data presented indicates that train speeds of approximately 120 km/h (75 mi/h) can cause deformations as large as 15 mm (.60 inches). Most studies showed that speed at approximately 168 mi/h in soft soils have induced 12 mm (.47 inches) of settlement.

Solutions That Have Been Investigated

Solutions to minimize failure include:

1. Track beds supported by piled concrete foundations.
2. Construction of the track bed on a sandy material to a depth of approximately 5 m (16.4 feet).
3. Construction of the track bed as a continuous concrete slab.
4. Soil stabilization methods including lime/cement treatment of underlying soil.

⁷ D. Motazedian. "Railway train induced ground vibrations as low Vs soil layer overlying a high Vs bedrock in Canada". Soil Dynamics and Earthquake Engineering, February 9, 2011.

Case Example⁸

West Coast Line between Göteborg (Gothenburg) and Kungsbacka in Switzerland. Traffic with high speed trains (X2 trains) started in spring 1997 with a speed of 200 km/h. Shortly afterwards, excessive vibrations were observed at the Ledsgård site, located some 25 km south of Gothenburg. These vibrations were in the order of ten times greater than those measured earlier from heavy train traffic in soft soil conditions and had been regarded as worst case. Train speed of the X2 trains was reduced to 160 km/h and later to 130 km/h to ensure safety within the soft soil areas. A countermeasure program was carried out in June and July 2000. Train speed was increased to 160 km/h in August 2000.

14. THE DEIR/EIS FAILS TO RECOGNIZE THE CONCEPT OF LIABILITY THEREFORE IGNORING THE FULL IMPACT OF THE PROJECT

In the analysis to determine the impacts of the HSR Project the DEIR/EIS ignores the importance of liability and therefore misses critical impacts that will be associated with the project. Three immediate liability impacts not accounted for in the DEIR/EIS include:

1. Liability associated with accidents impacting the traction control system.
2. Liability issues facing the aerial application of pesticides.
3. Liability associated with the ability to effectively and efficiently meet the safety needs of the community.

The DEIR/EIS details the construction of a fully grade separated high-speed alignment that does not allow any object into a 100' right-of-way alignment. Specialized fences located approximately 50' on either side of tracks can detect the intrusion of any object, which can shut down the high-speed rail system to prevent an accident on the HSR alignment. What is not contemplated, is the potential for activity along the tracks to frequently trigger the traction control system that will alarm the high-speed trains and stop them. Farming operations often utilize significantly large equipment, and as equipment travels near fences or turns at the fence line there runs the risk of intruding upon the fence line. In this situation the responsibility for the liability to fix the accident and to accommodate the delay in the HSR train system has not been addressed or identified.

The recommended solution to this problem is to establish a setback from the safety fence to ensure that equipment cannot intrude upon the fence. As a new setback is required there is more land adjacent to the alignment that will be required for the project and taken from agriculture.

The DEIR/EIS addresses the aerial application of pesticides and herbicides without addressing the liability concerns that have been shared with the Authority on numerous occasions. With the presence of construction activity near farming operations, aerial applicators may be unwilling to apply chemicals due to the liability issues facing the applicator. During operation the same liability may exist as they applicators may be unwilling to apply chemical near the train. Currently applicators do not spray around the BNSF train due to issues with drifting chemicals to adjacent fields. Crop dusters can anticipate the BNSF freight trains and hold until the trains have

⁸ Goran Holm, Bo Andreasson, Per-Evert Begtsson, Anders Bodare, Hakan Eriksson. "Mitigation of Track and Ground Vibrations by High Speed Trains at Ledsgard, Sweden". Svensk Djupstabilisering, August 2002.

passed. However high-speed rail service plan to include 6 trains per hour in each direction. This would make flying holding patterns very lengthy and inefficient.

The DEIR/EIS lastly does not address the impacts to insurance rates of homeowners in the rural community that will be impacted by ability for emergency services to access landowners. The HSR Project alignment presents a fully grade-separated track that will force emergency response vehicles to make longer trips to access properties. The HSR Project also eliminates Station #4 on Houston Avenue. These impacts all will cause insurance rates to be adjusted. As it becomes harder for emergency services to access property or longer times, the cost of insurance increases to landowners⁹.

Section 1.0 Project Purpose and Need

15. Lack of Project Description

The DEIR/EIS lacks a Project Description as required under the CEQA Guidelines §15124 . The intent and purpose of providing a detailed Project Description is to provide the reader with an understanding of what is being proposed and what the potential environmental impacts may be incurred. The DEIR/EIS does not initially include a section titled Project Description therefore leaving the reader with the inability to determine where to find such information.

16. Page 1-1: Definition of "Potential" should be provided for an appropriate level of analysis.

The DEIR/EIS states the following:

"The Fresno to Bakersfield HST Project section would connect a Fresno station, a potential Kings/Tulare Regional station in the Hanford/Visalia/Tulare area, and a Bakersfield station."

The DEIR/EIS at its foundation requires clarity to achieve an understanding of the impacts to the environment, therefore it is incumbent upon this document to define what "potential" means when referring to a potential Kings/Tulare Regional station. By defining "potential" a reader and the public can determine the plausibility of a station. The DEIR/EIS also does not make it clear to the reader if the analysis conducted within the document is from the basis of the inclusion of a station or no station. Given that possibility of the lack of a station, the DEIR/EIS should at a minimum investigate both the inclusion and the lack of a station in the Kings/Tulare area.

Lack of clarity minimizes the ability to clearly understand the impacts associated with the inclusion or absence of a high speed rail station in the Kings/Tulare area.

17. Page 1-3: DEIR/EIS lacks a recognition and description of the Alternatives Analysis process.

⁹ <http://www.homeinsurance.org/articles/distance-to-emergency-services-and-the-price-of-home-insurance-quotes/>

The DEIR/EIS state the following:

"Tier 2 of the HST development process includes additional engineering and design and preparation of project-level EIR/EISs for all HST project sections. This Fresno to Bakersfield Section EIR/EIS (Tier 2) evaluates proposed alignments and stations in site-specific detail to provide a complete assessment of the direct, indirect, and cumulative effects of the proposed action, considers public and agency participation in the screening process, and was developed in consultation with resource and regulatory agencies, including EPA and USACE. FRA and the Authority intend this document to be sufficient to support Section 404 permit decisions and Section 408 permit decisions (as applicable) for alteration/modification of completed federal flood risk management facilities and any associated operation and maintenance, and real estate permissions or instruments (as applicable)."

The DEIR/EIS lacks a discussion of the Alternatives Analysis process that took place between the Tier 1 and Tier 2. The use of the Alternatives Analysis was not subject to the standards of CEQA, not carried out with appropriate public notice and transparency. Decisions made in the Alternatives Analysis report were also tainted by false reports by Authority staff that issues were non-existent. Please refer to the Alternatives Analysis report delivered by Jeff Abercrombie, Regional Director from the High Speed Rail Authority at the May 2011 Authority Board Meeting. During this report, Mr. Abercrombie stated to the Authority Board that "all" issues in Kings County had been addressed.

It should also be noted that I had made contact with Mr. Abercrombie prior to the May 2011 Board meeting to request a description of the material to be covered during the Alternatives Analysis report for the Fresno to Bakersfield section. He indicated that the Authority staff and consultants would be focused on reporting that the tracks through Fresno would now be located at-grade versus aerial. The intent was to notify landowners in the Kings County area to participate in the public meeting given the Authority Board would be making a decision on the report. This was made very clear to Mr. Abercrombie. Upon watching the May 2011 Authority Board meeting I discovered that the Authority staff and consultants not only reported on the Fresno section of the alignment, but reported that there were no issues in the remainder of the alignment and approved the Alternatives Analysis report. Under the circumstances I notified Mr. Abercrombie and have notified the Authority that the decision made at the May 2011 is not official and cannot be used as an authorized document. Included as Attachment I is a copy of the email send to Mr. Abercrombie after the May 2011 Board meeting, which was never answered.

CEQA §15126.6 (c) requires the DEIR/EIS to identify any alternatives that were considered by the lead agency, but were rejected as infeasible during the scoping process and to briefly explain the reasons underlying the lead agency's determination. Alignments that were discussed during the Alternatives Analysis phase were not presented in sufficient detail within the DEIR/EIS as mandated by State law. This discussion is not included for the reader, leaving one to believe that the presented alignments were the only alignments investigated through the Central Valley.

CEQA also requires the "rule of reason", which requires the DEIR/EIS to include those alternatives that shall substantially lessen any of the significant effects of the Project. As presented in the DEIR/EIS the alternatives present the same impacts, but slightly differing

magnitudes. For the 28 mile linear length of alignment through Kings County the alignment fails to follow any transportation corridor. The DEIR/EIS has arbitrarily and capriciously eliminated alignments through the Alternatives Analysis process to yield two similar alternatives through Kings County.

State law and federal law does not provide for an Alternative Analysis process outside of the official review and documentation within an EIR/EIS. Therefore the analysis conducted by the Authority outside of the DEIR/EIS is not considered by law a legitimate analysis. The analysis, findings and determinations should all be included in the DEIR/EIS. Also as stated above the public noticing and participation during the Alternative Analysis as implemented by the Authority did not provide sufficient public noticing under CEQA and NEPA.

18. Page 1-7: Statement that alludes to the urban sprawl that will be created by the Project.

The DEIR/EIS provides hints that the Project if implemented will create a sprawl to Central Valley communities such as Fresno and Bakersfield. This exodus of urban dwellers in areas such as the Bay Area and Southern California are not appropriately addressed in the documents. The DEIR/EIS makes the following statement:

Much of this population growth will be accommodated in the metropolitan coastal areas or in Southern California's Inland Empire. However, growth and development in these regions are increasingly challenged because of environmental and quality-of-life issues, including the high housing prices. These areas are finding it increasingly difficult to accommodate new development; and despite economic pressure to grow, the combination of rising costs and local opposition is likely to push a substantial number of people to seek homes and employment elsewhere. The San Joaquin Valley is a likely outlet for this population pressure; with a youthful population, it is also a major source of growth in its own right from both the local population, as well as immigration (Teitz et al. 2005).

As the above statement in the DEIR/EIS makes, urban homeowners will be seeking housing in the rural areas both for financial reasons and for a less congestive way of living. As this exodus from urban areas occurs and high-speed rail promotes such movements, the impacts both economically and environmentally will accrue to the Central Valley. As urban homeowners move their incomes towards the Central Valley, rural homeowners will soon be competing with urban salaries causing a discrepancy and unbalance competition. Also as urban dwellers push towards rural areas there will be an increased pressure to develop more farm ground into housing.

19. Page 1-20: DEIR/EIS does not coincide with the goals of AB 32

The DEIR/EIS makes the following statement in regards to AB 32:

"To avoid these consequences, AB 32 requires the California Air Resources Board (CARB), the state agency charged with regulating air quality, to create a plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases" in California. AB 32 requires CARB to design and implement emissions limits, regulations, and other measures to reduce statewide GHG emissions to 1990 levels by 2020. This plan was developed by CARB in 2008 as the Climate Change

Scoping Plan (California Air Resources Board 2008), the state's road map to reaching the GHG reduction goals required by AB 32."

The DEIR/EIS does not make recognition in this statement nor in full analysis that the Project will induce air pollution problems during construction that will potentially not be recouped for over 30 years. The DEIR/EIS also does not make mention that the Project will be potentially accessing AB 32 Cap-and-Trade funds. The utilization of Cap-and-Trade fund for this project can and will have an impact of environmental concerns. The recognition of the use of these funds should be mentioned to the reader.

20. Page 1-28: DEIR/EIS makes a false statement in regards to the review of alternatives between the Tier-One analysis and the project level review.

The DEIR/EIS makes the following misleading and incorrect statement:

"This project-level EIR/EIS evaluates nine alignment alternatives, further refining the preferred alignment identified in the first-tier environmental process."

The DEIR/EIS incorrectly reports the process that was used in analyzing alternatives. During the Program Level (Tier one) analysis the project identified preferred alignment. Between the Tier One analysis and the Tier Two analysis the Authority investigated several other alignments through a process called the Alternatives Analysis. This process investigated to a limited extend other alignments and eliminated alignments based on criteria that was similar to a CEQA and NEPA analysis, but far from the level of analysis required under CEQA and NEPA. It should also be noted that landowners were not notified according to CEQA and NEPA of the process nor involved to any significant measure.

21. Page 1-32: Inconsistent statement with the Draft Business Plan

The DEIR/EIS makes the following incorrect statement:

"The interim use of the IOS first construction track for upgraded Amtrak service could have environmental impacts that differ from those analyzed in this EIR/EIS. However, there are no plans for this service at this time and such plans will require future cooperative agreements between the Authority and entities associated with operation of the Amtrak San Joaquin service."

The Draft Business Plan states on page 2-14 that the Initial Operating Segment (IOS)

"will become operational by allowing Caltrans to operate expanded San Joaquin service between Bakersfield and Merced on the first IOS section. To achieve this, track connection would be build to connect to the BNSF Railway line at the northern and southern ends of the first constructed segment"

The Business Plan further states

“Planning for early interim service on the IOS segment I already underway, with the goal of commencing Amtrak Operatins as soon as possible after construction is complete in 2017. The Authority is already collaborating with its transportation partners to identify and address the technical and policy issues that would be associated with developing early service.”

It is recognized that the Authority has identified the lack of funds to provide a high-speed rail service on the IOS which includes tracks from Fresno to Bakersfield, which are covered by this DEIR/EIS. Initial construction efforts do not include power systems, traction control systems or communications systems needed for high-speed rail service. The Authority has also indicated that high-speed trainsets are not included in the initial funding. Therefore, in order to gain “independent utility” which is a requirement of the FRA, the Authority has initiated the movement and eventual elimination of Amtrak service within the Central Valley.

It stands then that either:

1. The Authority has failed to provide an analysis of the Amtrak Service operating on the Fresno to Bakersfield section of the newly installed track and right-of-way, which would indicate that the Authority does not have the ability to reach independent utility therefore eliminating the ability to access federal funds from the FRA.
2. The Authority does intend to provide Amtrak service on the new installed track and right-of-way and must remove the DEIR/EIS from public review, revise the DEIR/EIS to include the impacts from diesel run trains operated by Amtrak, and re-release the DEIR/EIS for another public review period.

From indications drawn through the DEIR/EIS and other documents such as the Revised 2012 Business Plan, the public can infer that placement of Amtrak service will be moved to the first completed section of track. Therefore Amtrak service, which is different than high-speed rail service and yields different noise, vibration, socioeconomic and air quality impacts should be considered a realistic component of this project and analyzed in the DEIR/EIS.

Section 2.0 Alternatives

22. Page 2.0-3 DEIR/EIS Incorrectly Describes Findings

The DEIR/EIS make the following unsupported statement:

Based on substantive comments received during the public and agency review of the Draft EIR/EIS, the Authority decided to reintroduce alignment alternatives west of Hanford and an additional alternative through the Bakersfield area.

Upon reviewing the comments provided by the public, a reference to inclusion of the Hanford West alignment could not be found. The Authority originally reported to the media that landowners within the Kings County area, specifically landowners along the east alignment requested that the western alignment be included, however upon notification at the public

meeting held at the Sierra Pacific high school, the Authority retracted their comments. The statement provided above is incorrect in its base and should be removed.

Also, given that the DEIR/EIS indicated that if the public comments indicated the want or need investigate other alignments, that it is realistic to do so. Therefore the refusal at the request of many to include options along Highway 99 and Interstate 5 to be studied should be acknowledged and included in the DEIR/EIS.

23. Page 2.0-10 Clarification Required Between Design and DEIR/EIS

The following comment in the DEIR/EIS requires clarification:

"these overcrossings would generally occur approximately every 2 miles to provide continued mobility for local residents and farm operations."

According to the design drawing provided in the DEIR/EIS there is an overpass or underpass structure at every mile. The DEIR/EIS should provide a clarification statement to ensure that the appropriate level of mobility is maintained.

24. Page 2.0-12 Failure to Included Facilities in DEIR/EIS Review and Impacts

The DEIR/EIS includes the following statement regarding power lines and sub stations:

"The project would not include the construction of a separate power source, although it would include the extension of power lines to a series of power substations positioned along the HST corridor. These power substations are needed to even out the power feed to the train system."

The DEIR/EIS recognizes the need to construct power lines and power substations to deliver the electrical power to the HSR project. The DEIR/EIS however does not includes these facilities in its analysis of impacts throughout the DEIR/EIS. To include these facilities within the project per CEQA and NEPA the must be included in the Project Description and studied as a component of the project.

25. Page 2.0-19 Failure to Provide Evidence

The DEIR/EIS provides the following statement without evidence, therefore drawing attention to the potential to study this alternative:

"Use of the I-5 corridor would also encourage sprawl development, which is the opposite of what the HST system is intended to achieve, and which was opposed by numerous agencies, including the U.S. Environmental Protection Agency (USEPA)."

The statement above comes with no supporting evidence. The Interstate 5 alternative was eliminated based on biased and dated studies. The realistic ability to create communities along

Interstate 5 is a remote possibility, however the sprawl of urban communities into rural communities such as Fresno and Bakersfield will far surpass the ability to develop along Interstate 5. Recent comments from Chairman Dan Richard would support the fact that development could not occur along Interstate 5. He indicated that there is not access to water along Interstate 5, hence the reason for not placing the HSR project there. Without water development cannot occur.

26. Page 2.0-19 Failure to Provide Evidence

The following statement is made in the DEIR/EIS:

"Residents along the BNSF/UPRR/SR 99 corridors lack a competitive transportation alternative to the automobile, and ridership analysis showed that they would be ideal candidates to use an HST system (Authority 2010c). In addition, the I-5 corridor would not be compatible with current land use planning in the Central Valley, which focuses and accommodates growth in the communities along the BNSF/UPRR/SR 99 corridors. The concept of linking the I-5 corridor to Fresno and Bakersfield with spur lines was considered at the program level, but dismissed because it would add considerably to the I-5 corridor capital costs, and would still have the same lower ridership figures when compared to the SR 99 corridor."

Residents on the east side of the Central Valley have access to Amtrak (San Joaquins). This service is a subsidized public transportation that is quite successful. This track is the 5th busiest Amtrak line in the Country. Fares are affordable and service is accessible, making the train a viability alternative. Ridership has been increasing the last several years. The HSR project fails to acknowledge this service, yet at the same time has plans to eliminate the service once HSR service begins.

27. Page 2.0-21 Inconsistent Use of Criteria for Alternatives Selection

The following statement was used to describe the reason for eliminating the Fresno West Bypass from the DEIR/EIS:

"The Fresno West Bypass Alternative would not be consistent with the project purpose and need or with the objective of using existing transportation corridors to the maximum extent possible. The alternative would also require acquisition of substantially more right-of-way than an alternative that goes through Fresno, and would therefore have substantially more impacts on environmental resources, including agricultural lands. The Fresno West Bypass Alternative was also opposed by both the City and County of Fresno. For these reasons, this alternative was not carried forward for further consideration."

The statement above can be utilized for the reasoning to eliminate from discussion the bypass alternatives around the City of Hanford. The DEIR/EIS improperly applies criteria in one area to alignments in another area. What is good for one area seems to be bad in another. The application of this faulty analysis indicates that the DEIR/EIS may be based upon a false application of criteria. This makes it critical for the DEIR/EIS to make a full analysis of each

alignment so that the public and the decision makers can fully comprehend the full extent of the alternatives.

28. Page 2.0-21 Inconsistent Use of Criteria for Alternatives Selection

The DEIR/EIS again inappropriately applies criteria in the following statement:

"Additionally, alternatives D-1 and D-2 would have approximately 30 and 45 miles, respectively, of alignment outside of an existing transportation corridor, which is inconsistent with project objectives. Alternatives E-1 and E-2 also cross a wildlife refuge protected under Section 4(f) of the U.S. Department of Transportation Act. For these reasons, UPRR alternatives D-1/D-2 and E-1/E-2 were not carried forward for further consideration."

The use of criteria to eliminate alternatives D-1 and D-2 because they are not in a transportation corridor for significant mileage is not applied to Hanford bypass alternatives which have mileages upwards of 28 miles not along a transportation corridor. The DEIR/EIS should either put the Hanford section on a transportation corridor or add alternatives D-1 and D-2 back into the analysis.

29. Page 2.0-58 The DEIR/EIS Cannot Ignore the Laws of Physics

The DEIR/EIS provides the following statement that violates laws of physics:

"At locations where stormwater swales parallel the embankment, the approach to wildlife crossing structures would be designed in such a way as to prevent water from ponding within the structure. This would be accomplished by terminating the swales on either side of the wildlife crossing structure and engineering a high point distal to the entrance of the structure to create a micro-watershed, limiting the rainwater catchment area to a small, isolated, and discrete depression between the high point and the entrance to the structure. To allow wildlife free passage through the crossing structures, HST right-of-way fencing would be diverted toward the toe of the slope, up the embankment, and around the entrance of the structure. At locations where an intrusion protection barrier parallels a proposed wildlife crossing structure, the crossing structure would be extended and designed to pass through the barrier to allow wildlife free passage. Figure 2-31 shows the wildlife crossing elevation and cross section, as well as the drainage detail."

Water follows the principle that it will find the lowest spot to rest. Storms in our area have been known to develop 2-3" of rain in a 24-hour period. With storms this large, sheet flow will find its way to the habitat crossing and created an impound. In this situation the water will remain there until such time as it is pumped out or evaporated. During the winter months the culverts could remain with standing water for several months until the weather is warm enough to evaporate the water.

30. Page 2.0-58 The DEIR/EIS Unrealistically Estimates Ridership

In Table 2013 the DEIR/EIS estimates ridership from the Kings/Tulare Station at approximately 400,000 boardings per year in 2020 and 1.2 million on 2035. When contrasted against today's Amtrak ridership standing at approximately 180,000 boardings per year, the estimate provided by the DEIR/EIS is unrealistic. No evidence is provided within the DEIR/EIS for the public or the decision maker to believe these numbers a credible. When combined with the estimated cost of tickets, which could increase fares upwards to 6 to 7 times the current cost to ride Amtrak, the DEIR/EIS fails to ensure that the ridership forecast indicated is appropriate or legitimate.

31. Page 2.0-105 Statement Contradicts Alignment Choices from Fresno to Bakersfield

The Following statement is given to direct the reader and decision maker as to the criteria set forth by the DEIR/EIS, however is it not applicable to the alignments from Fresno to Bakersfield:

"HST stations "be located in areas with good access to local mass transit or other modes of transportation. The HST system also shall be planned and constructed in a manner that minimizes urban sprawl and impacts on the natural environment" including "wildlife corridors."

The stations being investigated in the Hanford are include stations that are located several miles from the heart of the city and remote from any transportation opportunities. In both instances there are no city services, no public transportation services, nor any residential or commercial development located near the stations. They are located in rural areas which do not fit the statement above. In the case of the Hanford East (BNSF) station it is significantly different from the statement made above given that it is located several miles outside of town and between an area that is blighted and deemed urban reserve. This area is a forgotten and underdeveloped section of the community and as you travel eastward out of Hanford the town become desolate and void of public attractions such as shopping centers or services.

If the DEIR/EIS wishes to include statement of criteria, it should provide a detailed and clear analysis of the reasons for not following the criteria.

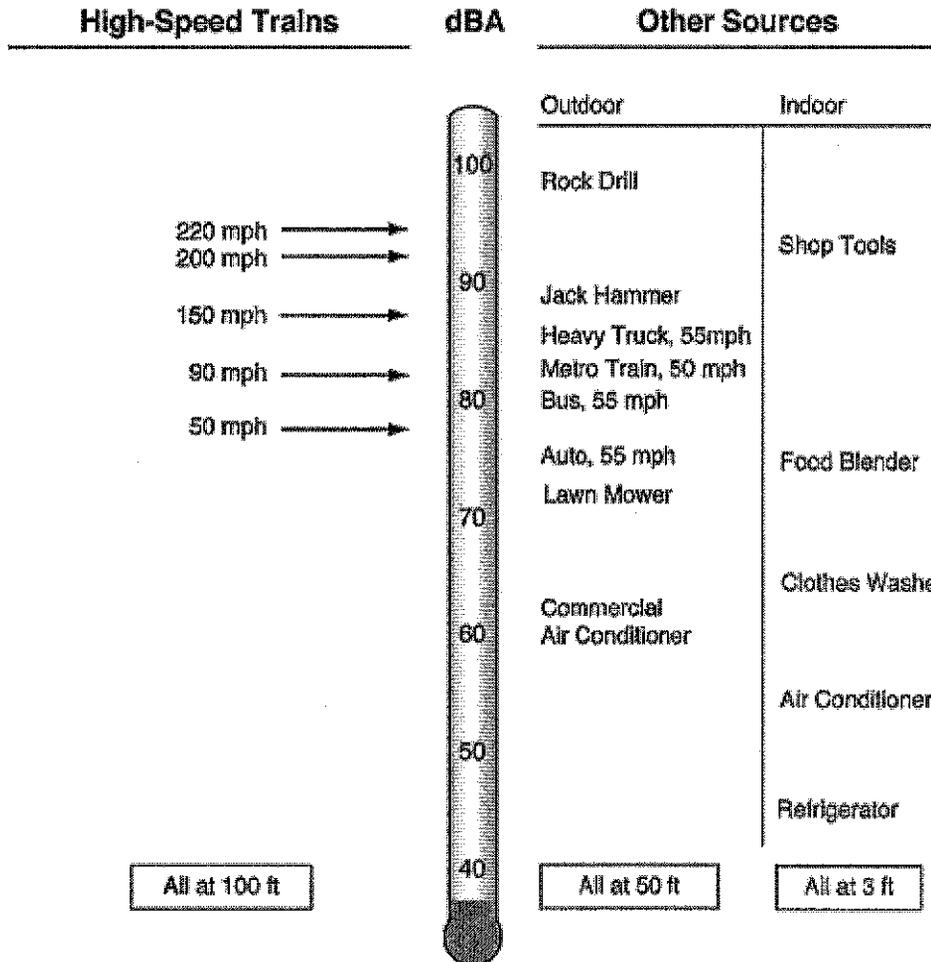
32. Page 2.0-109 Table 2-17 Missing Design Phases

Presented in Table 2-17 is a schedule for the project, however what is missing is the design phases of this project. The DEIR/EIS explains that this project will be constructed under the Design/Build concepts, which will allow the contractor who builds the system to also design it. This process however does not eliminate the need for design. The current status of the plans are at 15%, which is significantly under designed for a DEIR/EIS analysis, and requires the contractor to carry the design out to 100%. There is not time allocated in this unrealistic time schedule to allow for design.

Section 3.4 Noise and Vibration

33. Page 3.4-3 Figure 3.4-1 is Misleading

The DEIR/EIS presents the following diagram for Figure 3.4-1



This figure is misleading to the reader as the comparison of HSR noise is compared to other Outdoor and Indoor noise generators at different distances. This is an inappropriate manner in which to represent the significance of sound levels. If the levels of the Indoor and Outdoor generators were measured at a 100 foot distance there would be a better understanding by the reader. The DEIR/EIS could also move the impacts of HSR levels to within 50 feet for a better comparison. If a receiver is located within 50 feet of the alignment, this diagram would indicate that the sound would be significantly louder than what is reported. The DEIR/EIS should also ensure that all sound measurement are consistently represented from the same distance.

The DEIR/EIS also provides the following findings in regards to the sound levels through Kings County:

"After crossing Conejo Avenue, the project alignment turns to the southeast, away from the BNSF right-of-way, to bypass the community of Laton and to run around the eastern side of Hanford where the Kings/Tulare Regional Station is proposed. The land uses in the area continue to be primarily agricultural. The measured ambient noise levels between Laton and SR 198 ranged from 47 to 63 dBA Ldn. These noise levels are consistent with a rural environment with some vehicular traffic. The project alignment runs on the eastern side of SR 43 as it turns south toward Corcoran. It runs halfway between 7th Street and 8th Street. The land uses along the alignment between SR 198 and Corcoran are primarily dairy farms and fields of alfalfa. The measured ambient noise levels in this area range from 52 dBA Ldn at the homes away from busy roadways to 72 dBA Ldn for the homes adjacent to the main arterials."

This information is also depicted in Figure 3.4-6, which shows the locations where noise levels were monitored along the BNSF alignment. The DEIR/EIS relies upon noise levels that were consistently taken outside of the impact zone (identified earlier in the DEIR/EIS as within 2,500 feet of the track alignment). The sound levels are not indicative of the ambient noise levels given their closer proximity to Highway 43, which is a transportation corridor and typically has higher noise levels associated with a transportation corridor. The noise samples are also located along a path of agricultural operations and industries that are much more intensive than the areas located east, given their close proximity to Highway 43.

The DEIR/EIS relies upon ambient sound readings that would reflect a higher ambient noise level and therefore lower differential between the ambient noise and the HSR levels. The DEIR/EIS should revisit the study conducted and provide noise samples closer to the proposed BNSF alignment given the current information does not correctly represent the ambient noise levels within the HSR alignment impact zone (2,500 feet). The DEIR/EIS should then be revised and re-circulated for public review and comment.

34. Page 3.4-26 Small Sample Size

The DEIR/EIS makes the following statement as to the sampling size for the vibration analysis:

"Vibration measurements were conducted at 9 locations representative of actual potentially impacted areas that were within 220 feet of a HST alternative alignment and within approximately 250 feet of an existing active rail line."

The inclusion of only 9 sampling locations for 114 miles of track is insufficient to provide a realistic and statistically representative sampling of the potential impacts and ambient ground vibration conditions along the alignment of the HSR system. Given that soil type and quality is a significant variable in the vibration analysis the alignment currently passes through far greater than 9 different soil regions in the area. The DEIR/EIS should provide a statistically representative sampling such that a full array of soil types can be taken into consideration.

Samples were also only taken along existing railroad corridors, which does not take into account the numerous alignment options located outside of railroad corridors. The areas sampled have been exposed to over a century of various ground vibrations which has consolidated and compacted the immediate area. Vibration studies in this area can be anticipated to be different than studies conducted in the rural area of the alignment. The DEIR/EIS provides a select and narrow sample size and type, therefore limiting the analysis and findings.

The failure to provide a significant analysis along the alignment to measure and observe vibration impacts is a significant shortfall in the environmental analysis of the DEIR/EIS. In later sections of these comments it will be shown that vibration impacts are high dependent upon the soil characteristics of the location. Without a proper and exhaustive analysis of soils and vibrations, the Authority risks significant impacts to the integrity of HSR structures and an inability to maintain 220 mph travel speeds.

Without a proper sample of soil vibration readings the DEIR/EIS will be inadequate to address future issues that could arise. Leaving analysis to a future time is not contemplated or allowed under CEQA and NEPA. The DEIR/EIS has the responsibility to provide the appropriate level of analysis such that the public and decision maker can determine the appropriate level of significance. In the case of vibration analysis the DEIR/EIS falls significantly short.

35. Page 3.4-33 DEIR/EIS Improperly Defers Analysis

The DEIR/EIS provides the following statement:

"All alternatives would result in severe and/or moderate noise impacts that would have substantial intensity under NEPA and would be significant under CEQA. Project elements, such as the specific vehicle type, track structure and other elements, may change during engineering and design, resulting in changes to the noise impact assessment. As project elements affecting noise either change or are refined, additional analyses will be conducted to reflect these changes."

The DEIR/EIS relies upon future analysis to determine impacts and mitigation measures for the HSR Project. The DEIR/EIS cannot under CEQA defer analysis or impacts and should reflect the most conservative and worst case scenario for analysis. This ensures that the public is presented with the most impactful scenario. Although the ability to identify the exact trainset and car configuration cannot be determined at this point, the DEIR/EIS can easily present information gathered from other international HSR project and provide the most conservative data for analysis.

Under CEQA the EIR shall identify mitigation measures for each impact (see CEQA Guidelines Section 15126.4 subdivision (a)(1)(A)). The mitigation measure must be fully enforceable through permit conditions, agreements or other legally binding instruments. The Lead Agency is also precluded from making the required CEQA findings unless the record shows that all uncertainties regarding the mitigation of impacts have been resolved; and the agency may not rely on mitigation measures of uncertain efficacy of feasibility (Kings County Farm Bureau v. City of Hanford (1990) 221 Cal.App.3d692, 727-728). The EIR/EIS improperly defers the analysis and mitigation measure to some point in the future. Recommendation: The EIR/EIS must address the current proposed impacts and cannot assume a later adjustment.

36. Page 3.4-48 Improper Conclusion with Analysis or Data

The DEIR/EIS makes the following finding:

"In the Fresno to Bakersfield Section, the maximum train speeds would be 220 mph. At this speed, the distance from the centerline of the tracks within which annoyance or surprise can occur would be 45 feet, which is within the project right-of-way where people and animals will be excluded with fencing. For these reasons, rapid onset noise events are considered to have an effect of negligible intensity under NEPA, and a less than significant impact under CEQA."

The DEIR/EIS does not provide any analysis or information regarding the effects of annoyance or the thresholds. The DEIR/EIS also does not provide any evidence that would justify the 45 foot impact zone that would create a noise annoyance. A study conducted by Schomer and Associates in April 2001¹⁰ found that the World Health Organization believes that noises at 55 dB would generate a serious noise annoyance and 50dB would generate a moderate noise annoyance. Given that the DEIR/EIS indicates that at 100 feet from the alignment the HSR can generate a sound level of approximately 92 dB, by World Health Organization standards there is a significant chance of creating a sound annoyance.

The report provided indicates evidence that the analysis conducted by the DEIR/EIS is faulty. The DEIR/EIS is required to provide a realistic and factually support analysis of impacts. With the provided information the DEIR/EIS should be redrafted to consider these impacts and provide mitigation measures as necessary.

37. Page 3.4-48 Improper Conclusion with No Supporting Analysis or Data

The DEIR/EIS makes the following finding:

"At locations adjacent to the UPRR, BNSF, or SR 99 where the existing noise is already high, there would be no effects under NEPA and no impacts under CEQA."

The BNSF and UPRR tracks typically see sound levels around the 75-85 dB range as evidenced by sound studies conducted along these tracks and reported in the DEIR/EIS. Both of these systems run dozens of trains per day, whereas the HSR system will be running upwards of 6 trains per hour in each direction. The DEIR/EIS fails to address the significant increase from ambient (BNSF/UPRR) sound and the significant increase in frequency of noise. Without this information the DEIR/EIS falsely reports the finding of no effects under NEPA and no impacts under CEQA.

38. Page 3.4-52 Inadequate Mitigation Measure for Construction Noise

The DEIR/EIS provides measures by which a contractor can mitigate for excessive noise under N&V-MM#1: Construction noise mitigation measures. Although these measure can be implemented and can be effective, the mitigation measure fail to provide a compliance and response mechanism that would allow the residents, businesses and facilities located near the construction zones to seek assistance in addressing noise impacts to their operations or homes. Without such a program, these people will likely rely upon law enforcement to lodge complaints

¹⁰ Paul Schomer, Ph.D, P.E. A White Paper: Assessment of Noise Annoyance. Schomer and Associates, Inc. 2001

therefore adding a burden to the local law enforcement which is not critical and will divert their attention away from serious crimes.

The mitigation measure does not provide a significant amount of detail that the public or decision maker can ascertain its effectiveness. For instance the measure states that noise mitigation measure will be implemented "as necessary", yet fails to define when and where the mitigation measures will be implemented. Will a contractor be required to implement measures if noise exceeds a certain limit or will they require them if there are complaint? What is the criteria for implementation of the measures?

The mitigation measure also does not indicate to what degree the measure will alleviate the impact. The measures do not indicate if they will reduce impacts by a certain numerical number. The public and the decision maker cannot properly determine if the measure will be effective if a measure of reduction is not provided.

Lastly, the cost of the mitigation measure is not provided, which leaves the implementation of these measure as suspect. If measure are significantly costly and not accounted for in the project, they may not be feasible or realistic.

39. Page 3.4-53 Mitigation Measure is Ambiguous and Insufficient

The DEIR/EIS provides mitigation measures for HSR noise under N&V-MM#3: Implement Proposed California High-Speed Train Project Noise Mitigation Guidelines. The mitigation analysis provided is incomplete and ambiguous. The reader is unable to determine the impact of implement the mitigation measure given the DEIR/EIS does not indicate precisely where and what mitigation measure will be implemented. Although tables are provided where they anticipate sound barriers the measure further explains that they will work with local entities to select and site barriers, which would lead the reader to believe that more barriers could be installed to accommodate the sensitive receivers as outlined in Figures 3.4-15 to 3.4-19.

40. Page 3.4-65 No Evidence to Prove Uneconomical Status

The DEIR/EIS makes the following finding:

"Noise receivers severely impacted in the Fresno, East Hanford, Pixley, and Allensworth areas, as well as those noise receivers severely impacted in Corcoran, Wasco, Shafter, and Bakersfield, would not be mitigated by a sound barrier; because they are shown to be economically unfeasible, they would receive other forms of mitigation, such as building insulation or payment of property noise easements."

The DEIR/EIS provides this statement without providing citations or evidence that the installation of sound barriers is "economically unfeasible". The public is unable to verify and understand the failure to provide noise mitigation given the presence of sensitive receivers within the impact zone. The DEIR/EIS should provide the public with the justification for this finding and re-release the DEIR/EIS for public review and comment prior to finalization of the DEIR/EIS.

This statement also fails to provide data, examples or a description of the "other forms of mitigation" as stated. The DEIR/EIS leaves the public with the concept of "other" mitigation measures, yet fails to provide enough evidence that would allow the reader to conclude the impact on the surrounding environment. The DEIR/EIS should provide a description and discussion of "other" mitigation measures that would be utilized.

There also seems to be an inconsistency in impact analysis which governed the economical justification for barriers. For example there are approximately 231 severe noise impact sites on the Hanford West Bypass Alternative 1 and for Barrier 1 of the Bakersfield Hybrid section only 224 severe noise receivers. The DEIR/EIS provides no evidence that the inclusion, and or exclusion of barriers was warranted or economical.

41. Failure to Analyze Ground Vibration on Underground Facilities

The DEIR/EIS fails to recognize the significant environmental impact of ground vibrations on underground facilities such as underground water lines, deepwells, electrical lines and gas lines. As vibrations from the HSR trains propagates outward impacts to these facilities that are underground could be significant. In the case of underground irrigation lines, the impact could be broken lines and subsequent crop damage due to lack of irrigation water. Many of the pipeline systems that have been utilized by farmers have been shown to fail under fatigue, such as vibration. Old concrete pipelines, techite pipelines and vitrified clay lines tend to lack reinforcement and are very brittle. If exposed to intense ground vibrations, these pipelines will begin to fail. Over time cracks may form and when pressure is applied they will rupture.

Under CEQA the EIR shall identify mitigation measures for each impact (see CEQA Guidelines Section 15126.4 subdivision (a)(1)(A)). The mitigation measure must be fully enforceable through permit conditions, agreements or other legally binding instruments. The Lead Agency is also precluded from making the required CEQA findings unless the record shows that all uncertainties regarding the mitigation of impacts have been resolved; and the agency may not rely on mitigation measures of uncertain efficacy of feasibility (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d692, 727-728). The EIR/EIS improperly defers the analysis and mitigation measure to some point in the future. Recommendation: The EIR/EIS must address the current proposed impacts and cannot assume a later adjustment.

42. Lack of Sound Attenuation Study

The DEIR/EIS fails to provide the public with an analysis of the noise attenuation surrounding the HSR system. As sound is generated from the track it will propagate outwards. It would be critical to know where the sounds attenuates such that it is not audible by the human ear so that the impacts to facilities within that area can be properly accounted for. The DEIR/EIS also does not discriminate between ground borne noise and noise generated on elevated tracks. As sound is elevated it will have fewer sound interruptions such as trees and buildings, therefore the sounds will radiate outwards. As it stands, the noise levels from the BNSF alignment though Hanford can be audible several miles outside of town. As the HSR trains travel on the elevated

tracks 45' above ground the noise will radiate outwards unimpeded and cause noise interruptions to businesses, schools and residences within Hanford.

43. Lack of Analysis and Impact Due to Train Vibration

In May 1988 a study titled the Effect of Train-Induced Vibrations on Houses - A Case study was produced by J.H. Rainer and G. Pernica¹¹. The study was delivered at the Symposium on Serviceability of Buildings (Movements, Deformation, Vibrations. The study found that ground vibrations can have an impact of building up to 250 m (820 ft) from the source. The DEIR/EIS only studies an area 275 ft from the edge of the right-of-way, therefore only 325 ft from the centerline of the track. The study also found that due to resonance of vibrations, homes and structures could see amplifications of 9 to 10 times larger.

Another finding was the consolidation or compaction of surrounding soils which caused a significant settlement of structures. As soils that are fine grained become wet and vibrations are applied the grain structures begin to collapse. Given the variation of soil types along the alignment, the DEIR/DEIS does not analyze or provide data on the impacts of ground vibrations on soil consolidation and compaction. This settlement can be a significant impact on structures including irrigation pipelines, farming structures (ie. dairy barns, storage facilities, groundwater wells), homes, etc. The DEIR/EIS should provide an analysis of the vertical and horizontal vibration impacts on soil stability to ensure that the long term impacts of vibrations are not detrimental to the surrounding environment.

Section 3.5 Electromagnetic Fields and Electromagnetic Interference

44. Page 3.5-16 Conflicting Findings Requiring Further Review and Discussion

The DEIR/EIS addressed electrical field impacts on dairy cows in the following statement:

"In regard to dairy production, McGill University conducted a study with cows in pens exposed to controlled EMF levels of 330 mG and 10 kV/m, the projected magnetic and electric fields that occur at ground level under a 735 kV line at full load. The researchers measured the following: melatonin levels, prolactin levels, milk production, milk fat content, dry matter intake by cows, and reproductive outcomes. While a few statistically significant changes in these factors were found, none of the changes was outside the normal range for cows (McGill University 2008). The study concluded that the EMF exposure did not harm the cows or reduce milk productivity. Various studies cited by other researchers regarding EMF and wildlife suggest a range of effects similar to livestock from non-existent to relatively small to positive. One study suggests a beneficial application for ELF-EMF in broiler chickens to fight a common parasitic infection called Coccidiosis (Golder Associates 2009). For these reasons, EMF effects on livestock and

¹¹ J.H. Rainer and G. Pernica et al. Effect of Train-Inducted Vibrations on Houses - A Case Study. National Research Council Canada, 1988

poultry would have negligible intensity under NEPA and the impact would be less than significant under CEQA."

According to Donald Hillman, Charles Goeke and Richard Moser in a paper titled *Electric and Magnetic Field Affect Milk Production and Behavior of Cows; Results Using Shielded Neutral Isolation Transformer* they concluded that animal behavior including milk production of cows is negatively impacted by "stray voltage" from power sources¹². Tests were run on 12 farms and all showed animal behavior, health and milk production impacts. What was also discovered was that EMF's less than 1 Volt can cause damage to a cow, and a cow did not have to be touching metal for harmonics to occur and interfere with milk production.

Other evidence has been provided that shows that secondary impacts from EMF's can cause impacts to dairy cows. In an article titled "Are Electromagnetic Fields Negatively Impacting Your Cows?", Peter Webb identifies the consequences of EMF's on dairy production¹³. Mr. Webb reported that grounding of electrical systems can impact groundwater wells, which causes electrolysis and the ionization of groundwater wells. This causes a "metallic taste" and lessens the surface tension of the water, causing cows to lap water and not drink the required amount for optimal milk production.

Another critical element pointed out by Mr. Webb and recently experienced by a dairy in Kings County is the impact of EMF's on cow behavior. They have been shown to cause problems with sore feet and swollen joints and failure to cooperate in the milking process. An article written by Kelly Holleran¹⁴ indicates that stray voltage on a dairy causes impacts to milk production, cow illness and aborted calves. Another case was documented in dairy located near Seattle, Washington. In this case stray voltage from power lines near the facility caused small voltages in dairy equipment and nearly closed the dairy down¹⁵. Voltages that were allowed to travel through the ground were conducted through metal dairy structures and created small voltages that cause impacts to the dairy herd.

Stray voltage can be expected as the electrified trains will take power delivered from the overhead catenary system into the steel wheels and into the rails. The rails leak stray currents into the soil as it tries to find the path of least impedance. The soil under the ballast and tracks conduct current very well and allow it to surge through soil. Often these currents can induce voltage on metal object including dairy fences and milking equipment.

With the dairy industry being the leading agricultural commodity in Kings County, the DEIR/EIS fails to appropriately address the concerns and potential for EMF's and Stray Voltage

¹² Donald Hillman, Charles Goeke and Richard Moser. [Electric and Magnetic Fields \(EMF\) affect Milk Production and Behavior of Cows; Results Using Shielded Neutral Isolation Transformer](#). Shocking News, July 2004.

¹³ Peter Webb. "Are Electromagnetic Fields Negatively Impacting your Cows?"
<http://www.canadiandowners.org/resources/articles/are-electromagnetic-fields-negatively-impacting-your-cows>

¹⁴ Kelly Holleran. "Dairy Farmer: Stray Voltage Made Cattle Ill and Caused Emotional Distress";
<http://www.madisonrecord.com/news/242263-dairy-farmer-stray-voltage-made-cattle-ill-and-caused-emotional-distress> March 1, 2012

¹⁵ Warren Cornwell; "Dairy Farmer Wins \$1.1 Million Against Utility";
http://seattletimes.com/html/localnews/2003309985_dairy18m.html; October 4, 2012

on milking cows. The alignment proposed in the DEIR/EIS travels through and adjacent to several dairy operations, which could potentially impact milk production and herd health. The DEIR/EIS should provide further review on the topics identified and re-release the DEIR/EIS for public review and comment.

45. Page 3.5-18 Failure to Completely Address Impact

The DEIR/EIS attempts to address the increased potential for corrosion to surrounding facilities by making the following statement:

"If adjacent pipelines and other linear metallic structures are not sufficiently grounded through the direct contact with earth, the project would include additional grounding of pipelines and other linear metallic objects in coordination with the affected owner or utility, as part of the construction of the HST System. Alternatively, insulating joints or couplings may be installed in continuous metallic pipes to prevent current flow."

"The potential for corrosion from ground currents would be avoided by installing supplemental grounding or by insulating sections in continuous metallic objects in accordance with standard HST designs. Because the potential for corrosion is slight and would be avoided by standard design provisions, the effect would have negligible intensity under NEPA. Under CEQA, the impact would be less than significant."

Although the DEIR/EIS recognizes the impact associated with currents that flow through soils and cause increase corrosion to metal facilities, it does not appropriately address and provide for a thoughtful and comprehensive mitigation process. The DEIR/EIS responds to the impact by providing measures to implement increased grounding and insulation efforts for landowners, however the statement leads the public and the decision maker to believe that mitigation measures are only being implemented on HSR facilities. What the DEIR/EIS fails to details is how this shall be carried out. The public is left without the ability to determine the effectiveness of this mitigation measure given the lack of detail provided.

Questions that would be mandatory to answer prior to making a determination is:

- How far should electrical current travel, which could impact underground metal facilities and metal structures that are not grounded properly?
- How does the Contractor and the Authority intend to identify all potential metallic facilities and structures that could be exposed to an increase in corrosion potential?
- What techniques would be implemented in differing situations. Examples: How to provide protection for groundwater deepwells, long irrigation pipelines, metal pole-barn structure, metal shade structures at dairies, etc.?
- What happens if a landowner finds excessive corrosion to an facility after HSR service has begun?

The DEIR/EIS provides a very cursory identification of the problem, a very limited explanation of the mitigation and no description of the effectiveness of the mitigation and how it will be executed. The reader and the public cannot determine the severity of the impact, nor the effectiveness of the mitigation measure given the information provided in the DEIR/EIS.

46. Failure to Address EMF Impacts of Crop Production

The EMF created by the HSR alignment will induce an EMF in areas that are surrounded by agriculture. Given the close proximity to crops and farming, the DEIR/EIS fails to address impacts on crop production. Recent reports have show negative impacts of EMF's on crop production. A thesis done by S. Somasekaran at the School of Energy, Environment and Natural Resources at Madurai Kamaraj University in India looked at the impacts that EMF's can have on crop production. Mr. Somasekaran discovered that plants grown under an EMF showed reductions in shoot length, root length, leaf area, leaf fresh weight, specific leaf weight, short/root ratio, total biomass content and total water content¹⁶. Reduced growth and physiological parameters were caused by the reduction in cell division and cell enlargement. The study further looked at production rates of crops located near EMF's and crops located without an EMF. Crops under EMF's were generally stressed and produced less, which in turn had an economic impact in the communities.

The DEIR/EIS should provide a thorough review of the impacts associated with EMF's on plant life, with an emphasis of agricultural crop production.

47. Failure to Address EMF Impacts on Bee Hive Activity

The Use of bees for pollination of agricultural products such as almonds and fruit trees is essential to the economic viability of our agricultural community. As the HST alignment passes randomly and irresponsibly through some of the most valuable fruit and nut tree crops in Central California, the catenary and electrical system required to support electrical service to the HSR alignment could potentially have impacts on bee colonies that are used to pollinate crops. The following science has been discovered concerning electrical impacts to bees:

- Bioelectromagnetics. 1981;2(4):315-28.
Biological effects of a 765-kV transmission line: exposures and thresholds in honeybee colonies.
Greenberg B, Bindokas VP, Gauger JR.

Honeybee colonies exposed under a 765-kV, 60-Hz transmission line at 7 kV/m show the following sequence of effects: 1) increased motor activity with transient increase in hive temperature; 2) abnormal propolization; 3) impaired hive weight gain; 4) queen loss and abnormal production of queen cells; 5) decreased sealed brood; and 6) poor winter survival. When colonies were exposed at 5 different E fields (7, 5.5, 4.1, 1.8, and 0.65-0.85 kV/m) at incremental distances from the line, different thresholds for biologic effects were obtained. Hive net weights showed significant dose-related lags at the following exposures: 7 kV/m, one week; 5.5 kV/m, 2 weeks; and 4.1 kV/m, 11 weeks.

¹⁶ Fr. K. Muthuchelian, C.Sc. "Effect of Electromagnetic field on Some Selected Crop Plans"; Madurai Kamaraj University, School of Energy, Environment and Natural Resources; December 2007.

The two lowest exposure groups had normal weight after 25 weeks. Abnormal propolization of hive entrances did not occur below 4.1 kV/m. Queen loss occurred in 6 of 7 colonies at 7 kV/m and 1 of 7 at 5.5 kV/m, but not below. Foraging rates were significantly lower only at 7 and 5.5 kV/m. Hive weight impairment and abnormal propolization occur at lower E-field intensity than other effects and limit the "biological effects corridor" of the transmission line to approximately 23 m beyond a ground line projection of each outer phase wire. Intrahive E fields of 15-100 kV/m were measured with a displacement current sensor. Step-potential-induced currents up to 0.5 microA were measured in an electrically equivalent bee model placed on the honeycomb in a hive exposed at 7 kV/m. At 1.8 kV/m body currents were a few nanoamperes, or two orders of magnitude lower, and these colonies showed no effects. E-field versus electric shock mechanisms are discussed.

- Bioelectromagnetics. 1989;10(1):1-12.
Laboratory investigations of the electrical characteristics of honey bees and their exposure to intense electric fields.
 Bindokas VP, Gauger JR, Greenberg B.
 Bees exposed to 60-Hz electric (E) fields greater than 150 kV/m show field-induced vibrations of wings, antennae, and body hairs. They also show altered behavior if exposed while in contact with a conductive substrate. Measurements indicate that approximately 240 nA is coupled to a bee standing on a conductive substrate in a 100-kV/m E field. In lab experiments, bee disturbance and sting result from exposure to E field greater than 200 kV/m (bee current greater than 480 nA) and reduced voluntary movements at greater than 300 kV/m (greater than 720 nA bee current) only if the bee is on a conductive substrate. It is hypothesized that in the latter situation coupled bee current drains through the lower thorax and legs to the conductive substrate, and that the resulting enhanced current density in these regions is the cause of observed responses. The observation that bees exposed to intense E fields on an insulator show vibration of body parts but no behavioral response suggests that vibration contributes little to the disturbance of bees in intense E fields. Lab measurements of bee impedance from front-to-rear leg pairs were made on wet and dry conductors. Measurements validate the selection of 1 M omega as a middle value for bee impedance used in the design of devices used to generate step-potential-induced currents in bees.
- Bioelectromagnetics. 1988;9(3):285-301.
Mechanism of biological effects observed in honey bees (*Apis mellifera*, L.) hived under extra-high-voltage transmission lines: implications derived from bee exposure to simulated intense electric fields and shocks.
 Bindokas VP, Gauger JR, Greenberg B.
 This work explores mechanisms for disturbance of honey bee colonies under a 765 kV, 60-Hz transmission line [electric (E) field = 7 kV/m] observed in previous studies. Proposed mechanisms fell into two categories: direct bee perception of enhanced in-hive E fields and perception of shock from induced currents. The adverse biological effects could be reproduced in simulations where only the worker bees were exposed to shock or to E field in elongated hive entranceways (= tunnels). We now report the results of full-scale experiments using the tunnel exposure scheme, which assesses the contribution of shock and intense E field to colony disturbance. Exposure of worker bees (1,400 h) to 60-

Hz E fields including 100 kV/m under moisture-free conditions within a nonconductive tunnel causes no deleterious affect on colony behavior. Exposure of bees in conductive (e.g., wet) tunnels produces bee disturbance, increased mortality, abnormal propolization, and possible impairment of colony growth. We propose that this substrate dependence of bee disturbance is the result of perception of shock from coupled body currents and enhanced current densities postulated to exist in the legs and thorax of bees on conductors. Similarly, disturbance occurs when bees are exposed to step-potential-induced currents. At 275-350 nA single bees are disturbed; at 600 nA bees begin abnormal propolization behavior; and stinging occurs at 900 nA. We conclude that biological effects seen in bee colonies under a transmission line are primarily the result of electric shock from induced hive currents. This evaluation is based on the limited effects of E-field exposure in tunnels, the observed disturbance thresholds caused by shocks in tunnels, and the ability of hives exposed under a transmission line to source currents 100-1,000 times the shock thresholds.

The DEIR/EIS fails to recognize the impact of electrical fields on bees. As agriculture utilize bees to pollinate crops and also produce honey, the DEIR/EIS should provide recognition of the impact and an analysis of its significance. The determination of significance should also necessitate a discussion of mitigation measures their feasibility.

Section 3.6 Public Utilities and Electricity

48. Page 3.6-11 Improper Basis for Calculation and Assumption

The DEIR/EIS makes the following explanation for the calculation of power requirements for the section of HSR from Fresno to Bakersfield:

"To identify the projected energy demand of the Fresno to Bakersfield Section of the HST System, estimated energy impact for the entire HST System was prorated based on the proportion of the length of HST guideway within the Fresno to Bakersfield Section study area."

The method for calculating the power requirements for this section of track is incorrect and inappropriate. The energy (power) required for this section of track cannot simply be prorated as a section of the overall system. The power requirements should be specifically calculated to determine the most accurate system requirements. As the HSR system is designed to travel at 220 mph through the Central Valley and only 125 mph in urban areas the amount of power required in the Central Valley will be significantly higher. The DEIR/EIS fails to properly address the power requirements for the public to understand the impacts of this project on the California power-grid.

Power is directly related to speed, the higher the speed the more power required for the system. Also the extreme weather in the Central Valley will cause a significant increase in power consumption to run climate control systems within the high-speed tainsets. The only appropriate way to determine the impacts of power requirements is to correctly identify the power grid

requirements for a specific location with a specific speed. The analysis should also be considered given the manner in which power is required to meet the system requirements. Will the power be consistent, or will power be cyclic when the demand is required to power the train? Essentially the DEIR/EIS should address the transient power requirements as a train passes through an area.

49. Page 3.6-18 Failure to Identify SCE Mascot Sub Station

The DEIR/EIS makes the following findings:

"There are two substations in the study area, both in Kings County. One station owned by Southern California Edison is approximately 900 feet north of Front Street on the west side of 13th Avenue adjacent to the potential Kings/Tulare Regional Station–West Alternative. A second substation, owned by PG&E, is at the northwestern corner of the intersection of Kent Avenue and South 11th Avenue, south of the city of Hanford, and adjacent to the Hanford West Alternative and proposed overcrossing Kent Avenue."

The DEIR/EIS fails to identify the SCE Mascot Sub Station which is currently being constructed on the southwest corner of 7 1/2 Avenue and Grangeville Boulevard. The Mascot station is directly adjacent to the HSR alignment and potentially within the footprint of some of the HSR supporting facilities. The DEIR/EIS should ensure that SCE and the County of Kings is consulted to appropriately address the impacts to this newly constructed substation.

50. Page 3.6-19 Failure to Address Kings County Education Wireless Communication System

The DEIR/EIS fails to address the wireless internet system that the Kings County Education Department provides to schools and residents. There are currently towers located throughout the City of Hanford and rural areas that connect the schools and residents to a high-speed internet system. On the BNSF system there are two communication towers that could potentially be impacted. A tower located within the City of Hanford communicates with a tower located at Kit Carson School. Given the height of the track and the electrical interference the DEIR/EIS should identify these facilities and determine if there is an impact. If there is an impact a mitigation measure should be studied, presented and implemented.

51. Page 3.6-37 Failure to Address Co-Existing Easements and Priorities

The DEIR/EIS recognizes the conflict that will arise between existing utilities such as power and water, however falls short of providing evidence that the co-existence of the utilities in one space at one time is fully understood and addressed. The DEIR/EIS makes the following statement:

"It would be standard practice that agreements related to utility relocation or encasement require utility owners and operators to notify the Authority in advance of monitoring or maintenance of their facilities that remain in the HST right-of-way after construction of the guideway."

The DEIR/EIS fails to anticipate the day-to-day or emergency requirement to access existing utilities that must be relocated as a function of the HSR project. If an electrical line must be placed under the HSR alignment track the power company must have absolute rights to access that line in an emergency situation to restore power quickly and efficiently. The inability to address access and responsibilities can have a significant impact of communities and potentially those who rely upon power for life support systems.

The co-existence of utilities also creates a liability issue that is not addressed by the DEIR/EIS. For example, an irrigation line is relocated as a part of the project and placed below the track-bed and due to the fatigue of vibrations from the HSR trains passing 225+ times a day the line fails. Typically irrigation lines are moving 800-2,000 gallons per minute of water. This volume of water can immediately wash an embankment, including a track-bed. As expected the train system will be shut down and service will be interrupted. Who assumes liability for this accident? This scenario could be seen in any of the other utilities that may be relocated as a part of this project.

52. Page 3.6-43 Improper Basis for Calculation and Assumption

The DEIR/EIS again falsely relies upon a proration of energy consumption from the entire system to determine the power requirements for the 144 miles of track contemplated in this analysis.

"The Fresno to Bakersfield Section of the HST System would contribute approximately 14% to the statewide estimates of HST energy demand and savings, as compared with the energy use of conventional means of transportation. The anticipated electricity use would be approximately 14% of the total HST System power use, or 11.04 to 16.55 gigawatt-hours (GWh) per day, depending upon the fare scenario. The payback period for energy used demand during HST construction would be approximately 2 to 4 years."

The DEIR/EIS should make a fair and scientific calculation of the power requirements needed to support 114 miles of 220 mph high-speed rail service contemplated in this section. This is critical to know the impacts of meeting this requirement given the current capabilities of power suppliers.

53. Page 3.6-55 Failure to Analyze Power Line Installation and/or Upgrades

The DEIR/EIS does not address the environmental impacts associated with upgrades in power lines or the installation of new power transmission facilities required to deliver power to the HSR alignment. The DEIR/EIS makes the following statement:

"Because these upgrades would be conducted in accordance with applicable regulations, the effect of these modifications on existing electrical infrastructure would have negligible intensity under NEPA. Under CEQA, the impact would be less than significant."

The DEIR/EIS seems to vaguely recognize the need to connect the existing power network to the HSR alignment. What is missing is analysis and environmental impacts associated with installing and/or upgrading power lines to deliver power to the HSR system.

54. Page 3.6-57 Verification of Gas Line Under Ponderosa Street

There is no evidence that the analysis provided recognition of a natural gas line located under Ponderosa Street on the BNSF alignment. This natural gas line serves approximately 25 rural-residential homes and it a critical and valuable asset. The DEIR/EIS should provide clarification so that the reader and the public can clearly distinguish where the natural gas and other alignment conflicts arise.

55. Page 3.6-60 Incomplete Analysis of Water Impacts

The DEIR/EIS recognizes water infrastructure as an impact, however only addresses a limited list of water facilities, which falls well short of the realistic number and classification of water facilities that will be impacted. The DEIR/EIS provides the following limited and misleading analysis:

"Table 3.6-15 identifies the number of low-risk potential conflicts between the BNSF Alternative and associated station areas and existing water facilities. The BNSF Alternative would cross at least 129 water lines, valves, pumps/hydrants, irrigation pipelines, and canals. The majority of these crossings would be in the city of Fresno and other urban areas where the HST would be on an elevated guideway."

The number and identification of irrigation lines in the rural areas seems to be missing. This is also supported by the fact that the team responsible for the DEIR/EIS has not spoken to any landowner about the location of existing irrigation pipelines that are utilized to move water throughout the region. These pipelines constitute a large number of facilities that will cross the HSR alignment. These crossings are critical to each operations, which is considered a business. Given that each business relies upon these irrigation lines to meet crop demands, the replacement and timing of such replacement it critical to ensure that businesses are not impacted. This includes the minimization of the risk to eliminating irrigation water from permanent crops, which would be a severe impact.

The DEIR/EIS provides no evidence that measures are in place to ensure that landowners can successfully replace irrigation lines in a appropriate manner. Details are not provided as to intricate process required to identify, locate, replace and develop a long-term program to situate irrigation lines under a heavily traveled and vibrated corridor. This also includes the lack of a plan to address future pipeline failures and liability.

56. Page 3.6-62 Incorrect Statement

The DEIR/EIS makes the following incorrect statement:

"In addition, local water-use efficiency goals mandated statewide under AB x7-7, the Water Conservation Act, would partially offset the additional water demand expected from the HST station operation."

The DEIR/EIS incorrectly refers to the statewide bill as AB x7-7. which should be SB x7-7.

57. Page 3.6-66 Failure to Address Lack of Wastewater Treatment Availability

The DEIR/EIS fails to address the lack of wastewater treatment availability to the BNSF station on the east side of Hanford. Given the location of the station is in the rural area of Kings County and on the east side of Highway 43, the City of Hanford has not extended sewer lines to that area. The DEIR/EIS fails to address the need to extend sewer service or include provisions for septic systems at the station location.

58. Page 3.6-67 Failure to Address Stormwater Analysis

The DEIR/EIS fails to provide the reader and public with an appropriate analysis of the potential impacts to stormwater drainage and the potential systems it will impact. The DEIR/EIS makes the following statement:

"As discussed in Section 3.8, Hydrology and Water Resources, the project would result in increases in stormwater runoff. The project design would specifically address stormwater volumes and flow requirements. During final design, an evaluation of each receiving stormwater system's capacity to accommodate project runoff would be conducted."

The DEIR/EIS defers the stormwater analysis including volume and flow calculations to a later date. This information is critical for the reader, public and Authority to properly assess the impacts to stormwater features. This type of analysis is typical and necessary in the CEQA and NEPA process. For example, included in Attachment ?? is a study conducted by URS for the Interstate 710 Corridor Project. The report was titled, Water Quality and Stormwater runoff Study, Final Report, Interstate 710 Corridor Project Between Ocean Boulevard and The State Route 60 Interchange. This report was included in the I710 Corridor Project EIR/EIS and provided calculation of potential flows, water quality issues and mitigation measures tailored to the impacts associated with the project.

The DEIR/EIS fails to reach the minimum threshold for suitable information required to make a determination of impacts per CEQA and NEPA. The DEIR/EIS cannot defer analysis to after a decision on behalf of the lead agencies. The DEIR/EIS should prepare a suitable drainage analysis for the public.

59. Page 3.6-77 Incorrect Calculation of Power Consumption

"The project would increase electricity demand. Because of the anticipated times of peak rail travel, impacts on electricity generation and transmission facilities would be particularly focused on peak electricity demand periods (4 p.m. to 6 p.m.). According to the Statewide Program EIR/EIS (Authority and FRA 2005), the HST would increase peak electricity demand on the state's generation and transmission infrastructure by an estimated 480 MW in 2020. Based on the assumption that this peak demand would be evenly spread throughout the system, the Fresno to Bakersfield Section would require approximately 78 MW of additional peak capacity."

The DEIR/EIS again provides no evidence on how values were calculated. Given previous assumptions of the DEIR/EIS that power consumption is prorated throughout the system, the number provided are inaccurate.

Section 3.8 Hydrology and Water Resources

60. Page 3.8-1 Failure to Apply a Criteria and Design Feature Consistently

"The alternative would use existing transportation corridors and rail lines to reduce new crossings, changes to drainage, and encroachments on water resources."

The DEIR/EIS fails to recognize that for several miles the alignments proposed from Fresno to Bakersfield are not located along any transportation corridor. Specifically, the alignments through Kings County fail to follow any transportation corridors. This creates a very unfortunate situation where the accrual of hydrologic impacts are increased in the Kings County area. The DEIR/EIS does not address the reasoning for apply a design and alignment philosophy in one area and not in another. The DEIR/EIS should provide a detailed analysis for the public and the decision maker regarding the need to deviate from this approach when traveling through Kings County. Without out such analysis the reader and the decision maker are unable to determine if the alignment is the least damaging alternative given as it is known that an alignment near a transportation corridor will reduce impacts as stated above.

61. Page 3.8-11 Failure to Analyze the Cumulative Impacts of Groundwater Pumping Due to the Project

The DEIR/EIS addresses the consumption of groundwater, however only addresses the consumption of groundwater concerning facilities such as the HMF and HSR Stations. The DEIR/EIS fails to completely address the increased pumping required to supply water to the influx of urban residents that will be introduced to Central Valley communities.

In section 1.0 Project Need and Purpose the DEIR/EIS establishes the following statement on Page 1-7:

"Much of this population growth will be accommodated in the metropolitan coastal areas or in Southern California's Inland Empire. However, growth and development in these regions are increasingly challenged because of environmental and quality-of-life issues, including the high housing prices. These areas are finding it increasingly difficult to accommodate new development; and despite economic pressure to grow, the combination of rising costs and local opposition is likely to push a substantial number of people to seek homes and employment elsewhere. The San Joaquin Valley is a likely outlet for this population pressure; with a youthful population, it is also a major source of growth in its own right from both the local population, as well as immigration (Teitz et al. 2005)."

This statement sets the state for an urban movement towards the affordable and spacious Central Valley communities. HSR allows residents in urban settings such as Los Angeles and San

Francisco to access rural settings such as Fresno and Bakersfield. Traditionally urban incomes are higher than Central Valley incomes and land and homes in urban setting are significantly higher than in the Central Valley. The average cost of a home in San Francisco currently sits at approximately \$710,000 (http://www.trulia.com/real_estate/San_Francisco-California/) while the cost of a home in Fresno currently sits at approximately \$125,000 (http://www.trulia.com/real_estate/Fresno-California/market-trends/). This represents a cost differential of \$585,000. If the average price of a round-trip ticket between Fresno and San Francisco costs \$100, and a commuter used the train every day of the week (minus holidays and two weeks of vacation) that commuter could travel between the two cities for 25 years with the cost savings. Many of these commuters will realize the buying power of their salaries in the Central Valley and opt for the larger homes, which coincide with larger lots in lucrative communities.

The information above provides evidence that a realistic analysis of the potential influx of homeowners from the urban areas of California to the rural and affordable regions of the Central Valley should be conducted. Economic pressures, commute prices, average salaries, family dynamics and educational opportunities should all be investigated in determining the potential to induce an exodus from the urban setting to the Central Valley.

With the increase flux of people comes the increased flux of water consumption. The Central Valley, which is a conjunctive use basin relies upon the delicate balance between surface water and groundwater pumping. Most cities within the Central Valley rely upon groundwater to meet residential needs. The exception is the City of Fresno, which has a surface water treatment plant. As commuters begin to move towards Central Valley cities there will be an increased pressure on already over-allocated water supplies to meet the drinking water needs. The DEIR/EIS fails to identify or analyze the increase groundwater consumption within the Central Valley created by the influx of commuters moving the Central Valley.

The DEIR/EIS should provide an analysis of the potential increase in groundwater pumping required to meet future population demands created by the high-speed rail project. This should include an analysis of current supplies and future supplies needed to meet the demand. Also required is an analysis of the ability to meet demand with groundwater and surfacewater.

62. Page 3.8-27 Ground Subsidence

The DEIR/EIS identifies the presence of ground subsidence due to the excessive groundwater pumping, however fails to address this phenomenon as an impact and its potential impact on groundwater extraction. The U.S. Geological Survey has found that between 1920 and 1977 the Central Valley subsided by 29.6 feet, which is approximately 6.25 inches per year¹⁷. This significant amount of subsidence has not been identified or addressed by the DEIR/EIS. The DEIR/EIS does also not address the variation in subsidence throughout the valley.

¹⁷ R.L. Ireland, J.F. Poland and F.S. Riley. Land Subsidence in the San Joaquin Valley, California as of 1980. USGS Paper 437-4; 1984.

Recent experiences in Taiwan show the impact of groundwater pumping on HSR systems. Included in Attachment are two articles recently produced that document the impact of subsidence on HSR system and the mitigation measure to ensure that track deflection is not beyond the tolerance of HSR systems. Although the impact of subsidence can be viewed as an engineering feature, the only case example for mitigation of subsidence is provided in the examples found in Taiwan, which was to restrict agricultural pumping. Taiwan addressed the problem by restricting agricultural pumping in 1,000 deepwells for 10 years to reduce the subsidence down to 3 cm¹⁸. This also cost a significant amount of money, totalling \$1.83 billion in 2011 dollars, which would be significant higher in the highly productive Central Valley of California¹⁹

The DEIR/EIS should address the potential for subsidence to impact track deflection and the potential mitigation measures to avoid any track subsidence that will coincide with ground subsidence. Once the mitigation measures are identified the environmental impacts should be analyzed and their significance both on a CEQA and NEPA basis should be provided to the reader.

63. DEIR/EIS Use of Septic System Without Appropriate Analysis

The DEIR/EIS located the potential HSR Station along the east alignment in an area that is not currently accessible to public utilities such as water and sewer systems. The DEIR/EIS fails to address the implementation of a septic system to handle a large public facility such as a HSR station in a rural area. The DEIR/EIS contemplates a potential ridership forecast of upwards of 3,000+ riders per day through the station. Public facilities to handle this volume of sewage material if a urban sewer system is not available would be a significant source of groundwater pollution. Of notable contamination will be the discharge of nitrates to shallow groundwater sources.

The potential for a significant septic system to dispose of large volumes of sewage on the HSR station site is not mentioned or analyzed for environmental impacts. Currently the Central Valley is undergoing a movement to identify contributors to contaminants that cause the pollution of drinking water wells. Once source of pollutants such as nitrates and nitrites has been septic systems. If the system requires an on-site septic system that allows sewage material to be percolated into the local groundwater, the DEIR/EIS should document the potential and analyze the environmental impact. Many of the local houses nearby will be exposed to an increased amount of sewage percolation and potentially be exposed to contamination in shallow aquifers, which are currently being accessed for rural drinking water.

64. Page 3.8-13 DEIR/EIS Incorrect Housing Statement

The DEIR/EIS makes the following statement:

¹⁸ Shih Hsiu-chuan. "Government to act on high-speed rail subsidence problem". Taipei Times, July 26, 2011.

¹⁹ Meg Chang. "Taiwan tackles land subsidence with water project". Taiwan Today, July 26, 2011.

"Because the project will not construct any housing and relocation of residents as a result of the project would not cause construction of new housing (see analysis in Chapter 3.12, Socioeconomics, Communities, and Environmental Justice), placing housing within a 100-year flood hazard area is not addressed."

The DEIR/EIS incorrectly assumes that housing will not be created as a result of relocation. As stated in previous sections the relocation of two communities referred to as the Ponderosa Community and the Newark Communities are being contemplated for a full relocation by the Project. Given details have not been outlined in the DEIR/EIS, the potential to site these two communities within a flood zone could be a potential. The DEIR/EIS also incorrectly assumes that homes that are taken by eminent domain will not be replaced by the construction of new homes. Many homes that are located near the Kings River or canal systems may find that relocation will be within a flood zone.

65. Page 3.8-38 Failure to properly address Floodplain Impacts

The DEIR/EIS make the following conclusion regarding impacts to floodplains impacts:

"Effects to flood risk at the at-grade sections of the track would have negligible intensity under NEPA, and impacts would be less than significant under CEQA."

The DEIR/EIS provides no evidence within the document to substantiate this finding. The HSR alignments through the area intersect numerous floodplain zones identified by FEMA. The average height of the at-grade section of the alignment is approximately 8-10 feet. This type of track bed essentially creates an elevated levee perpendicular to the flood zones. The DEIR/EIS provides a statement of Page 3.8-28 that recognizes the importance of a man-made levee:

"The Tulare Lake Basin is relatively flat, with broad, shallow floodplains that are either uncontained, or are uncontained at higher flows due to levee overtopping. In the vicinity of the proposed alignments, a notable factor contributing to the size of the floodplains is the existing BNSF Railway embankment, which acts as an impediment to water moving from east to west toward the Tulare Lake Basin."

The DEIR/EIS fails to provide an adequate analysis to reach the conclusion of impacts under NEPA and CEQA. The DEIR/EIS provides a minimal attempt to address the impacts by describing that culverts will be properly sized to carry water across the alignment. The analysis fails to address the impacts of collecting flood waters that sheet-flow across lands and will be impounded against the alignments until it reaches a culvert. As water flows across lands to reach the low-point on the valley floor, water is currently allowed to naturally find its way, however with the creation of a 8-10 foot levee along the entire stretch of the valley floor, water will impound against the levee beginning with those against streams. Water will then flow along the levee until a culvert is encountered. This change in flood water path will have significant impacts to those landowners on the upstream side of the alignment.

The DEIR/EIS also fails to analyze and address impacts to those landowners on the downstream side of culverts. Currently water is allowed to naturally sheet-flow across land, however with the placement of a levee and a culvert, water will be focused to those culverts and discharged on downstream lands. In the event of a 100-year storm, these flows could be significant and the impacts and damages will also be significant. The alteration of the floodplain changes the way

in which landowners will be exposed to future flooding, and therefore it will impact the fees and potential for flood insurance.

Supporting documentation reveals that the HSR alignment passes along 24 miles of floodplains and 60% of this length (14.4 miles) will be constructed on fill (Hydrology and Water Resources Technical Report, Page 5-12). This fill based alignment has the potential to reroute and impede flood flows. This is a significant impact.

66. Page 3.8-30 Failure to address timing of canal encroachment and construction

The DEIR/EIS identifies numerous locations where the HSR alignments will intersect irrigation canals. The DEIR/EIS establishes the replacement of these systems, however fails to address the timing of the replacement. The timing is crucial and can have significant environmental impacts on the surrounding area. Two scenarios that have not been addressed are 1) impacts from construction during flood season and 2) impacts from construction during irrigation season.

If construction occurs during the winter months during which flood releases occur, the channels that are identified will not be able to be utilized to move flood flows through the valley. This could have a significant impact on the area, including other upstream areas that will have to carry excess flood waters that would typically be conveyed in the channels through the alignment area.

If construction occurs during the summer irrigation months the inability to deliver water through these channels would be environmentally and economically devastating. The farming community relies upon surface water delivered through these channels to meet irrigation demands. Many crops in the Kings/Tulare/Kern area are permanent. Lack of water for one irrigation season could have a devastating outcome. Landowners who have wells can supplement the surface water, however the DEIR/EIS should address the environmental impact of forcing landowners to use groundwater.

67. Page 3.8-39 Inadequate analysis to reach CEQA and NEPA conclusion

The DEIR/EIS makes the following statement regarding potential for water quality impacts:

"The trains and tracks would not be expected to be significant pollutant sources; however, the stations, the new road overpasses, and the HMF facility could create new sources of potentially contaminated runoff. Project stormwater system design would accommodate project runoff and would provide stormwater quality treatment for the new and replaced roads and highways (see Chapter 2, Alternatives), train stations, and HMF facility. Runoff from these facilities would be directed to treatment BMPs and should not result in water quality changes to local water bodies. Effects to water quality during project operation would have negligible intensity under NEPA and impacts would be less than significant under CEQA."

The DEIR/EIS provides an inadequate analysis to reach the CEQA and NEPA impacts. The maintenance of the HSR alignment would necessitate the application of herbicides and pesticides to control weeds and other biological intruders like gophers and ground squirrels. As the

application of these chemical are not directly a water quality impact, the manner in which the alignment is being designed and handling water runoff does present a significant water quality impact. The DEIR/EIS has established a self-contained corridor in which all drainage is kept along the alignment in drainage swales and moved parallel to the tracks. At some point this material should be either collected or discharged to a stream to move the water away. As the alignment will be constructed with a higher level of compaction than the surrounding farm ground, the corridor will not have the absorptive capacity and will generate a significant amount of runoff. This material will be laden with chemicals and pollutants that are collected within the corridor. Under the local Regional Water Quality Control Board Irrigated Lands Program, and collection of storm runoff and discharge either to a channel or groundwater is considered a pollution source.

Section 3.9 Geology, Soils and Seismicity

68. Page 3.9-2 Insufficient Findings to Draw Conclusion

The DEIR/EIS attempts to ignore an analysis of the available aggregate supplies for the area based upon a false finding. The statement made in the DEIR/EIS is as follows:

“Permitted aggregate resources in the project area equal approximately 380,000,000 tons. The California Geological Survey (CGS) estimates that only about 6% of the total aggregate resources available in the areas they studied, which include the counties that the Fresno to Bakersfield Section of the California HST System crosses, have been developed (CGS 2006). Based on this estimate, there would be sufficient aggregate and fill available to provide material for the project without harmfully depleting available sources. Therefore, borrow sites are not evaluated in the analysis of geology, soils, and seismicity.”

The DEIR/EIS fails to identify what is meant by the “area” which could have a significant impact of local resources available or local projects. For example, many of the aggregate mining facilities located in the Tulare County area are running out of material and there is only one new aggregate site permitted for construction in the near future. If this project relies too heavily on local supplies in the Tulare County area, aggregate that would have been available for other local projects such as roads, buildings, homes and other infrastructures project will not have the necessary local aggregate available.

The study cited indicates that there are large amounts of aggregate resources available, however those sources are not permitted for immediate access. Often mining operations have taken up to 20 years to permit. The DEIR/EIS fails to leave the reader, decision maker and public with the appropriate analysis of available aggregate resources to meet the demand of the project. Therefore, the DEIR/EIS improperly concludes that the availability of aggregate resources and potential borrow sites are not evaluated as a part of this project.

The DEIR/EIS shall provide further analysis and data to the reader, decision make and public as to the exact aggregate resources available and its impact on other local projects that would need such identified available aggregate. If the analysis shows that there is insufficient aggregate

PERMITTED for mining, the DEIR/EIS shall provided an environmental analysis on the need for additional borrow sites, including the location and timing of the mining operations.

69. Page 3.9-23 Deferral of Analysis Leads to Incomplete Analysis

The DEIR/EIS attempts to defer an analysis of the “difficult excavation” areas until the construction of the project. The DEIR/EIS makes the following statement:

“Further site-specific subsurface geotechnical investigations and geotechnical design evaluations would be conducted during the design of the project to determine specific locations where difficult excavations may occur and to plan for this during construction.”

The DEIR/EIS postpones an analysis of the potential difficult excavation sites, which could provide a misleading analysis to the readers, decision makes and public when utilizing this document to ascertain the environmental impact of this project. In determining the scale of impacts or the LEDPA the reader, decision maker and the public cannot ascertain as to the alignment that may lead to the LEDPA or minimize the costs of dealing with a difficult excavation site.

70. Page 3.9-23 Impacts with Lack of Alternatives

The DEIR/EIS provides the following statement regarding corrosive soils:

“Mapping shown in the Fresno to Bakersfield Section: Geology, Soils, and Seismicity Technical Report (Authority and FRA 2012) suggests that The HST alternative alignments from just north of Cross Creek south through Kings County and most of Tulare County would be located in soils that would be of high corrosivity to concrete while the remainder of the alignments would be located on soils of low to moderate corrosivity to concrete. The HST alternative alignments from Fresno to just north of Conejo would be located on soils predominantly of moderate corrosivity to uncoated steel while the remainder of the alignments would be located on soils of high corrosivity to uncoated steel. Highly erodible soils occur intermittently along the HST alternative alignments from Fresno to Bakersfield.”

Given the identification of highly corrosive soils on concrete and metal, the DEIR/EIS provides no analysis of potential alternative that would avoid these environmental concerns. CEQA and NEPA require that the DEIR/EIS look at alternatives that could avoid these situations while simultaneously meeting the purpose and need of the project.

71. Page 3.9-28 Failure to Analyze

The DEIR/EIS acknowledges the potential for linear settlement along the alignment over time. The following statement is made:

"Soil settlement could occur during project construction if imposed loads cause compression of the underlying materials. It is a time-dependent process, and is most problematic at locations where soft deposits exist, such as silty or clay soils that have not previously been consolidated by loads of the same levels as would be imposed by new construction. Such loads would be experienced at approach fills for elevated guideways or from embankments constructed to support track structural sections; for example, ballast and sub-ballast, placed to meet track grade requirements."

The Central Valley Water project underwent a process called Hydrocompaction after the construction of the project. This issue was only discovered after the project was developed and added significant costs to the project. The DEIR/EIS recognizes the potential for short-term and long-term settlement of the alignment, however fails to address the concern appropriately. The DEIR/EIS should provide an analysis of the potential for settlement along with any mitigation measures that could avoid the situation.

72. Page 3.9-28 Improper Treatment of Historical Potential and Environmental Consequences

The DEIR/EIS identifies a potential historical feature in Downtown Fresno in the following statement:

"The city of Fresno reportedly contains tunnels, which were allegedly constructed by Chinese immigrants, in the vicinity of the Fresno station alternatives (USA Today 2007). If these tunnels exist under the HST right-of-way, they would be located during geotechnical drilling conducted as part of final engineering design. Following appropriate cultural resources evaluation of any discovered tunnel, it would be filled so that it would not constitute a hazard to the HST alignment and station construction."

The DEIR/EIS improperly draws the conclusion that historical tunnels under Downtown Fresno will be "filled" to prevent damage to the HSR system. The DEIR/EIS should evaluate the significance of the tunnels and allow the public and decision makers come to a conclusion of the importance and need to preserve the tunnels for historical significance. The DEIR/EIS provides no analysis or mitigation measures to address these historical features and falsely assumes that they will be destroyed.

73. Page 3.9-29 Lack of Blasting Analysis and Mitigation Measures

The DEIR/EIS indicates that in hardpan situations blasting may be utilized for excavation. The following statement is made:

"Excavations in these soils may require blasting if conventional machinery is not adequate. Excavations in these types of soils are relatively common, and contractors are familiar with methods to handle excavations in hardpan."

CEQA and NEPA require that a EIR/EIS include the analysis of impacts associated with blasting as a means for excavation. The noise and vibration impacts should be analyzed and taken into consideration within the DEIR/EIS.

Section 3.11 Safety and Security

74. Page 3.11-11 Figure Misrepresents Project

In Figure 3.11-4 the DEIR/EIS indicates the Kings County Fire Station #4 on Houston Avenue. Given the proposed alignment this station will be eliminated and relocated. The DEIR/EIS should either remove the station from the figure or note that it will be impacted and moved if the BNSF Alignment is chosen. The overpass structure impedes on the entrance of the station therefore restricting the movement of fire trucks. The DEIR/EIS is advised to appropriately address the impact of losing and relocating Station #4.

Within the impacts to moving or impacting Station #4 the DEIR/EIS should analyze and determine the significance of the future ability to meet standard and requirement for response times. Involved with this concept is also the ability to meet ISO requirements for fire insurance. If the station is moved the potential arises for changes to homeowner fire insurance rates.

75. Page 3.11-24 Missing Element in Critical Structures

The DEIR/EIS provides a list of tall structures that have a potential for falling on to the HSR alignments. What is missing from the list are numerous PG&E towers located along the BNSF alignment from approximately Fargo Avenue until approximately Hanford-Armona Road. These power lines are approximately 65 feet tall and will be within the path of the HSR alignment if one is to fall. Given the large and continuous ground vibrations there is evidence that concrete fatigue could increase the likelihood that the foundations of the power lines will become unstable. A study conducted by Wong found that high speed trains resonance within structure can cause increased impacts to buildings and structure in certain soils²⁰

The DEIR/EIS should provides these power lines as a potential impact.

76. Page 3.11-26 Failure to Address Impact to Emergency Services

The DEIR/EIS recognizes the increased need to respond to medical and/or safety responses during construction. The DEIR/EIS however fails to address the increased reliance upon emergency services such as ambulance and paramedic services. If there is an increased number of incidences during construction, the already limited staffs associated with these emergency

²⁰ Hung Leung Wong. Analysis of Vibrations and Infrastructure Deterioration Caused By High-Speed Transit. Metrans; December 2005.

services will be stretched thin. If it exists that a normal emergency response is neglected or the response time is increased due to the increase in cases due to the HSR construction there will be a significant impact.

The DEIR/EIS fails to identify and/or address the potential increase in response requirements by emergency services during construction. Because the impact is ignored the DEIR/EIS provided not analysis of the impact nor any mitigation if required. The DEIR/EIS should make an attempt to estimate the increase in responses during construction and determine if local emergency services can appropriately handle the increase.

77. Page 3.11-28 Failure to Address Increased Crime to Surrounding Area

The DEIR/EIS anticipates typical crimes rates associated with common construction sites. The DEIR/EIS provides no analysis or data to indicate the crime rates anticipated. The reader, decision make and public are unable to make an educated analysis of the impacts associated with crime due to the lack of information provided by the DEIR/EIS.

The DEIR/EIS also does not anticipate or estimate any additional crime that may occur on adjacent property as a consequence of criminal activity within the construction site. If criminals begin to target the construction site, existing homeowners, landowners or farmers near the construction site may also see an increase in crime. The DEIR/EIS should provide an analysis of the potential impact of crime on surrounding parcels.

78. Page 3.11-29 Failure to Address Emergency Response Protocol

The DEIR/EIS intends to implement a monitoring system that can sense an intrusion or conflict on the HSR train path. The system will stop while during such an emergency. The DEIR/EIS makes the following statement:

"If a fault occurs within the HST network (i.e., intrusion, derailment, significant natural event such as earthquake), the automatic train control system will immediately slow or stop the train and minimize or eliminate a potential hazard."

The DEIR/EIS fails to analyze the impact to local law enforcement and emergency response teams given the system alert and shutdown. The DEIR/EIS does not provide any analysis of the response required for such an event, nor any protocol once an emergency occurs and all trains are stopped. If law enforcement or emergency response teams are alerted, how will the system notify local emergency teams to where the problem is and how to respond. This is a significant impact to local emergency teams if a system is not established to outline how to reach and where to react to. If a protocol or response program is not established, emergency response teams will be exposed to an unidentified trouble in an unidentified area.

79. Page 3.11-34 Safety Impacts at Overpasses

The DEIR/EIS makes the following statement in regards to overpasses for the project:

"As indicated in Chapter 2 (Alternatives), road overcrossings in rural portions of the Fresno to Bakersfield Section would be designed in accordance with county standards that take into account the movement of large farm equipment. Overcrossings would have two 12-foot wide lanes. Depending on average daily traffic (ADT) volumes, the shoulders would be 4 to 8 feet wide. Therefore, the paved surface for vehicles would be 32 to 40 feet wide. Most farm equipment would be able to travel within one lane, possibly overlapping onto the adjacent shoulder. Particularly large equipment may be so wide that it would cross over the centerline even when using the shoulder of the roadway. In accordance with standard safety practices, it is assumed that warning vehicles would be placed at either end of the overcrossing when this large a piece of equipment was being moved. Because of the width of the overcrossings and the use of standard safety practices, the effects on motor vehicle safety from the movement of farm equipment on overcrossings would have negligible intensity under NEPA and impacts would be less than significant under CEQA."

The DEIR/EIS recognizes the impact of narrowing roadways to accommodate large farm equipment that must be moved throughout rural areas. The DEIR/EIS relies upon the judgment and availability of safety cars to shepherd large equipment across overpasses, however fails to analyze or address the lack of extra safety personnel.

The DEIR/EIS also fails to address overpass structures that are out of alignment with existing roadways. Several overpass structures jog to the north or south of east-west road alignment to travel over the HSR alignment. As cars are traveling down roads they will be required to navigate bends in the alignment at high rates of speed. This out-of-alignment driving path of overpasses introduces a significant safety concern that the DEIR/EIS has not analyzed. This is further complicated in the fog if drivers cannot quickly compensate for the adjustment in the alignment and risk accidents as they try to navigate bends in the road alignment.

80. Page 3.11-37 Incomplete Safety Analysis

The DEIR/EIS provides a limited analysis and fails to fully identify risk in the following statement:

"As discussed above, project design features have minimized the potential for train accidents; therefore, local response to accidents is not expected to be required, because any incident would be extremely rare. For emergency preparedness, however, the Authority would collaborate with local responders to develop a Fire and Life Safety Program for emergency response in case of an accident or other emergency (see Sections 3.11.6, Project Design Features, and 3.11.7, Mitigation Measures). Because the project has been designed to avoid accidents, average response times are not expected to change, and new or physically altered government facilities that would create physical impacts on the environment are not anticipated. Consequently, there would be no effect under NEPA and no impact under CEQA."

The DEIR/EIS fails to provide sufficient evidence that emergency services such as law enforcement and fire will need to respond to an emergency or accident. A simple statement that an accident would be a "rare" occurrence is unacceptable when concerning public safety. The DEIR/EIS should be approach emergency preparedness as if an incident will occur and mitigation (safety programs) are in place to respond. The availability of training and a plan would render a judgment of no effect under NEPA and no impact under CEQA.

The DEIR/EIS also fails to address emergency response requirements for occurrences of medical attention. In the event that a passenger is experiencing a medical incident such as a heart attack, asthma attack, stroke, insulin shock, etc., the DEIR/EIS does not describe how local emergency services will identify and respond to the issue. Without any discussion of this item, the reader and decision maker cannot appropriately estimate the impact to our communities. A study and analysis of medical emergencies and the appropriate response mechanism should be included in the DEIR/EIS.

81. Page 3.11-37 Incomplete Safety Analysis

The DEIR/EIS fails to provide a sufficient analysis of emergency response requirements in and around new HSR station facilities. The DEIR/EIS fails to provide a recognition or analysis of increased law enforcement and medical response to station facilities. Incidences such as vandalism, vehicle theft, petty theft, increased vagrants, etc. was not included in the discussion. Emergency medical responses such as heart attacks, strokes, asthma attacks, etc. were also not included in the discussion. If local law enforcement begins to see an increase in these services to stations, the existing level of service may be impacted. Without a discussion and analysis of these impacts, the DEIR/EIS cannot make a realistic determination under NEPA and CEQA.

82. Page 3.11-40 Incomplete Safety Analysis Hazardous Impacts

The DEIR/EIS fails to provide sufficient evidence that the HSR system and alignment is safe from external safety concerns. In the rural areas the incidences of agricultural equipment adjacent to the alignment is significant. When operating large equipment near the alignment, farmers may not be able to judge distances and turning radiuses appropriately, therefore entering the HSR right-of-way and potentially causing a shut-down of the HSR train system. The DEIR/EIS provides no analysis of this potential and the subsequent response procedures.

The DEIR/EIS also fails to address the large number of crop dusting that will occur around the alignment by airplane and helicopter. Although there are few incidences of these applicators crashing, typically they do occur around power lines and poles. The HSR alignment will include a overhead catenary system, which will include an new set of power lines that will impact flight paths. The DEIR/EIS fails to address the concern.

83. Page 3.11-42 Incomplete Analysis of Criminal Activity

The DIER/EIS fails to provide a sufficient analysis of criminal activity on the HSR system in the following statement:

"Criminal activity, such as theft and violence, could occur on trains and at station facilities. Terrorists could target the stations, tracks, or trains for the potential to inflict mass casualties and disrupt transportation infrastructure. The HST design would include access control and security monitoring systems that could deter such acts and facilitate early detection. They would also help to prevent suicide

attempts. The system features include sensors on perimeter fencing, closed-circuit television, and security lighting where appropriate. These system features would reduce the potential for successful criminal and terrorist acts to a negligible intensity under NEPA, and less-than-significant impact under CEQA."

The DEIR/EIS cannot rely upon simple statements to substantiate findings under NEPA and CEQA. The DEIR/EIS fails to fully identify and analyze criminal behavior that could be present on HSR trains during operation. Examples include and are not limited to:

- Disgruntled passengers have an altercation on the train.
- Luggage or personal belongings are stolen.
- Vandalism of the HSR system.
- Loud or improper behavior of a passenger.
- Child abduction.

These and many other criminal activities could be present on the train during operations. The DEIR/EIS first fails to identify them then fails to discuss them and provide evidence that they will be mitigated or addressed.

The DEIR/EIS also fails to provide evidence that the HSR operations has been cleared by the Transportation Securing Administration (TSA) and that practices and policies that will or are recommended to be implemented are being utilized. Currently TSA has stringent requirements for the boarding and traveling of airline passengers. The DEIR/EIS fails to provide a discussion or analysis of the need to utilize or ignore TSA security measures for the HSR system.

84. Page 3.11-43 Deferred Safety Mitigation is Inappropriate

The DEIR/EIS provides the following mitigation measure for increased emergency response:

"Upon approval of the Fresno to Bakersfield Section, the Authority will monitor service levels in the vicinity of the Fresno, Kings/Tulare, and Bakersfield stations and, at such time as an HMF site is selected, monitor service levels at the HMF site, to determine baseline service demands. "Service levels" consist of the monthly volume of calls for fire and police protection, as well as city- or fire protection district-funded EMT/ambulance calls that occur in the station and HMF site service areas."

The DEIR/EIS intends to defer the establishment of a mitigation measure until after the impact has occurred. CEQA and NEPA specifically require mitigation measures to avoid an impact. As proposed the DEIR/EIS will incur the emergency response then provide a fair-share payment to the local emergency response agency. When approaching safety concerns, local law enforcement rely upon preparedness and prevention. Under the current approach the DEIR/EIS is going to allow the safety concern to arise and then address it via its cost impact.

The DEIR/EIS should provide a thorough analysis of the potential emergency response scenarios that would be required of the HSR system. Once the scenarios have been identified the DEIR/EIS can provide preparedness and prevention programs that can be implemented. These plans and programs would essentially be the mitigation measure. Included in those mitigation measures would be the cost to implement and carry the preparedness and prevention programs at the local emergency response level.

85. Elimination of Fire Station #4 in Kings County

The DEIR/EIS fails to address the impacts to Fire Station #4 in Kings County (#4 Station). Upon an initial review it looks like the overpass structure on Houston Avenue will impact the #4 Station with a potential for relocation of the facility. The DEIR/EIS does not provide evidence nor an analysis of the impacts to the #4 Station or its potential relocation. Locating a fire station is a very careful and thoughtful process, which ensures reliable response times to residents. The DEIR/EIS fails to realize or analyze the fact that the relocation of #4 Station will impact many residences and businesses in Kings County. If the station is relocated the insurance rates for current residents may change due to their proximity to the station.

86. The DEIR/EIS Fails to Address Future Transportation Safety Administration Requirements

The DEIR/EIS fails to identify and discuss the requirements that the Transportation Safety Administration may have concerning the safety of passengers on high-speed rail. According to a report in the Progressive Railroading newsletter the TSA has been meeting and working on the implementation of standards for high-speed rail service in the United State²¹. A discuss of the requirements that are pending from the TSA can and will establish the significance of potential security problems.

Section 3.12 Socioeconomic, Communities and Environmental Justice**87. Page 3.12-3 Inconsistent Statement**

The DEIR/EIS makes the following statement in regards to the adoption of a Title VI plan:

"In March 2012, the Authority adopted a Title VI policy and plan. The policy states:

- The California High Speed-Rail Authority (Authority) is committed to ensuring that no person in the state of California is excluded from participation in, nor denied the benefits of, its programs, activities, and services on the basis of race, color, national origin, age, sex, or disability as afforded by Title VI of the Civil Rights Act of 1964 and Related Statutes.*
- The Authority, as a federal grant recipient, is required by the Federal Railroad Administration to conform to Title VI of the Civil Rights Act of 1964 and related statutes. The Authority's sub-recipients and contractors are required to prevent discrimination and ensure non-discrimination in all of their programs, activities, and services.*
- As permitted and authorized by Title VI, the Authority will administer a Title VI Program in accordance with the spirit and intent of the non-discrimination laws and regulations.*

²¹ Angela Cotey. "Securing security measures: TSA works to implement standards for U.S. HSR Systems". <http://www.hsrapdates.com/news/details/Securing-security-measures-TSA-works-to-implement-standards-for-US-HSR-systems--1101>. HSR Updates, January 16, 2012.

The Title VI Plan includes a commitment to inclusive public involvement of all persons affected by the high-speed train project (Authority 2012)."

The DEIR/EIS should be corrected to identify that the Title VI program adopted by the Authority was modified in August 2012 to include an Environmental Justice component (EJ). The presentation delivered during the August Authority Board Meeting can be found on the Authority website. The DEIR/EIS should note where the Authority has complied with required EJ Policies and where it has not complied, given the adoption of the policy comes at the end of environmental review process.

88. Page 3.12-6 Unclear Analysis of Replacement Properties

The DEIR/EIS makes the following statement regarding the identification of vacancies utilized for the analysis within the document:

"The analysis was conducted in July 2010. Therefore, the real estate numbers represent the vacancies at that time. However, the recovery from the recession of 2008–2009 has been very slow in the region, and the economic conditions have remained essentially constant (Central Valley Business Times 2011; University of the Pacific 2012). Therefore, market conditions in 2012 are considered generally comparable to those evaluated in 2010. A potential full parcel acquisition was identified if the project would displace existing structures or acquire enough of a property to affect the property's intended use."

The DEIR/EIS does not make a clear distinction of the methodology to identify vacancies. A general approach to identifying properties such as simply accumulating the number of available housing or parcels available in a region may not specifically address the usage of the parcels. A local real estate market may have available housing, however there is a distinction between rural housing and houses within communities. Further review would also indicate that sub-regions within communities have special characteristics that would necessitate further review of availability of suitable replacement within a region. For example, if a rural home is removed by means of the alignment, suitable housing may need to be found in close proximity to their existing home due to the relationship between the home and a farming operation.

89. Page 3.12-6 Lack of Analysis Leads to Improper Analysis of Impacts

The DEIR/EIS provides the following justification for failing to provide a thorough analysis of property acquisition (temporary, permanent, partial and full):

"At this stage of project design, identifying the individual circumstances surrounding each partial acquisition of parcels is not possible. To be conservative and to avoid underestimating displacements and relocations, all residences and businesses on partially acquired parcels, including those that may ultimately be temporarily affected—for example, impacts associated with construction that are not expected to last through project operation—are counted as full displacements requiring relocation. This assumption allows for a worst-case assessment of potential property acquisition impacts. The final full and partial parcel acquisition decisions would ultimately be determined on a case-by-case basis during the land acquisition phase of the project. See Appendix 3.12-A, which provides a summary of the rights and benefits of displacees under the Uniform Relocation Assistance program."

The DEIR/EIS fails to provide the necessary level of analysis required under NEPA and CEQA to make a educated determination of impact. Given that the DEIR/EIS was developed utilizing

aerial photography which was outdated and only limited field observations, the document cannot ensure to the reader and decision maker that the impacts inflicted will be realistic. Although the DEIR/EIS indicates that a fully conservative approach was taken to relocate all impacted parcels, there still leaves the potential for identification of further intricate relocation situations. For example, along the BNSF alignment the HSR path eliminates a home that is located adjacent to other homes nearby that are family members. The house that is eliminated is a caregiver for one of the other homes that is not impacted.

90. Page 3.12-8 School Impact Analysis Requires Further Analysis

The DEIR/EIS provides a limited analysis on the impacts to local schools in the following statement:

"The total number of housing units that may be displaced in a school district was compared with the number of vacant housing units in the nearby vicinity to determine if a substantial number of families with enrolled students may be forced to relocate outside of their current school district. School funding impacts may occur in an area where a large number of displaced residents would need to relocate to homes in a new school district."

The DEIR/EIS provides an unrealistic analysis of the specific homes available within a school district. The DEIR/EIS should provide clear evidence that suitable housing options are available within a given school district. The broad statement made does not provide enough technical analysis for the reader or decision maker to conclude if an impact is observed or its significance. The DEIR/EIS should provide an analysis of the number of homes within each school district as the baseline and compare it to the available housing stock within that neighborhood to provide the public and the decision maker with the appropriate level of information to make a determination of significance.

91. Page 3.12-8 Irrational Analysis

The DEIR/EIS recognizes the loss of agricultural land due to the project in the following statement however provide misleading and confusing information:

"The project would acquire agricultural land and convert it to HST use; therefore, some agricultural production would be lost. Compensation for any lost production would be incorporated into the property acquisition compensation paid to owners. However, some production would probably not be easily relocated, and the production that is relocated would take time to become re-established. Therefore, some short-term reduction in agricultural production could occur."

The first statement that is not supported by law or fact is the concept that landowners will receive compensation for lost production. Under current eminent domain law, the lost future production of agricultural crops is not considered or allowed in an eminent domain taking. For example, if the alignment takes two acres of a walnut orchard that is 10 years old and has a life expectancy of 50 years. The landowner is not entitled to 40 years of lost walnut production. The DEIR/EIS shall clarify this statement and include the case law or legislation as evidence.

The next statement leads the reader to believe that there are only short-term reductions in agricultural production. This is a false statement given that the alignment being proposed will remove parcels in a manner that will not allow for the relocation of the production.

92. Page 3.12-36 Incorrect Description of Existing Conditions

The DEIR/EIS provides the following incomplete region description:

"Hamblin and the Ponderosa Road community—also called the Ponderosa—are rural residential areas along this part of the alignment. These communities are on the outskirts of Hanford and do not have many services or facilities, but residents place a high value on living a rural lifestyle in proximity to city services. The one key community facility identified in the study area in the Ponderosa Road vicinity is the Kit Carson Elementary School."

The DEIR/EIS fails to recognize the close proximity of community facilities provided by the City of Hanford. These communities are able to enjoy the benefits of a city, yet maintain a rural setting. This also includes access to two highways that allow the residents to travel in any direction. The DEIR/EIS also fails to notify the reader and decision maker that current zoning policies do not allow such rural housing to be developed. The DEIR/EIS provides the reader and decision maker with a limited description of the existing conditions, therefore hampering the ability to make a reasonable determination of the significance if impact.

93. Page 3.12-45 Unsubstantiated Statement of Benefits

The DEIR/EIS makes the following unsubstantiated statement of benefits:

"The HST stations in the cities of Fresno and Bakersfield would have the potential to encourage redevelopment, attract new businesses, and revitalize the downtowns, resulting primarily in beneficial social impacts in these areas, though many displacements would occur in Bakersfield."

The statement of benefits to local downtown areas around Fresno and Bakersfield are not substantiated with any data, study or information. The reader and decision maker are not given any facts that would lead one to believe that stations located in these downtown areas will revitalize the areas. Local planning documents, future business growth or a discussion of actions to be taken are not provided. This statement of benefits misleads the reader and/or decision maker into a false belief that revitalization "will" occur. This leads to a mischaracterization of the potential and could influence the determination of impacts to the general area. The DEIR/EIS should remove this statement and/or provide evidence that a revitalization will occur. This should include how the revitalization will occur, when it will occur and the feasibility of such revitalization.

94. Page 3.12-47 Failure to Provide Evidence

The DEIR/EIS make the following statement without provide the technical information to support the finding:

"All of the HST alternatives require residential property acquisitions, but these acquisitions are not expected to have any negative effects on school districts because there are adequate numbers of vacant replacement properties available in each school district and there would be negligible long-term effects related to property tax collection."

The DEIR/EIS provide no evidence within the document to support the findings that there are sufficient housing options within each school district to not have an impact. In the Kit Carson School District the HSR project will remove approximately 25 homes. Currently within that district there are an insufficient number of available rural homes to replace 25 rural homes.

95. Page 3.12-50 Unrealistic and Unsupported Finding

The DEIR/EIS provides a misleading and unsupported finding regarding the impact of construction along the HSR right-of-way:

"To the extent feasible, construction would occur within the right-of-way acquired for the project, although some areas outside the right-of-way would be used for staging."

The DEIR/EIS provides no evidence to the reader or decision maker that indicates that construction can stay within the right-of-way. This statement simply stands as an assumption without any technical information or description to support its findings. The reality of construction is that large equipment tends to require large areas to perform their work. For example, the fencing along the alignment will be very close to the right-of-way, therefore during some construction there will be the need to install and work from the outer fence. Most transportation projects require a construction easement along their project to ensure that suitable space is available for construction.

96. Page 3.12-54 Incomplete Sales Tax Analysis Concludes in an Improper Significance Finding

The DEIR/EIS fails to fully analyze the sales tax impact to local communities therefore concluding in an misinformed significance finding:

"The sales tax revenue generated from construction activities would increase local government revenues during the construction period, and would be a beneficial effect under NEPA. However, given current budget deficits for local county and city jurisdictions, the context is one of challenging funding constraints for the provision of governmental and public services."

The DEIR/EIS fails to recognize the time frames when analyzing the impacts of sales tax revenues. The DEIR/EIS fails to identify the time which the region can expect to see an influx of funds. If a local region is only going to experience a short influx of sales tax revenue, the reader and decision maker can properly assess the significance. An analysis should also be done to assess the increased services needed to be handled by local governments such as planning review, building reviews, inspection and general review of the HSR project while under construction. During construction the HSR alignment will relocate numerous homes and businesses which will require added local services to process permits and other services. The

DEIR/EIS fails to analyze the increase in local services needed to accommodate impacts from the mass replacement of homes and businesses.

If local agencies increase staff and services to accommodate the HSR construction, and utilize the increase sales tax to meet these needs, the DEIR/EIS does not address the long-term consequences of the future loss of those sales tax benefits to local governments.

97. Page 3.12-54 Incomplete Jobs Analysis Concludes in an Improper Significance Finding

The DEIR/EIS make the following incomplete statement and analysis concerning jobs creation and therefore leads to an incorrect significance statement:

"It is estimated that approximately 22,000 one-year, full-time job equivalents would be created within Fresno, Kings, Tulare, and Kern counties over the entire construction period of the BNSF Alternative. Direct jobs in the construction sector comprise around 33% of this total estimate—or 7,300 one-year, full-time job equivalents—while annual indirect and induced jobs created in the region comprise approximately 67% of this total. This job creation would peak during the years of heaviest project construction (2014–2018), and during those years would represent a need for around 3,300 workers annually (with approximately 1,100 direct jobs in the construction sector and 2,200 indirect and induced jobs in other sectors)."

The DEIR/EIS provides a job creation statement that identifies the number of jobs to be created, both directly and indirectly. The DEIR/EIS fails to provide any citation or analysis to verify that validity of the jobs created. More importantly the statement fails to provide a recognition or analysis of the jobs lost due to the project. As businesses, homes and land are taken on behalf of the project, jobs will be lost. Providing only half the analysis, which only identifies the beneficial aspects is misleading to the reader and decision maker, therefore the analysis is flawed and misleading.

98. Page 3.12-55 Incomplete Job Type Analysis

The DEIR/EIS makes the following broad and limited statement regarding the availability of workforce to meet the job needs of the project:

"In terms of workers to fill these jobs, the annual average unemployment across the four-county region was 14.9% in 2009, with 159,300 persons out of work (CEDD 2010b). In addition, a 2009 CEDD study reported a loss of 32,300 construction-specific jobs in the San Joaquin Valley during the current recession (Eberhardt School of Business 2009). As such, the existing regional labor force is anticipated to be sufficient to fill the demand for the estimated direct project construction jobs, as well as the resulting indirect and induced jobs."

The DEIR/EIS fails to identify the types of jobs available versus the available workforce. An identification of job types that are currently unemployed would yield an understanding of the ability to meet the project workforce with the currently unemployed.

99. Page 3.12-55 Failure to Provide Mitigation Measure

The DEIR/EIS fails to provide a detailed mitigation measure therefore incorrectly drawing a significance conclusion in the following statement:

"Because the displacement of the Fresno Rescue Mission would result in the division of a community and the loss of access to an important community resource, the intensity would be substantial under NEPA, and the impact would be significant under CEQA. With mitigation, this impact would be reduced to less than significant."

The DEIR/EIS indicates that the relocation and impacts to the Fresno Rescue Mission are substantial under NEPA and significant under CEQA, and indicates that the impacts would be reduced with mitigation. However, the DEIR/EIS does not provide any detail as to what the mitigation measure is, how it will be executed, the feasibility or the cost to carry out the mitigation measure. Therefore the reader and decision maker cannot correctly draw the conclusion that the mitigation measure will alleviate the impacts to a less than significant level. The DEIR/EIS should clearly state the mitigation measure to be implemented and include the feasibility and cost to carry out such a mitigation measure.

100. Page 3.12-79 Limited and Misleading Analysis

The DEIR/EIS provides the following limited and misleading analysis:

"Vacant residential properties identified in zip codes along the project alignment in unincorporated Fresno, Kings, and Kern counties numbered 342, 589, and 2,044, respectively. These vacancies are more than sufficient for the respective 56, 40, and 25 potential displacements in these locations, and do not include consideration of existing adjacent vacant land where the current units could be moved."

The DEIR/EIS fails to provide a sufficient level of analysis to determine the availability of replacement homes for residential properties in the rural sections of the alignment. For instance, in Kings County the zip code 93230 expands over a very large distance. If homeowners are displaced on the eastern alignment, it most likely means their farm ground in on the eastern alignment. Homes attributed to available on the western side of Hanford should not be considered. The number of home available is also very suspect.

101. Page 3.12-80 Vague and Incomplete Statement

The DEIR/EIS addresses the Ponderosa Road Community in the following statement:

"One rural residential subdivision in unincorporated Kings County—in the vicinity of Ponderosa Road and Edna Way east of Hanford (which is affected by the BNSF Alternative)—is an exception to this finding of a sufficient number of current vacant residences. In this location, residents enjoy a unique blend of amenities (spacious lots, city services, and a country setting close to town). Very few comparable, vacant, developed rural residential homes may be available as replacement properties. If so, it may be necessary to consider constructing housing of last resort, including rehabilitation of existing housing or relocation of disrupted residential areas to newly constructed housing elsewhere in the vicinity. Similarly, the rural residential community of Crome in unincorporated Kern County is

surrounded by agricultural uses, so it may be difficult to find comparable replacement housing nearby for displaced households. Even if replacement housing were to be constructed to meet these needs, these replacements would not represent a substantial number of new homes, and therefore the impact would be less than significant under CEQA."

Within the statement the DEIR/EIS recognizes the complexity and difficulty in impacting a unique community. What begins as an attempt to identify a mitigation measure, "It may be necessary to consider constructing housing of last resort" fails to completely fulfill the mitigation identification requirements under CEQA and NEPA. The DEIR/EIS should provide a discussion of how the mitigation measure will be conducted, its feasibility and its costs. Without full analysis and disclosure of the mitigation measure the DEIR/EIS cannot correctly determine a level of significance and therefore reader and decision maker cannot properly use the document for decision making purposes.

102. Page 3.12-88 Inadequate Analysis of Suitable Replacement Business Vacancies

The DEIR/EIS provides an analysis that show the number of business to be relocated in each region along with the available vacancies. For example, in the Kern area there are 321 businesses that will need to be relocated and there are 430 vacancies. Although numerically these seem to work, the DEIR/EIS fails to recognize the many differing businesses that will need to be relocated and any special requirements that may preclude any assumption that one of the 430 vacancies will work. The DEIR/EIS does recognize the complication with auto repair shops, but fails to continue that analysis further into other specialized businesses.

103. Page 3.12-102 Unsupported and Unrealistic Determination

The DEIR/EIS makes the following unrealistic and unsupported determination:

" The project would acquire agricultural land, thus removing it from production (see Section 3.14, Agricultural Lands, for a detailed description of these lands). Although a large percentage of this production would relocate, some of it could not be easily replaced given the limited availability of suitable replacement lands (e.g., limitations on prime farmland and new locations for animal operations)."

The DEIR/EIS provides no evidence that the statement made above is valid. The case can and should be made that the land taken from production will not be replaced given the removal of strips of agriculture through individual farming operations. If a farmer has a stand of walnuts that covers 1 square mile, the alignment will take 1.21 acres. The farmers will not seek replacement of 1.21 acres of trees in a different location. The DEIR/EIS should recognize the loss of agricultural land.

104. Page 3.12-116 Deferral of Mitigation Measure

The DEIR/EIS provides notice that a Property Acquisition Mitigation Plan will be developed after the project begins. The DEIR/EIS under the provisions of CEQA and NEPA is required to fully analyze and explain all mitigation measure at the time that the environmental impacts are identified and discussed. The DEIR/EIS should provide a full description of the mitigation measure, its feasibility and the cost such that the reader and decision maker can determine the significance of the impact to the environment and community.

105. Page 3.12-117 Failure to Fully Analyze and Detail Mitigation Measure SO-1

The DEIR/EIS describes its mitigation measure to address unique relocation situation in the following statement:

"The Authority will minimize impacts associated with the BNSF Alternative in the rural residential areas around Ponderosa Road/Edna Way east of Hanford, the Newark Avenue vicinity northeast of Corcoran, and Crome by conducting special outreach to affected homeowners and residents to fully understand their special relocation needs. The Authority will make every effort to locate suitable replacement properties that are comparable to those currently enjoyed by these residents, including constructing suitable replacement facilities if necessary. In cases where residents wish to remain in the immediate vicinity, the Authority will take measures to purchase vacant land or buildings in the area, and consult with local authorities over matters such as zoning, permits, and moving of homes and replacement of services and utilities, as appropriate. The Authority will conduct community workshops to obtain input from those homeowners whose property would not be acquired, but whose community would be substantially altered by construction of HST facilities, including the loss of many neighbors, to identify measures that could be taken to mitigate impacts on those who remain (including placement of sound walls and landscaping, and potential uses for remnant parcels that could benefit the community in the long term)."

The DEIR/EIS fails to fully analyze the describe the mitigation measure being proposed for unique relocation measures within the alignment. The DEIR/EIS fails to address the exact mechanisms for relocating rural homes and offers statements such as "will make every effort" yet fails to provide assurances that the mitigation measure will be implemented and successful. The DEIR/EIS fails to provide a feasibility analysis to determine if the mitigation measure can be implemented. Given many local jurisdictions restriction of replacement rural housing, the DEIR/EIS fails to address how replacement homes could be constructed on unavailable rural lots. The DEIR/EIS also fails to detail how homeowners will be relocated, reconstructed or simple moved to new area and what the timing would be. Lastly there is no cost analysis of what this mitigation measure will cost.

106. Page 3.12-117 Failure to Fully Analyze and Detail Mitigation Measure SO-2

The DEIR/EIS make the following statement to describe Mitigation Measure SO-2:

"As a part of this program, before land acquisition, the Authority will consult with officials and representatives of community facilities affected by significant noise impacts (e.g., churches, schools, and the veterinary hospital if the southern alignment is selected) to identify suitable noise abatement

measures or to help affected businesses and organizations find more-suitable locations in the community."

The DEIR/EIS fails to outline the basic features, feasibility and cost associated with Mitigation Measure SO-2. The DEIR/EIS describes that the mitigation measure will be detailed after the DEIR/EIS has been completed. Under CEQA, mitigation measures must be fully analyzed and described within the environmental review process to allow for a proper understanding of the impact and mitigation to make a reasonable estimate of significance. The DEIR/EIS should provide the suitable noise abatement measure within the document, their implementation, the feasibility of each measure and the cost, such that a reasonable conclusion of significant can be made. The deferral of analyze and description of this mitigation measure violates CEQA.

107. Page 3.12-118 Mitigation Measure SO-4 Violates the Purpose of CEQA and NEPA

As proposed by the DEIR/EIS the Authority will approach sensitive and unique facilities after the environmental process has been complete to determine an action plan for their relocation. CEQA was established to address impacts before they occur and to develop mitigation measures such that the public can be assured that impacts incurred by a project will be addressed. The DEIR/EIS provides no description of a mitigation measure, but only indicates something will be done in the future. There is no analysis or description that would lead the public to believe than anything described will be feasible or successful. The cost of implementing these mitigation measure is also not included. The public has no assurances that this mitigation measure addresscs the impacts described, therefore there is an inability to detcrmine if the significance of the impact will be addressed.

108. Page 3.12-118 Mitigation Measure SO-4 Violates the Purpose of CEQA and NEPA

The DEIR/EIS intends to provide overpasses or underpasses to stranded parcels. The DEIR/EIS however fails to provide the necessary detail to determine if the mitigation measure is feasible or cost effective. The DEIR/EIS fails to provide a description of the overpass and/or underpass structures including sizes, frequency and secondary impacts required for additional land to accommodate such structures. The cost of this alternative is also not provided. Therefore this mitigation measure fails to meet the minimum analysis requirements of CEQA.

Section 3.13 Station Planning, Land Use and Development

109. Page 3.13-6 Failure of DEIR/EIS to Address Incompatibility with Fresno General Plan

The DEIR/EIS makes the following statement in regards to the County of Fresno General Plan:

"The intent of the policies is not to preclude intensive development, but to direct it to minimize loss of agriculture and open space. The BNSF Alternative and the Fresno Works-Fresno HMF Site alternative would be located on lands designated primarily as industrial and agricultural."

The DEIR/EIS establishes early on that the Fresno County General Plan has a priority on developing within city limits to protect agricultural areas. The alignment sighted by the DEIR/EIS focuses the track along the agricultural areas. The DEIR/EIS fails to address how plan to implement the system are consistent with the component of the Fresno County General Plan.

110. Page 3.13-8 Unsubstantiated Justification for Inconsistency with Kings County General Plan

The DEIR/EIS provides the unsubstantiated claim in regards to policies and planning within the 2035 Kings County General Plan:

"The General Plan states that because the county has the highest future growth rate in the Central Valley, the existing vehicular transportation system has insufficient capacity to meet current and expected future travel demand. This lack of transportation choices and capacity can potentially be fulfilled by the HST System. The General Plan also states the need for improved intercity transportation to improve air quality, travel reliability, and reduce travel congestion and travel times. The HST System would achieve all these objectives by reducing regional dependence on the automobile."

In an attempt to provide a consistent link between HSR and the 2035 Kings County General Plan the DEIR/EIS states that HST will improve intercity transportation for Kings County. The DEIR/EIS however fails to provide any concrete evidence in any section that would indicate the guaranteed improvement of intercity transportation for Kings County. In its initial attempt to rain independent utility the HST line will be utilized by Amtrak. With this practice the line will eliminate many critical downtown stations and links. The station located in downtown Hanford will be eliminated. This is a focal point for Hanford and acts as a very successful transportation hub. Stations that connect Hanford to other communities like Corcoran, Wasco and Fresno will no longer be viable.

A station for Kings County has been labeled "potential". The DEIR/EIS provides no clarity as to its intent to construct and/or when a station will become "reality" versus "potential". Without a station Kings County will be disconnected from its ability to move people between cities via a public mode of transportation. People will have to travel to either Fresno or Bakersfield to access HSR. The DEIR/EIS along with the 2012 Revised Business Plan also make it clear that with the onset of HSR service, Amtrak will be eliminated.

Therefore, the DEIR/EIS falsely provides this statement and further fails to provide consistency with the 2035 Kings County General Plan. The DEIR/EIS should provide evidence that it is consistent with the general plan or strike the comment. Further the DEIR/EIS should provide a realistic analysis of its ability to comply and support the 2035 Kings County General Plan by providing evidence and support.

111. Page 3.13-13 Failure to Comply With CEQA

The DEIR/EIS provides the following misleading and incorrect statement:

"As such, it is not required to be consistent with local plans. However, the HST project's consistency with local plans is described here, by alternative, in order to provide a context for the project."

The DEIR/EIS fails to communicate properly the intent of CEQA and NEPA. CEQA requires an EIR to provide a discussion of inconsistencies with any local plans under Section 15125(d) of the California Environmental Quality Act (CEQA) Guidelines. The section states the following:

(d) The EIR shall discuss any inconsistencies between the proposed project and applicable general plans, specific plans and regional plans. Such regional plans include, but are not limited to, the applicable air quality attainment or maintenance plan or State Implementation Plan, areawide waste treatment and water quality control plans, regional transportation plans, regional housing allocation, regional blueprint plans, greenhouse gas reduction plans, habitat conservation plans, natural community conservation plans and regional land use plans for the protection of the coastal zone, Lake Tahoe Basin, San Francisco Bay, and Santa Monica Mountains.

The National Environmental Policy Act (NEPA) Regulations (40 CFR Parts 1500-1508) specifically address policy analysis. The NEPA Regulations require that an EIS include discussion of possible conflicts between the proposed action and the objectives of federal, State, regional, and local land use plans (40 CFR 1502.16[c]). The NEPA Regulations further state that to better integrate environmental impact statements into state or local planning processes, statements shall discuss any inconsistency of a proposed action with any approved State or local plan. Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law (40 CFR 1506.2[d]).

Clearly the DEIR/EIS has failed to clearly address CEQA and NEPA. The DEIR/EIS should recognize the need to address not only consistencies with local plans, but provide an discussion and analysis of the inconsistency with local plans. The analysis and discussion would also include a discussion of techniques to address or mitigate the inconsistencies with local plans. The DEIR/EIS should be redrafted with a focus on inconsistencies and include the required information under CEQA and NEPA stated above.

112. Page 3.13-15 Incorrect Statement Concerning Land Use Around Hanford East Station

The DEIR/EIS provides the following incorrect statement regarding the Kings/Tulare East Station:

"The station area is zoned as light industrial by Kings County and the station would be compatible with this zoning; however, the adjacent land is zoned as agriculture and would be under pressure to develop."

The DEIR/EIS provides an incorrect evaluation of the Kings/Tulare station by indicating that it is zoned for Light Commercial however the 2035 Kings County General Plan has the land associated with the station zoned as Limited Agriculture with a 10 acre minimum²².

The DEIR/EIS also provides a limited description of the surrounding area which provides a false understanding of the surrounding area. West of the proposed station is Highway 43, which acts as a barrier to the development of housing from Hanford. To the north, east and limited to the south is agricultural zoning. The only consistent zoning for an HSR station is a small parcel located to the southwest of the station which is zoned for light commercial.

The DEIR/EIS provides very little evidence that the station location along the BNSF alignment is consistent with local plans. In context of the overall surroundings the station does not conform to land use policies established in the 2035 Kings County General Plan.

113. Page 3.13-34 Lack of Evidence for Finding

The DEIR/EIS fails to provide the necessary level of evidence required to make a finding in the following statement:

"The lands would be restored as close as possible to their pre-construction condition at the end of construction and returned to the landowner (see Section 3.14, Agricultural Lands, for more details). Because lands used for temporary construction would be acquired from willing landowners and restored to their previous condition at the end of the construction period, long-term land uses would not change, adjacent land uses would not change, and there would not be a substantial change in the long-term pattern or intensity of land use incompatible with adjacent land uses. For these reasons, the effect of the temporary use of land for project construction staging, laydown, and fabrication would have negligible intensity under NEPA, and the impact would be less than significant under CEQA."

The DEIR/EIS will require the temporary use of property for construction. Outline in the statement above is a simple statement that the project will return the property to its previous state after construction, however provides not description or analysis of the methods for returning property to its previous condition. In order to a true review under CEQA and NEPA the DEIR/EIS is required to provide a thorough analysis of any mitigation measure. The DEIR/EIS fails to provide a reclamation plan that would lead the reader or decision maker to believe that the land could be returned to its previous state and that this impact would be less than significant and have a negligible impact.

114. Page 3.13-37 Incomplete Analysis Leading to Unsupportable Finding

The DEIR/EIS makes the following finding concerning the significance of converting land to differing local zoning determinations:

²² Kings County. County of Kings 2035 General Plan-Land Use Element.

"Overall, the effect of the permanent conversion of land for the project would have moderate intensity under NEPA. The project would require acquisition of land that is not currently in transportation uses; however, it would not change existing adjacent land uses except possibly at the Kings/Tulare Regional Station alternative sites."

The DEIR/EIS includes the conversion of parcels that are obtained through the acquisition process for the project footprint, however what is not included are remnant parcels that are created by the alignment and cannot be used for future farming practices and will be hampered by their size, configuration and access. Given the length of track no following a transportation corridor, the number of these remnant parcels is significant. The DEIR/EIS should provide a calculation based upon all potential conversions of land, not just the direct footprint impacts.

115. Page 3.13-37 False Statement Without any Support

The DEIR/EIS in its attempt to minimize the impact of the project on adjacent parcels makes the following incorrect and unsupported statement:

"The HST tracks and supporting facilities would not inhibit continuation of existing uses on adjacent lands, nor would they induce growth."

The statement provided by the DEIR/EIS is incorrect and does not provide any evidence that the statement can be valid. Given the alignment and facility locations some examples of failure to ability to use sites after are:

- Overpasses, alignments, facilities eliminate numerous homes and farming facilities and many cannot continue their existence on that site.
- Several properties will be isolated without access unless the HSR Project can provide a secondary access point. The DEIR/EIS provides not evidence in any section that stranded parcels will have a viable access point.
- Conversion of lands surrounding stations will be changed due to the fact that farming and stations cannot coexist.

116. Page 3.13-47 Improper Deferral of Parking Study

The DEIR/EIS improperly defers the study of future parking structures and requirements to a later date in the following statement:

"However, to discourage unplanned growth in the area surrounding the station sites, the Authority plans to provide less parking at the stations and to work with local communities such as Hanford, Visalia, and Tulare to provide parking at satellite lots in those communities, with transit service to the stations. A future environmental review of these satellite lots would be conducted by the Authority if this approach to serving the HST station is implemented."

The DEIR/EIS establishes a need for parking given the proposal is to not provide the necessary parking for the stations in the Kings/Tulare area. The deferral of future studies to investigate how to meet the needs of parking violate the principles of NEPA and CEQA to identify impacts,

asses them and provide a determination of significance. If significant, mitigation measures should be provided and assessed to determine their impact on significance.

117. Page 3.13-47 Improper Deferral of Parking Study

The DEIR/EIS make the following statement regarding parking in downtown Bakersfield for the HSR station:

"The downtown Bakersfield Station would provide up to 4,500 parking spaces after the station is completed, although the full 2035 parking demand is estimated to be 8,100 spaces. It is unknown at this time how the additional parking spaces would be provided. The 4,500 spaces would be provided in one or two structures, depending on the alternative chosen for the station. In addition, four parking lots are located approximately 0.5 mile, or less, from the proposed station location, although some parking spaces in these lots are used on a daily basis and are not available for HST parking. Additional parking areas are being identified in the downtown area to accommodate both passengers and visitors to the station area, and to encourage land uses that would support other development types."

Under CEQA/NEPA the lead agency must utilize the DEIR/EIS to identify and address impacts associated with the HSR project. It is alarming to see this DEIR/EIS actually create an impact within its description. The knowledge that the HSR station will require upwards of 8,100 parking spaces, yet only design for 4,500 spaces is a significant impact to the City of Bakersfield. There is no discussion or analysis of the shortage of parking given there is no realistic ability to meet the future parking needs.

118. Page 3.13-48 Unsupported and Incorrect Conclusion Statement

The DEIR/EIS makes an incorrect comparison and conclusion in the following statement:

"Both the BNSF Railway and UPRR cross through the south San Joaquin Valley and have not prevented recent development of residential neighborhoods in close proximity to the lines. For example, there has been substantial residential development along the BNSF Railway alignment on the western side of metropolitan Bakersfield over the past 30 years."

The DEIR/EIS falsely compares freight-train service systems to HSR in order to draw the conclusion that they do not impede development. The DEIR/EIS however fails to address the differences in the system that might lead to the ability to develop near the tracks. Freight systems typically do not run at speeds, noise levels and frequency that the HSR system intends to operate at. The HSR system as described in the DEIR/EIS will be louder, travel at a much higher speed and be at a much higher frequency. These factors should be described and balanced to determine if there is a potential that the alignment can and will act as a barrier.

119. Page 3.13-50 Failure to Include Cited Report in the DEIR/EIS Information

The DEIR/EIS cited the following report as the basis for findings within the DEIR/EIS:

The Transit Oriented Development Design Report for Fresno Final Report (UC Berkeley 2010)

The report was not included in the information provided to the reader. The report could not be found included with the DEIR/EIS information provided online, via CD or within the published documents. This information is critical in reviewing the ability to meet the TOD requirements and making a significance determination. The DEIR/EIS should publish this information with the DEIR/EIS and re-release the document for another 90-day review period.

120. Page 3.13-50 Failure to Provide a Full Analysis of Impacts to Urban Areas Around Stations

The DEIR/EIS improperly analyzes the impacts to local property around a station in the following statement:

"Indirect effects on surrounding land uses are considered to have moderate intensity under NEPA because the HST stations may induce growth, but they would be consistent with applicable plans. Indirect impacts would be less than significant under CEQA because land use changes would be compatible with adjacent land uses. Indirect effects on surrounding land uses would be beneficial, encouraging more efficient land use patterns that are consistent with Fresno and Bakersfield planning goals."

The DEIR/EIS fails to provide an analysis worthy of a significance finding given that the analysis made is based upon assumptions unsupported by findings or facts. The DEIR/EIS assumes that development will occur according to proposed and undeveloped plans by the City of Fresno and the City of Bakersfield. The DEIR/EIS includes information that not a single urban infill project is being currently planned for the City of Fresno and only two projects are currently being proposed in Bakersfield. The DEIR/EIS fails to provide an analysis addressing the failure to develop the areas surrounding the HSR stations with TOD projects and other high density infill projects. The DEIR/EIS should provide the outcomes and impacts if the assumptions made in the previous sections fail to be realized.

121. Page 3.13-57 Unclear and Unanalyzed Mitigation Measure

The DEIR/EIS alludes to the future development of satellite parking and transportation hubs however fails to address these as a mitigation measure in the following statement:

"The Authority could provide less parking at the Kings/Tulare Regional Station site than described in Chapter 2 by working with local communities such as Hanford, Visalia, and Tulare to provide parking at satellite lots in those communities with frequent transit service to the stations."

The DEIR/EIS alludes to the inclusion of future satellite parking and transportation hubs to supplement parking requirements at a Kings/Tulare HSR station. This seems to be a mitigation measure and also a project feature. The DEIR/EIS does not fully describe this feature or provide any analysis of impacts such as traffic and land use planning for these stations. The DEIR/EIS cannot include such unclear and unanalyzed features. The DEIR/EIS should remove this feature or provide the appropriate level of analysis required under CEQA and NEPA as a project feature.

Section 3.14 Agricultural Lands

122. Page 3.14-4 Inconsistency Between Alignment and Blueprint

The DEIR/EIS makes the following statement:

"The San Joaquin Valley Blueprint planning process resulted in a regional plan—the B+ Scenario—that is intended to help preserve agricultural land by focusing new development in urban centers. The San Joaquin Valley Blueprint sets out 12 smart-growth principles, including "Preserve open space, farmland, natural beauty, and critical environmental areas," but these are not mandatory for any city or county land use decision."

Of the 114 miles of alignment currently being contemplated for construction, approximately 28 miles of the alignment through Kings County is not located on a Transportation Corridor, which was required as a part of Proposition 1A. Proposition 1A recognizes that the placement of the alignment on a transportation corridor would minimize the impacts associated with the HSR Project. By placing the alignment out in the open farm land with sweeping curves the alignments consume larger portions of prime farm ground, disrupts existing aesthetics and impact environmental areas. Another way to interpret the impact of not utilizing a transportation corridor is to look at the percentage of impacts. Of the 114 miles of track, approximately 25% of the track is not located on a transportation corridor, most of that concentrated in Kings County. Not placing the track along a transportation corridor increases the impact by double given the alignment is not adjacent to a corridor and the impacts are felt on both sides of the track, and there is a significant number of overpass and underpass structures required. Therefore the actual impact to not being on a transportation corridor is double and 50 % of the overall impacts are concentrated in the 28 miles of tracks located in Kings County not adjacent to any transportation corridor. The currently proposed alignments seemingly contradict the foundations of the San Joaquin Valley Blueprint and the DEIR/EIS does not provide any recognition of this discrepancy.

The DEIR/EIS does not provide a justification to concentrate impacts to agriculture on the Kings County region, nor provide any evidence that a transportation corridor is not feasible. The DEIR/EIS is required to provide feasible alternatives that can minimize impacts, therefore under CEQA and NEPA the DEIR/EIS is required to provide a sufficient analysis of a high-speed alignment located along a transportation corridor.

123. Page 3.14-6 Project Inconsistency with Local Plans

In Table 3.14-1 the DEIR/EIS establishes the local policies and ordinances that govern development on agricultural land. From a Kings County perspective, where the alignment departs from a transportation corridor (BNSF Railroad) the policies established by Kings County and the Cities impacted by the alignment are inconsistent and contradictory. Kings County policies and ordinances promote the preservation of agricultural lands by maintaining large parcel sizing (ie. parcels greater than 20 acres) and by promoting Williamson Act contracts. All alignments being proposed through Kings County violate these policies and principles.

Sweeping curves and alignments being placed away from transportation corridors creates hundreds of small parcels, many of which are unfarmable and convert large swaths of acreage to non-farming uses.

Policies and ordinances in Kings County also promote the development of new housing within the urban sphere of influences and promote an inward development regime. The alignments being proposed in Kings County site "proposed" HSR stations on the periphery of the City of Hanford in what has been zones agricultural land. Both proposed stations are several miles from downtown Hanford and are located outside of the City Limits. If development around a station proceeds as the HSR project believes, this will cause an outward sprawl of businesses and homes, which directly violates local policies and ordinances.

The DEIR/EIS contemplates the local policies and ordinances that are established by local governments and elected officials to meet regulations and local needs and wishes. The DEIR/EIS fails to address or provide mitigation for the overall failure to meet local policies and ordinances. The DEIR/EIS should provide an analysis of an alignment that meets local policies to ensure that the public and readers understand the full analysis.

124. Page 3.14-8 Failure to Provide Criteria for Analysis

The DEIR/EIS makes the following statement:

"In addition, analysts examined farmland severance on a parcel-by-parcel basis for each alternative to identify where severance would create two parcels, and result in remnant parcel(s) that would be too small or too physically constrained to be farmed economically."

The DEIR/EIS indicates that there was an analysis to determine parcels that could remain in farming and those that would either be too small or be constrained such that they could not be farmed. The DEIR/EIS does not provide the reader with the criteria utilized to make such a determination in the document or the supporting documents provided with the DEIR/EIS. Given the lack of communication between Authority consultants that prepared the DEIR/EIS the landowners and readers of this document should be allowed to understand how determinations were made and the opportunity to comment on what is a legitimate criteria and what is not.

The DEIR/EIS should provide the reader with the process and criteria used to determine a farmable or non-farmable parcel.

125. Page 3.14-9 Failure to Provide Agricultural Technical Group Findings

The DEIR/EIS indicated that an Agricultural Technical Group was created to study the impacts associated with the project and alignments. This Group should have been established years ago to assist in directing the choice of alignments, however as proposed the Group is simply formulating mitigation measures. If the Group has created any documentation that was a part of the DEIR/EIS, it should be provided in the document or any supporting documents.

126. Page 3.14-9 Provide Definition

The DEIR/EIS establishes the threshold for negligible, moderate and significant impacts to farm ground. The acreages associated with each threshold were not defined as to their source. It should be noted that many farmable and profitable operations can be smaller than 10 acres. It should also be noted that temporary impacts such as equipment storage areas can have a significant impact on farming operations for 5 years, which is a long period of time to be without the profitability of that land.

127. Page 3.14-9 Strike Statement

The DEIR/EIS makes the following statement:

"When originally established, farms in the project vicinity were rectangular parcels that followed township and range survey patterns, which were composed of many similarly shaped parcels. Over time, construction of the railroads, state highways, and local roads divided some farms, creating irregularly shaped parcels."

This statement misrepresents the actual development of farming within the Central Valley. The roads and streets in the area surrounding the alignment are on a grid system with roads provided approximately every 1 mile in the north-south and east-west direction. On occasion there are roads provided on the 1/2 mile. This allows for farming to take place in blocks. The DEIR/EIS should eliminate this statement as it misrepresents the development and status of roads and farm ground in the vicinity of the alignment and the Central Valley.

128. Page 3.14-33 Misleading Statement

The DEIR/EIS makes the following statement:

"The No Project Alternative would result in extensive farmland conversion to accommodate anticipated future growth in the region. In comparison, the HST alternatives would convert farmland for construction of the project but would also provide opportunities for focusing future growth on land that is already urbanized, approved for development but not built on, or planned for urban uses. This could reduce the amount of farmland converted to urban uses to accommodate future growth within the region."

The DEIR/EIS misleads the reader by making an over generalized statement about the potential development of surrounding communities. The alignments proposed through the Hanford area (both the east and west alternatives) have sited station locations on the edges of the City center, far removed from urban influences and more akin to farming. The alignments have the potential to focus development to consume more farm ground as homes and businesses begin to move towards the HSR stations.

The DEIR/EIS should eliminate the statement that the HSR project will provide opportunities to focus growth on urbanized land given there is no evidence within the document that this will be pursued.

129. Page 3.14-33 Improper Statement of Findings/Lacking Analysis and Evidence for Findings

The DEIR/EIS makes the following statement:

"Wind effects on bees and adjacent cropland would be of negligible intensity under NEPA and not affect agricultural productivity, including pollination by bees. Noise from HST operations could impact livestock and poultry where the HST is within 100 feet of confined animal facilities. The impacts to livestock and poultry."

The DEIR/EIS does not provide any evidence that the two statements made in regards to wind impacts on bees and noise and vibration impacts on confined animals are as stated.

130. Page 3.14-41 Improper Analysis of Temporary Impacts to Agriculture

The DEIR/EIS contemplates the usage of large acreages of agricultural land for temporary uses such as staging areas and equipment storage yards. For the BNSF alignment this could be as high as 1,519 acres of land. The DEIR/EIS fails to provide a suitable analysis to make the subsequent findings of negligible impacts under NEPA and less-than-significant under CEQA given the failure to address potential environmental impacts associated with the temporary activity on the agricultural land and the failure to provide a reclamation plan.

As with other activities carried out such as mining operations, the proponent must provide a reclamation plan to ensure the return of land to a usable product. The DEIR/EIS fails to provide any plan to return temporarily seized land to agricultural usage once the HSR project is completed. The upper layers of soil that is utilized for farming (commonly called topsoil) has a makeup that is conducive to plant growth. In a sense it is a living organism that supports plant life. Farmers are applying supplements, fertilizers and organic matter in a fine balance to ensure a productive operation. During HSR construction efforts, heavy equipment will travel over the ground and introduce compactive effort chemicals and debris. This is also in conjunction with the lack of irrigation and field supplements. Essentially the field will yield a "dead" dirt. The DEIR/EIS provides no evidence that would ensure that a field would be returned to its farming state, therefore the impact has the potential to be long-term or permanent.

The article published by Vern Grubiner "Soil Organic Matter: The Living, the Dead and the Very Dead" establishes that soil organic matter is only a small percentage of most soils, but it has a drastic impact on soil properties and therefore agricultural productivity. The report finds that:

"Frequent tillage, periods of bare ground, and removal of crop residues all contribute to reductions in soil organic matter."

131. Page 3.14-43 Confusing Sentence

The DEIR/EIS makes the following statement which is confusing to the reader:

"The BNSF Alternative would come within 100 feet of one confined animal facility in Kings County, three confined animal facilities in Kings County, and two confined animal facilities in Tulare County."

The sentence repeats Kings County twice leaving the reader with the impression that 4 confined animal facilities are within 100' of the BNSF alignment. The DEIR/EIS should clarify this conflict in the FEIR/EIS.

132. Page 3.14-44 Lack of Evidence or Analysis to Support Findings

The DEIR/EIS makes the following statement in regards to the impacts of loud noises on confined animals:

"Responses to loud noises include the startle response, freezing (becoming temporarily stationary), and fleeing from the sound source. As the project construction noise is below the levels identified in the literature to impact milk production, effects on these confined animal facilities are not anticipated. Temporary noise impacts on adjacent farm animals would therefore not lead to the conversion of Important Farmland to a non-agricultural use, because the current use would continue. The impact would have a negligible intensity under NEPA, and the impact would be less-than-significant under CEQA."

The DEIR/EIS provides no analysis or data to indicate that the impacts would be "temporary". Sound impacts from construction equipment can be expected for several years. If a confined animal facility is subject to several years of reduced milk production and/or frightened cows, the dairy may experience financial losses, which will not be recoverable under the standard property acquisition process outlined by the Authority. If its dairy is forced to close the future use of the dairy facility and its supporting farm ground is unknown. The DEIR/EIS does not contemplate nor analyze the realistic outcome of a prolonged temporary noise impact on a confined animal facility.

The DEIR/EIS also is not clear as to the source of the sound. The DEIR/EIS indicates that the train could introduce a sharp and abrupt sound at the 90+dB range for as many as 12 bursts per hour. This will occur 7 days a week for as long as the train is in service. Although the confined animals will be desensitized to the noise over time, the dairy business operates by losing cows and introducing new cows. As new cows are introduced they may be startled by the noise until they are accustomed, however for that time period it can be expected that the dairy will not receive its full milk production from that cow. The cow may also become startled and restless in the midst of the other cows that are accustomed to the noise, which may scare the other animals and cause loss of milk production or other impacts.

133. Page 3.14-45 Lack of Evidence or Analysis to Support Statement

The DEIR/EIS makes the following statement which is not supported by evidence or historical proof:

"If the communities zone to take advantage of this increase in land values, the growth can be redirected to limit low-density development, which has been consuming large amounts of land area. There is an opportunity to encourage walkable, more-concentrated development patterns to meet new growth demands and reduce the rate and occurrence of low-density development, which erodes the valuable land resources. Providing opportunities for focusing future development on land that is already in nonagricultural uses would reduce the amount of farmland converted to uses other than agriculture. This would be consistent with the preferred B+ (Blueprint) Scenario, which incorporates the HST system, and farmland conversion would be reduced from 327,000 acres (the business-as-usual, or "A" Scenario) to 209,000 acres, a reduction of 118,000 acres."

Although all communities in the Central Valley have strived for this principle in planning, it has not been successful nor observed. The reality is that many communities on outskirts of urban communities have been taken over by commuters that consume more farm ground for subdivision developments.

134. Page 3.14-45 DEIR/EIS Requires Clarification

The DEIR/EIS provides the following statement in regards to the permanent conversion of farm ground:

"estimates of the permanent conversion of Important Farmlands under the BNSF Alternative, based on the land that would be permanently converted as a result of the project right-of-way, and ancillary facilities such as substations and the Fresno, Kings/Tulare and Bakersfield HST stations."

The statement and the DEIR/EIS is not clear as to the inclusion of the overpass footprints in the conversion of farm ground. The DEIR/EIS should clearly state if the quantity reported includes or fails to include the footprint required for overpasses, rights-of-way, easements, ancillary facilities and power facilities (including those required to transmit power to the rail system).

3.15 - Parks, Recreation and Open Spaces**135. Page 3.15-26 Failure to Analyze Impacts to Baseball Stadium**

The DEIR/EIS identifies the Chukchansi Baseball Stadium within 850' of the proposed HSR alignment and Fresno HSR station without properly addressing construction impacts:

"Chukchansi Park (Fresno). Construction of the HST would not require temporary use of Chukchansi Park property and would not create any direct impacts. As shown on Figure 3.15-6, Chukchansi Park is approximately 810 feet from the centerline of the BNSF right-of-way and less than 100 feet from the study area for a grade separation required for the BNSF Alternative. Indirect impacts would include noise, dust, and visual change, which could indirectly affect the stadium and users. However, these indirect impacts are not anticipated to substantially affect normal use because of the existing urban nature of the

facility; therefore, the effects of the project would have negligible intensity under NEPA, and would be a less-than-significant impact under CEQA."

The DEIR/EIS fails to address all potential impacts to the Chukchansi Park in Fresno due to construction. Although the DEIR/EIS provide recognition that there will be noise, dust and visual changes, a simple statement is made that indicates that they will not substantially affect normal use. The DEIR/EIS fails to provide any analysis or proof that would substantiate these findings. Events such as daytime soccer games, community outings, beer and wine events and movies in the park could be impacted due to construction noise and visual impacts. The DEIR/EIS should provide an analysis of the potential impacts to attendance and provide a mitigation measure to minimize the impacts.

One of the important impacts that is not addressed is the impacts to local traffic and parking around the stadium. The DEIR/EIS should provide a description of the impacts to traffic patterns, potential road closures and the availability of parking to meet stadium needs while construction of the HSR alignment and station are underway. Figure 3.15-6 shows the construction impact to occur over most of the existing parking facilities for the stadium. During construction the DEIR/EIS does not identify substitute parking arrangements, therefore attendance will be impacted. If there is an impact to the stadium and park, the DEIR/EIS should provide a CEQA/NEPA qualified mitigation measure and analysis that would lead to an appropriate significance determination.

Under the information provided and potential for significant impacts the DEIR/EIS fails to provide a sufficient discussion of construction impacts on Chukchansi Park.

136. Page 3.15-27 Failure to Address Construction Impacts to the Pixley National Wildlife Refuge

The DEIR/EIS provides the following limited impact analysis:

"Pixley National Wildlife Refuge (Tulare County). The right-of-way for the BNSF Alternative would require construction activities within 195 feet of Pixley National Wildlife Refuge lands. However, these activities would be separated from Pixley National Wildlife Refuge by SR 43 and would not create any direct or indirect impacts. HST construction effects on Pixley National Wildlife Refuge would have a negligible intensity under NEPA, and impacts would be less than significant under CEQA."

The DEIR/EIS fails to recognize the construction impacts to the park due to the noise, visual and vibration impacts on the wildlife. During construction it is anticipated that loud and sharp noises will startle the wildlife in the refuge and will drive them away from the edges of the refuge. This will change the character of the park during construction and may have a lasting impact of the wildlife in the refuge. Dust created from the construction may also drive into the refuge, causing wildlife to be impacted.

Section 3.16 Aesthetics and Visual Resources

137. Page 3.16-60 Incorporation of a Mitigation Measure After Finalization of EIR/EIS

The DEIR/EIS improperly implements a mitigation measure after the finalization of the DEIR/EIS in the following statement:

"During final design of the elevated guideways, the Authority will coordinate with local jurisdictions on their design so that the elevated guideways will fit in appropriately with the visual context of the areas near them. The Authority will establish a process with the city or county with jurisdiction over the land along the elevated guideway to advance the final design through a collaborative, context-sensitive solutions approach. The working groups will meet on a regular basis to develop a consensus on the urban design elements to be incorporated into the final guideway designs. The process will include activities to solicit community input in the affected neighborhoods."

The DEIR/EIS improperly relies upon a mitigation measure that will be developed and implemented after the DEIR/EIS is finalized. The intention is to coordinate with local jurisdictions after the DEIR/EIS is implemented versus prior to finalization to ensure that the appropriate impacts and mitigation measures are identified and implemented as a part of the CEQA and NEPA process. The DEIR/EIS should coordinate ahead of the DEIR/EIS to ensure that appropriate mitigation measures are identified, analyzed for feasibility and cost and realistically summarized for an appropriate level of significance as a part of the DEIR/EIS.

138. Page 3.16-60 Failure to Address Impact

The DEIR/EIS identifies an impact in the following statement that is not addressed in this, nor any other section of the DEIR/EIS:

"Since some of these structures along with the piers can be targets for graffiti, they can incorporate textured surfaces and artistic patterns that discourage graffiti and add visual interest to the landscape; in addition surface coatings can be applied to them to facilitate cleaning and the removal of graffiti."

The prevalence of graffiti in the Central Valley is significant. The impact has been identified in this section, however no analysis or mitigation measure is identified in the DEIR/EIS. As graffiti takes place the DEIR/EIS does not account for the reporting of such vandalism to local law enforcement agencies. The DEIR/EIS does not provide an analysis of the potential for graffiti, however only indicates it could be a problem. If it becomes a problem, local law enforcement will be charged with responding to the vandalism and preparing reports to address such vandalism. This has not been analyzed as a potential impact to local law enforcement capacity.

139. Page 3.16-61 Verify Information and Provide Clarification

The DEIR/EIS makes the following statement:

"The height from ground level to the top of rail would typically be a minimum of 4.5 feet, but would fluctuate up to as much as 8 feet depending upon topography."

In reviewing the technical drawings for this project, there are sections of track that are approximately 10' above grade. The above statement indicates that the highest would be approximately 8'. The DEIR/EIS should be consistent with all information provided.

The DEIR/EIS also fails to indicate the presence of a chain link fence along the entire length of track. This is a visual barrier that breaks the consistency of the view.

The DEIR/EIS also fails to address items such as the power traction facilities and radio communication towers. Most importantly the DEIR/EIS fails to identify overpass structures as visual barriers. These structures are approximately 35' tall and can extend for approximately 3/4 mile.

The DEIR/EIS fails to properly identify the impacts associated with visual resources because it has failed to address facilities appropriately and has failed to include all features.

Section 3.18 Regional Growth**140. Page 3.18-1 Failure to Recognize Changes in Time Between Programmatic EIR and Project Level DEIR/EIS**

The DEIR/EIS improperly relies upon date information from the Programmatic EIR in the following statement:

"The Final Program EIR/EIS for the Proposed California HST System (Statewide Program EIR/EIS) (Authority and FRA 2005) and the Bay Area to Central Valley Program EIR/EIS (Authority and FRA 2008, Authority 2010) did not identify growth impacts requiring mitigation for growth beyond HST design and program objectives and mitigation for other impacts. Since that time, economic recession conditions have largely stifled new growth in California and the Central Valley. As a result, there is an oversupply in the San Joaquin Valley of approved, but unbuilt development projects. When economic conditions improve, new growth is expected to occur in those locations first. The analysis in this document indicates growth inducement for the Fresno to Bakersfield section is not expected to be greater than that analyzed in the Program EIR/EISs."

The DEIR/EIS relies upon findings from the Program EIR/EIS to estimate impacts to regional growth at the Project level. The Program EIR/EIS was done prior to 2005 (2000-2004) and does not properly reflect the current day markets and growth patterns that could potentially impact movement of residents from urban areas to the rural areas.

Included in Attachment ?? are the average costs of homes from January 2000 to present as presented by trulia.com, which is a real estate value tracking system. From the information provided the Program EIR/EIS was developed during a period in which the real estate market was in an extraordinary boom, while we currently find ourselves and significantly less value in our real estate, however the urban areas did not suffer the decline in property value as Central Valley communities did. Below is a table of the findings:

	2000	2005	2012
Bakersfield	\$90,000	\$303,000	\$145,000
Fresno	\$92,000	\$299,000	\$145,000
Los Angeles	\$162,000	\$575,000	\$300,000
San Francisco	\$430,000	\$835,000	\$600,000

Given the collapse of the housing markets throughout the state, the Central Valley has currently an inventory of very low cost homes. In the market today the cost of a home in the Central Valley versus San Francisco and Los Angeles is two-times and four-times respectively cheaper. The Project level DEIR/EIS cannot rely upon the analysis done in the Program EIR/EIS given there has been such drastic changes in the economy and housing markets.

141. Page 3.18-13 Key Statement that Undermines the Findings of the DEIR/EIS

The DEIR/EIS makes the following statement:

"The economic growth study conducted for the Bay Area Program EIR/EIS found that the overflow of people from urban coastal areas seeking affordable housing within commuting range of major metropolitan areas drives the high growth projections for these San Joaquin Valley counties."

Historically the ability to commute via a public transportation system has opened up once small communities to the urban sprawl concept. Communities such as Tracy, Pleasanton, Livermore, and even as far as Los Banos have all experienced large housing demands due to the urban sprawl from large urban centers such as San Jose and San Francisco. In Southern California the same exists between communities such as Castaic and Palmdale and their close proximity to Los Angeles.

Although the DEIR/EIS recognizes the large influence that the urban areas can have on the Central Valley, this is the only statement that attributes or attempts to address the concern.

142. Page 3.18-19 Failure to Provide Analysis

The DEIR/EIS makes the following statement:

"The analysis shows the HST alternatives would create additional employment and business opportunities and attract higher-wage jobs in comparison to the No Project Alternative. The HST alternatives, however, would only raise the projected population and employment growth by about 3% beyond growth anticipated under the No Project Alternative."

The DEIR/EIS infers that there was an "analysis" that was done to make the statement above, however the DEIR/EIS does not provide the analysis. Therefore, the DEIR/EIS fails to provide the necessary level of detail warranted under CEQA and NEPA. The DEIR/EIS should provide the analysis that was done to draw the conclusion made, or eliminate the statement and conclusion. The analysis provided earlier in the document is flawed given the lack of recent detail in the economy and housing market.

143. Page 3.18-22 Lack of Analysis Leading to Unsupported Findings

The DEIR/EIS provides the following limited analysis of job creation:

"Over the entire construction period, project expenditures under the BNSF Alternative would result in the creation of a total of 7,300 direct and 14,600 indirect and induced annual job years. This is a total of 21,900 additional annual job years created by the project in the four-county area over these 8 years. During the peak period of construction, the additional 1,100 direct-construction jobs created would comprise an additional 2.4% of the total projected 2016 construction jobs in the region (see Table 3.18-3). This small percentage increase would not be substantial enough to greatly attract workers to the region because the existing underemployed construction work force would be expected to fill these jobs.3"

The DEIR/EIS draws the conclusion that the local markets will supply the necessary workforce to meet the construction needs of this project. Although there are numbers of unemployed construction workers within the local markets to meet the need, the DEIR/EIS does not provide any information or policies that would support the finding. The DEIR/EIS fails to address the type of construction work needed, the ability of construction forces to meet specialized needs or the ability of larger construction companies outside of the area mobilizing to the Central Valley to acquire work.

144. Page 3.18-30 Lack of Analysis Leading to Unsupported Findings

The DEIR/EIS makes the following unsupported analysis:

"The HST alternatives contribute a relatively small incremental increase in the projected growth for the 4-county region associated with the No Project Alternative. The HST Project would result in a 2-3% population increase and 3% employment increase compared to current projections. While increasing projected population and employment growth, the HST project would also result in the benefits over the No-Project condition including reduced automobile travel on major freeways, reduced long-term air pollutant emissions, and additional economic activity that may bring the San Joaquin Valley's chronically high unemployment rate to a level that is more in line with the rest of the state."

The DEIR/EIS provides no analysis or data that would support the fact that they project would result in a 2-3% population increase or a 3% employment increase. The DEIR/EIS cannot make statements based upon unsupported analysis. The DEIR/EIS should provide an analysis or evidence that would support the above statements or remove them from the document.

145. Page 3.18-31 Lack of Analysis Leading to Unsupported Findings

The DEIR/EIS makes the following unsupported analysis:

"The HST is designed for intercity travel to provide an alternative to the personal automobile and airplanes for rapid travel between the major urban centers of the state. It is not intended as a commuter rail service and tickets prices would not be subsidized, as is typical for commuter rail. At a ticket price equivalent to 50-80% of airfare, it would not be cost-effective for most people to live in one urban area, say Fresno, and commute to another urban area, such as San Francisco."

The DEIR/EIS provides no analysis of the potential for the HSR to utilized as a commuter rail service. Simply stating that the cost will not induce commuter traffic is not sufficient under CEQA and NEPA. The DEIR/EIS should provide evidence and/or data that would show that the cost associated with HSR tickets will not induce commuter traffic.

Under the promotion of HSR the Authority has touted the ticket prices as affordable and unsubsidized. However, throughout the world other HSR systems have been implemented and utilized as commuter services. One example would be the Shinkansen in Japan.

146. Page 3.18-32 Failure to Address Potential Buying Power of New Landowners

The DEIR/EIS makes a simplified analysis that is does not fully address potential concerns of land consumption in the following statement:

"As shown in Table 3.18-18, the HST would increase population by approximately 2-3%, or approximately 110,650 people over the 2035 population forecasted for the four-county region. As indicated above, communities in the region have adequate space to accommodate planned growth by 2035 and HST-induced growth within their current spheres of influence. If the current population density of approximately 10 persons per acre (see Section 2.4, No Project Alternative – Existing and Planned Improvements) were to continue with the HST, 11,065 acres of land would be needed to accommodate this additional population."

The DEIR/EIS fails to address its earlier statement that homeowners along the coastal communities, which typically have higher incomes will be the landowners that will move towards the Central Valley. Given the larger buying power and higher incomes made in the Coastal Communities, the DEIR/EIS should provide an analysis of the realistic person per acre that will be caused by the HSR project.

147. Page 3.18-33 Unrealistic Reliance Upon Undocumented Policies and Plans

The DEIR/EIS relies upon future plans and policies to address future growth in the following statement:

"As described in Section 3.13, Land Use, Station Planning, and Development, the Authority has developed guidelines for station area development (HST Station Area Development: General Principles and Guidelines), as identified in the Bay Area to Central Valley HST Program final and revised final

EIR/EIS documents (Authority and FRA 2008 and 2010) and is working with the city of Fresno on station area plans through a matching planning grant program and has offered the city of Bakersfield the same opportunity. Ultimately, the cities and county would be responsible for developing local land use requirements that would focus the growth in the HST station areas; but as described above, the project would encourage the cities and county to take full advantage of the HST station potential."

Under CEQA and NEPA, the DEIR/EIS cannot rely upon unrealized plans and policies to mitigate for an impact. The DEIR/EIS wishes to rely upon plans yet to be developed by local agencies such as the City of Fresno to direct urban development around the Fresno HSR Station. These policies have not been developed nor approved by any local jurisdictions.

A further problem ensues given that areas surrounding the Fresno HSR station, but not within its footprint have distinct identities and even historical significance. Areas such as the old Chinatown and other areas of important to the Japanese culture are located one-block to the west and several blocks to the north and the south. During the policy process these communities may rally to preserve their heritage, therefore leaving future development around the HSR Station stagnant.

The City of Bakersfield has not accepted any funding to proposed such plans, therefore leaving it highly skeptical that Bakersfield will adopt any of the HSR development policies. Therefore, the DEIR/EIS cannot utilize future policies and plans to offset sprawl and growth induced by the HSR Project.

148. Page 3.18-33 Unrealistic Reliance Upon Undocumented Policies and Plans

The DIER/EIS the following mitigation statement without any analysis, support, feasibility or cost analysis:

"Due to this high potential, the Authority could work with local government, the California Department of Conservation and non-governmental agencies to purchase agricultural conservation easements around the station to keep the land in agricultural production to discourage direct or indirect growth around this station."

The DEIR/EIS fails to meet the standards of CEQA and NEPA by providing a mitigation measure without providing the reader or decision maker with the appropriate level of analysis that would lead to a significance finding. The mitigation measure of buying development rights from surrounding landowners is not analyzes for its feasibility and cost.

Section 3.19 Cumulative Impact

149. Page 3.19-7 Lack of Parking Adds to Cumulative Transportation Impacts

The DEIR/EIS makes the following statement:

"Locally, even without implementation of the HST alternatives, up to 107 of the 226 intersections and 33 of the 134 roadway segments within the three station study areas would operate at unacceptable LOS (E or F) by 2035. The HST project in conjunction with other planned projects in these three station areas

would result in cumulative impacts due to increased traffic associated with people traveling to and from stations, as described in Section 3.2.5, Transportation. Implementation of the HST alternatives would be expected to reduce already unacceptable LOS levels by at least 4 seconds at up to 51 intersections in either the morning or afternoon peak hour and increase the volume-to-capacity ratio on 13 roadway segments by 2035. The project would reduce LOS from acceptable levels to unacceptable levels at 10 intersections in either the morning or afternoon peak hour and 5 roadway segments. Therefore, due to the reduction in LOS, the project's cumulative effect would have substantial intensity under NEPA. In the context of the number of intersections and roadway segments that would operate at an unacceptable LOS with past, present, and reasonably foreseeable future projects, the cumulative impact of the project would be significant under NEPA. The contribution of the project to traffic congestion would be cumulatively considerable under CEQA."

The DEIR/EIS recognizes the increased traffic that will be induced around proposed station. However, the DEIR/EIS fails to address the potential failure to identify suitable parking accommodations to meet HSR station needs in the future. If the project is unable to meet the full parking demand, traffic in the area will be compounded by vehicles traveling around the area to find parking, further diminishing the serviceability of the area.

150. Page 3.19-7 Failure to Recognize the Funding Impacts

The DEIR/EIS makes the following incomplete analysis and statement:

"As described in the 2005 Statewide Program EIR/EIS and the 2008 Bay Area to Central Valley Program EIR/EIS, implementation of the HST System as a whole could benefit intercity highways."

The DEIR/EIS references a document that was done at a time when the project could not identify its funding. Currently the project can only identify a small portion of funding, and has yet to realize the majority of its funding to meet its full build and HSR service. As the project begins to seek future funding there will be an increased pressure to take funding that would support other transportation project and concentrate them on the HSR project. This cumulative impact has not been identified, nor addressed.

151. Page 3.19-9 Failure to Address Air Quality Fines

The DEIR/EIS makes the following statement:

"Construction of reasonably foreseeable future projects in the SJVAB would be a significant cumulative air quality impact under NEPA and CEQA because the basin is not in attainment for ozone, PM10, and PM2.5 and construction of any project causes emissions of ozone precursors (NOx and VOCs) and particulates. The SJVAPCD has developed plans to help bring concentrations of these pollutants into attainment; however, the HST construction emissions were not included in these plans. Because the unmitigated construction emissions for the Fresno to Bakersfield Section would exceed the SJVAPCD thresholds for NOx, VOC, PM10, and PM2.5, the air quality effect would have substantial intensity under NEPA. Since the SJVAPCD

attainment plans for these pollutants do not account for project construction emissions, this would be a significant cumulative impact under NEPA. The project would also have a cumulatively considerable contribution to the air quality impact associated with reasonably foreseeable projects in the SJVAB."

The DEIR/EIS addresses the concerns that project construction will increase air pollutants beyond the current air quality standards for the area. However, the DEIR/EIS fails to address the current situation which faces the Central Valley. Due to air quality violations, residents and the San Joaquin Valley Air Quality Control Board are facing fines. Fines in the amount of \$29 million annual and a \$12 per vehicle charge are being levied against residents. If the air quality standards are exceeded for anything greater than 1 hours, future fines will be levied. The DEIR/EIS fails to address the potential for future fines, who will pay them or the impact on local economies if such fines are levied during the construction of the project.

152. Page 3.19-9 Failure to Address Timing and Air Quality Impacts

The DEIR/EIS makes the following statement:

"Operation of the HST would help the region attain air quality standards and plans by reducing the amount of regional vehicular traffic and providing an alternative mode of transportation. Because the HST project would help to decrease emissions of criteria pollutants, it would result in a net benefit to regional air quality. Therefore, operation of the HST alternatives would have a beneficial contribution under NEPA and no cumulative impact under CEQA."

The DEIR/EIS fails to provide the appropriate level to detail to make the findings presented in this statement. During construction the HSR project will increase the air quality problems significantly. The Revised 2012 Business Plan indicates that upon completion of the Merced to Bakersfield section, which is anticipated to be 2017, the alignment will not have power and Amtrak service will be operating on the line. The DEIR/EIS fails to analyze the increased air quality impacts carried forward without implementing HSR service upon completion of the tracks. There will also be increase vehicle miles traveled to access Amtrak stations and to maneuver around the HSR alignment.

153. Page 3.19-9 Failure to Address Timing and Air Quality Impacts

The DEIR/EIS fails to address the timing of air quality impacts and unsubstantiated air quality benefits in the following statement:

"Operation of the Merced to Fresno and Fresno to Bakersfield sections of the HST would help the region attain air quality standards and plans by reducing the amount of regional vehicular traffic and providing an alternative mode of transportation. Because the HST project would help to decrease emissions of criteria pollutants, it would result in a net benefit to regional air quality. Therefore, operation of the HST alternatives would have a beneficial contribution under NEPA and no cumulative impact under CEQA."

The DEIR/EIS does not provide an analysis or data that would indicate that vehicle miles would be decreased. From information gathered within the DEIR/EIS it is safe to deduce that vehicle miles traveled in the Central Valley would be increased. If VMT in the Central Valley increases, the air quality issues that are already problematic will only increase. Evidence that VMT may increase include:

1. The 2012 Revised Business Plan indicates that the new HSR tracks that will be installed could be used for traditional Amtrak Service. Under the current design proposals, Amtrak stations in Hanford, Wasco and Corcoran will be eliminated. The current traveling public that uses this service will be forced to travel to Fresno or Bakersfield to access Amtrak. For the community of Hanford, this represents approximately 180,000 passengers per year. These people will either drive to Fresno or simply drive to their destination.
2. As the HSR system is built, the DEIR/EIS indicates that the population will increase in the Central Valley due to the ability to access cheap and affordable housing. The DEIR/EIS provides little to no evidence to support its estimate of a 3% increase and current market forces and local real estate costs would indicate that this number would be much larger. As these people move into the Central Valley they will also be bringing increased traffic to the Central Valley. The additional VMT from sprawl will intensify our already critical air quality status.
3. The DEIR/EIS also fails to address the timing of the air quality impacts. During construction the Central Valley portion of the HSR Project the air quality will be diminished significantly. Anticipated air quality fines have not been addressed or analyzed by the DEIR/EIS and the long term balance of air quality impacts to benefits is missing. If the Central Valley will be the subject of poor air quality for decades before HSR service is started, the DEIR/EIS should provide an analysis of the timing of HSR service versus the date at which the realization of air quality impacts are accrued. The DEIR/EIS cannot simply state that benefits will come to the Central Valley at a later date, but not provide analysis and data that would show the reader and decision maker when and how those benefits will be realized.

154. Page 3.19-15 Failure to Address Cumulative Impacts of Noise Given New Transportation Corridor

The DEIR/EIS does not recognize the importance and significance of the section of track through Kings County as a new transportation corridor. The alignments chose travel several miles outside of town and separate from any transportation corridor, including the BNSF railroad. The BNSF railroad currently travels through the City of Hanford and has a noise level at approximately 88dB. This sound from the horns and steel-on-steel tracks can be heard several miles radiating outward from the tracks. As the HSR project is constructed it will add an additional louder sound (at 95+ db) at the edge of the existing limits of the BNSF sound. The HSR will be introducing a loud and sharp noise every six minutes to the existing condition which represents the limits of an existing noise pollution source (BNSF train). The cumulative impact of adding another transportation corridor will severely impact the quiet and serene rural

atmosphere for miles. This is avoidable and actually contemplated in Proposition 1A, given that the law requires the alignments to be placed on transportation corridors and for Kings County the alignment is nowhere near a transportation corridor.

155. Page 3.19-18 Confusing and Incomplete Analysis

The DEIR/EIS makes the following statement about electrical supply:

"The electrical demand, inclusive of transmission losses, for the propulsion of the trains for the HST alternatives, for the operation of the trains at terminal stations, and in storage depots and maintenance facilities has been conservatively estimated to be 56,600 MBtus per day. The projected average summer power supply statewide in 2010 was forecast at 76,968 MW, or 6,303,017 MBtus per day, with an additional 92,000 MW planned to be available by 2030. Conservatively, the HST System electrical demand would be 0.9% of 2010 electrical production, and 0.4% of planned 2030 electrical production. Although electricity supplies for 2035 are uncertain, given the available planning period and the known demand from the project, energy providers have sufficient information to include the HST in their demand forecasts, which will inform future decision regarding new infrastructure necessary to meet energy demand. In addition, to enhance the benefits of the HST, the Authority has set a goal of procuring renewable electricity to provide power for HST operations. Therefore, the cumulative impact of the HST alternatives and other past, present, and reasonably foreseeable projects on electrical infrastructure and energy demand during operation would not be a significant impact under NEPA and would be a less than significant impact under CEQA."

The DEIR/EIS confuses the reader by switching power consumption and supply units from MBtus per day to KWH (or MW). This occurs throughout the statement and often within one sentence. The reader cannot make fair comparisons of consumption versus availability unless the units of the energy are consistent.

The DEIR/EIS also fails to provide a sufficient level of detail for an appropriate level of significance to be determined. The DEIR/EIS indicates the amount of energy the system would take in the summer and the amount of power supplied by power companies in 2010. The DEIR/EIS then explains what percentage of the 2010 supply the train would take, however fails to address if the power supplied in 2010 met the needs of customers or was deficient. The DEIR/EIS provides no empirical data that would show that the appropriate level of power supply will be available.

The DEIR/EIS also indicates that typical projects must apply for power to be supplied to their project. Through an environmental review and permit from the power companies a project can determine what level of power will be available. The DEIR/EIS does not provide this information.

156. Page 3.19-19 Failure to Address Added Consumption of Groundwater Due to Sprawl

The DEIR/EIS indicates under anticipated growth that the HSR project will induce an additional 3% increase in population of the Central Valley. Much of the increase is due to the access of affordable land and labor and the exodus of high dollar coastal and urban communities into the Central Valley. As pointed out earlier, the 3% increase is underestimated and this figure could be significant higher. In relation to the cumulative impacts of this project the DEIR/EIS fails to analyze the impacts to water resources both surface and groundwater to meet the increase population growth in the Central Valley caused by the HSR project.

For example: The DEIR/EIS estimates that the population increase to the Central Valley due to the HSR project is 110,650 people. According to the United State Census Bureau the average persons per household in California is 2.89. This means that there will be an additional 38,287 household required in the Central Valley to accommodate the increase in population due to HSR. The DEIR/EIS indicates that an average household uses 2.55 AF/year. This means that on average the HSR project will increase water consumption by 97,631 AF per year. Being the area relies heavily upon groundwater, each surface water supply is completely appropriated and the Central Valley continues to lose valuable water supplies to urban demands and environmental concerns, the DEIR/EIS should provide an analysis and mitigation measure to compensate for this significant impact.

157. Page 3.19-38 Failure to Provide Alternatives

The DEIR/EIS provides the following statement in regards to alignments outside of transportation corridors and through agricultural land:

"Potential construction-related cumulative impacts on land use and development would be similar for all alternatives. However, potential operations-related cumulative impacts would be greater for portions of the BNSF that pass through agricultural lands and are not located in the existing rail right-of-way, Hanford West Bypass 1 and Hanford West Bypass 2, Corcoran Bypass, Allensworth Bypass, and Wasco-Shafter Bypass alignments, and the Kings/Tulare Regional Station alternatives."

The DEIR/EIS identifies and properly applies the significant impacts associated with the HST project as it deviates from transportation corridors and magnifies the impacts associated to lands through and adjacent to the proposed HSR Project. The DEIR/EIS fails to recognize this impact by failing to provide alternatives that address these impacts. The BNSF and Hanford West alternatives provide similar and almost identical impacts, therefore the DEIR/EIS fails the test of CEQA and NEPA in providing differing alternatives that achieve the purpose of the project, yet provide alternatives to the impacts.

158. Page 3.19-39 Failure to Fully Analyze Temporary Agricultural Impacts

The DEIR/EIS provides a limited and improper analysis of temporary impacts to agriculture in the following statement:

"Construction of other past, present, and reasonably foreseeable projects could also result in the temporary conversion of farmland for construction-related uses. The land temporarily used for construction of the HST project would be restored and returned to agricultural use after construction is completed. Therefore, project construction activities would not contribute to the cumulative impact of conversion of agricultural land."

The DEIR/EIS fails to recognize the complicated relationship that farmer have with their ground and their finances. This project is intended to last upwards of 5 years. The loss of income from this acreage could significantly impact a farmer. Farming relies upon loans to accomplish their production. Land is the collateral used to secure those loans. If a landowner must temporarily release land to the Authority, the DEIR/EIS has provided no evidence that it will impact their loaning capacity.

The Dairy industry is currently facing a catastrophic failure and losing dairies at an alarming rate. The fine line between profit and debt is hard to maintain as feed cost soar, regulations require funding and the cost of milk either drops or stays the same. The DEIR/EIS provides no evidence that the land used for the temporary construction will be safe from dairy offset ground. Many farmers in the area utilize their ground to move manure waste, which in turn allows them to maintain a certain permitted herd size. As land is removed from availability to apply dairy water the herd must be reduced. A few acres of lost land can mean millions of dollars in lost milk production and a even larger loss to the agricultural community.

The DEIR/EIS fails in is goal to analyze the cumulative impacts of the project. As the impact to land occurs, the profitability and loaning capacity of farmers is reduced.

Conclusion

CEQA and NEPA were developed to be the seminal laws to protect the environment and the social fabric of society. In order to accomplish these lofty goal, specific and details laws and guidelines were developed to require the development of the DEIR/EIS. Unfortunately the DEIR/EIS created for the HSR Project fails to offer a detailed Project Description, fails to properly identify the baseline conditions, fails to clearly identify all of the potential impacts, fails to identify legitimate mitigation measures and clearly lack the analysis and date required to make clear determinations of significance and a determination of the least impactive alternative.

In order to meet the laws that govern the CEQA and NEPA process the Authority is required to address the identified questions and comments provided in this letter by modifying the DEIR/EIS. Once modifications have been made the Authority must ensure that the DEIR/EIS meets the rigorous requirements of CEQA and NEPA which includes re-releasing the DEIR/EIS

for another public review process. I highly recommend a 180-day public review process to ensure the public is allocated the appropriate time needed to properly assess the impacts and mitigation measures associated with the HSR Project.

Please feel free to contact me if you have any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Aaron Fukuda", with a long horizontal line extending to the right from the end of the signature.

Aaron Fukuda

Aaron Fukuda
7450 Mountain View Street, Hanford, CA 93230

October 4,
Attn: 10/12, 2012

Chairman Dan Richard
California High Speed Rail Authority
770 L Street, Suite 800
Sacramento, California 95814

Subject: Revised Draft EIR/EIS: Fresno to Bakersfield - Public Review Extension

Dear Chairman Richard and Authority Board Members,

As a resident in California and a landowner who will be impacted by the High-Speed Alignment through Kings County I am requesting your agency allow the public an additional 90-days of review, which would make the total review time of 180-days. In my review process I am currently finding that I am only approximately 1/3 of the way through the document. The current task faced by myself and many others in the public is the ability to manage 15,000 pages of technical documentation, including reading, fact checking and note taking. Under the current time restraints a person would be required to read approximately 170 pages per day. The average person can read approximately 200 words per minute and the average number of words per page in the DEIR/EIS is approximately 600 words (sample pages were sampled and word counts done on each page). This means that it takes 3 minutes to read each page and having to read 170 pages per day would mean a person would need 510 minutes (8.5 hours) per day to review the DEIR/EIS. This only accounts for reading, the ability to take notes and comment increases the time requirements significantly.

The reasons for allowing a 180-day review period are as listed:

- Ability to read, comprehend and comment on 15,000+ pages of documents in 90-days is unrealistic and limits the transparent process the "New" Authority has committed to achieving.
- The timing of the review is problematic given its release during the late summer and conflicts with family summer vacations and the beginning of school. The review period for this document also coincides with the main harvest and peak farming activities in the Central Valley. Many farmers who have shown initiative to review this document have not been allowed the appropriate time to coordinate the DEIR/EIS review with their daily work schedules.
- Limited access of documents makes access for many difficult. Many of the people I have been talking to have attempted to access the document at public locations, however given limited hours of the locations, access is limited to the daytime. As many people work during the daytime it is difficult to read the document at public locations.
- The public generally works between 8:00 AM and 5:00 PM. In my instance my workday begins at 7:00 AM and I am able to get home around 6:30 PM. My only availability to direct my review is from approximately 7:00 PM and into the late evening. As the analysis provided earlier I would need 8.5 hours each day to accomplish a full reading, minus any meaningful review.
- It should be noted that review of the DEIR/EIS is not the only review required. As information is provided, I have found that given the lack of details and information provided one must search other sources, mainly the internet to verify the information and findings provided in the DEIR/EIS.
- The Authority has previously granted the public a 180-day review period for the Programmatic EIR, which was produced in 2005. The level of detail and analysis provided in the Programmatic EIR is significantly smaller, yet the public was allowed three-times the review period. The Authority has precedence to provide the public with an adequate review period.

- The time period between the first release of the Draft EIR/EIS and the Revised EIR/EIS was never advertized nor described by the Authority as a review period. The public generally had no idea of why a Revised Draft EIR/EIS was being prepared nor when it was going to be released. Given my review of the previous document and the Revised Draft EIR/EIS, it is not realistic to believe that just reading the highlighted areas yields a full understanding of the impacts.
- The Authority has provided significant changes in the Draft EIR/EIS. Although changes are highlighted in the main document, changes made to Technical Documents and Appendices have not been highlighted. Therefore, I along with the public are having to review all of these documents again to determine if conflicts have been addressed and where changes have been made.

Under California law (the California Environmental Quality Act), public participation is an essential part of the review process to ensure that there is a meaningful and effective comment and review period. Information gathered through this process will guide lead agency identification of impacts and development of mitigation measures. By limiting the effective review period of the DEIR/EIS, the Authority will ensure the public review process will be limited and ineffective. The high-speed rail project is a multi-decade project. The extension of 90 days for review will not significantly impact the overall schedule. Also the greater amount of public participation and comments provided by the people who know the impacts the greatest will provide cost savings by knowing impacts ahead of the construction phase.

For the reasons above, I request that the Authority grant myself and the public a 180-day Revised Draft EIR/EIS review period. This extension alleviates many of the issues listed above and accommodates a reasonable review time for the public. As the Authority moves forward with this project it is incumbent upon you to act responsibly and in protection of the public interest, this includes and should emphasize those who will be asked to sacrifice the most for this project. A failure to acknowledge this request will only signify that the old regime of the Authority is simply too entrenched to be replaced by a "New" Authority paradigm as has been touted by the Authority in recent months.

Sincerely,



Aaron Fukuda

cc:

Kings County Board of Supervisors
Governor Jerry Brown

Submission 940 (Michael S. Jewell, United States Army Corps of Engineers, October 13, 2011)



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
4225 J STREET
SACRAMENTO CA 95814-2922
October 12, 2011

REPLY TO
ATTENTION OF

Regulatory Division (SPK-2009-01483)

Mr. Dan Leavitt
California High Speed Rail Authority
925 L Street
Sacramento, California 95814

Dear Mr. Leavitt:

This letter is in response to the August 2011, *Merced to Fresno Section Draft EIR/EIS* (DEIR/S) for the proposed Merced to Fresno section of the California High-Speed Train (HST) Project. As a cooperating agency for preparation of the Environmental Impact Statement and in accordance with our *National Environmental Policy Act/Clean Water Act Section 404/Rivers and Harbors Act Section 14 Integration Process for the California High-Speed Train Program Memorandum of Understanding* dated November 2010 (NEPA/404/408 MOU), this letter is the U.S. Army Corps of Engineers' (Corps) formal response and contains comments that must be addressed prior to issuing the Final EIS. We also request a formal letter response to all comments contained herein.

After reviewing the August 2011 DEIR/S, we are concerned the document may not be sufficient in meeting the Corps' needs under the National Environmental Policy Act (NEPA) and the 404(b)(1) Guidelines, in particular with regard to alternatives and compensatory mitigation for impacts to waters of the United States. The following comments address specific areas where additional information is required and/or corrections should be made to meet our needs. The comments also include a review of the document for completeness with the 404(b)(1) guidelines.

NEPA/404/408 MOU

1. In accordance with the NEPA/404/408 MOU, the California High-Speed Rail Authority (Authority) and the Federal Rail Administration (FRA) submitted the final Checkpoint B package on April 22, 2011 with the reasonable range of alternatives proposed to be carried forward in the DEIR/S. The Corps responded on June 14, 2011, agreeing with the range of alternatives as proposed, with the exception of the elimination of the Western Madera (A3) and SR 152 WYE Connection alternatives. These alternatives were not adequately evaluated and should not have been eliminated from the range of alternatives in the DEIR/S and 404(b)(1) analysis. We have previously requested a formal response letter identifying the status of these alternatives. To date, we have not received a response and Checkpoint B is not considered closed.

2. Without closure on Checkpoint B, we will not be able to complete Checkpoint C. Aside from resolution on alternatives, we are troubled with what appears to be only limited progress

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towards constructing a draft compensatory mitigation plan that would adequately offset anticipated impacts to waters of the U.S. As you know, we have attended meetings over the past year in which we provided information about our compensatory mitigation regulations and mitigation proposal guidelines, as well as suggestions on potential mitigation proposals and sites. A draft mitigation plan submitted with the Checkpoint C package must contain a proposal with specific details about the elements of the permittee-responsible mitigation project(s). We note that there are no Corps-approved mitigation banks or in lieu fee programs in the area of the proposed HST Merced to Fresno section. We cannot make a preliminary determination on the least environmentally damaging practicable alternative (LEDPA) without evaluating a draft mitigation plan.

DEIR/S Comments

940-3

1. Address Substrate conditions for aquatic features (40 CFR 230.11(a) and 230.20)
2. Address Impacts to substrate and the restoration of temporary fill in Bio-MM #43, pg 3.7-141 (40 CFR 230.20)
3. Address potential contaminants in the fill material (230.11(d)) and a general evaluation of fill material (40 CFR 230.63, 230.61)
4. The identification of turbidity and suspended particulates is only briefly mentioned as a potential contaminant. How the project would add to the turbidity and suspended particulates of all affected waters should be included (40 CFR 230.21)
5. Impacts to non special-status species need to be addressed (fish, crustaceans, mollusks, and other organisms in the food web 40 CFR 230.31) (other wildlife 40 CFR 230.32)
6. You need to clarify the cost or funding for station parking lots (Sec 2.5.3, pg 2-8). Who is expected to pay for the parking lots and how much would the Authority or the City be responsible for.
7. The document should specifically reference the screening criteria used in the elimination of alternatives.
8. The environmental consequences in Section 3.7.5 (pg 3.7-34) talks about impacts resulting from the current development trends. Are these trends expected to stop or be mitigated through the implementation of the project or is this part of the cumulative impact?
9. Table 2-13 (pg 2-83) states that the Kojima HMF site would include a self-contained community allowing for a work/live environment. This development is never addressed elsewhere in the DEIR/S. This must be addressed as an impact unique to this alternative which would have additional direct and indirect impacts, including cumulative impacts. The residential development it is not part of the purpose and need of the project, how it relates to the rest of the project must be addressed.

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Submission 940 (Michael S. Jewell, United States Army Corps of Engineers, October 13, 2011) - Continued

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940-8

10. Page 2-20 states that the Western Madera (A3) and the UPRR/BNSF Hybrid (A4) alternatives were eliminated because they depart from existing transportation corridors. This is inconsistent with the remaining alternatives since the Hybrid and BNSF alternatives, as well as the West Chowchilla design option, all depart from transportation corridors. Approximately 9.8 miles of the West Chowchilla design option is outside of a transportation corridor. All portions of the Wye's and the trunk line of the Hybrid alternative between SR 99 and the BNSF line are outside of transportation corridors. The Avenue 21 Wye would result in approximately 8.6 miles of track while the Avenue 24 Wye would result in approximately 12.4 miles of track outside of transportation corridors. When combined, the Hybrid Alternative with the West Chowchilla design option would result in approximately 18.9 miles of track outside of transportation corridors.

940-8

11. Table S-4 states that construction-period impacts to agricultural lands are not significantly different between alternatives. Although total acres appear to be similar, the ranges within the important farmland type are significantly different between alternatives. Impacts to prime farmland range from 23.51 to 62.96 acres and unique farmland ranges from 60.36 acres to 115.73 acres.

940-10

12. Separate vernal pools and other seasonal wetlands into two separate categories in tables 3.7-6, -8, -10, -12, -18, -20, -22, -24 (pgs 3.7-47 through 3.7-82)

13. Inundated non-wetland waters should be included as a water of the United States in Table S-4

940-11

14. Table S-4 should have a row for temporary impacts to Waters of the US

15. The elimination of the Western Madera (A3) and SR 152 WYE Connection alternatives (pg 2-20) was not agreed to by the Corps and requires greater analysis. Data provided by the Authority shows that the Western Madera alternative impacts 52% (73 acres) more prime farmland, but impacts 52% (111 acres) less unique farmland. The agricultural impacts appear to be similar to other alternatives while resulting in fewer community impacts and impacts to the aquatic ecosystem and vernal pool critical habitat. The SR 152 WYE Connection alternative should also be carried forward because a cost comparison has not been provided to substantiate the assertion that it could cost twice as much as any other alternative. This alternative would avoid aquatic and biological resources resulting in impacts to 85% (2.2 acres) less lakes/ponds/streams, 83% (2.3 acres) percent less swamps/marshes, 62% (8 acres) less vernal pool complexes, 46% (11 acres) less wetland habitat, and 24% (73 acres) less San Joaquin kit fox range. These alternatives meet the project purpose and need and require greater analysis within the EIS in order to be eliminated. Very little information was included about these alternatives and why they were eliminated. These alternatives must be included in greater detail.

940-12

16. Temporary impacts - (Bio-MNH6 and Bio-MNH43, pg 3.7-144). Due to the scope and duration of the project, we do not agree that all construction impacts can be adequately restored to pre-project conditions in every location/situation. We are unable to concur that these impacts would be temporary and recommend that temporary impacts be reevaluated and considered permanent in locations where waters would be filled during the construction period. The placement of geotextile fabric and gravel or the stockpiling of topsoil has been successfully used

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940-12

in previous projects where the impact would only last a few months. Our understanding is that the construction period would last several years and the landscape would be degraded through compaction and other land uses depending on the specific location. We suggest that waters be avoided by placing fencing around the features or by implementing other avoidance measures in order to leave the substrate in a pre-project condition. Although the feature would still be temporarily impacted, this would allow for successful restoration of temporary impacts upon completion of construction activities.

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17. The duration of the construction period is not identified. Section 2.8 defines the construction plan and multiple parts thereof, but fails to identify a timeline for completing the work. The estimated duration of the construction period should be clearly stated.

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18. Indirect impacts to waters of the U.S. need to be addressed and to the degree possible quantified. Include acreages of features that would be indirectly impacted. The study area for indirect impacts has been identified as 250 feet on either side of the 100-foot project footprint (pg 3.7-7). Please provide acreages of features within this study area that would be indirectly impacted. It is unclear from page 3.7-46 if the aquatic features within the 250-foot buffer are included in the impact acreages in Tables 3.7-6, -8, -10 and -12.

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19. Impacts to waters of the U.S. resulting from crossings needs to be clarified by crossing type. The current analysis relies on the number of water bodies being crossed. Although potential crossing types are identified (pg 3.8-31, -32), a commitment should be made to which types of crossing would be installed at each type of waterway/tracile elevation. This would allow for an accurate analysis of the project impacts and increase the amount of avoidance. Once the crossing type is identified, you can also identify measures to reduce the impacts resulting from that crossing type. This would also allow reviewers to provide specific feedback on the type of crossing proposed.

940-16

20. Stormwater Pollution Prevention Plan best management practices (pg 3.8-38). The list of BMPs should be those actually proposed for the project rather than a list of "typical BMPs". The inclusion of BMPs in the EIS that may not be part of the final project would alter the impact analysis. Since the SWPPP has not been prepared at this time, a statement can be included that, "BMPs will include, but are not limited to, the following".

940-17

21. What is the actual acreage required for the HMF site? Page 2-15 states that the HMF requires approximately 154 acres. Table 2-13 on pages 2-82 and 2-83 ranges between 231 and 401 acres depending on the alternative, while page 3.1-4 says up to 300 acres. This is not consistent with the DEIR/S for the Fresno to Ekersfield section which states that the HMF requires either 150 acres (pgs 2-14 and 2-70) or up to 154 acres (pg 3.1-4). Verify the acreage required for the HMF and if this is dependent on the actual site selected.

22. The maps of the alignments on page 2-40 show that the UPRR/SR 99 West Chowchilla with Ave 24 and the UPRR/SR 99 East Chowchilla with Ave 24 alternatives are identical with the exception that the East Chowchilla alternative includes an additional 11 miles of track along SR 99 (Figure 2-27a and 2-27b). Table 3.7-18 (pg 3.7-75) shows that despite the identical alignment and the additional track, the East Chowchilla alternative has less impacts to aquatic communities than the West Chowchilla alternative. Please explain how the East Chowchilla

Submission 940 (Michael S. Jewell, United States Army Corps of Engineers, October 13, 2011) - Continued

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alternative can impact 8 acres less of aquatic communities despite having approximately 11 miles more track.

940-18

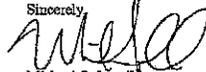
23. Verify that the list potential cumulative effects in tables 3.19-1 through 3.19-7 are consistent and accurate for all projects. Applications have been submitted for a Department of the Army for multiple projects listed. These projects have impacts to wetlands and other aquatic resources as well as threatened and endangered species that are not listed here. There are also inconsistencies with similar projects that have different effects listed.

24. Chapter 3.19 does not analyze the cumulative impacts by alternative. The cumulative impacts must be shown separated by alternative in order to better inform the selection of a preferred alternative and the LEDPA. Based on the location of the alternatives and the resources or receptors being affected, the cumulative effects would differ.

25. How do you know that permanent losses that may occur to unknown cultural resources would result in moderate cumulative impacts? Without knowing what the resources may be, there is no way of knowing what level of impacts would occur.

We appreciate the opportunity to provide comments on the DEIR/EIS. We continue to be committed to working collaboratively with you to resolve issues, avoiding the need for supplemental documentation and delays in making a timely permit decision. If you have any questions, please contact Zachary Simmons in our California South Regulatory Branch, 1325 F Street, Room 1480, Sacramento, California 95814-2922, email Zachary.M.Simmons@usace.army.mil, or telephone 916-557-6746.

Sincerely



Michael S. Jewell
Chief, Regulatory Division

Copy Furnished

Mr. David Valensteh, Federal Railroad Administration, 1200 New Jersey Avenue SE- Mail Stop 20, Washington, D.C. 20590-0001
Ms. Cornell Dunning, U.S. Environmental Protection Agency, Region IX, 75 Hawthorne Street, San Francisco, California 94105
Mr. Jason Brush, U.S. Environmental Protection Agency, Region IX, 75 Hawthorne Street, San Francisco, California 94105
Mr. Bryan Porter, Parsons Brinckerhoff, 925 L Street, Suite 1425, Sacramento, California 95814-3704

California High-Speed Train Project EIR/EIS
Merced to Fresno Section

Response to Comments from Federal Agencies

Submission 774 (Enrique Manzanilla, United States Environmental Protection Agency Region IX, October 13, 2011)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94106-3901

OCT 13 2011

David Valenstein
Federal Railroad Administration
Office of Passenger and Freight Programs
1200 New Jersey Avenue, SE
Mail Stop 20, W38-219
Washington, DC 20590

Subject: Draft Environmental Impact Statements (DEISs) for the California High-Speed Rail System - Merced to Fresno Section (CEQ #20110257) and Fresno to Bakersfield Section (CEQ#20110256)

Dear Mr. Valenstein:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced documents pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), Section 309 of the Clean Air Act, and Section 404 of the Clean Water Act. EPA previously provided feedback on the statewide high-speed rail project through coordination with Federal Railroad Administration (FRA) and California High-Speed Rail Authority (CHSRA) and formal comment letters on the Tier 1 Programmatic Environmental Impact Statements. EPA recognizes the potential benefits, including reduced vehicle emissions, an alternative transportation choice like high-speed rail can provide if planned well. Through this letter, we identify our agency's concerns regarding potential environmental impacts that may result from implementation of the project without adoption of additional design, construction, and operation commitments in the Final Environmental Impact Statement (FEIS). Based on these concerns, we have rated the project as *Environmental Concerns - Insufficient Information (EC-2)*. Please see the enclosed Summary of EPA Rating Definitions. The scope and extent of our detailed comments (enclosed) on the two DEISs are commensurate with a project of this magnitude and complexity.

Aquatic and Biological Resource Impacts

EPA coordinated with FRA and CHSRA during the development of the DEISs and followed a process that is intended to integrate NEPA and Clean Water Act (CWA) Sections 404 and 406 requirements. The process is outlined in an agreement document entitled *National Environmental Policy Act/Clean Water Act Section 404/406 Integration Process for the California High-Speed Train Program Memorandum of Understanding (NEPA/404 MOU)*. Our letter identifies concerns with aquatic resource impacts and additional steps and data needs required to integrate these regulatory requirements. Because only the least environmentally damaging practicable alternative (LEDPA) can be permitted pursuant to the Clean Water Act, we recommend FRA and CHSRA continue efforts to 1) protect water quality and sensitive species; 2) ensure high value resources are not significantly degraded; and 3) avoid, minimize, and mitigate unavoidable

impacts to aquatic resources, and other environmental resources. We look forward to continuing coordination and providing feedback on the alternative that is most likely to be considered the LEDPA. In addition, because the high-speed train system will include a completely grade-separated corridor, we encourage FRA and CHSRA to continue to refine measures to maintain wildlife connectivity and movement throughout the length of the project.

Community, Agriculture, and Health Impacts

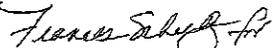
Reducing the project's impacts to communities and farms and protecting the health of people living and working next to proposed corridors are critical to the success of the high-speed rail system between Merced and Bakersfield. EPA is concerned with potential air quality impacts resulting from nearly 10 years of construction activities, including emissions that may exceed National Ambient Air Quality Standards and affect public health near construction sites and the proposed heavy maintenance facility. While the project may ultimately reduce the number of vehicles on Central Valley roadways, thereby improving air quality, it will result in localized farming and community impacts that require mitigation commitments to maintain functioning agricultural programs and quality of life along the project footprint. As a recipient of federal funding, reducing impacts to communities is critical. We recommend that the FEISs be improved to include commitments for 1) additional mitigation measures to reduce localized impacts, and 2) specific timing, locations, and responsible parties for mitigation implementation. Committing to measures to reduce diesel emissions at the heavy maintenance facility, such as adoption of a more efficient switcher locomotive, is critical to reducing emissions at the source.

Creating a Sustainable Train System

We note that in September 2011 FRA and CHSRA signed the *Memorandum of Understanding for Achieving an Environmentally Sustainable High-Speed Train System in California* with EPA and other federal and state partners, committing to collaboratively promote environmental sustainability of the high-speed rail system (enclosed). EPA commends FRA and CHSRA for recognizing, through the MOU, the need to "plan, site, design, construct, operate, and maintain a HST System in California using environmentally preferable practices in order to protect the health of California's residents, preserve California's natural resources, and minimize air and water pollution, energy usage, and other environmental impacts." Now that this commitment has been formalized, we recommend including it in the FEIS.

We appreciate the opportunity to review these two DEISs and continue to be available to discuss measures available to design a sustainable high-speed train system for California. When the FEISs are released for public review, please send four hard copies and two electronic copies (on CD) of each to the address above (mail code: CED-2). If you have any questions, please contact me at 415-972-3843 or Cornell Dunning, the lead reviewer for this project at 415-947-4161 or dunning.cornell@epa.gov.

Sincerely,


Enrique Manzanilla, Director
Communities and Ecosystems Division

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Submission 774 (Enrique Manzanilla, United States Environmental Protection Agency Region IX, October 13, 2011) - Continued

Enclosures: Summary of EPA Rating Definitions
EPA's Detailed Comments
Memorandum of Understanding for Achieving an Environmentally Sustainable High-Speed Train System in California

Cc via email:

Roclof Van Ark, CHSRA
Colonel Michael C. Wehr, U.S. Army Corps of Engineers
Colonel Mark Toy, U.S. Army Corps of Engineers
Colonel William J. Leadly, U.S. Army Corps of Engineers
Colonel Tourey A. DiCiro, U.S. Army Corps of Engineers
Dave Castanon, U.S. Army Corps of Engineers
Mike Jewell, U.S. Army Corps of Engineers
Jane Hicks, U.S. Army Corps of Engineers
Leslie Rogers, Federal Transit Administration
Ophelia B. Basgal, U.S. Department of Housing and Urban Development
Dan Russell, U.S. Fish and Wildlife Service
Mike Thomas, U.S. Fish and Wildlife Service
Robert Tse, U.S. Department of Agriculture
Michele Bonomo, U.S. Bureau of Reclamation
Ken Alex, Governor's Office of Planning and Research
Heather Fargo, Strategic Growth Council
Matt Rodriguez, California EPA
Kurt Karperes, California Air Resources Board
Seyed Sadretin, San Joaquin Valley Air Pollution Control District
Traci Stevens, Business Transportation and Housing
Garth Fernandez, California Department of Transportation
Diane Deoley, California Health and Human Services
John Laird, California Natural Resources
Julie Vance, California Department of Fish and Game
Brian R. Leahy, California Department of Conservation
Paul Romero, California Department of Water Resources
Bruce Fujimoto, State Water Resources Control Board
Bill Onnie, State Water Resources Control Board
Mayor William Spriggs, City of Merced
Mayor Ashley Swearingin, City of Fresno
Mark Scott, City of Fresno
Mayor Dan Chin, City of Hanford
Mayor Harvey Hall, City of Bakersfield

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EPA'S DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENTS FOR THE CALIFORNIA HIGH-SPEED RAIL SYSTEM - MERCED TO FRESNO AND FRESNO TO BAKERSFIELD SECTIONS OCTOBER 13, 2011

L CHARACTERIZATION OF SIGNIFICANT IMPACTS

Both the Fresno to Bakersfield Draft Environmental Impact Statement (DEIS) and Merced to Fresno DEIS include a section titled "National Environmental Policy Act (NEPA) Impacts Summary" for each resource area assessed. However, the summary section does not clearly indicate conclusions regarding potential significance. Rather than state whether or not the project would result in significant impacts, the DEISs state whether or not the project would result in "substantial" impacts and it is unclear what significant impacts the project will cause. Introduction of the term "substantial" rather than "significant" is confusing. Further, the DEISs are internally inconsistent in the use of both terms. As an example, in the Cumulative Impacts Section (Section 3.19, Fresno to Bakersfield), the DEIS uses the term "significant" to characterize the high-speed train contribution to cumulative impacts for some resource areas (Station Planning/Lead Use; Cultural), and "substantial" for other resource areas (Agriculture/Parks/Open Space).

We appreciate the conversation held between EPA and FRA (October 12, 2011) regarding this issue, and we understand that the intent of using the term "substantial" was to describe thresholds developed to determine significance. However, without clarification, it could be interpreted that each reference of the term "substantial" is synonymous with "significant", as defined by Council on Environmental Quality. We note that an EIS "shall provide full and fair discussion of significant environmental impacts (40 CFR Part 1502.1)" and shall "include a discussion of direct effects and their significance" and "indirect effects and their significance" (40 CFR 1502.15).

Recommendations:

- The Final Environmental Impact Statement (FEIS) should clearly and consistently indicate, in each "NEPA Impacts Summary", whether the anticipated impacts of the proposed project are significant, as defined by Council on Environmental Quality in 40 CFR Part 1508.27.

2. AQUATIC RESOURCES and CLEAN WATER ACT SECTION 404

The proposed high-speed train system will pass through miles of wildlife habitat and natural aquatic ecosystems including riverine, slope and depressional wetlands. These aquatic resources provide a wide range of functions that are critical to the health and stability of the aquatic environment. As described in the DEISs, a substantial cumulative extent of existing waters would be eliminated, reduced and/or degraded by the projects. Wildlife and hydrologic functions of natural riverine and depressional aquatic resources could be significantly degraded or lost by their direct and indirect alteration. Integrating measures that both maintain and improve aquatic resource functions is key to ensuring the long term sustainability of natural resources within this new transportation corridor. Commitments to such measures can be assured through the CWA Section 404 permitting program, which requires impacts to aquatic resources be avoided and minimized to the extent practicable, and unavoidable impacts to be mitigated.

Submission 774 (Enrique Manzanilla, United States Environmental Protection Agency Region IX, October 13, 2011) - Continued

The high-speed rail (HSR) project is being evaluated under CWA Section 404 through an Interagency Memorandum of Understanding (NEPA/404 MOU) aimed at integrating the requirements of the National Environmental Policy Act (NEPA) and CWA Section 404 into a single review and permitting process. One objective of this integration is for the DEISs to serve as the environmental document for NEPA purposes for both FRA, the lead federal agency, and the U.S. Army Corps of Engineers (Corps), the CWA permitting authority. To accomplish this integration, an EIS must meet the provisions of the CWA 404(b)(1) Guidelines at 40 CFR Part 230 (the Guidelines), thereby allowing the Corps to adopt the NEPA document for their CWA Section 404 permitting decision, rather than having to supplement the analysis with their own NEPA decision document. The information presented in the DEISs is neither detailed nor complete enough to meet the substantive requirements of the Guidelines, and EPA is providing recommendations below to advance the objective of allowing the FEISs to fulfill this purpose.

The purpose of CWA Section 404 is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by prohibiting avoidable discharges of dredged or fill material, or discharges that would result in significant adverse impacts on the aquatic environment. Fundamental to the Guidelines is the principle that dredged or fill material cannot be discharged into the aquatic ecosystem, unless it can be demonstrated that there is no less environmentally damaging practicable alternative that achieves an applicant's project purpose. In addition, no discharge can be permitted if it will cause or contribute to significant degradation of waters of the U.S. (waters). To obtain a permit, applicants must demonstrate compliance with the Guidelines by specifically addressing its four independent requirements:

1. **Alternatives Analysis:** Section 230.10(a) prohibits a discharge if there is a less environmentally damaging practicable alternative. Alternatives are presumed to exist for non-water dependent activities in special aquatic sites such as wetlands.
2. **Protecting Water Quality and Sensitive Species:** Section 230.10(b) prohibits discharges that will result in a violation of water quality standards or toxic effluent standards, jeopardize a threatened or endangered species, or violate requirements imposed to protect a marine sanctuary.
3. **Significant Degradation:** Section 230.10(c) prohibits discharges that will cause or contribute to significant degradation of waters. Significant degradation may include individual or cumulative impacts to human health and welfare; fish and wildlife ecosystem diversity, productivity and stability; and recreational, aesthetic or economic values.
4. **Mitigation:** Section 230.10(d) prohibits discharges unless all appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem. This is further described in 2008 regulations describing specific expectations for the timing and content of mitigation plans.

To help ensure the FEISs meet permit-level information requirements, as intended under the NEPA/404 MOU, we offer the following recommendations related to meeting aspects of the above substantive regulatory requirements.

2. Alternatives Analysis

Only the Least Environmentally Damaging Practicable Alternative (LEDPA) can be permitted under the Guidelines (40 CFR 230.10(a)). Based on the information currently available, the

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DEISs do not appear to adequately compare the direct, indirect, and cumulative impacts to jurisdictional waters resulting from an appropriate range of practicable alternatives. "Practicable" is defined by regulation as alternatives that meet the project purpose and are "available and capable of being done in light of costs, logistics and existing technology." The LEDPA is the practicable alternative with the fewest impacts to aquatic resources, so long as it does not have other significant adverse environmental consequences.

Recommendations:

Analyze a range of alternatives appropriate to the Guidelines. While EPA supports the project objective to use existing transportation corridors, to meet this objective, it is critical to demonstrate that less damaging alternatives are not present outside of such corridors. During previous coordination with FRA and CHSRA during a milestone outlined in the NEPA/404 MOU (Checkpoint B - Identification of the range of alternatives to be analyzed in the DEISs), the Corps and EPA identified that the proposed elimination of the Western Madera and West Hanford alignment alternatives was premature. Although EPA does not advocate for these or any particular alternatives as the preferred alignments, sufficient information has not been presented at that time to rule out either alignment as part of a LEDPA determination. The DEISs did not bring these alternatives forward for analysis, and no supplemental information has been presented to EPA in order to revisit the Corps and EPA assessment at Checkpoint B. Should FRA and CHSRA continue to strive for merging the NEPA and CWA Section 404 processes, the next milestone in the NEPA/404 MOU process (Checkpoint C - Identification of the LEDPA) and the FEISs should document that these two alignments are either impracticable (as a matter of costs, logistics and/or technology), or that they would be more environmentally damaging to the aquatic environment than the other alternatives. To do so, both the quantity (acres, linear feet) and quality (functional status) of waters that these alternatives would impact must be compared with the other alternatives. If these alignments are both practicable and less damaging to the aquatic ecosystem, permitting a different alignment would be difficult absent "other significant adverse environmental consequences."

Provide an accurate assessment of impacts to aquatic resources. EPA has concerns with uncertainty in the DEISs regarding quantity and quality of the aquatic resource impacts, as well as with the format and consistency with which impact estimates were presented. Example: Merced to Fresno. To date, EPA has been presented with conflicting estimates of acres impacted. The Corps Public Notice states 32-48 acres of waters would be impacted, including 5-16 acres of wetlands; and the DEIS reports "project period" impacts between 28-52 acres. Each alternative alignment also has a range of impacts to waters (e.g. BNSF: 35-52 acres), which is problematic because a LEDPA determination cannot be made on a range.

- Refine impact totals to estimate a sum, rather than a range, of acres of impacts. Differentiate these totals by each aquatic resource type, rather than "lumping" impacts (for example, rare vernal pools should not be combined with other, more common "seasonal wetlands"). The tables in the DEISs do not describe the types of aquatic resources impacted by each alternative.

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Submission 774 (Enrique Manzanilla, United States Environmental Protection Agency Region
IX, October 13, 2011) - Continued

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- Once the Corps' preliminary jurisdictional determination has been finalized, include those values in the Checkpoint C packages and the FEISs.
- Ensure that impact numbers are presented consistently within the document (Summary Tables, Technical Appendices) and between supporting documents (US Army Corps of Engineer CWA Section 404 permit application and future Checkpoint C package to determine the LEDPA).
- Include descriptions of the major watercourses that traverse the project area with maps depicting the location of aquatic resources in the study area.
- Analyze the spatial patterns, density and type of waters within the larger landscape as well as in relationship to lands already protected (e.g., the Great Valley Conservation Bank, and Camp Pashayan within the San Joaquin River Ecological Reserve, Tulare Lakebed Mitigation Site, Pixley National Wildlife Refuge, and Allensworth Ecological Reserve). Describe these aquatic resources in context to one another and adjacent land uses (for example, how overall watershed health and ecosystem services are affected by water quality impairments, planned or active rehabilitation efforts, and connectivity to adjacent or nearby preserves or sensitive resource areas).

Quantify indirect impacts. The DEISs do not quantify indirect impacts to aquatic resources, and qualitative data is lacking. An assessment of indirect impacts from the proposed project is critical to determining the LEDPA because the level of environmental damage of a given alternative may depend on indirect impacts if, for example, direct impacts are similar. *Example: While section 3.7.3 of the DEISs states that indirect impacts occur within the 250-foot buffer around project elements, no further mention is made of any methodology for characterizing indirect impacts or calculating quantitative indirect impact totals. Throughout the DEISs there are descriptions of permanent indirect impacts, but there is no corresponding quantified data.*

- Provide updated analyses clearly indicating the estimated acreage of indirect impacts, per each expected discharge activity, to aquatic resources. Include the methodology and assumptions used.

Revise and clarify the assessment of "permanent" and "temporary" impacts. The DEISs state, "impacts associated with construction activities would result in temporary impacts, whereas activities during the project period would result in permanent impacts on biological resources." This assessment is not accurate, as many of the permanent impacts to biological resources and wetlands may also occur during construction. EPA is also concerned the analysis of impacts as presented underestimates the extent of permanent impacts to wetlands, particularly vernal pools. Permanent loss clearly occurs when a wetland is filled, but permanent functional loss (degradation) also occurs when there are indirect (non-fill) impacts to a portion of a wetland, or when drilling and excavation activities alter the hydrology within its surrounding drainage basin. *Example: Vernal pools and other seasonal wetlands that lie completely or partially within the 50-foot wide fill embankment within elevated segments would be directly and permanently impacted by the project. However, pools or portions of pools within the remaining construction footprint (i.e., additional 20 feet) of an elevated segment are incorrectly*

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considered only temporarily impacted from ground disturbing activities, even though a permanent degradation of functions may occur. (pg. 3.7-46).

- Clearly differentiate permanent and temporary impacts based not only on fill footprint, but on aquatic resource functions. Where construction will result in permanent impacts, including functional degradation, this should be noted and estimates of permanent and temporary impacts should be revised.
- Revise the various tables in Chapter 3.7 that summarize Construction Period and Project Period impacts to aquatic resources to clearly present direct, indirect, temporary and permanent impacts from construction and project operation.

Confirm that impact values presented include all connected actions. In addition to the Heavy Maintenance Facility (HMF), the proposed project alternatives include several other project elements (e.g., maintenance of way facilities, traction stations, switching stations, paralleling stations, access roads and road widening).

- Ensure that impacts from these project features have been included in impact totals and are presented clearly in the FEISs.
- Present aquatic resource impacts anticipated from Merced Station.

Include a functional assessment of aquatic resource impacts. The health of wetlands and riparian habitats can be assessed through standardized tools such as the California Rapid Assessment Method. The DEISs present no assessment information on the condition of wetlands/waters on the project site based on the field application of such tools, as outlined in the NEPA/404 MOU. The FEISs should incorporate functional assessment information into impact characterization, so that current and impacted resource conditions can provide context to acreage numbers.

2.2 Water Quality

The proposed projects will result in a variety of unquantified erosion and construction-related impacts to the quality of waters found throughout the study area from what is likely to be a lengthy, multi-phased project build-out. According to the DEISs, several waters within the project study area are listed on the CWA Section 303(g) list as impaired water bodies. The Guidelines prohibit discharges that will result in a violation of water quality standards or toxic effluent standards (40 CFR 230.10(b)). Post-construction green infrastructure and LID (low impact development) techniques, such as bioretention areas, porous pavement, and vegetated swales, can improve water quality, as well as provide a variety of additional benefits, including long-term economic savings and visual enhancement. More information on green infrastructure and LID techniques can be found at: http://cfpub.epa.gov/npdes/home.cfm?program_id=298.

Recommendations

- Confirm with supporting information in the FEISs that the proposed projects will not further impair 303(d) listed water bodies and will not increase pollutants from stormwater runoff, nuisance flows and groundwater drawdown. In the FEISs, identify a set of low impact development techniques (LID) for the construction and post-construction stage of the project to retain, infiltrate, and treat stormwater runoff.

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EPA understands from discussions with the State Water Board that the Board is considering permitting stormwater discharges from the drainage system serving the HST as a municipal separate storm sewer system (MS4) under the National Pollutant Discharge Elimination System (NPDES) stormwater permit program. The municipal permit would cover discharges from the entire drainage system of the project, including the tracks. The DEISs (section 3.8.2) discuss the regulatory framework for the project, including the applicability of the NPDES stormwater permit program, but do not identify CHSRA as the operator of an MS4 permit. Further, although there are references to the State Water Board's industrial general stormwater permit in the DEISs (e.g., Section 3.8.6), the permit is not mentioned in section 3.8.2 which summarizes the regulatory framework for the project.

Recommendations:

- The FEISs should acknowledge the potential applicability of the MS4 permit program to the CHSRA and the potential mitigation stemming from the requirement of an MS4 permit to reduce pollutants in discharges from the drainage system to the maximum extent practicable.
- Identify and discuss the basic requirements of the State Water Board's industrial general stormwater permit (Water Quality Order No. 97-03-DWQ) in section 3.8.2. Include a discussion of the stormwater pollution prevention plan (SWPPP) and the monitoring requirements.
- Describe the State Water Board's current effort to reissue this general permit. Include a description of the State Water Board's 2011 draft permit and its requirements and potential impacts to the project.

The DEISs (Section 3.8.5) indicate that the impacts of increased stormwater runoff would be minor because the discharges would be directed to either the local stormwater system in urban areas or to the local drainage system via swales in rural areas. There is little information provided to support this conclusion. The DEISs further state that runoff from the HMF would be contained onsite via infiltration, and therefore there would be no impacts to surface water. However, Section 3.8.6 indicates the runoff would be contained onsite, if feasible. Other references in the DEISs provide yet other descriptions of how the runoff would be handled.

Recommendations:

- Include a quantitative assessment of the anticipated impacts and runoff from the various project components (including train tracks) to existing hydrology, downstream waterbodies, and impervious.
- Describe and confirm the availability of adequate space for mitigation via measures such as infiltration (as indicated in Section 3.8.6).
- Clarify and be internally consistent concerning how the runoff from heavy maintenance facilities would be handled. If there would be any discharges, the nature of the potential pollutants should be described along with the risks and impacts to surface water bodies.

The DEISs (section 3.8.5) indicate that the HST does not require large amounts of lubricants or hazardous materials for operation. However, the nature and quantities of these materials are not

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provided. Further, the runoff from the tracks is assumed to be less than a significant source of pollutants, but no supporting documentation is provided for this assumption.

Recommendations:

- As discussed in the Hazardous Materials Section below, describe the quantity and content of lubricants and hazardous materials that will be used for operation.
- Provide supporting information to justify the conclusion that the runoff from the tracks would be less than a significant source of pollutants. For example, provide runoff monitoring data from existing or similar railroads along with a description on how ongoing maintenance activities will be implemented to avoid runoff of lubricants and hazardous materials.

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2.3 Significant Degradation

Without clear commitments from FRA and CHSRA to minimize and avoid impacts to aquatic resources, and a clear plan to mitigate impacts that cannot be avoided, the proposed projects could cause and/or contribute to significant degradation of aquatic resources. The Guidelines prohibit permit issuance for discharges causing or contributing to significant degradation (40 CFR 230.10 (c)).

Recommendations:

- Present a reasoned, specific and detailed argument that the project will neither cause nor contribute to significant degradation of waters. Drawing on watershed data, including the projects' potential for both positive and negative impacts on existing water quality and habitat functions, this analysis should be based upon reliable data on (a) the extent of unavoidable direct and indirect fill impacts, (b) the condition of the aquatic resources in their watershed context, and (c) measures to mitigate the project's adverse impacts.

2.4 Mitigation for Impacts to Aquatic Resources

The DEISs provide no details on specific avoidance and minimization strategies, and no overall strategy for compensatory mitigation for unavoidable impacts to waters (Chapter 3.7). Identifying mitigation opportunities in advance of the FEISs, as identified in the NEPA/404 MOU, should be a key priority for FRA and CHSRA, as it will help to avoid potential delays during project permitting. We note that compensatory mitigation is intended only for unavoidable impacts to waters after the LEDPA has been determined (40 CFR 230.10(d)), so EPA does not expect to review and approve a final compensatory mitigation plan prior to having clarity on compliance with the Alternatives portion of the Guidelines. However, it is appropriate for applicants to look for opportunities to compensate for likely unavoidable impacts in a watershed context, and to establish a framework for mitigation planning (e.g., identifying likely partners, and opportunities for watershed improvement and restoration, etc). The mitigation measures presented in the DEISs consist primarily of commitments to implement best management practices and to develop habitat mitigation and monitoring plans.

Checkpoint C, the next milestone in the NEPA/404 MOU, provides an opportunity for EPA agreement on a preliminary LEDPA and draft mitigation plan. EPA anticipates receiving updated estimates for aquatic resource impacts and corresponding practicable avoidance measures

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commensurate with these regulatory decision points. Because the release of the FEISs follows Checkpoint C, the FEISs should include a draft mitigation plan that meets all requirements of the Compensatory Mitigation for Losses of Aquatic Resources, Final Rule (40 CFR Part 230, subpart J of the Guidelines).

Recommendations:

- Identify specific avoidance and minimization measures for impacts to waters of the U.S. (e.g. complete spanning of waterways, elevating tracks above sensitive wetland areas, use of bottomless arch culverts, etc.)
- The draft mitigation plan for Checkpoint C should describe the processes that FRA and CHSRA will use, and commitments it will make, to maximize opportunities for successful mitigation including: identifying potential mitigation sites; options available for creation, restoration, enhancement and preservation of waters (e.g., land dedication, acquisition of conservation easements, mitigation banks); opportunities to integrate with existing or planned conservation efforts; potential for improvements to existing infrastructure to enhance aquatic system and wildlife use; and instruments for long-term management of mitigation sites (e.g., established maintenance endowments).
- The Mitigation Rule (Subpart J of the Guidelines at 40 CFR Part 230) includes 12 elements required of final compensatory mitigation plans. Since this will be a permit requirement, we recommend each of these elements be detailed in the FEISs to facilitate 404 permitting.

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3. SPECIAL STATUS SPECIES AND WILDLIFE MOVEMENT

The DEIS states that all proposed crossings of the San Joaquin River will have potential impacts to essential fish habitat for federally listed Central Valley spring-run Chinook salmon (pg 3.7-36). Subpart D of the CWA Section 404 regulations (40 CFR 230.30) emphasizes the importance of protection of aquatic habitat which are particularly crucial to the continued survival of some threatened or endangered species including adequate good quality water, spawning and maturation areas. In addition, no CWA Section 404 permit may be issued if the proposed discharge would jeopardize the continued existence of an endangered species (40 CFR 230.10(b)). EPA is concerned that the DEIS contains little analysis and disclosure of specific likely impacts of river crossings on listed species. For example, it will be important for the project to demonstrate that it will not pose unacceptable risks to listed salmonids.

Recommendations:

- Fully analyze potential impacts of the project on the San Joaquin River, including specific areas affected and permanent vs. temporary impacts.
- Provide information on San Joaquin River crossing design options.
- Continue to coordinate on plans for crossing designs and share information on predicted impacts with the San Joaquin River Restoration Project federal and state leads, U.S. Bureau of Reclamation and Department of Water Resources.
- Ensure implementation of the best available methods for river crossings that maintain and enhance wildlife habitat.

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The DEISs recognize that wildlife linkages are essential to the health and viability of natural ecosystems, and note that a significant study commissioned by Caltrans and California Department of Fish and Game was conducted to identify essential landscape linkages for wildlife movement and genetic dispersal. The DEISs also provide descriptions of the major wildlife linkage areas that will be impacted by the HST alternatives, including Eastman Lake-Bear Creek, Berenda Slough, Fresno River, Kings River, St. John's River-Cross Creek, SR 43/SR 153, Deer Creek-Sand Ridge, Poso Creek, and Kern River. However, the DEISs do not demonstrate how the HST alternative alignments could adversely affect these corridors or how impacts to these corridors will be addressed.

Recommendations:

- Provide additional qualitative information on any unavoidable impacts to wildlife movement corridors
- Document coordination with Fish and Wildlife Service and California Department of Fish and Game regarding appropriate avoidance, wildlife crossings, and mitigation measures to address these impacts
- Include specific high-speed train design commitments that: 1) remove wildlife movement barriers; 2) enhance use of modeled wildlife corridors; 3) provide crossings with suitable habitat and topography to accommodate multiple species.
- Describe specific project elements that would be constructed to enable wildlife connectivity for Merced to Fresno HSR alternatives, including types of features and approximate locations. This should be integrated into the description of alternatives in Section 2 of the Merced to Fresno DEIS, following the example of the Fresno to Bakersfield DEIS.

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4. AIR QUALITY

While the high-speed train could potentially have great long term benefits to air quality in California by reducing vehicles miles traveled and reducing the need to expand airports and highways, the project would also result in increased emissions from construction of the system and operation of the HMF and support vehicles. Depending on the energy source for powering the electric train, emissions may also result from the increased electricity demand required for powering the train system. Because the San Joaquin Valley Air Basin has some of the worst 8-hour ozone and PM2.5 problems in the nation, it is important to reduce emissions of ozone precursors and particulate matter from this project to the maximum extent.

4.1 General Conformity

The FEISs should ensure that direct and indirect emissions from both the construction and the operational phases of the project conform to the approved State Implementation Plan and do not cause or contribute to violations of the National Ambient Air Quality Standards (NAAQS). The DEISs note that impacts affecting air quality plan compliance would last the entire construction period of nearly 10 years and would increase nonattainment pollutant emissions, which would conflict with the ultimate goal of the air quality plan to bring the air basin into compliance (Merced to Fresno p. 3.3-42 and Fresno to Bakersfield p. 3.3-41). For Merced to Fresno, with mitigation, the annual construction emissions would "exceed the San Joaquin Valley Air Pollution Control District (SVAPCD) California Environmental Quality Act (CEQA) thresholds for volatile organic compounds (VOC), nitrous oxides (NOx), and particulate matter less than 2.5

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microns (PM_{2.5}) for the entire construction duration and the particulate matter less than 10 microns (PM₁₀) SJVAPCD CEQA threshold for half of the construction duration" (Merced to Fresno p.3.3-42). For the Fresno to Bakersfield section, "with mitigation, the annual construction emissions would exceed the SJVAPCD CEQA thresholds for VOC, NO_x, PM₁₀, and PM_{2.5} for the entire construction duration" (Fresno to Bakersfield p. 3.3-41). Both DEISs conclude that project construction may impede implementation of the 8-hour SJVAPCD 2007 Ozone Plan, the 2004 Extreme Ozone 1-hour Attainment Demonstration Plan³, the 2007 PM₁₀ Maintenance Plan, and 2008 PM_{2.5} Plan.

Recommendations:

- Confirm that direct and indirect emissions from both the construction and the operational phases of the project conform to the approved State Implementation Plan and do not cause or contribute to violations of the National Ambient Air Quality Standards (NAAQS). Include a letter from SJVAPCD supporting that this project will meet conformity requirements.
- Identify additional mitigation measures for project construction by continuing to coordinate with the San Joaquin Valley Air Pollution Control District and California Air Resources Board. These may include:
 - Participate in the Voluntary Emission Reduction Agreement program to establish a suite of mitigation measures to reduce air quality impacts in the vicinity of the project.
 - Work with local government and agricultural community to generate possible opportunities to offset emissions from the project and include a list in the FEIS. Potential opportunities could include renewable energy production from local farming practices and measures to reduce truck traffic through freight improvements.
- While EPA supports the commitment to reduce criteria exhaust emissions from Construction Equipment by requiring use of Tier 4 engines (mitigation measure AQ-MM#4; p.3.5-71 in both DEISs), we are concerned that a lack of Tier 4 engines in the available construction equipment fleet may result in increased emissions.
- Identify additional mitigation measures for operation of the HMF. Partner with San Joaquin Valley Air Pollution Control District (District) to identify applicable technologies, and consider the following:
 - Use electric or hybrid trucks to serve the facility.
 - Commit to adjusting the facility operations and orientation (through staging, operation schedules, ingress/egress routes, etc.) to reduce localized impacts to surrounding sensitive receptors.
 - Identify an alternative orientation of the facility to move emission activities or release points to areas where impacts to surrounding sensitive areas are lessened.
 - Commit to use of a electric or Clean Switcher Locomotive and revise the analysis of potential air impacts to reflect emissions reductions.¹

¹ The District has funded one such project and the locomotive is currently being built. The modification involves retrofitting a Tier 2 locomotive engine (608's hp single engine) to match in 91% NO_x emissions reductions (compared with a pre-1975 diesel locomotive) making the switcher the cleanest possible. For more information on

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4.2 Transportation Conformity

The DEISs state that neither project is a "Project of Air Quality Concern", therefore no further analysis of PM₁₀ or PM_{2.5} impacts is required. However, there is no discussion of interagency consultation. Since the HST project is not yet in the area's Transportation Improvement Plan (TIP), it has not been documented that required consultation has occurred.

Recommendation:

- Confirm the Project of Air Quality Concern determination by documenting that an interagency consultation process has been completed. Caltrans currently leads an interagency consultation process for such determinations in the San Joaquin Valley.

4.3 Air Quality Impacts on Health

Sections 3.3 and 3.19 of the DEISs discuss how project construction and operation will impact local and regional air quality. The project is located in non-attainment areas for ozone and PM_{2.5}. Research has shown that these air pollutants may exacerbate asthma conditions. Fresno and Merced Counties, as well as the San Joaquin Valley region in general, have high rates of asthma in adults and children. Childhood asthma prevalence and emergency department visits due to asthma are higher than the statewide average in all six San Joaquin Valley counties where the project would be located. It does not appear that the DEISs considered how local air quality impacts from construction and operation of the project may impact those with asthma or other respiratory diseases.

Recommendations:

- Assess how local air quality impacts during project construction and operation may affect health and exacerbate asthma or other respiratory conditions in children and adults in the FEISs. This discussion should include qualitative as well as quantitative information, and a discussion of mitigation options for those most impacted. Respiratory Hazard Indices should be provided for each alternative.
- Add measures to wash all trucks and equipment before exiting the construction site and measures to suspend dust generating activities when wind speeds exceed 25 mph to Air Quality Mitigation Measure #3, which includes actions to reduce fugitive dust from material handling.
- Revise Air Quality Mitigation Measure #6 in the Merced to Fresno FEIS (so that it applies to all heavy maintenance facility alternatives, rather than only those specified in the DEIS) by limiting idling and instituting a minimum buffer distance of 1,300 feet away from diesel emission sources. Or, alternatively, commit to preparing a detailed health risk assessment for all heavy maintenance facilities considered.
- Commit to locating concrete batch plants at least 1,000 feet away from other sensitive receptors, including daycare centers, senior care facilities, residences, parks, and other areas where children may congregate. Air Quality Mitigation Measure #3 includes actions to reduce concrete batch plant emission impacts to nearby sensitive

the clean switcher, please contact Kevin McCaffery with the District's Strategies and Incentives department (559) 230-5551.

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- receptors by locating concrete batch plants at least 1,000 feet away from sensitive receptors, such as school and hospitals.
- Specify other control measures that will be used for the concrete batch plants to minimize pollution from these plants, including dust control measures for operations and trucks.
 - Provide an estimate of increased bus traffic and associated air quality impacts near proposed stations to supplement the conclusion that there would not be a significant number of diesel vehicles congregating at a single location near the HSR stations. (page 3.3-67 of the Merced to Fresno DEIS). Include a discussion of coordination efforts with local transit agencies to promote best practices for reducing bus-related emissions impacts.

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5. AGRICULTURAL IMPACTS

The various alternatives discussed in the DEISs would involve trade-offs between impacts to developed land and communities, agriculture, and other resources. The DEISs address impacts to agriculture, including direct conversion of agricultural land to transportation uses, severance of parcels, and impacts to onsite utilities (irrigation systems, access roads, and power supplies). Multiple impacts to agriculture and EPA's associated recommendations are included below and in subsequent growth, land use, and community impacts sections of this letter.

5.3 Agricultural Land Valuation and Compensation

Impacts that are not documented in the DEISs are potential increases in operational expenses due to smaller field sizes and resulting loss of efficiency in field management operations. In addition, the DEISs don't specify the methodology for calculating "non-economic" parcels or the appraised parcel value, although the DEISs reference relevant factors, including infrastructure access and proximity issues, and include commitments to compensate landowners for infrastructure as well as land.

Recommendations:

- Include a discussion of potential increases in operational expenses due to smaller field sizes and resulting loss of efficiency in field management operations.
- Describe the land valuation methodology used for determining which parcels were determined to be "non-economic". Include assumptions for analysis and source of data used.
- Describe the compensation methodology and how it was developed. Address how the methodology 1) calculates the present value of lost future earnings, and 2) assesses the decreased efficiency of operations on remaining land. Clarify assumptions used regarding land staying in the same cropping system and/or changing to another system more amenable to smaller sites, such as truck farming for local consumption.
- Address whether the proposed mitigation to compensate property owners for parcels needed for the alignment adequately compensates owners for all reasonably foreseeable potential impacts to their financial viability.

5.3 Impacts to Dairies

The Merced to Fresno DEIS states that the proposed project could result in the closure of several dairies, and acquisition of property from several other dairies. The DEIS states that CHSRA

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would work with each affected dairy to address issues of concerns and attempt to resolve conflicts to preserve operational capacity. Although this is deemed a negligible impact, EPA is concerned that the complexity of siting and permitting dairies could make the closure of dairies a more significant impact.

Recommendation:

- Avoid impacts to dairies as feasible and work with dairy owners to mitigate unavoidable impacts.

5.3 Loss of road access

The DEISs state that over- or undercrossings will be provided every two miles. EPA is concerned about this reduction of transportation access and its impacts on agricultural operations. The DEISs state that the right-of-way acquisition process provides additional opportunities to reduce hardships caused by access severance, and that the CHSRA would work with each affected property owner to address issues of concern, attempt to resolve conflicts, and potentially arrange for additional grade-separated crossings. EPA is supportive of continued efforts to work directly with affected farmers to mitigate impacts to access and agricultural operations.

Recommendations:

- Work with each affected property owner to address issues of concern, attempt to resolve conflicts, and arrange for additional grade-separated crossings following meetings with affected farmers.
- Consider providing remainder parcels on a subsidized basis to beginning and disadvantaged farmers willing to use small-farm practices to supply the local market.

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6. REGIONAL AND LOCAL INDUCED GROWTH

EPA believes that a HSR system has the potential to encourage transit-oriented development (TOD) that could revitalize urban centers, support economic development, and help preserve agricultural land. Based on historic development trends in California, however, the land use and development impacts of a proposed HSR system on station cities and other communities in the vicinity of the project remain uncertain at this time.

6.1 Regional Growth and Development Patterns

Land use and regional growth discussions in the DEISs do not acknowledge the possibility that the HSR system could significantly induce growth, or the uncertainty surrounding growth estimates. Acknowledging uncertainty and providing a range of likely impacts could help affected communities to better plan for HSR induced regional growth.

In discussing regional growth, both DEISs conclude that the HSR project "would only slightly raise the projected population." EPA understands that transportation improvements, including HSR, can affect the location, pattern, timing, and intensity of development. It is unclear if the project's potential to attract new commuters living near Merced, Fresno, Hanford/Visalia, or Bakersfield and traveling to Los Angeles or San Francisco was fully assessed. EPA recognizes that many commuters living in the San Francisco Bay Area and the Greater Los Angeles Metropolitan Area currently experience commute times in excess of the projected HSR travel

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time from Central Valley cities, making it seem that HSR system could potentially induce growth more than "slightly" beyond the "no project" scenario, as the documents state.

In discussing land use, the DEISs state that communities within the region have adequate space within their spheres of influence to allow for development to accommodate additional population growth, and therefore the HSR would not induce unplanned growth. Given historic development patterns in California and the uncertainty of future development, EPA believes that this conclusion is misleading and strong measures are needed to avoid inducing unplanned growth.

While EPA acknowledges FRA and CHSRA's past and current efforts to coordinate with proposed station cities in planning for station areas, we emphasize that future coordination efforts during the design and construction phases will be critical to achieving higher-density, mixed-use development around stations. Coordination will also be necessary to maintain rural character near a Kings/Tulare regional station.

Recommendations:

- Revise the induced growth and land consumption analysis to fully acknowledge historic development trends and include commitments to avoid and minimize impacts.
- Clearly acknowledge uncertainty in future induced growth projections and provide a range of potential impacts, with reference to location, pattern, timing, and intensity of growth.
- Discuss the potential for considerable growth to occur from commuters living in the Central Valley and working in Los Angeles or San Francisco, and include an explanation of the range of potential regional and local growth impacts, with reference to location, pattern, timing, and intensity of growth.
- Coordinate throughout the design and construction phases with non-station communities that may experience development pressure due to access to HSR, and support efforts to develop planning documents, land use regulations, and municipal development policies to inhibit low-density development in these areas. Ensure that information and resources are available for planning in these communities.
- Commit to continuing to work with the HUD/DOE/EPA Partnership for Sustainable Communities and the State of California Strategic Growth Council under the *Memorandum of Understanding for Achieving an Environmentally Sustainable High-Speed Train System in California* (Sustainability MOU) to avoid, minimize and mitigate HSR induced growth impacts.

Fresno to Bakersfield

EPA is particularly concerned about the potential for induced growth in the vicinity of the proposed Kings/Tulare Regional station. The DEIS states that "given the Urban Reserve and agricultural land use designations surrounding the station area, the availability of appropriately designated land on the west side of Hanford that could be developed, and the potential for the CHSRA to purchase conservation easements around the station, and the CHSRA's vision for the Kings/Tulare Regional Station to act as a transit hub, the potential for indirect effects on land use is low." Given historic growth patterns in California, EPA believes that there is potential for

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significant growth-related indirect impacts and strong measures will be needed to minimize indirect effects.

The DEIS states that the proposed station area is located adjacent to, but north of, a Blueprint Urban Growth Area. Given that the Kings County Association of Governments has developed a Kings County Blueprint for Urban Growth to emphasize city-centered urban growth and agricultural preservation, the decision to site a station location outside of the planned Urban Growth Area does not appear to be compatible with local goals.

The DEIS also states that it is possible that the CHSRA could seek to locate agricultural easements directly surrounding the Kings/Tulare Regional Station footprint. EPA supports this proposed mitigation to reduce the potential for induced growth, as discussed in the next section.

Recommendations:

- Revise the indirect effects analysis associated with the Kings/Tulare Station to accurately reflect historic trends and potential risks to surrounding lands.
- Commit to specific measures to avoid, minimize, and mitigate impacts to the area surrounding the proposed Kings/Tulare Regional Station.
- Discuss in the FEIS why the proposed station location was not sited in the designated Urban Growth Area.
- Work with Kings County and other local governments with land use authority in the vicinity of the proposed Kings/Tulare Regional Station to promote policies to help ensure that infrastructure will not be provided to support development in areas beyond current planned growth areas.

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6.2 Managing Induced Growth in Rural Areas

EPA supports plans for higher-density development around the Merced, Fresno, and Bakersfield stations, and FRA and CHSRA's efforts to support TOD planning in these station areas. We remain concerned, however, that development pressures from HSR at urban fringes could induce changes in zoning codes and conversion of agricultural lands and open space to other uses, such as residential or commercial development. Lower-density development near urban fringes could cause additional impacts to agriculture and natural resources, beyond what is described in the DEISs. EPA is particularly concerned with the potential for induced growth near the rural Kings/Tulare Regional Station and sees farmland conservation easements as a valuable mitigation tool.

The DEISs state that FRA and CHSRA will work with the California State Department of Conservation to purchase and establish agricultural conservation easements to mitigate for the loss of agricultural land that will result from miles of tracking throughout farming communities. It is unclear if FRA and CHSRA are also committed to promoting conservation easements as a tool to avoid and minimize unplanned induced development. Further, it is unclear if FRA and CHSRA would target conservation efforts on specific parcels based on project-induced development risk, and what criteria would be used to assess this risk.

EPA emphasizes that the success of area station planning efforts will likely be directly related to complementary planning and coordination at the urban fringes and neighboring communities.

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We also recognize that strong coordination with counties and other stakeholders will be needed to accomplish these planning efforts and get conservation tools implemented, such as easements.

Recommendations:

- Establish criteria (such as proximity to stations and maintenance facilities) and apply the criteria to identify which agricultural and rural lands are most vulnerable to induced growth impacts from the proposed train system. This "high-impact" land should then be targeted for agricultural land conservation easements.
- Commit to promote and support agricultural land conservation easements for high quality agricultural land most at risk for conversion due to the project as a means to mitigate potential induced growth impacts.
- Include a specific commitment to promote agricultural easements directly surrounding the rural Kings/Tulare Regional Station.
- FRA and CHSRA should work with the California State Department of Conservation and/or local land trusts to facilitate identification of potential conservation areas and support of future easements.

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7. LAND USE AND PLANNING

7.1 Station Area Planning

The location of the HSR stations and the layout of facilities (transit plazas, parking, etc) will have a significant influence on the success of TOD in these areas. The DEISs reference the *Transit Oriented Development Design Report for Fresno Final Report* (UC Berkeley 2010) and *Transit Oriented Development for High-Speed Rail in the Central Valley, California: Design Concepts for Stockton and Merced* (UC Berkeley 2008). In addition, the DEISs state, "The [CHSRA] is committed... to working cooperatively with local government, transit agencies, public interest groups, and the development community to realize a shared vision for land use and transit development around HSR stations consistent with the [CHSRA]'s Development Policies, to the maximum extent possible" (Merced to Fresno p. 2-95 and Fresno to Bakersfield p. 2-94). Details, however, are not provided regarding coordination efforts to achieve this commitment or what, if anything, communities have committed to implementing.

The DEISs state that FRA and CHSRA are providing funding to assist station cities in undertaking studies, research, and planning for station areas. EPA understands that proposals from station cities for activities to be funded by this program are currently being reviewed by FRA and CHSRA. Adding details about these proposals to FEISs would enable readers to better understand how station areas could change as a result of the project.

Recommendations:

- Commit to continued coordination with station cities throughout the design and construction phases of the project and support efforts to develop planning documents, land use regulations, and municipal development policies that encourage higher density, mixed-use development around Merced, Fresno, and Bakersfield stations.
- Clarify whether FRA, CHSRA, and cities where stations will be located have committed to the planning and design concepts discussed in the referenced documents, which identify opportunities for downtown revitalization in the station

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cities through urban design, higher densities, mixed-use development, and multimodal transportation options.

- Include more specific information on how communities are being engaged in station area planning.
- Provide more details about what specific activities will be funded under the station area planning program, what the timeline is for the funded activities, how FRA and CHSRA will work with the communities on these activities, and how the results of the activities will be incorporated into station design.
- Revise maps of station study areas in Section 3.13 of the Merced to Fresno DEIS so that proposed station locations are clearly delineated, following the example of maps in Section 3.13 of the Fresno to Bakersfield DEIS.
- Consider best practices for station area planning provided in Section 2 of the American Public Transportation Association March 2011 Transit Sustainability Guidelines and adopt relevant recommendations. Guidelines are available at <http://www.apta.com/resources/hottopics/sustainability/Pages/default.aspx>

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7.2 Multimodal Connectivity

As stated in our scoping comments, a substantial benefit of a proposed HSR corridor connecting Merced to Bakersfield is the opportunity to generate improved local transit services and to reduce vehicle miles traveled (VMT). EPA strongly supports including project elements that will reduce VMT, such as features that promote local transit use, walking and biking.

The DEISs describe FRA and CHSRA's vision for HSR stations to serve as multimodal hubs with strong transit connectivity. EPA recognizes that transit connectivity is vital to achieving the land use patterns discussed in DEISs. Achieving strong connectivity with local transit systems requires early and robust coordination with local transit agencies, which is not described in DEISs.

For example, the Fresno to Bakersfield DEIS states that "[t]he FRA's and [CHSRA]'s goals for Kings/Tulare station include creating a station that serves as a regional transportation hub to provide quick transit connections from the station to the downtown areas of Hanford and Visalia; the CHSRA and FRA have approved \$600,000 in planning funds to assist local jurisdictions around the Kings/Tulare station to plan to make these goals a reality." EPA is aware of an Expanded Light Rail Connectivity Plan for the City of Visalia that is being funded through the Department of Housing and Urban Development's Sustainable Communities Regional Planning Grant to the Smart Valley Places Consortium. The DEIS does not provide details on how FRA and CHSRA are engaging the local authorities in Visalia to coordinate with this project.

Recommendations:

- Commit to collaborate with local transit agencies to develop transit connectivity plans for HSR station areas and neighboring communities where high HSR ridership is expected.
- As part of coordination with the City of Visalia and other communities on local transit planning efforts, ensure that transit plans are developed to maximize connectivity with the HSR system.

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- As part of transit connectivity plans, commit to working with local agencies to develop features to facilitate easy transfers between local transit and HSR, such as shared ticketing, wayfinding for local transit within HSR stations, and other features.
- Include a summary of coordination with local transit agencies to date and a discussion of how existing and planned transit services would connect with the HSR system.
- Commit in the FEISs to design and construct stations to be pedestrian and bicycle-friendly by incorporating features such as bike lockers, changing rooms, and showers.
- Commit to coordinate with car share organizations and promoting use of shared vehicles at HSR stations to provide an additional alternative to car ownership.

7.3 Parking

EPA acknowledges that the DEISs were developed to capture the footprint of the maximum parking demand to give FRA and CHSRA flexibility in future decision making. EPA also recognizes that decisions made on parking quantity, location, and type (surface, structures, shared) will greatly impact whether station areas are walkable and integrated into surrounding neighborhoods, and will influence surrounding development patterns.

Parking is discussed in several places throughout the DEISs and in guidance documents created by FRA and CHSRA. For example, the Fresno to Bakersfield DEIS lists goals including, "Limit the amount of parking to that which is essential for system viability," and "place parking in structures with retail and other land uses." In addition, CHSRA's Urban Design Guidelines offers information on best practices.

Within the DEISs, however, the FRA and CHSRA's plan for parking appears inconsistent. For example, the Merced to Fresno DEIS displays an image of a potential layout for the Mariposa Street Station in Fresno with surface parking lots surrounding the station. EPA has not seen a clear parking policy, and it is unclear if FRA and CHSRA are coordinating with local jurisdictions for implementing parking policies.

Recommendations:

- Include a clear parking policy in the FEISs, containing a clear commitment to work with local jurisdictions and following the Urban Design Guidelines and best practices.
- Commit to minimize the number of parking spaces to the greatest extent possible at stations in order to facilitate the use of transit, and construct multi-level parking structures as opposed to large expansive parking lots to minimize impacts.
- Revise the FEIS so that stations are not proposed to be surrounded by surface parking lots, such as the Figure 2-42b in the Merced to Fresno DEIS and other similar figures.

Fresno to Bakersfield

The DEIS states that at the Kings/Tulare Regional Station, approximately 19 acres would support 1,600 spaces in a surface parking lot, or a portion of parking would be provided on-site and a portion in shuttle lots located in downtown Hanford, Visalia, or Tulare. EPA encourages the use of parking structures at the station location and parking structures in nearby downtowns, as the DEIS states, to "allow for more open space areas around the station, discourage growth at the station, encourage revitalization of the downtowns and reduced the development footprint of the station."

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Recommendation:

- Commit in the FEIS to constructing parking structures rather than surface parking at the Kings/Tulare Regional Station, and using parking structures in the downtown areas of Hanford, Visalia, and Tulare to accommodate a significant percentage of parking demand from the Kings/Tulare Regional Station.

7.4 Equitable Development

EPA supports FRA and CHSRA's efforts to promote well-planned, multi-modal, mixed-use station areas. An integral component of station area planning includes plans to avoid the potentially adverse consequences that urban revitalization can have on established communities and low-income residents. Without sufficient planning and outreach, urban revitalization efforts risk "pricing-out" historic residents and harming existing cohesion of established communities. Similarly, the siting of the HMF has the potential to disrupt communities and disproportionately impact low-income and minority populations if not planned well. FRA and CHSRA should identify specific commitments to help ensure that station areas and HMFs are developed in an equitable manner.

Recommendations:

- Commit to working with cities and other stakeholders to help ensure that an appropriate percentage of low-income housing is integrated into station area developments.
- Commit to take proactive and thorough efforts to engage low income and minority community members, community groups, and community development organizations in the station area planning process.
- Commit to augmenting CHSRA's "HSR Station Area Development: General Principles and Guidelines" document and "Urban Design Guidelines" document so that they include equity as a key principle and includes guidelines for promoting equity.
- Commit to the following criteria for selecting a heavy maintenance facility (HMF) location: 1) consideration of impacts to low-income and minority communities; 2) future potential for smart growth development patterns; 3) transit connectivity; 4) transit service and/or ride-sharing to connect HMF sites to population centers, to provide an alternative to single-occupant vehicles for employees' commutes. Identify if auxiliary services, such as restaurants or other retail, are planned to be sited near or within the HMF.

774-14

7.5 Brownfield Redevelopment

The DEISs state that there are underutilized and vacant properties surrounding potential stations. It is currently unclear if identification, assessment, and reuse of brownfield sites will be addressed through the assistance FRA and CHSRA are providing to cities.

Recommendations:

- Include identification and assessment of brownfield sites within .5 mile of the stations as a part of FRA and CHSRA funded station area planning activities.

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- Support redevelopment and TOD by funding assessment and clean-up of brownfield sites with the requirement that redevelopment on these sites be consistent with FRA and CHSRA station area planning guidelines.
- Commit to assessment and clean-up of underutilized and vacant properties if any are present around the selected HMF site for worker amenities and/or housing.
- Consider whether station and HMF sites offer the opportunity for beneficial reuse of brownfield sites when selecting preferred location.

774-15

7.6 Safety in Station Areas

According to the National Crime Prevention Council, *Crime Prevention Through Environmental Design* is based on the principle that the design of buildings and the layout of public spaces can lead to a reduction in feelings of fear and actual occurrences of crime, and an improvement in the quality of life for residents and visitors. The American Public Transportation Administration developed guidance specifically for mass transportation providers, which is available at http://www.aptastandards.com/Forals/0/Security.pdf/APTA-SS-SIS-PP-607-10_CPTED.pdf.

Recommendation:

- Commit to implementing Crime Prevention Through Environmental Design principles for stations in Section 3.11, Safety and Security, of the EISs.

7.7 Visual Impacts

Aesthetic and visual impacts are discussed in Section 3.16, and adverse impacts on visual quality are reported for select areas under all alternatives. EPA understands that visual impacts from fences, elevated structures, maintenance facilities, and other system components have the potential to alter the character and cohesion of communities. Through working with local stakeholders, CHSRA has the opportunity identify design elements to best meet local needs. This may include incorporation of landscaping screening, integration of public art, and adding color to enable infrastructure to better blend into backgrounds, among several other options.

Recommendations:

- Add VO-MM#4b from page 3.6-82 of the Fresno to Bakersfield DEIS, entitled, "Provide Offsite Landscape Screening Where Appropriate," to the list of related mitigation measures on page 3.16-58 of the Merced to Fresno DEIS.
- Commit to conducting outreach once the preferred alignment has been selected to obtain input on the future use of the area beneath the rail guideway and identify design options compatible with community character for all elevated portions of the alignment located near communities, as committed to for the Northeast District of Bakersfield on page 3.12-84 of the Fresno to Bakersfield DEIS.

774-16

8. CHILDREN'S HEALTH

Executive Order 13045 on Protection of Children from Environmental Health Risks and Safety Risks directs each Federal agency to make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children, and ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health or safety risks.

774-16

8.1 Analysis of Risks to Children

Because children are more susceptible to environmental exposures than adults, analysis of environmental health impacts on children is critical to understanding project impacts and identifying appropriate mitigation. Chapter 3 of the DEISs identifies sensitive receptors and areas where children may congregate (e.g., schools, parks, daycare centers) within the project area. In addition, the DEISs identify air quality, noise, and community impacts from the project, as well as the use of hazardous materials.

Recommendations:

- Evaluate the potential direct, indirect, and cumulative health impacts of the project alternatives (during construction and operation) on children's health. The analysis should consider the following:
 - Potential respiratory impacts, including asthma, from air pollutant emissions and generation of fugitive dust;
 - Potential noise impacts to health and learning, especially in areas where the project is located near homes, schools, daycare centers, and parks; and
 - Potential impacts from the use of chemicals, such as pesticides, dust suppression methods, and hazardous materials, to children's health.
- Identify mitigation measures to reduce the project's impacts to children's health.
- Clearly identify the project alternatives that have the least impact to children and other sensitive receptors, as well as those alternatives that have the least impact on areas already significantly impacted by existing air pollution, high disease rates, and other indicators of social vulnerability.

8.2 Child Safety During Construction Activities

Construction activities may result in temporary heavy truck traffic as well as altered transportation routes. Safety measures that offer additional protection to children who are walking in areas near construction activities should be included in the Construction Mitigation Plan.

Recommendations:

- Identify and assess the potential safety risks of project construction to children, especially in areas where the project is located near homes, schools, daycare centers, and parks.
- Provide mitigation measures that ensure child safety within and near the project area. For example, crossing guards could be provided in areas where construction activities are located near schools, parks, and daycare centers.
- Establish truck traffic routes away from schools, daycares, and residences, or at a location with the least impact if those areas are unavoidable. Notify nearby residences and schools of construction periods and the expected amount of heavy truck traffic.

774-17

8.3 Clarification of Study Area for Merced to Fresno

Depending on the definition of study area, the number of schools impacted by the project varies. For example, the number of schools listed in Table 3.12-5 (Facilities within the Study Area) differs from the number of schools listed in Table 3.10-6 (Summary of Significant Hazardous Materials and Wastes Impacts and Mitigation Measures).

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Recommendations:

- Clarify why the number of schools identified in Table 3.12-5 differs from Table 3.10-6.
- Define the study area (or buffer zone) in the notes of Tables 3.12-5 and 3.10-6.

774-18

8.4 HMF Impacts on Children's Health for Merced to Fresno

Page 3.3-68 indicates that three of the five potential HMF sites would have potentially significant impacts to sensitive receptors for cancer risk and respiratory hazard risk (cancer risk estimates exceed 10 in a million). Likewise, page 3.3-68 implies that three of the HMF sites would have a Respiratory Hazard Index greater than 1.0 but does not explicitly state the Hazard Index for those sites.

Recommendations:

- Consider significant impacts to sensitive receptors in selection of the HMF site.
- Include the estimated cancer risk and the Respiratory Hazard Index if one of the three sites where cancer risk exceed 10 in a million is chosen as the preferred alternative

9. ENVIRONMENTAL JUSTICE AND COMMUNITY IMPACTS

The 1994 Executive Order (EO) 12898 on Environmental Justice addresses disproportionate and adverse impacts of federal actions on minority and low-income populations. In August of this year, several federal agencies, including the U.S. Department of Transportation and EPA, finalized a Memorandum of Understanding (MOU)² to advance agency responsibilities under EO 12898. Under the MOU, Federal agencies commit to identifying and addressing the disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations in a number of key areas, including NEPA implementation, implementation of Title VI of the Civil Rights Act, and impacts from climate change. EPA urges FRA, as the lead agency under NEPA, to review and apply the MOU in its FEIS development.

EPA acknowledges the efforts of FRA and CHSRA to analyze impacts to environmental justice communities. Table 3.12-17 in M-F DEIS and Table 3.12-15 in the F-B DEIS present a summary of environmental justice impacts. The analysis indicates that areas along proposed alignments contain higher percentages of environmental justice communities than the region as a whole. The Merced to Fresno DEIS concludes that the majority of impacts (adverse and beneficial) would predominantly be borne by communities of concern in the study area; however, the impacts to communities of concern would not be disproportionately high or adverse. The Fresno to Bakersfield DEIS concludes that there would be some disproportionately high and adverse environmental justice impacts during construction and operation.

774-19

9.1 Consistency in Methodology and Analysis

For the Merced to Fresno section, the summary of the project's environmental impacts and their relevance to environmental justice, provided in Table 3.12-17 (Impacts Common to All Alternatives on Communities of Concern), indicates that there are no anticipated adverse air

² A copy of the Memorandum of Understanding Environmental Justice and Executive Order 12898 is available online at: <http://epa.gov/environmentaljustice/resource/publications/mbragaenvj-mou-2011-08.pdf>.

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quality and noise impacts to communities of concern. The information provided in Table 3.3-32 (Summary of Significant Air Quality and Global Climate Change Impacts and Mitigation Measures), however, indicates that significant impacts on air quality would still exist after mitigation measures are implemented. In addition, Table 3.4-27 (Summary of Significant Noise and Vibration Impacts and Mitigation Measures) states that some neighborhoods would still have significant noise and vibration impacts in areas where sound barriers are not fully effective.

For the Fresno to Bakersfield section, although some environmental impacts to communities of concern were determined not to be disproportionately high, Section 3.12 should reference the air quality and noise impacts to communities living near the proposed alignment that are discussed in other sections of the DEIS. Table 3.12-6 concludes that there are no environmental justice impacts resulting from the project's air quality impacts. If the affected community is composed of a higher minority or low-income population than the reference community, then environmental justice impacts exist.

Recommendations:

- Incorporate the conclusions provided in other sections of the DEIS, such as air and noise impacts, into the EJ analysis and discuss localized impacts to community members who may be unable to relocate.
- Clearly identify the reference community used to complete the environmental justice analysis in the FEISs.
- Clearly identify information on the timing of construction of the project for both sections, with updated information where needed due to scheduling changes.
- Include information on cumulative impacts and their relevance to environmental justice in Table 3.12-17 of the Merced to Fresno FEIS.
- Include the "distance covered" by moderate noise impacts and severe noise impacts to Merced to Fresno Tables 3.4-15 and 3.4-16 (similar to how the distances are included in Table 3.4-14 of the Fresno to Bakersfield DEIS).

774-20

9.2 Localized Impacts

For both sections, the analysis should better evaluate the localized impacts to minority or low-income communities in the immediate vicinity of the project that could result from construction or operation for each alternative, especially in areas where residents may be unable to relocate.

Recommendations:

- Identify the project alternatives that have the least impact to communities of concern, as well as those alternatives that have the least impact on areas already significantly impacted by existing air pollution, high disease rates, and other indicators of social vulnerability.
- Consider the impact of road closings on environmental justice communities and consider additional over- and undercrossings where significant impacts exist.
- Commit to implementing noise mitigation desired by impacted community members.
- Commit to considering community impacts when selecting a HMF site.
- Review environmental justice concerns raised during the public involvement process to facilitate the identification of highest priority mitigation measures.

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9.3 Commercial & Residential Relocation

Both DEISs discuss the disproportionate impacts communities of concern would face as a result of commercial and residential displacement (Merced to Fresno p.3.12-59 & Fresno to Bakersfield p. 3.12-87). EPA believes additional measures are necessary to mitigate impacts.

Recommendations:

- Focus business relocation efforts of neighborhood-serving businesses within their existing neighborhoods to minimize impacts to community cohesion. In particular, due to its role in the community, as discussed in the DEIS, assist the Mercado Latino Tlanquis in Bakersfield in relocating to a location where the community it serves can access it.
- Commit to replacement housing options to allow residents to remain in their communities if desired, including rehabilitation of existing housing or construction of new housing in those communities when no replacement housing for displaced residents appears to be available (such as in Fairmead and LeGrand).
- Offer relocation assistance to residents found to be living in motels.
- Revise Table 3.12-46 in the Merced to Fresno FEIS or add an additional table so that residential and business displacements are provided "by community" and then totaled for each alternative, following the example of Table 3.12-9 from the Fresno to Bakersfield DEIS.
- Include a discussion in the Merced to Fresno FEIS of commercial and residential relocations and related socioeconomic impacts by community, following the example of Section 3.12 of the Fresno to Bakersfield DEIS.
- Commit to conducting community workshops in all significantly affected areas to obtain input and identify mitigation measures for residents whose property would not be taken, but whose community would be substantially altered by construction of HSR facilities, including loss of neighbors, following the example of commitments made for the areas northeast of Hanford and Corcoran on page 3.12-83 of the Fresno to Bakersfield DEIS.

774-22

9.4 Economic Development

Both DEISs state that the project would create jobs, and that these jobs would not benefit local minority and low-income populations more than the general population without the development of specialized programs and training (Merced to Fresno p. 3.12-64 & Fresno to Bakersfield p. 3.12-82). Mitigation measures in both DEISs include recruitment, training, and job set-aside programs to ensure that study area low-income and minority populations benefit from the jobs created by the project. It is unclear, however, if these programs are still under consideration or if FRA and CHSRA have committed to implementation. EPA suggests that such programs and training are a critical component of fairly compensating affected communities of concern.

Recommendation:

- Commit to developing special recruitment, training, and job set-aside programs for environmental justice communities impacted by the project, as discussed in the DEISs.

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9.5 Meaningful Public Involvement during Relocation and Construction

Chapter 7 of the DEISs discusses public and agency involvement. Although outreach activities, including public meetings, have been used to inform the public of the project and its potential impacts on their communities, it is unclear how public feedback was responded to and taken into consideration during the decision-making process. It is also unclear how public concerns raised during the relocation process and construction period will be addressed.

Recommendations:

- Provide more information in the FEISs on community concerns raised during the public involvement process and how concerns were responded to (i.e., Comment and Response Summary).
- Include a community involvement section in the Construction Mitigation Plan with a phone number for people to call with concerns in English or Spanish.
- Provide more information in the FEISs about the mitigation relocation plan, how the public will be involved, how the plan will be implemented, and who community members can contact for more information in English and Spanish.
- Include specific measures to continue outreach to communities of concern.

774-24

9.6 Communities Considered in Analysis

Communities in station areas and non-station areas located near the corridor all have the potential to be heavily impacted by the HSR project. It is necessary for FRA and CHSRA to assess impacts to all communities within a reasonable distance from the corridor. In the Merced to Fresno DEIS, it is unclear whether smaller towns along the proposed alignments were left out of the assessment, or if they were fully incorporated into the assessment of larger urban cities. It is also unclear if local policies for smaller incorporated areas are not discussed because they do not exist or because they were overlooked.

Recommendations:

- Revise the Merced to Fresno DEIS so that all communities within the HSR study area are explicitly addressed, including smaller communities such as Athlona, Minum, Fairmead, Le Grand, and Madera Acres.
- Explain whether the same study area parameters were used in both DEISs to assess community resources and revise analysis if needed. It appears the Merced to Fresno DEIS considers community resources within 0.25 mile from the track, while the study area for Fresno to Bakersfield extends 0.5 mile from the track.

774-25

10. NOISE & VIBRATION

10.1 Operational Impacts from HMFs

The assessment of noise impacts from HMF operations is not consistent between DEISs (p. 3.4-39 of Merced to Fresno and Fresno to Bakersfield DEISs). The Fresno to Bakersfield DEIS states that sensitive receptors within 900 ft of each proposed HMF site could have severe impacts according to FRA criteria, and sensitive receptors within 900 feet are quantified in Table 3.4-11. The Fresno to Bakersfield DEIS concludes, "Each HMF has residences within the 900-foot contour line and therefore all HMFs have substantial effects under NEPA." The Merced to Fresno DEIS uses a different methodology to assess operational noise from HMFs and concludes

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that noise impacts would be "significant" for Castle Commerce Center HMF and no impacts would occur for other HMF alternatives.

Recommendations:

- Revise the DEISs so that analysis, methodology, assumptions, and conclusions are consistently applied throughout the system. For example, revise Merced to Fresno conclusions regarding HMF operational noise impacts following the methodology discussed in Fresno to Bakersfield DEIS p. 3.4-39.
- Identify sensitive receptors within 900 feet of each HMF in the Merced to Fresno section. Use the Fresno to Bakersfield DEIS table 3.4-11 as an example.
- Add measures to mitigate HMF operational noise from the Fresno to Bakersfield DEIS (found on p. 3.4-57 and 3.4-58) to the Merced to Fresno FEIS. All but one of these measures is included in Merced to Fresno Appendix 3.4-A and should also be included in the FEIS document.

10.2 Potential Locations of Noise Barriers

Both Merced to Fresno and Fresno to Bakersfield DEISs provide maps which illustrate potential locations of noise barriers. Details on potential location, height, length, and receptors affected, however, are only provided in the Fresno to Bakersfield DEIS. This level of information is necessary in order for residents to be aware of local impacts and may influence public decisions on whether to become involved in local planning efforts.

Recommendations:

- Include a table in the Merced to Fresno FEIS describing noise barriers with data on potential location, height, length, number of people benefited and number of people adversely affected. Use the Fresno to Bakersfield DEIS Table 3.4-23 as an example.

10.3 Analysis of Traffic Noise

Traffic on streets near HSR stations is expected to increase as a result of the project. This could potentially contribute to increased noise levels near the station and near arterial roadways that feed cars in to the station area. Both DEISs state, "...any changes in traffic near the stations would provide only a minor contribution to the project noise at stations" (Merced to Fresno and Fresno to Bakersfield-F and F-B p. 3.4-15).

Recommendations:

- Reference the specific study that supports FRA and CHSRA's conclusions regarding project impacts on traffic noise levels. In addition, add key summary points from the study to the discussion on traffic noise found on page 3.4-15 of both documents.

10.4 Noise Implications of Track Design

Assumptions for the Merced to Fresno noise analysis are listed on page 3.4-13 and state, "HSR was assumed to be ballast and tie with continuous welded rail, consistent with the FRA guidance manual (FRA 2305). Ballast and tie track is typically 2 to 4 dB quieter than slab track." It is unclear if slab track may potentially be used on the HSR project rather than ballast and tie track. In addition, if slab track is used and slab track is louder than ballast and tie track, it is unclear how many additional receptors could be affected and what additional mitigation might be needed.

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Recommendations:

- Clarify whether slab track, or other material, could potentially be used for the project. If slab track could potentially be used, update the Merced to Fresno noise analysis so that it presents a more conservative estimation of noise impacts. In addition, quantify and discuss locations of receptors that would be affected by noise if slab track is selected. Any increases to mitigation that would be needed relative to the ballast track scenario should also be included.
- Indicate whether the Fresno to Bakersfield DEIS noise analysis assumed ballast and tie or slab track in the noise analysis. If the Fresno to Bakersfield DEIS assumed ballast and tie, the bullet point above would apply to both DEISs.

10.5 Vibration Mitigation Measures

The Merced to Fresno DEIS concludes that vibration impacts from operations are projected to be substantial for one alternative, and mitigation might not be feasible. The Fresno to Bakersfield DEIS concludes that vibration impacts from operations are expected to remain substantial for all alternatives even with mitigation. Both DEISs identify and describe measures to mitigate vibration impacts.

While both DEISs include "special track support systems" as a mitigation measure, neither document refers specifically to use of tire derived aggregate (TDA). TDA can act as an energy absorbing layer below tracks. TDA can be far more cost effective than traditional materials, such as rubber mats, special track fasteners, or floating slab track beds. Use of TDA also creates substantial environmental benefits because California is challenged with managing more than 40 million newly generated reusable and waste tires each year in addition to tires remaining in stockpiles, which can pose health risks if not disposed of properly or reused.

Recommendations:

- Include "Operational Changes" as a measure to mitigate vibration impacts in Table 3.2-26 of the Merced to Fresno DEIS, following the example of Table 3.4-27 in the Fresno to Bakersfield DEIS.
- Update the list of vibration mitigation measures in both documents to include use TDA comprised of recycled tires. Refer to the California Department of Resources Recycling and Recovery website for more information.

10.6 Analysis of Cumulative Noise Impacts

Both DEISs discuss cumulative noise impacts in Section 3.19. Screening distances, however, appear to be inconsistent between the two documents. The Merced to Fresno DEIS states that a screening distance of up to 1,300 feet is used to analyze cumulative noise impacts. The Fresno to Bakersfield DEIS states that a screening area of 7,500 feet on either side of the centerline of the HST alternatives was used, and the area was selected because the HSR could increase noise within that area. EPA is concerned that potential noise impacts were not disclosed and mitigated for in the Merced to Fresno project area.

Recommendations:

- Consider whether the screening area utilized in the Merced to Fresno DEIS should be revised in order to provide a consistent assessment of the HSR noise impacts

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throughout the Central Valley. Revise the analysis to capture the full extent of potential cumulative impacts and commit to noise analysis methodology that can be applied to future segments of high-speed rail. If differing screening area distances are used, provide supporting information to justify the different methodology applied.

774-26

11. SUSTAINABILITY PARTNERSHIP, POLICIES, AND PRACTICES
11.1 Sustainability MOU

In September 2011 FRA and CHSRA signed the *Memorandum of Understanding for Achieving an Environmentally Sustainable High-Speed Train System in California* (Sustainability MOU) with EPA and other federal and state partners, committing to collaboratively promote environmental sustainability of the HSR project. Focus areas include: (1) Livable, Sustainable Communities, (2) Material Selection, Design and Construction, (3) Renewable Energy and Energy Efficiency, (4) Water Resources Management, (5) Systemwide Sustainability Policy (<http://www.calhighspeedrail.ca.gov/sustainabilitypartners.aspx>). EPA commends FRA and CHSRA for recognizing, through the MOU, the need to "plan, site, design, construct, operate, and maintain a HST System in California using environmentally preferable practices in order to protect the health of California's residents, preserve California's natural resources, and minimize air and water pollution, energy usage, and other environmental impacts."

Recommendations:

- Include a copy of the Sustainability MOU in the FEIS and reference it throughout the document where applicable.
- Commit to continuing to work with the HUD-DOT-EPA Partnership for Sustainable Communities and the California Strategic Growth Council under the Sustainability MOU throughout the design and construction of the HSR system.
- Include a discussion in the FEISs on the specific steps FRA and CHSRA are taking to incorporate each of the following policies, publications, and programs into development of the HSR project. Include details on outreach to communities and feedback received:
 - FRA publication, *Station Area Planning for High-Speed and Intercity Passenger Rail* (June 2011), as a guide for state transportation departments and local and regional jurisdictions, (http://www.fra.dot.gov/downloads/FRA_Station_Area_Planning_June_2011_c.pdf).
 - Work plans developed as a result of Station Area Planning Funding Program (March 2011); (http://www.calhighspeedrail.ca.gov/ra_stationareaplanning.aspx).
 - CHSRA publication, *Urban Design Guidelines* (March 2011), developed to assist cities and communities with station area visioning (http://www.calhighspeedrail.ca.gov/urban_design_guidelines.aspx).
 - CHSRA publication, *Station Area Development Guidelines* (February 2011), developed to establish principles for promoting sustainable development (http://www.calhighspeedrail.ca.gov/highspeedtrain_stationdev_policies.aspx).

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- CHSRA Board 100% Renewable Energy goal (September 2008) (http://www.calhighspeedrail.ca.gov/energy_policy_goal.aspx).
- Commit to implementing an Environmental Management System (EMS) to assess and improve environmental performance throughout the life of the project. Guidance on EMS development and implementation is available at <http://www.epa.gov/EMS/>. EPA also recommends that the FEISs commit to obtaining ISO 14000 certification.
- Commit to incorporating specific language on preferred qualifications and practices in Request for Qualifications and Request for Proposals to help ensure that contractors have the necessary expertise and develop appropriate proposals to design, construct, and operate the HSR system in a sustainable manner, in line with CHSRA's stated goals.
- As discussed in the Energy Section below, describe FRA and CHSRA's partnership with National Renewable Energy Laboratory and EPA to develop a Strategic Energy Plan to reduce energy use and meet energy needs with renewable resources.

11.2 Leadership in Energy and Environmental Design (LEED) for HSR Facilities

FRA and CHSRA have the opportunity to reduce environmental impacts and promote public health by incorporating green building strategies into the HSR system, including trackway, stations, maintenance yards, and other support facilities. Such strategies facilitate long term savings in cost, energy, and water usage, among other large-scale benefits such as improved indoor air quality.

The DEISs state that "HSR project buildings would conform to U.S. Green Building Council Leadership in Energy and Environmental Design (i.e., LEED) rating standards for environmentally sustainable new construction. HSR facilities, including HSR stations and the HMR, would be certified at the Silver Level" (Merced to Fresno p. 3.6-45 and Fresno to Bakersfield p. 3.6-64). While EPA commends FRA and CHSRA's commitment to LEED, we believe the HSR project could be improved by achieving a higher standard for green building.

Recommendations:

- Commit to achieving LEED certification at the Platinum Level for HSR facilities, including stations and maintenance facilities. At a minimum, EPA strongly encourages FRA and CHSRA to commit to analyzing the strengths and feasibility of obtaining LEED certification at the Platinum Level for HSR facilities, including stations and maintenance facilities. FRA and CHSRA should work with EPA and other partners under the HST Sustainability MOU to fully identify benefits and address potential challenges of obtaining Platinum Level certification.
- Provide specific topic areas to focus green building strategies, such as onsite renewable energy, optimized energy performance, materials reuse, and indoor air quality.

11.3 California Green Building Standards

The California Building Standards Commission (CBSC) administers California's building codes and is responsible for adopting, approving, publishing, and implementing codes and standards.

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CBSC oversees the implementation of 2010 California Green Building Standards (CALGreen) Code, effective January 1, 2011, which sets standards for all new structures to minimize the State's overall carbon output. California requires new buildings to minimize water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant emitting finish materials.

Recommendations:

- Add to the list of applicable Laws, Regulations, and Orders in Section 3.6, Public Utilities and Energy, so that it includes 2010 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11. The Part 11 mandatory green building standards for nonresidential buildings are adopted by the California Building Standards Commission under the authority of Section 18930.5 of Health and Safety Code, Division 13, Part 2.5, known as the California Building Standards Law. Information is available at <http://www.bsc.ca.gov/default.htm>.
- Commit to exceeding CALGreen standards in priority areas by meeting "optional" standards, including: pollutant control, indoor air quality, renewable energy, energy and water conservation, low impact development, and designated parking for fuel efficient/electric vehicles.

11.4 Sustainable Design for Unique Rail Infrastructure

LEED for new construction focuses on traditional buildings (commercial, institutional, multifamily, etc.) and is applicable to many of the facilities that will make up the HSR system. The HSR system, however, will also have unique rail infrastructure that falls outside the scope of traditional buildings covered by LEED.

Recommendations:

- Commit to considering best practices listed in the American Public Transportation Association March 2011 Transit Sustainability Guidelines and adopting relevant recommendations. Guidelines address unique opportunities for green building and overall sustainability in the transit industry. Guidelines are available at http://www.apta.com/resources/hottopics/sustainability/Documents/Transit_Sustainability_Guidelines_APTA_Final.pdf. More detailed examples of best practices and case studies are available in the Transit Sustainability Practice Compendium, available at http://www.apta.com/resources/hottopics/sustainability/Documents/Transit_Sustainability_Practice-Compendium.pdf.

11.5 Promoting Green Building in Station Areas

Section 3.13, Station Planning, Land Use, and Development, discusses FRA and CHSRA commitments to work with local governments in station areas to promote TOD near stations. HSR stations are expected to change development patterns and induce new development. New development will have environmental impacts, which can be minimized by incorporating green building practices. In addition, community benefits can be maximized from incorporating natural elements and community oriented components.

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Recommendations:

- Commit to providing information on green building practices when working with local jurisdictions on station-area development. In addition, encouraging third party certification (such as LEED for Homes and Build it Green) and goals to exceed CALGreen requirements by meeting "optional" standards.
- Commit to provide technical assistance for green building in station areas.
- Incorporate into FRA and CHSRA's ongoing grant program to support station-area development.
- Encourage and assist local jurisdictions in designing for adaptability and reuse in station areas to increase flexibility to meet future community needs. This is especially critical for any parking features which may become unnecessary after transit connectivity is developed. For guidance, see Public Architecture, Design for Reuse Primer, <http://www.publicarchitecture.org/reuse/>, and Lifecycle Building Challenge Resources, <http://www.lifecyclebuilding.org/resources.php>.
- Commit to working with local jurisdictions to obtain LEED ND Certification for station areas. LEED-ND certification provides independent, third-party verification that a building or neighborhood development project is located and designed to meet high levels of environmentally responsible, sustainable development.

11.6 Industrial Materials Management

EPA commends FRA and CHSRA's intent to use recycled materials for project construction (Merced to Fresno and Fresno to Bakersfield p. 2-97). We recognize, however, that the DEISs do not identify specific best practices to be adopted. Tire derived aggregate (TDA) is one of several recycled materials that could be incorporated into the project. As discussed in our comments above in the Noise Section, use of TDA could lower project costs and energy footprint by reducing the need for mined resources, has free draining characteristics that help solve engineering problems, and can mitigate vibration noise. Several other examples of use of recycled materials can also potentially lower project costs and have been used in other major infrastructure projects, such as the new East Span of the San Francisco-Oakland Bay Bridge. Karen Irwin with the EPA Region 9 Waste Division (415-947-4116) is available to further discuss the use of recycled materials as they relate to a high-speed train system.

In addition, the DEISs contain a regional analysis of GHG emissions associated with the construction phase of the HSR project. GHG emissions attributable to materials production (the raw acquisition, refining, processing, and manufacturing of construction materials to be used in building the HSR infrastructure) are not included in the DEIS emissions analysis. As a result, GHG emissions that would result from the project may be underestimated. The magnitude of emissions associated with materials production is exemplified in a University of California Davis study, which evaluated constructing a HSR segment from San Francisco to Anaheim and concluded that materials production would comprise more than 80% of total CO₂e from the project.³

³ "Life Cycle Greenhouse Gas Assessment of infrastructure construction for California's high-speed rail system", May 2011, University of California Davis, Institute of Transportation Studies, Brenda Chang and Alistair Kendall <http://www.sciencedirect.com/science/article/pii/S1361920211000484>.

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Recommendations:

- Identify which recycled materials would be used to replace raw materials for particular infrastructure components. Some options include:
 - Use recycled materials to replace carbon-intensive Portland Cement in concrete as "supplementary cementitious material".
 - Use fire-derived aggregate in lightweight embankment fill, retaining wall backfill, and as underlay to rail tracks.
 - Use recycled materials in pavement applications, such as crushed recycled concrete, recycled asphalt pavement, and rubberized asphalt concrete. Also, in some circumstances, on-site asphalt can be re-used (e.g., cold in-place recycling or full depth reclamation).
 - Limit overdesign and use of excess concrete through admixtures and other techniques.
- Include a discussion of the GHG estimates of the materials production process for materials that would be used in the construction of the HSR, including but not limited to, Portland Cement, precast concrete, ready mix concrete, aggregate, rail, reinforcement bars, rail fasteners, rail pads, steel poles, and contact wire. Where feasible, include a quantification of GHG emissions resulting from the production process.

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12. ENERGY

The EISs state that CHSRA would purchase up to 100% renewable energy to power HSR operations (Merced to Fresno p. 3.6-45 & Fresno to Bakersfield p. 3.6-64). It is not clear if CHSRA is assessing options for powering only the trains or also stations and support facilities. EPA strongly supports FRA and CHSRA's dedication to renewable energy, which would eliminate emissions from powering the HSR system with electricity generated from fossil fuels, along with numerous other potential environmental benefits. EPA recognizes that realizing the goal of powering the system with 100% renewable energy will require strategic planning and early coordination. We also support partnering with BNSF and UP and short haul carriers to determine if electrification of the HSR could occur in coordination with electrifying freight movement.

Recommendations:

- Include a description in the FEIS of steps taken to date to meet future renewable energy needs along with plans to reach the goal to power the system with 100% renewable energy. Include discussion of CHSRA's partnership with National Renewable Energy Laboratory to create a strategic energy plan.
- Identify if the goal to power the system with 100% renewable energy includes powering stations and heavy maintenance facilities and/or generating renewable energy on-site.
- Include commitments to promote siting of renewable resources on contaminated and underutilized lands over pristine lands if FRA and CHSRA have a role in influencing where the source of energy for powering the trains will come from. RE-Powering America's Lands Initiative has a mapping tool that allows users to see contaminated lands by location and is available at http://www.epa.gov/renewableenergyandmapping_tool.htm.

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- Coordinate with local farming stakeholders to consider linking generation of renewable energy from farming practices with the need to power the project through renewable energy. Include the discussion of this potential source of renewable energy in the FEIS.
- Describe how electrification of a high-speed train system could occur in coordination with efforts to electrify freight movement. Specifically, the FEIS should outline the steps that would need to occur, and barriers that would need to be overcome, in order to construct electrification infrastructure that could meet the needs of freight movement and high speed train operation.

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13. HAZARDOUS MATERIALS

EPA understands that hazardous materials would be used in the construction, operation, and maintenance of the overall HSR system. The DEISs state that "operation of the HSR would require only minor amounts of hazardous materials" and provide a few examples of hazardous materials (M-F p. 3.10-24 and F-B p. 3.10-27). A quantification and full list of hazardous materials to be used is not provided. Given the expansive size of the entire HSR system and the projected lifetime of operation, small applications of hazardous materials will accumulate over time and could potentially have adverse impacts on human health and the environment.

DEISs explain that a database search was conducted in order to identify sites of potential environmental concern near HSR alignments. Page 3.10-6 of the Merced to Fresno DEIS describes a buffer of 0.5 mile and page 3.10-7 of the Fresno to Bakersfield DEIS describes a buffer of 1 mile from the centerline of the track. It is unclear why buffers vary between documents and if the 0.5 mile buffer is sufficient to protect human health and the environment.

Recommendations:

- Commit to identifying, avoiding and minimizing hazardous materials in the material selection process for construction, operation, and maintenance of the overall system, including stations and all support facilities. While proprietary information may prevent full knowledge of potential threats, high standards for material specifications and direct communication with manufacturers can aid in promoting safety for passengers and employees. Examples of chemicals to consider avoiding are included in the State of California Environmental Protection Agency's "Chemicals known to the State to Cause Cancer or Reproductive Toxicity," available at http://www.oehha.org/prop65/prop65_list/files/p65single090211.pdf.
- Commit to systematically evaluate a full hazardous material inventory list on an annual basis and replace hazardous with non-hazardous substances to the extent possible. Examples of preferable products may include non-toxic cleaning solutions and non-petroleum based lubrication for switching equipment. In addition, pesticides can be minimized through the use of integrated pest management, as detailed on EPA's website at www.epa.gov/pesticides.
- Commit to not using extremely hazardous substances within 0.25 mile of a school or other sensitive receptor. (HMW-MD#1.)
- Clarify why buffers used in the database search for sites of potential environmental concern vary between documents. If found to be appropriate, conduct an additional database search to identify all sites that may be affected by the project.

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14. ELECTROMAGNETIC FIELDS AND ELECTROMAGNETIC INTERFERENCE

Section 3.5 of both DEISs assess potential impacts from electromagnetic fields and electromagnetic interference. The scope of sensitive receptors analyzed and mitigation measures proposed appear to differ between documents.

Recommendations:

- Add medical laboratories and research/technical parks to the list of facilities close to the HSR that could be affected by exposure to electromagnetic fields and interference on page 3.5-13 of the Merced to Fresno DEIS (following the example of the Fresno to Bakersfield DEIS) or confirm that they are not present. Update the analysis as needed to reflect these additional facilities, or, if these facilities cannot be found within the study area, commit to assessing them should they later be identified.
- Add a Mitigation Measure identified in the Fresno to Bakersfield DEIS to the Merced to Fresno EIS, "Protect sensitive equipment". If the study area between Merced and Fresno has been fully assessed and no sensitive equipment has been identified, commit to implementing this mitigation measure if any sensitive equipment is later identified.