Submission I001 (Claire Davenport, October 19, 2012)

Fresno - Bakersfield (July 2012+) - RECORD #375 DETAIL

Status :	Action Pending
Record Date :	10/19/2012
Response Requested :	No
Affiliation Type :	Individual
Interest As :	Individual
Submission Date :	10/19/2012
Submission Method :	Project Email
First Name :	Claire
Last Name :	Davenport
Professional Title :	
Business/Organization :	
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Add to Mailing List :	

Stakeholder Comments/Issues :

I001-1 The bill for the HSR was passed by the voters for $33 billion; the costs are now $98 billion and were not authorized by the voters. California does not have the money to complete this project.

I001-2 The project will destroy people's lives and then end without completion.

I001-3 The HSR was sanctioned to run along I5 which is a prime spot to install and complete the HSR at a lower cost in money and interruption to people's lives. The proposed project is significantly different now than what was presented as a voter initiative.

I001-4 Many 'town hall' meetings have yielded a strong opinion from our community as well as other small communities in the San Joaquin Valley against this H.S.R. boondoggle.

I001-5 Many people, from all walks of life, use Amtrak to travel up and down the valley, to the bay area and Los Angeles. The installation of HSR threatens to end the AMTRAK services and not replace them because nobody
expects the HRS to stop in, say, Corcoran or Hanford. They use the Amtrak even between local towns near them.

I001-6 I join other citizens against our continued opposition and fight against High Speed Rail in the Valley and throughout the State. Please give the citizens of small communities consideration when making these decisions

I001-7 as our safety, health, and quality of life is greatly impacted by the final outcome.

I001-8 The City of Corcoran and its citizens overwhelmingly opposes the High Speed Rail project.

EIR/EIS Comment : Yes
Official Comment Period : Yes

Response to Submission I001 (Claire Davenport, October 19, 2012)

I001-1

Refer to Standard Response FB-Response-GENERAL-17.

Proposition 1A authorized a $9.95 billion bond issue. It was not intended to be the sole funding source for the HST System (see Streets and Highways Code Section 2704.07, which states: "The authority shall pursue and obtain other private and public funds, including, but not limited to, federal funds, funds from revenue bonds, and local funds, to augment the proceeds of this chapter.").

I001-2

Refer to Standard Response FB-Response-GENERAL-13, FB-Response-GENERAL-17.

I001-3

Refer to Standard Response FB-Response-GENERAL-02.

The project EIR/EIS for the Fresno to Bakersfield Section relies on information from the 2005 Statewide Program EIR/EIS for the California HST System (Authority and FRA 2005). The Statewide Program EIR/EIS considered alternatives on Interstate 5 (I-5), State Route (SR) 99, and the BNSF Railway (BNSF) corridor. The Record of Decision for the Statewide Program EIR/EIS rejected those routes and selected the BNSF corridor as the Preferred Alternative for the Fresno to Bakersfield Section. Further engineering and environmental studies within the broad BNSF corridor have resulted in practicable alternatives that meet most or all project objectives, are potentially feasible, and would result in certain environmental impact reductions relative to each other. Accordingly, the project EIR/EIS for the Fresno to Bakersfield Section focuses on alternative alignments along the general BNSF corridor. The I-5 corridor was again considered during the environmental review of the Fresno to Bakersfield Section (see Section 2.3.2, Range of Potential Alternatives Considered and Findings, of the Final EIR/EIS), but was eliminated from further consideration, as described in Standard Response FB-Response-GENERAL-02.

In 2008, California voters approved Proposition 1A—essentially approving the California HST System. Regarding urban development and land use patterns, voters specifically mandated that the stations for the HST System “be located in areas with good access to local mass transit or other modes of transportation. The HST system also shall be

I001-3

planned and constructed in a manner that minimizes urban sprawl and impacts on the natural environment,” including “wildlife corridors.” The Authority has embraced this voter and legislative direction. As the Authority’s program EIR/EIS documents show and this project EIR/EIS supports, operation of the HST System by itself will reduce traffic congestion, air pollution, and greenhouse gas (GHG) emissions.

Proposition 1A was passed in 2008, with the tacit understanding from the 2005 Program EIR/EIS (Authority and FRA 2005) that the I-5 alternative would not be analyzed further. Streets and Highways Code Section 2704.04(a), enacted by Proposition 1A, provides that:

"(a) 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 consistent with the authority’s certified environmental impact reports of November 2005 and July 9, 2008."

I001-4

Refer to Standard Response FB-Response-GENERAL-11.

The Authority recognizes that there is a divergence of opinions about this—and any other—public project. The project has been modified as a result of community and stakeholder feedback. These modifications include the introduction of the Hanford West Bypass alternatives and the Bakersfield Hybrid Alternative.

I001-5

Refer to Standard Response FB-Response-GENERAL-12.

Response to Submission I001 (Claire Davenport, October 19, 2012) - Continued

I001-6

Refer to Standard Response FB-Response-GENERAL-14.

Your opposition to the project is noted.

The Authority used the information in the Final EIR/EIS and input from the agencies and public to identify the Preferred Alternative. The decision included consideration of the project purpose, need, and objectives, as presented in Chapter 1, Project Purpose, Need, and Objectives; the objectives and criteria in the alternatives analysis; and the comparative potential for environmental impacts. The Preferred Alternative has the least overall impact on the environment and local communities, the lowest cost, and the fewest constructability constraints of the project alternatives evaluated.

I001-7

Refer to Standard Response FB-Response-GENERAL-16.

The Authority has solicited public involvement and modified the project as a result of public feedback. These modifications include the introduction of the Hanford West Bypass alternatives and the Bakersfield Hybrid Alternative.

I001-8

Refer to Standard Response FB-Response-GENERAL-14.

Your opposition to the project is noted.

Submission I002 (Floy Davis, October 17, 2012)

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10/17/2012

Oct 17, 2012

To whom it may Concern,

I002-1 This letter is to express our agreement with the Semitropic Water District's concern should alternative A-2 be selected as the preferred route.
A-1 which follows the railroad would be far less destructive to farms and other facilities.
I think it should be a concern for anyone involved in the High Speed Rail to choose a route that would do the least damage.

Floy Davis
Davis Family Trust

SEMITROPIC
GROUNDWATER BANKING
WATER STORAGE DISTRICT

1101 Central Avenue, P.O. Box 8043, Wasco, California 93280-0877
Telephone: (661) 758-5113 Bakersfield: (661) 327-7144
Facsimile: (661) 758-3219 Email: mail@semitropic.com
Website: www.semitropic.com

Semitropic's Comments to the California High Speed Rail Authority

October 3, 2013

Fresno to Bakersfield Revised Draft EIR/Supplemental Draft EIS Comment
770 L Street, Suite 800
Sacramento, CA 95814

The Semitropic Water Storage District is one of eight water storage districts in California and is the largest in Kern County. The District delivers water for the irrigation of approximately 140,000 acres for agricultural uses. Semitropic also supplies energy to a variety of users and provides groundwater banking and storage services for municipalities and agricultural interests.

I002-2 *Upon review of the alternative alignments from Wasco north to the Kern County line we are very concerned if Alternative A-2 is selected and therefore, Semitropic highly recommends that Alternative A-1, which follows the existing railroad alignment, be selected as the preferred alternative.*

Alternative A-2, if constructed, would cause extreme damage by cutting diagonally across private property, not only intersecting Semitropic's water distribution and electrical facilities but also numerous Landowners' on-farm systems that would have to be reconstructed. Additionally, access to operate and maintain Semitropic's water distribution facilities on the east side of the proposed alignment (Alternative A-2) would be very restricted, therefore causing operations to be highly inconvenienced, perhaps even causing additional damage because of operational emergencies that could not be dealt with in a timely manner.

Also, just a cursory review of the two alignments indicated that the cost of construction along A-2 will be extraordinarily higher than to construct along Alternative A-1.

I002-3 *As a final comment, Semitropic does not support construction of the High Speed Train Project recognizing that the State and Federal Governments are in a financial crisis and that this kind of money would be far more beneficial to the enemy of the State if used to provide a more reliable water supply.*

Wilmar L. Boschman
General Manager

Note: See other side for sketch.

Submission I002 (Floy Davis, October 17, 2012) - Continued

Response to Submission I002 (Floy Davis, October 17, 2012)

I002-1

Refer to Standard Response FB-Response-GENERAL-10.

The Authority used the information in the EIR/EIS and input from the agencies and the public to identify the Preferred Alternative. The Authority's decision included consideration of the project purpose, need, and objectives presented in Chapter 1, Project Purpose, Need, and Objectives; the objectives and criteria in the alternatives analysis; and the comparative potential for environmental impacts.

I002-2

Refer to Standard Response FB-Response-AG-01, FB-Response-AG-02, FB-Response-GENERAL-10, FB-Response-HWR-01, FB-Response-PU&E-03, FB-Response-SO-01, FB-Response-SO-03.

The Authority used the information in the EIR/EIS and input from the agencies and the public to identify the Preferred Alternative. The Authority's decision included consideration of the project purpose, need, and objectives presented in Chapter 1, Project Purpose, Need, and Objectives; the objectives and criteria in the alternatives analysis; and the comparative potential for environmental impacts. The Preferred Alternative balances the least overall impact on the environment and local communities with the cost and constructability constraints of the project alternatives evaluated.

Please refer to Chapter 5 of the EIR/EIS for a discussion and breakdown of project costs.

I002-3

Refer to Standard Response FB-Response-GENERAL-14.

The commenter's opposition to the construction of the High Speed Train project is noted.

Submission I003 (E.J. de Jong, October 18, 2012)

Fresno - Bakersfield (July 2012+) - RECORD #326 DETAIL

Status :	Unread
Record Date :	10/18/2012
Response Requested :	Yes
Stakeholder Type :	CA Resident
Affiliation Type :	Individual
Interest As :	Individual
Submission Date :	10/18/2012
Submission Method :	Project Email
First Name :	E.J.
Last Name :	de Jong
Professional Title :	
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Stakeholder Comments/Issues :

E.J. de Jong

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October 18, 2012

California High Speed Rail Authority

Fresno to Bakersfield DEIR/EIS Comment

770 L Street, Suite 800

Sacramento, CA 95814

1.

I003-1 How do you plan on mitigating *the lost acres of farm ground* due to your HSR? You claim 12 acres/linear mile but the real number will be between 36 and 120 acres per linear mile depending on equipment turnarounds, travel lanes, and actual drift conditions due to your 220 mph HSR.

I003-2 How do you plan on mitigating our *farm's annual lost crop income* *of $75K-255K* per year for perpetuity due to your HSR?

2.

I003-3 How do you plan on mitigating our dairy's annual loss of income due *to the loss of dairy-permitted farm ground* for perpetuity? Your HSR will cause a herd reduction of 180-600 cows, depending on actual loss of farm ground.

I003-4 How will you mitigate this *annual loss of dairy income of $810,000 to $2,700,000 per year* for perpetuity?

Response to Submission I003 (E.J. de Jong, October 18, 2012)

I003-1

Refer to Standard Response FB-Response-GENERAL-04, FB-Response-SO-01, FB-Response-AG-01, FB-Response-AG-05.

Agricultural loss is partially mitigated by funding perpetual conservation easements at a ratio of 1:1 for each acre converted by the HST project (see Mitigation Measure AG MM#1). The Revised DEIR/Supplemental DEIS acknowledges that impacts of agricultural conversion would still be significant and unavoidable.

Turnaround areas for crops have not been included in the agricultural land impacts as the land would not be removed from agricultural production. Note that the Farmlands Mapping and Monitoring Program includes turnaround areas in lands it has identified as agricultural; however, it recognized that productivity will be lost as a result of the additional turnaround areas required. During the property acquisition process, losses in the value of the remaining property will be taken into account and compensation will be provided for the loss in productivity.

In April 2013, the Authority reached an agreement with agricultural interests on mitigation of agricultural land impacts for the Merced to Fresno Section of the HST System (Authority 2013). Under that agreement, the Authority will acquire agricultural conservation easements for its impact on Important Farmland (i.e., land classified as prime farmland, farmland of statewide importance, farmland of local importance, and unique farmland) at the following ratios:

- Important Farmland converted to nonagricultural uses either by direct commitment of the land to project facilities or by the creation of remnant parcels that cannot be economically farmed will be mitigated at a ratio of 1:1.
- Where HST project facilities would create a remnant parcel of 20 acres or less in size, the acreage of that remnant parcel will be mitigated at a ratio of 1:1.
- An area 25 feet wide bordering Important Farmland converted to nonagricultural uses by project facilities (not counting remnant parcels) will be mitigated at a ratio of 0.5:1.

I003-2

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-02.

I003-3

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-06.

Fair market value will be paid for all land acquired. Fair market value is defined as the price at which a property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts. This takes into account the value of the land, the improvements on the land, as well as the future income the land and improvements can generate. During the property acquisition process, losses in the value of the remaining property will be taken into account, and compensation will be provided for the loss in productivity.

I003-4

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-06.

Fair market value will be paid for all land acquired. Fair market value is defined as the price at which a property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts. This takes into account the value of the land, the improvements on the land, as well as the future income the land and improvements can generate. During the property acquisition process, losses in the value of the remaining property will be taken into account, and compensation will be provided for the loss in productivity.

Submission I004 (E.J. de Jong, October 18, 2012)

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October 18, 2012

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California High Speed Rail Authority
Fresno to Bakersfield DEIR/EIS Comment
770 L Street, Suite 800
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I004-1 How do you plan on mitigating **the lost acres of farm ground** due to your HSR? You claim 12 acres/linear mile but the real number will be between 36 and 120 acres per linear mile depending on equipment turnarounds, travel lanes, and actual drift conditions due to your 220 mph HSR.

I004-2 How do you plan on mitigating our **farm's annual lost crop income of $75K-255K** per year for perpetuity due to your HSR?

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I004-3 How do you plan on mitigating our dairy's annual loss of income due **to the loss of dairy-permitted farm ground** for perpetuity? Your HSR will cause a herd reduction of 180-600 cows, depending on actual loss of farm ground.

How will you mitigate this **annual loss of dairy income of $810,000 to $2,700,000 per year** for perpetuity?

Submission I004 (E.J. de Jong, October 18, 2012) - Continued

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770 L Street, Suite 800
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I004-4

There is no crossing at Lansing Ave on your proposed HSR route. This will mean several thousand trips around to the nearest crossing per year by way of Kansas Ave and Hwy 43 (an additional 7 miles approximately) for large, slow moving equipment due to your HSR.

How are you going to mitigate **the increased greenhouse gas emissions** annually due to the thousands of gallons extra diesel to be consumed annually by these trucks and tractors due to your HSR?

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I004-5

There is no crossing at Lansing Ave on your proposed HSR route. This will mean several thousand trips around to the nearest crossing per year by way of Kansas Ave and Hwy 43 (an additional 7 miles approximately) for large, slow moving equipment due to your HSR.

How are you going to mitigate the **extra fuel expense incurred** by the farm and dairy annually due to the thousands of extra gallons of diesel consumed annually by these trucks and tractors per year for perpetuity?

Submission I004 (E.J. de Jong, October 18, 2012) - Continued

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I004-6

There is no crossing at Lansing Ave on your proposed HSR route. This will mean several thousand trips around to the nearest crossing per year by way of Kansas Ave and Hwy 43 (an additional 7 miles approximately) for large, slow moving equipment due to your HSR.

How are you going to mitigate the **safety hazards** you are causing by **forcing large, slow moving equipment to take thousands of extra trips annually down Kansas Ave and Hwy 43?**

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I004-7

There is no crossing at Lansing Ave on your proposed HSR route. This will mean several thousand trips around to the nearest crossing per year by way of Kansas Ave and Hwy 43 (an additional 7 miles approximately) for large, slow moving equipment due to your HSR.

How are you going to mitigate the **higher cost of purchased silage** and possibly other commodities of western origin due to the extra mileage charge on all loads from the other side of proposed route?

Submission I004 (E.J. de Jong, October 18, 2012) - Continued

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I004-8 The potential for **stray voltage** is a huge concern for dairies along the proposed route.

How will you mitigate the potential for stray voltage?

I004-9 How will you compensate the dairies along the route affected by stray voltage due to your HSR **for loss of annual milk production income for perpetuity**?

I004-10 How will you make our cows feel better after they have been exposed to your stray voltage?

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I004-11 There is a potential for **noise pollution** from your HSR to affect dairies along the route. There is a potential for loss of milk production and loss of milk income due to the noise from your HSR.

How will you mitigate the noise pollution from your HSR so it does not adversely affect the dairies along the route?

I004-12 How will you compensate the affected dairies along the route for annual loss of milk income for perpetuity due to your noise pollution?

Submission I004 (E.J. de Jong, October 18, 2012) - Continued

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I004-13

There is the potential that some of your **mitigation measures** that you perform today, **may not be adequate** for our needs in the future, thereby restricting future opportunity, efficiency, and income.

How do you plan on mitigating the mitigation measures that are not adequate for future growth or expansion opportunities?

How do you plan to mitigate the loss of income due to lost opportunity, growth, and efficiency due to your inadequate mitigation measures?

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I004-14

There is the potential that **vibrations** from your HSR will shorten the useful life of existing wells located along the proposed route. Vibrations from your HSR can cause the sand formations around the well to crumble and collapse, causing the well to be abandoned.

How will you mitigate the vibrations that will affect nearby wells?

Will you replace the wells that collapse due to the vibrations from your HSR?

Submission I004 (E.J. de Jong, October 18, 2012) - Continued

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I004-15

For obvious reasons, property **resale value and borrowing capacity will be greatly reduced** by your HSR coming through our property, splitting our dairy from our farm causing great inefficiencies daily, increasing our fuel cost, increasing greenhouse gas emissions, causing loss of wells, taking out Lansing Ave access., causing risk of stray voltage causing loss of milk income, stripping productive farm ground away (more acres than you are willing to admit) causing loss of farm income, and ruining quality of life for the homes located near your path, to name a few.

How are you going to mitigate the loss in property value due to your HSR coming through our property?

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I004-16

My home is located near the proposed path of your HSR. I picked the location because of the unobstructed views from the south to the west. Your HSR proposed route runs right thru my formerly unobstructed view.

How will you mitigate the skyline pollution when you put your HSR thru my property?

Submission I004 (E.J. de Jong, October 18, 2012) - Continued

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I004-17 My home is located near the proposed path of your HSR. I picked the location because it was a quiet area in the country.

How are you going to mitigate the noise pollution from your HSR?

I004-18 How are you going to mitigate the loss in property value due to your HSR ruining the country setting of my home?

I004-19 How are you going to compensate me for ruining my quality of life at my country home?

Response to Submission I004 (E.J. de Jong, October 18, 2012)

I004-1

Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-04, FB-Response-AG-01, FB-Response-AG-05.

The Authority does recognize that the loss of farmland cannot be fully mitigated, and as such has been classified as a significant and unavoidable impact. See Impact AG #4 for information on the permanent conversion of agricultural land, and see Mitigation Measure AG-1 in Section 3.14.7 for measures to preserve prime farmland.

Equipment turnarounds are included in the acreages of agricultural land compiled under the Farmland Mapping and Monitoring Program of the Department of Conservation. Accordingly, the turnarounds do not disqualify land from identification as agricultural. As discussed in Section 3.14, Agricultural Land, the HST project will convert agricultural land. The new turnaround areas will continue to be available for use as agricultural land, just as are the existing turnaround areas.

I004-2

Refer to Standard Response FB-Response-GENERAL-04, FB-Response-SO-01.

I004-3

Refer to Standard Response FB-Response-SO-01, FB-Response-GENERAL-04, FB-Response-AG-06.

See EIR/EIS Volume I Section 3.12 Impact SO#15, and Volume II Technical Appendix 3.14-B for impacts to confined animal agriculture. The Authority has committed to maintaining a “permit bureau” to help businesses (including confined animal operations) overcome the regulatory disruptions caused by the project.

I004-4

Refer to Standard Response FB-Response-AQ-03.

As with criteria pollutant emissions, greenhouse gas emissions will not increase, since the frequency of roadway overpasses will not lead to additional distances relative to the regional vehicle miles traveled reductions.

I004-4

Lansing Avenue is proposed to be closed by the BNSF-Hanford Alternative. As noted in this comment, local access would be provided at Kansas Avenue, 1 mile to the north. This would not prevent access from continuing between the parcels, but would add mileage.

I004-5

Refer to Standard Response FB-Response-TR-02, FB-Response-GENERAL-04.

I004-6

There are adequate shoulders on Kansas Avenue and SR 43 for movement of agricultural equipment. Movement of large agricultural equipment on public roads is common in the San Joaquin Valley and does not create substantial safety hazards.

I004-7

Refer to Standard Response FB-Response-TR-02, FB-Response-GENERAL-04.

I004-8

Refer to Standard Response FB-Response-AG-06.

People and businesses in California use electric power and radio frequency (RF) communications for many purposes and services, in homes, businesses, farms, and factories. The intensive use of electric power and RF communications in California and all developed countries has ensured that the potential health effects of electromagnetic fields and resulting currents and voltages on people and animals have been thoroughly studied. As a result, the levels at which electromagnetic fields (EMF) and RF fields can cause health or behavior effects are well established. Broadly used international standards were created based on intensive investigation to ensure that:

* EMF and RF fields and resulting stray currents and voltages are measured and controlled.
* Fields do not disturb or injure people or animals.

Response to Submission I004 (E.J. de Jong, October 18, 2012) - Continued

I004-8

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 were 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 for 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).

Since 735-kV utility power transmission lines run up and down the state, cattle and people near those lines are exposed to these levels on a continuing basis. Consistent with the McGill study, epidemiological evidence does not indicate that cattle or people near existing 735-kV utility power transmission lines are generally or broadly affected by the fields.

The HST traction power 60 Hz current will flow in the overhead contact system (OCS) and running rails to provide power to trains. The traction power system is called a 2x25 kV system, because it uses 25-kV voltage for the trains, and uses two nearby cables with opposite phase of the 25 kV to distribute the power down the tracks. Currents in this HST 2x25 kV system create EMFs and static electric fields near the tracks. However, the HST levels will be lower than the fields typical of a 735-kV utility power transmission line. This is because the separation between HST OCS cables is less, cable-to-cable voltage levels and cable current levels are less, and the HST cables are closer to the ground so that they are closer to the reducing effect of the fields in the ground, all compared to the 735 kV utility power cables.

California HST TM 300.07, EIR/EIS Assessment of CHST Alignment EMF Footprint, shows that at the closest fence line to the HST tracks, the expected magnetic field is 60 mG, less than one-fifth the level from a transmission line. Since cattle cannot be inside the fence line and people can only be inside the fence line at passenger stations, the

I004-8

possible HST EMF exposure is:

* Low compared to the 735 kV utility power transmission line.
* Therefore, below the level at which the McGill study showed no effect on cows and milk production.

Similarly, the electric field from the California HST 25 kV 60 Hz OCS will be low compared to the exposure from a 735-kV utility power transmission line.

For these reasons, EMF effects on livestock and poultry are expected to have negligible intensity under NEPA, and the impact would be less than significant under CEQA. See Standard Response FB-Response-AG-06: Confined Animal Facilities regarding the impact of EMF emissions on dairies.

I004-9

Refer to Standard Response FB-Response-AG-06.

People and businesses in California use electric power and radio frequency communications for many purposes and services, in homes and businesses, farms and factories. The intensive use of electric power and radio frequency communications in California and all developed countries has ensured that the potential health effects of electromagnetic fields and resulting currents and voltages on people and animals have been thoroughly studied. As a result, the levels at which electromagnetic fields (EMF) and radio frequency (RF) fields can cause health or behavior effects are well-established. Broadly used international standards were created based on intensive investigation, to ensure that:

* EMF and RF fields and resulting stray currents and voltages are measured and controlled

* Fields do not disturb or injure people or animals.

In regard to dairy production, McGill University conducted a study with

Response to Submission I004 (E.J. de Jong, October 18, 2012) - Continued

I004-9

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 about 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).

Because 735 kV utility power transmission lines run up and down the state, cattle and people near those lines are exposed to these levels on a continuing basis. In a manner consistent with the McGill study, epidemiological evidence does not indicate that cattle or people near existing 735 kV utility power transmission lines are generally or broadly affected by the fields.

HST traction power 60 Hz current will flow in the overhead contact system (OCS) and running rails to provide power to trains. The traction power system is called a 2 x 25 kV system, because it uses 25 kV voltage for the trains, and uses two nearby cables with opposite phases of the 25 kV to distribute the power down the tracks. Currents in this HST 2x25 kV system create EMFs and static electric fields near the HST tracks. However, the HST levels will be lower than the fields typical of a 735 kV utility power transmission line. This is because the separation between HST OCS cables is less, cable-to-cable voltage levels and cable current levels are lower, and the HST cables are closer to the ground, which makes the cables closer to the reducing effect of the fields in the ground; all compared to the 735 kV utility power cables.

I004-9

HST TM 300.07, EIR/EIS Assessment of HST Alignment EMF Footprint, shows that at the closest fenceline to the HST tracks, the expected magnetic field is 60 milligauss (mG), less than one-fifth the level from a transmission line. Since cattle cannot be inside the fenceline and people can only be inside the fenceline at passenger stations, the possible HST EMF exposure is:

- Low compared to the 735 kV utility power transmission line
- Therefore below the level at which the McGill study showed no effect on cows and milk production.

Similarly, the electric field from the HST 25 kV 60 Hz OCS will be low compared to the exposure from a 735 kV utility power transmission line.

For these reasons, EMF effects on livestock are expected to have negligible intensity under NEPA and the impact would be less than significant under CEQA. See Standard Response FB-Response-AG-06: Confined Animal Facilities regarding the impact of EMF emissions on dairies.

Because there is no substantial evidence to suggest that there would be a reduction of milk production resulting from stray voltage, no mitigation is proposed.

I004-10

Refer to Standard Response FB-Response-AG-06.

I004-11

Refer to Standard Response FB-Response-N&V-01, FB-Response-N&V-03, FB-Response-N&V-05.

I004-12

Refer to Standard Response FB-Response-N&V-01, FB-Response-AG-06.

Because there is no substantial evidence demonstrating that noise adversely affects milk production, as described in the Master Responses FB-Response-N&V-01 and FB-Response-AG-06, no mitigation is proposed.

Response to Submission I004 (E.J. de Jong, October 18, 2012) - Continued

I004-13

This question requests the Authority to speculate about the adequacy of mitigation measures relative to some undefined future condition. This type of speculation is not appropriate for an EIR/EIS as defined in Section 15145 of the CEQA Guidelines.

Property acquisition will take into account reasonably foreseeable future opportunities for that property, but, again, these opportunities cannot be based on speculation about undefined or unsubstantiated future conditions.

I004-14

Wells currently located adjacent to the existing BNSF tracks are subject to vibration levels substantially higher than the vibration levels that would be generated by HST operations. If the wells are not currently experiencing any of these problems under existing conditions, they would not be expected to experience these problems with the addition of HST operations.

I004-15

Refer to Standard Response FB-Response-SO-01, FB-Response-SO-02, FB-Response-AG-02.

For information on potential HST Project impacts on property values, see Section 5.4.4.3 in the Community Impact Assessment Technical Report (Authority and FRA 2012.

I004-16

Refer to Standard Response FB-Response-AVR-01.

The BNSF Alternative would pass near the commenter's address, but would not affect views to the south or west. Although sited at-grade, this segment would be very prominent to the east. In such cases, Mitigation Measure AVR-MM#2c: Screen At-Grade and Elevated Guideways Adjacent to Residential Areas in Section 3.16, Aesthetics and Visual Resources, calls for the planting of trees on the right-of-way to reduce the visual intrusion of the alignment. These plantings would not eliminate view blockage to the east when trains are present, but would soften the effects of the train and provide a more

I004-16

attractive visual foreground. The Hanford West Bypass 1 and 2 alternatives, at a distance of 0.6 miles or greater, would be visible to the south and west, but would have relatively moderate effects on those views. The below-grade options for the Hanford West Bypass alternatives would have little effect on those views, because they would be below ground. The at-grade options for these alternatives would be more visible, but at a distance of 0.6 miles would not be prominent and would not strongly block views.

I004-17

Refer to Standard Response FB-Response-N&V-03, FB-Response-N&V-05.

I004-18

Refer to Standard Response FB-Response-SO-02.

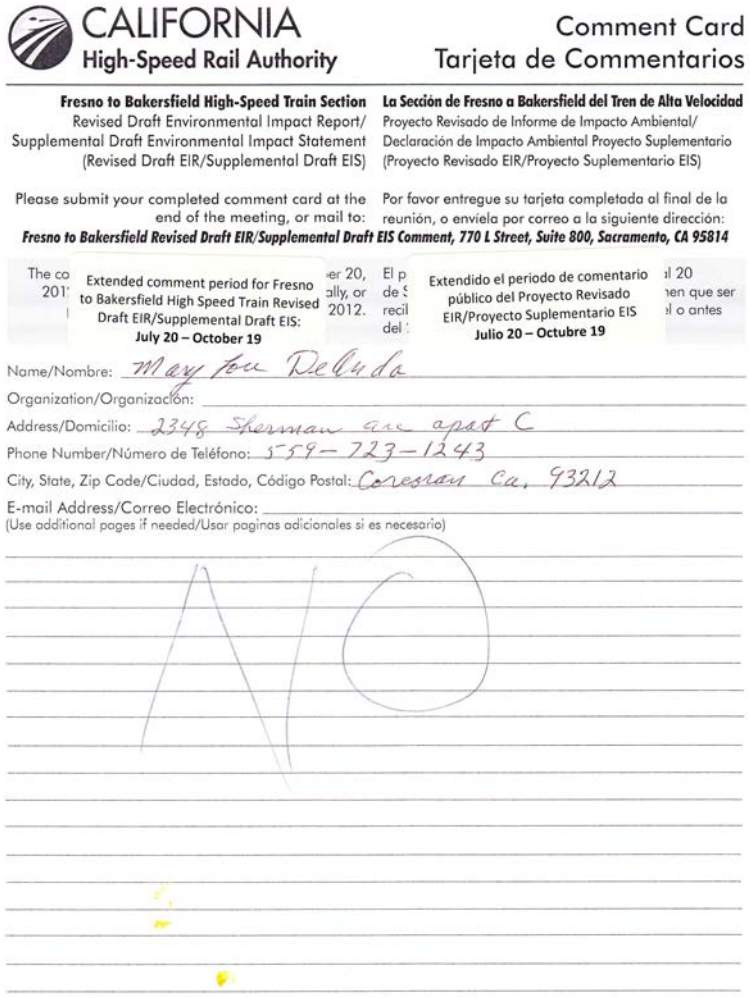
I004-19

Refer to Standard Response FB-Response-SO-02, FB-Response-N&V-05.

The impacts on rural residential communities are discussed under Impact SO #6 in Section 3.12, Socioeconomics, Communities, and Environmental Justice. This impact describes the potential for disruption to community cohesion or division of existing communities from project operation. Mitigation Measure SO-1 describes how the Authority plans to minimize the impacts to these rural residential communities.

For detailed information on potential HST project impacts on property values, see Section 5.4.4.3 in the Community Impact Assessment Technical Report.

Submission I005 (Mary-Lou DeAnda, October 18, 2012)



CALIFORNIA High-Speed Rail Authority

Comment Card
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Fresno to Bakersfield High-Speed Train Section
Revised Draft Environmental Impact Report/ Supplemental Draft Environmental Impact Statement (Revised Draft EIR/Supplemental Draft EIS)

La Sección de Fresno a Bakersfield del Tren de Alta Velocidad
Proyecto Revisado de Informe de Impacto Ambiental/ Declaración de Impacto Ambiental Proyecto Suplementario (Proyecto Revisado EIR/Proyecto Suplementario EIS)

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Extended comment period for Fresno to Bakersfield High Speed Train Revised Draft EIR/Supplemental Draft EIS:
July 20 – October 19

Extendido el periodo de comentario público del Proyecto Revisado EIR/Proyecto Suplementario EIS
Julio 20 – Octubre 19

Name/Nombre: Mary Lou DeAnda
Organization/Organización:
Address/Domicilio: 2348 Sherman Ave apart C
Phone Number/Número de Teléfono: 559-723-1243
City, State, Zip Code/Ciudad, Estado, Código Postal: Coresian Ca. 93212
E-mail Address/Correo Electrónico:
(Use additional pages if needed/Usar paginas adicionales si es necesario)

I005-1

N/A

Response to Submission I005 (Mary-Lou DeAnda, October 18, 2012)

I005-1

Refer to Standard Response FB-Response-GENERAL-14.

Your opposition to the project is noted.

Submission I006 (Katie Deason, September 18, 2012)

Fresno - Bakersfield (July 2012+) - RECORD #183 DETAIL

	Status :	Unread
	Record Date :	9/18/2012
	Response Requested :	Yes
	Stakeholder Type :	CA Resident
	Affiliation Type :	Individual
	Interest As :	Individual
	Submission Date :	9/18/2012
	Submission Method :	Website
	First Name :	Katie
	Last Name :	Deason
	Professional Title :	Home Owner, & Pres. Bishop Achers Water Co.
	Business/Organization :	
	Address :	
	Apt./Suite No. :	
	City :	Shafter
	State :	CA
	Zip Code :	93263
	Telephone :	661-589-5834
	Email :	deasontrek1@aol.com
	Email Subscription :	Fresno - Bakersfield
	Cell Phone :	
	Add to Mailing List :	Yes
I006-1	**Stakeholder**	i'm opposed to both revised drafts as it effects my property. i would like
I006-2	**Comments/Issues :**	a detailed picture of proposal thru my property. 32173 loraine lane, shafter ca. when will homeowners be bought out and how will you determine amount for property, what if we disagree with amount. how long will it be before a poperty owner has to move out, as we can,t buy another place until that happens. since house will be demolished can we sell things , such as coolers, etc. how much notice will be given that you will take property. and how long can we stay in home till that happens. willm we have deadline to move out. can we sell it without disclosing that place will be bought out in future . we have 4 nut producing trees, will these be added cost to figures. what is your projected date of having high speed rail done. what if we know site will be taken , if we wish for
I006-3		buy out sooner can that happen. there will be power generater across from all owners on street. , how big will that be and how will that effect
I006-4		noise, lights, vibrations, workers at station? the water well for community is in path. will you have togive each land owner money ,
I006-5		know it has to be moved. how will that effect our flo of water as we have no holding tank. how long will it take to relocate site for water. it,s our only source. why redo bridge that just was completed, plenty of fields to
I006-6		go around it all. why wasn,t that bypassed. i guess you like to waste money , if you have to redo bridge . how many lights will be in area.
I006-7		how many trains will be going an hour. what about rail dust and it,s effects to the people who will live near the train. how will that effect our
I006-8		water and people who live and work near by. if you move the water well, how deep of a well will you have. we have one of the best water around, better than shafters , will it be a totally new well drill site.
	EIR/EIS Comment :	No
	Official Comment Period :	Yes

Response to Submission I006 (Katie Deason, September 18, 2012)

I006-1

Refer to Standard Response FB-Response-GENERAL-14.

I006-2

Refer to Standard Response FB-Response-SO-01, FB-Response-SO-03.

Individual acquisition and relocation issues will be addressed during the property acquisition process.

I006-3

Refer to Standard Response FB-Response-PU&E-01.

The exact size of the transformer is unknown at this time. Please note that the HST System would be a “design-build” project. That is, the project design would be completed by the contractor chosen to build the project. The Authority and FRA have prepared a project-specific EIR/EIS to analyze the potential environmental consequences of a refined set of alternative corridor alignments and stations along this section. This project EIR/EIS contains significantly more detail than was available at the first-tier Program EIR/EIS.

The term "15% design" is an engineering term of art that refers to the level of engineering prepared on HST project elements for the EIR/EIS. The 15% design generates detailed information, like the horizontal and vertical locations of the track, cross sections of the infrastructure with measurements, precise station footprints with site configurations, and temporary construction staging sites and facilities. The 15% design also yields a "project footprint" overlaid on parcel maps, which shows the outside envelope of all disturbance, including both permanent infrastructure and temporary construction activity. This 15% design translated into a project description in the EIR with 100% of the information that is required under CEQA Guidelines Section 15147

I006-4

Refer to Standard Response FB-Response-PU&E-03, FB-Response-AG-04.

I006-5

Refer to Standard Response FB-Response-PU&E-03, FB-Response-HWR-01.

I006-6

Refer to Standard Response FB-Response-AQ-01.

Two alternatives are proposed in the vicinity of Wasco and Shafter: the BNSF Alternative (through Wasco and Shafter) and the Wasco-Shafter Bypass Alternative. Each alternative would have its own set of different effects.

The Authority used the information in the Final EIR/EIS and input from the agencies and public to identify the Preferred Alternative. The decision included consideration of the project purpose, need, and objectives, as presented in Chapter 1, Project Purpose, Need, and Objectives; the objectives and criteria in the alternatives analysis; and the comparative potential for environmental impacts. The Preferred Alternative has the least overall impact on the environment and local communities, the lowest cost, and the fewest constructability constraints of the project alternatives evaluated.

If a bridge needs to be replaced because of the project, the replacement bridge will be designed and constructed in accordance with the requirements of the local jurisdiction. If lighting is necessary, lighting would have to conform with local lighting ordinances. Potential impacts from construction lighting are addressed in Mitigation Measure AVR-MM#1b, which calls for shielding lights, directing lights downward so that the lights are not visible off-site, and limiting direct lighting to within the project site. This mitigation measure is discussed in Section 3.16, Aesthetics and Visual Resources, of the Final EIR/EIS.

The number of trains operating at any given time will ultimately depend on the ridership. Appendix 2-C, Operations and Service Plan Summary, of the Final EIR/EIS provides background information on the intended service and operations of the HST System at this point in project planning.

Response to Submission I006 (Katie Deason, September 18, 2012) - Continued

I006-7

Refer to Standard Response FB-Response-GENERAL-27.

Fugitive dust emissions due to the HST-induced airflow were evaluated in the EIR/EIS. As discussed in Section 3.3.6.3, High-Speed Train Alternatives, of the Final EIR/EIS, as the airflow diminishes, fugitive dust emissions beyond 10 feet from a train traveling at high speed—and the subsequent health risks—would be negligible. See Standard Response FB-Response-GENERAL-27 (dust from train operation). Also, the HST System has a steel-wheel-on-steel-rail technology. The HST System would use regenerative braking technology, which would reduce brake pad wear and the amount of metal particles deposited within the track right-of-way. The metals in the particulate matter tend not to leach or affect water quality.

I006-8

Refer to Standard Response FB-Response-PU&E-03, FB-Response-AG-04, FB-Response-SO-01.

Submission I007 (Travis DeCoster, July 21, 2012)

Fresno - Bakersfield (July 2012+) - RECORD #42 DETAIL

	Status :	Action Pending
	Record Date :	7/21/2012
	Response Requested :	No
	Stakeholder Type :	CA Resident
	Affiliation Type :	Individual
	Interest As :	Individual
	Submission Date :	7/21/2012
	Submission Method :	Website
	First Name :	Travis
	Last Name :	DeCoster
	Professional Title :	
	Business/Organization :	
	Address :	
	Apt./Suite No. :	
	City :	Tuolumne City
	State :	CA
	Zip Code :	95379
	Telephone :	
	Email :	basincreek@yahoo.com
	Email Subscription :	
	Cell Phone :	
	Add to Mailing List :	
I007-1	**Stakeholder Comments/Issues :**	Because of the visual prominence of the viaduct heading into Bakersfield it should be designed to be a central iconic landmark.
I007-2		If that is too expensive then maybe a greenfield station south or north of town could work.
I007-3		Some of the viaducts south of Hanford seem odd and perhaps unnecessary.
I007-4		The bypasses of the various towns seem the most logical route as they will be cheaper to construct and will impact fewer homes.
	EIR/EIS Comment :	Yes
	Official Comment Period :	Yes

Response to Submission I007 (Travis DeCoster, July 21, 2012)

I007-1

Refer to Standard Response FB-Response-AVR-02, FB-Response-AVR-03, FB-Response-AVR-04.

As described in Mitigation Measure AVR-MM#2a: Incorporate Design Criteria for Elevated and Station Elements That Can Adapt to Local Context, the Authority will establish a consultation and design process with affected cities and counties to advance the final design through a collaborative, context-sensitive approach. Participants in the consultation process will meet on a regular basis to develop a consensus on the urban design elements that are to be incorporated into the final guideway designs. Appropriate design treatments for the guideways leading into Bakersfield would be among the key topics addressed in that process. The mitigation measure also calls for incorporation of architectural elements, decorative textures, and other iconic features into the design of guideways and columns in locations such as this one, where adverse impacts have been identified.

I007-2

An important objective of the HST program is to provide an interface between the HST and commercial airports, mass transit, and the highway network. Locating the Bakersfield Station on the outskirts of the city would isolate it from Amtrak and the existing public transit system. Also, placing the station outside the city would promote unplanned growth, which is inconsistent with the Kern County General Plan, the Bakersfield General Plan, and the smart growth principles of the San Joaquin Valley Blueprint.

I007-3

Where the HSR route crosses obstacles such as the BNSF track, the required vertical clearance is 24 feet and the structure depth from rail to soffit is typically 13 feet; all HSR-over-BNSF crossings will generally require a viaduct.

Viaducts are also generally required to cross floodplain areas where an embankment with flood culverts would be considered an unacceptable constraint to the passage of floodwater.

South of Hanford the viaducts are required for the following reasons:

I007-3

- South BNSF Viaduct - Alignment K1: Viaduct required to cross over the BNSF lines.
- Cross Creek Viaduct - Alignments K1, K2, & K4: Viaduct required to cross over flood plain.
- Cross Creek Viaduct - Alignment K3: Viaduct required to cross floodplain and BNSF tracks.
- Corcoran Viaduct – Alignment C1: Viaduct required to assist the route in passing between BNSF and State Route (SR) 43 corridors and also to clear the many spur tracks servicing local facilities to the east of the BNSF corridor. The viaduct also crosses the main BNSF route toward its south end.
- SR 43 BNSF Viaduct – Alignment C2: Viaduct required to carry the route over the SR 43 and adjacent BNSF route.
- Boswell Spur Viaduct – Alignment C3: Viaduct required to carry the route over the many spur tracks that service facilities to the West of the BNSF corridor.
- Deer Creek Bridge – Alignments A1 & A2: Viaduct required to carry route over Deer Creek, floodplain, and Stoil (BNSF) spur track.
- Poso Creek Viaduct – Alignment L2: Viaduct required to carry route over floodplain and also the BNSF and SR 43 corridors.
- BNSF Viaduct – Alignment L4: Viaduct required to carry route over the BNSF and SR 43 corridors.
- Wasco Viaduct – Alignment WS1: Viaduct required to avoid severance of a number of local streets within Wasco, to minimize the footprint of the route within Wasco, and to cross the BNSF corridor.
- Shafter Viaduct – Alignment WS1: Viaduct required to avoid severance of a number of local streets within Shafter, to minimize the footprint of the route within Shafter, to pass over a number of BNSF spur tracks servicing local facilities to the east of the BNSF corridor, and to cross the BNSF corridor itself.
- Wasco Viaduct – Alignment WS2: Viaduct required to carry route over BNSF corridor, BNSF sidings, and the new alignment of 7th Standard Road, which is on a bridge at the crossing point.
- Bakersfield Viaduct – Alignments B1, B2, and B3: Viaduct required to carry route over numerous local streets; local through-routes, including the proposed Westside/Centennial Parkway and SR 99, facilities associated with the Kern Canal, Cross Valley Canal, and Gates Canal, the Kern River floodway, the BNSF goods yards; and also to provide a platform for the new Bakersfield Station.

Response to Submission I007 (Travis DeCoster, July 21, 2012) - Continued

I007-4

Refer to Standard Response FB-Response-GENERAL-10.

The bypass alternatives are proposed to reduce impacts to communities where no stations are proposed. Your support for the bypass alternatives is noted.

The Authority used the information in the Revised DEIR/Supplemental DEIS and input from agencies and the public to identify the Preferred Alternative in this Final EIR/EIS. The decision included consideration of the project purpose and need and the project objectives presented in Chapter 1, Project Purpose, Need, and Objectives, as well as the objectives and criteria in the alternatives analysis and the comparative potential for environmental impacts.

Submission I008 (Bernard "Barney" Deeter, Retired - Caltrans/Private Engr Firm, September 24, 2012)

Fresno - Bakersfield (July 2012+) - RECORD #197 DETAIL

Status :	Action Pending
Record Date :	9/24/2012
Response Requested :	
Stakeholder Type :	CA Resident
Affiliation Type :	Individual
Interest As :	Individual
Submission Date :	9/24/2012
Submission Method :	Website
First Name :	Bernard "Barney"
Last Name :	Deeter
Professional Title :	Civil Engr
Business/Organization :	Retired - Caltrans/Private Engr Firm
Address :	
Apt./Suite No. :	
City :	Fresno
State :	CA
Zip Code :	93710
Telephone :	559-439-4379
Email :	bigbanfan@aol.com
Email Subscription :	Fresno - Bakersfield
Cell Phone :	
Add to Mailing List :	Yes
I008-1 **Stakeholder Comments/Issues :**	As a retired Civil Engineer, I have several questions that I hope have been addressed in the EIR. 1. The power source to run at 200 mph - Overhead power lines, magnetic or third rail(dangerous)?
I008-2	2. Provision for Farmer John to get to his divided property. At grade or underpass? I don't believe you would want Farmer John to drag his farm equipment across the rail system. 3. County roads and/or city streets - at grade or underpass?
EIR/EIS Comment :	Yes
Official Comment Period :	

Response to Submission I008 (Bernard "Barney" Deeter, Retired - Caltrans/Private Engr Firm, September 24, 2012)

I008-1

Refer to Standard Response FB-Response-AG-02, FB-Response-AG-03.

The trains would draw power from an overhead contact system. More details can be found in Section 2.2.6 of Volume I of the EIR-EIS.

I008-2

Refer to Standard Response FB-Response-AG-02, FB-Response-AG-03.

The system will be completely grade-separated. There will be no at-grade road crossings.

Submission I009 (Leonard DeRuiter, October 18, 2012)

CALIFORNIA High-Speed Rail Authority

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Please submit your completed comment card at the end of the meeting, or mail to:
Fresno to Bakersfield Revised Draft EIR/Supplemental Draft EIS Comment, 770 L Street, Suite 800, Sacramento, CA 95814

Por favor entregue su tarjeta completada al final de la reunión, o enviela por correo a la siguiente dirección:
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The 2[illegible] Extended comment period for Fresno to Bakersfield High Speed Train Revised Draft EIR/Supplemental Draft EIS: **July 20 – October 19** [illegible]nber 20, [illegible]ically, or 0, 2012.

El periodo de comentario es del 20 de Julio al 20 de Septiembre del 2012. Los comentarios tienen que ser recibidos electrónicamente, o matasellados, el o antes del 20 de Septiembre del 2012.

Name/Nombre: LEONARD DE RUITER
Organization/Organización:
Address/Domicilio: 7685 13th AVE
Phone Number/Número de Teléfono:
City, State, Zip Code/Ciudad, Estado, Código Postal: HANFORD, CA. 93230
E-mail Address/Correo Electrónico:
(Use additional pages if needed/Usar paginas adicionales si es necesario)

I009-1 The E.I.R has not taken into consideration that the agency's work will disrupt agricultural activity and potential damage farms.
Many of these impacts will occur well before construction commences. Examples of these impacts could be the yearly need for crop financing or the effect on permanent planting decisions.
after construction impacts are endless and will damage agricultural enterprises.

CALIFORNIA High-Speed Rail Authority

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Name/Nombre: LEONARD DE RUITER
Organization/Organización:
Address/Domicilio: 7685 13th AVE
Phone Number/Número de Teléfono:
City, State, Zip Code/Ciudad, Estado, Código Postal: HANFORD, CA. 93230
E-mail Address/Correo Electrónico:
(Use additional pages if needed/Usar paginas adicionales si es necesario)

I009-2 The E.I.R did not consider the economic impact that the H.S.T will have on our limited water resources. The well drillers, cement pipe companies and utility companies will have a tremendous back log of appointments as farmers are forced to develop new irrigation systems.
These systems must be in place before the existing systems are eliminated by H.S.T.

Submission I009 (Leonard DeRuiter, October 18, 2012) - Continued

CALIFORNIA High-Speed Rail Authority

Comment Card
Tarjeta de Commentarios

Fresno to Bakersfield High-Speed Train Section
Revised Draft Environmental Impact Report/ Supplemental Draft Environmental Impact Statement (Revised Draft EIR/Supplemental Draft EIS)

La Sección de Fresno a Bakersfield del Tren de Alta Velocidad
Proyecto Revisado de Informe de Impacto Ambiental/ Declaración de Impacto Ambiental Proyecto Suplementario (Proyecto Revisado EIR/Proyecto Suplementario EIS)

Please submit your completed comment card at the end of the meeting, or mail to:
Fresno to Bakersfield Revised Draft EIR/Supplemental Draft EIS Comment, 770 L Street, Suite 800, Sacramento, CA 95814

Por favor entregue su tarjeta completada al final de la reunión, o enviela por correo a la siguiente dirección:

Th tember 20, onically, or 20, 2012.

Extended comment period for Fresno to Bakersfield High Speed Train Revised Draft EIR/Supplemental Draft EIS: July 20 – October 19

El periodo de comentario es del 20 de Julio al 20 de Septiembre del 2012. Los comentarios tienen que ser recibidos electrónicamente, o matasellados, el o antes del 20 de Septiembre del 2012.

Name/Nombre: LEONARD DE RUITER
Organization/Organización:
Address/Domicilio: 7685 13th AVE
Phone Number/Número de Teléfono:
City, State, Zip Code/Ciudad, Estado, Código Postal: HANFORD, CA 93230
E-mail Address/Correo Electrónico:
(Use additional pages if needed/Usar paginas adicionales si es necesario)

I009-3 The EIR did not adequately consider the increase in air pollution caused by increased agricultural miles traveled.
As roadways and land parcels are blocked, farmers will be forced to travel many additional miles. The harvest and irrigation season is a 24/7 situation and travel must continue around the clock.

Response to Submission I009 (Leonard DeRuiter, October 18, 2012)

I009-1

Refer to Standard Response FB-Response-GENERAL-04, FB-Response-SO-01, FB-Response-AG-01.

The land acquisition process will take place before construction. It is during this phase that the Authority's right-of-way agent will work with individual landowners to mitigate impacts from both construction and operation of the HST. The Authority is working to begin the right-of-way process as soon as possible so as to decrease impacts on farmers.

I009-2

Refer to Standard Response FB-Response-AG-04.

Project construction will take place over an 8-year period.It is expected that adequate resources are available to reconstruct new wells required because of the project over the construction period. For example, the California Groundwater Association alone lists 108 water well drilling contractors from the Central Valley who are members of the association (see http://www.groundh2o.org/services/index.html). In a 1997 economic census, the U.S. Census Bureau identified 266 companies in the United States that manufactured concrete pipe, of which 21 with 20 employees or more are located in California (U.S. Census Bureau. 1997 Concrete Pipe Manufacturing 1997 Economic Census. EC97M-3273D). This comment provides no substantive evidence that there would be an economic impact caused by limitations in resources to construct new wells.

I009-3

Refer to Standard Response FB-Response-AQ-03.

Submission I010 (William Descary, October 19, 2012)

RECEIVED
10/22/12

604 Plover Ct.
Bakersfield, CA 93309
October 18, 2012

CERTIFIED MAIL

Fresno to Bakersfield Revised Draft EIR/
Supplement Draft EIS Comment
770 L Street, Suite 800
Sacramento, CA 95814

RE: Fresno to Bakersfield RDEIR/SDEIS Comments

I010-1
1. Loss of commercial and residential properties taken for right of way will result in a loss of property tax revenue. No mitigation or alternatives are presented.
2. Properties adjacent to the rail line will be devalued because of noise, vibration, and visual aesthetics and result in lost property tax revenue. Mitigation for devalued property owners and governmental agencies needs to be presented.

I010-2
3. Historic 100 year old Bakersfield High School will suffer the loss of at least one building under at least one of the alternate alignments. There is no available space on campus to construct a replacement building.

I010-3
4. There are numerous safety implications with a high speed train operating close to the Bakersfield High School campus.

I010-4
5. Only one complete 3 volume set of the RDEIR/SDEIS is available at the Bakersfield Beale Library for the City's 351,400 residents which occupy approximately 112,000 households.

I010-5
6. In reviewing the maps in Vol. 3, "potential sound barriers" are indicated on many pages. This creates questions of how the costs for these "potential" structures are assigned.

I010-6
7. On a larger scale, when three alternate routes through Bakersfield and other route alternatives north of Bakersfield are being considered credibility issues for cost estimates occur. How can projected costs be reliable given all these variables and only 15-30% of the engineering completed?

I010-7
8. The problem of the fungal infection coccidioidmycosis (Valley Fever) is well known in the Central Valley. The disruption in soil caused by the extensive construction will result in an increase in Valley Fever cases to construction workers and residents. The complications of this infection up to and including death are serious and costly to treat. The costs will fall on the State through payment of worker compensation claims and on the public for the uninsured. Mitigation of this situation needs to be provided through a fund to cover these health care costs.

I010-8
9. The report references noise barriers and "potential noise barriers." There appears to be no description of what this noise will be. In order for Bakersfield residents to experience noise generated by HSR at various speeds, it would seem appropriate to create the sound through a demonstration chamber so residents will know exactly what the sound barriers are supposed to mitigate.

I010-9
10. All three alternate routes through Bakersfield impact the multimillion dollar Westside Parkway currently under construction. The RDEIR indicates an elevated track over the Parkway which raises safety concerns. Additionally, such an elevated structure will forever change the skyline of Bakersfield. This presents a situation that cannot be mitigated. What's the answer? Will the Parkway have to be re-engineered to accommodate HSR?

I010-10
11. In summary, Section 3.18 (Regional Growth) and 3.19 (Cumulative Impacts) reflect population manipulation or social engineering which is outside the parameters of developing an efficient, cost effective, affordable transportation system. The entire high-speed rail (HSR) now referred to as high-speed train (HST) needs to be stopped and be re-evaluated to reflect updated demographic data and ridership. If the goal is to relieve traffic at LAX and San Francisco airports and provide an alternative for Bay to Basin travel at competitive costs, alternative routes need to be carefully studied that do not require costly and unsightly elevated track. There is a "rush to construct" mentality driving the project that will prove to be devastating and irreversible to valley communities and agriculture.

William C. Descary
(661) 834-3507

Submission I010 (William Descary, October 19, 2012) - Continued

Response to Submission I010 (William Descary, October 19, 2012)

I010-1

Refer to Standard Response FB-Response-SO-02, FB-Response-SO-05.

For information on the HST operation-related property and sales tax revenue effects see EIR/EIS Volume I Section 3.12 Impact SO#3, Impact SO#4, and Impact SO #12.

I010-2

Refer to Standard Response FB-Response-CUL-01.

In February 2012, the California State Historic Preservation Officer (SHPO) concurred with the evaluation of Bakersfield High School presented in the technical documents prepared for the Draft EIR/EIS (SHPO 2012). Details of the findings are available in the Historic Architectural Survey Report (HASR) and the Historic Property Survey Report (HPSR) (Authority and FRA 2011b, 2011c). The SHPO concurred that Harvey Auditorium is individually eligible for listing in the National Register of Historic Places (NRHP) and that none of the other buildings or structures on the Bakersfield High School campus qualify for inclusion in the NRHP, either individually, or as a cohesive grouping, as required for historic districts. Harvey Auditorium is also eligible for listing in the California Register of Historical Resources (CRHR) and is considered a historical resource for the purposes of the California Environmental Quality Act (CEQA). None of the other buildings on the high school campus are considered historical resources under CEQA.

I010-3

An analysis of safety of Bakersfield High School is provided in Section 3.11 of the EIR/EIS.

I010-4

The Draft EIR/EIS and the Revised DEIR/Supplemental DEIS were made available at dozens of community centers, libraries, and other locations throughout the project footprint to encourage public review and comment. A complete listing of locations is available online at the Authority's website.

I010-5

The cost of sound barriers are included in the mitigation costs of the project provided in Chapter 5 of the EIR/EIS.

I010-6

Refer to Standard Response FB-Response-GENERAL-17.

The term "15% design" is an engineering term of art that refers to the level of engineering prepared on HST project elements for the EIR/EIS. The 15% design generates detailed information, like the horizontal and vertical locations of track, cross sections of the infrastructure with measurements, precise station footprints with site configurations, and temporary construction staging sites and facilities. The 15% design also yields a "project footprint" overlaid on parcel maps, which shows the outside envelope of all disturbance, including both permanent infrastructure and temporary construction activity.

Chapter 5, Project Costs and Operations, of the EIR/EIS provides information about and a breakdown of project costs by alternative.

I010-7

Refer to Standard Response FB-Response-AQ-01.

Although valley fever fungi are commonly found in the soil in the Central Valley and can be stirred into the air by anything that disrupts the soil, the potential for the operational HST to generate dust through induced air flow is low. Therefore, the impacts from valley fever during operations will be less than significant. In addition, the dust minimization measures listed in Section 3.3.8 of the Final EIR/EIS will further reduce fugitive dust emissions to a less-than-significant impact. Valley fever spores would be released when the soil is disturbed; however, due to the minimization measures, fugitive dust disturbance during construction will be minimal. Therefore, impacts from valley fever spores would be less than significant.

Because the dust disturbance would be minimal with proposed mitigation measures, current hospital and health care centers would not be burdened with an increase in valley fever patients.

Response to Submission I010 (William Descary, October 19, 2012) - Continued

I010-8

The potential noise impact has been assessed at sensitive receivers, and these areas are identified in Section 3.4.7, Environmental Consequences, of the Revised DEIR/Supplemental DEIS and shown in Figures 3.4-9 through 3.4-13. The locations of potential barriers are illustrated on Figures 3.4-15 through 3.4-19. Refer to Section 3.4.6 for a complete listing of noise impact mitigation measures that would reduce noise impacts below a "severe" level. The Proposed California High-Speed Train Project Noise and Vibration Mitigation Guidelines developed by the Authority (see Appendix 3.4-A of the Revised DEIR/Supplemental DEIS) were used to determine whether mitigation would be proposed for these areas of potential impact. The Guidelines require consideration of feasible and effective mitigation for severe noise impacts (impacts where a significant percentage of people would be highly annoyed by the HST project's noise).

The Authority will refine mitigation for homes with residual severe noise impacts (i.e., severe impacts that remain notwithstanding noise barriers) and address them on a case-by-case basis during final design of the Preferred Alternative. In addition to the potential use of noise barriers, other forms of noise mitigation may include improvements to the home itself that will reduce the levels by at least 5 dBA, such as adding acoustically treated windows, extra insulation, and mechanical ventilation as detailed in Section 3.4.6, Project.

The Revised DEIR/Supplemental DEIS proposes noise barriers in areas of severe noise impacts resulting from the project, where the barriers meet the cost-effectiveness criteria. To meet the cost-effectiveness criteria, barriers must mitigate noise for more than 10 sensitive receivers, be not less than 800 feet in length, be less than 14 feet in height, and cost below $45,000 per benefited receiver. A receiver that receives at least 5-dBA noise reduction due to the barrier is considered a benefited receiver.

Mitigation Measure N&V-MM#3 provides that sound barriers may be installed to reduce noise to acceptable levels at adjoining properties. These may include walls, berms, or a combination of walls and berms. The specific type of barrier will be selected during final design, and before operations begin. In addition, Mitigation Measure N&V-MM#3 provides that prior to operation, the Authority will work with communities regarding the

I010-8

height and design of sound barriers, using jointly developed performance criteria, when the vertical and horizontal location have been finalized as part of the final design of the project. Mitigation Measure VQ-MM#6 requires the provision of a range of options to reduce the visual impact of the sound barriers.

Figure 3.4-1 in Section 3.4, Noise and Vibration, of the Revised DEIR/Supplemental DEIS shows typical noise levels of the high-speed train traveling at various speeds and provides corresponding examples of other types of noise generating equipment that generate similar noise levels.

I010-9

The Authority and the City of Bakersfield Department of Public Works have reviewed the plans for the HST project alternatives relative to the Westside Parkway, and both the Authority and the City have determined that none of the HST alternatives would impact the construction of the Westside Parkway.

As discussed in Section 3.11, Safety and Security, of the EIR/EIS, a basic design feature of an HST system is to contain trainsets within the operational corridor (FRA 1993). Strategies to ensure containment include operation and maintenance plan elements that would ensure high-quality tracks and vehicle maintenance to reduce the risk of derailment. Also, physical elements, such as containment parapets, check rails, guard rails, and derailment walls, would be used in specific areas with a high risk of or high impact from derailment (e.g., where the elevated HST viaduct crosses the Westside Parkway). Therefore, the risk of accidents involving the HST and motorists on the Westside Parkway is judged to be low, as is the risk of vehicle accidents between roadways crossing over each other, which is common on the freeways of California.

The visual impacts of the HST viaduct are discussed in Section 3.16.5 of the EIR/EIS.

Between Coffee Road and their crossings over the Kern River east of the Mohawk Street Bridge, the HST alignments and Westside Parkway would broadly parallel each other, the HST crossing over the Parkway at three (BNSF Alternative) or four (Bakersfield South and Bakersfield Hybrid alternatives) locations. From an aesthetic perspective, these crossings are not expected to result in any substantial adverse

Response to Submission I010 (William Descary, October 19, 2012) - Continued

I010-9

impacts. These crossings would resemble instances of freeways passing over roadways on elevated structures, a common occurrence in Bakersfield and elsewhere. Most of these crossings would take place in the area south of the Shell Refinery in an area of extremely poor existing visual quality. At both river crossings, the HST alignments would not pass over the proposed Parkway bridges over the Kern River; rather, in each case they would cross on the landward side of the bridge structures. Thus, no direct physical or aesthetic conflict would be expected between the structures.

The effects of the elevated structures on the Bakersfield landscape are described in detail and represented with simulations in Section 3.16, Aesthetics and Visual Resources, of the Revised DEIR/Supplemental DEIS. An extensive set of mitigation and design measures are proposed for these structures, to be developed in detail in coordination with the City of Bakersfield (refer to Section 3.16.7.2 of the Revised DEIR/Supplemental DEIS).

I010-10

Refer to Standard Response FB-Response-GENERAL-04, FB-Response-GENERAL-05, FB-Response-GENERAL-10, FB-Response-GENERAL-02.

No aspect of the project would manipulate population or undertake social engineering. When it is in operation, the project would provide a new alternative mode for travel between the San Francisco Bay Area and the Los Angeles Basin.

As described in Section 2.2.4.4 of the EIR/EIS, elevated profiles are used in urban areas where extensive road networks must be maintained and to cross water bodies. Because HST operation requires grade-separated track, an at-grade system in urban areas would eliminate road crossings. The elevated approach avoids substantial disruptions of existing roads and traffic patterns.

Submission I011 (Sandra Descary, October 19, 2012)

RECEIVED
10/22/12

604 Plover Ct.
Bakersfield, CA 93309
October 18, 2012

CERTIFIED MAIL

Fresno to Bakersfield Revised Draft EIR/
Supplemental Draft EIS Comment
770 L Street, Suite 800
Sacramento, CA 95814

The following are my comments regarding the Fresno to Bakersfield Revised Draft EIR/ Supplemental Draft EIS:

I011-1 1. All three proposed routes through Bakersfield will require the acquisition of developed land (public and private) which will dramatically increase costs. The route should be on the perimeter of the City to the south and west to decrease land acquisition costs and lessen destruction of infrastructure.

I011-2 2. Proposed routes will divide the City and have an adverse impact on the cohesiveness of the City.

I011-3 3. A number of recently completed redevelopment projects which have enhanced previously blighted areas will be subject to land acquisition and have collateral negative impact on these recently enhanced areas.

I011-4 4. Prime farm land will be destroyed forever.

I011-5 5. Some farms will even be divided which will significantly add to their operational costs and adversely impact air quality with much more travel to work the farm.

I011-6 6. Wetlands that are part of the Kern Wildlife Refuge will be destroyed and disrupt migrating birds.

I011-7 7. Numerous property owners have not been individually notified of the potential loss of their property based on identified HSR routes through Bakersfield. For example, some property owners west of Calloway and north of Brimhall have failed to be notified.

I011-8 8. Although the consultant list indicates a number of civil engineers, only two are indicated as holding the P.E. (Professional Engineer) license designation. I am concerned that the authority is relying on unlicensed civil engineers for this project.

I011-9 9. Ariel maps showing proposed routes do not title or identify prominent structures such as Bakersfield High School, City Equipment and Maintenance Yard, City Hall, County Office Building, RaboBank Arena Convention Center, and Beale Library for easy reference so it is difficult to understand the proximity of the proposed routes to these structures. These are additional impacted areas without mitigation being addressed.

Sandra Descary
(661) 834-3507

Response to Submission I011 (Sandra Descary, October 19, 2012)

I011-1

Refer to Standard Response FB-Response-GENERAL-02.

I011-2

Refer to Standard Response FB-Response-GENERAL-05, FB-Response-SO-04, FB-Response-SO-06.

For information on the potential for disruption and division in Bakersfield see EIR/EIS Volume I Section 3.12.8 Impact SO#6. Also see Impact SO#9 and Impact SO#10 for displacement estimates in Bakersfield. Mitigation Measure SO-2 and SO-3 (described in Section 3.12.11) propose mitigations for identified effects in Bakersfield communities.

I011-3

The comment is referring to redevelopment projects in the City of Bakersfield. The City of Bakersfield has adopted redevelopment plans for the HST station area in Bakersfield. As stated in Section 3.13.5.3, the urban station in Bakersfield would encourage higher-intensity development in the surrounding areas, including desired residential and commercial infill development, by providing an economic driver for such development. Two development projects are located within the Bakersfield Station study area: the Mill Creek Linear Park Plan and the Old Town Kern–Pioneer Redevelopment Project, which are both mixed-use residential and commercial projects. HST station development would not affect planned development in Bakersfield because those developments are planned for the station study area edges, and include higher-density residential uses that would be compatible with transit-oriented development (TOD) around stations.

The indirect effect of the station is consistent with existing urban development and expectations for the types of uses that can be supported in an urban environment. This would also be consistent with the city's plans and policies encouraging downtown revitalization. Therefore, the indirect land use effects of these two stations would have negligible intensity under NEPA, and be less than significant under CEQA. The Bakersfield station could potentially increase land use densities and TOD in downtown Bakersfield, which would be consistent with local plans and policies.

I011-4

Refer to Standard Response FB-Response-GENERAL-04.

The Authority recognizes that the loss of farmland cannot be fully mitigated, and as such has been classified as a significant and unavoidable impact. See Impact AG #4 for information on the permanent conversion of agricultural land, and see Mitigation Measure AG #1 in Section 3.14 for measures to reduce the impact on prime farmland through the funding of permanent conservation easement acquisitions through the California Farmland Conservancy Program.

I011-5

Refer to Standard Response FB-Response-AG-02, FB-Response-AG-03.

The air quality analysis prepared for the HST project includes consideration of changes in traffic patterns expected to result from the project (see Section 3.3.4.1, on Air Quality and Global Climate Change, and the *Fresno to Bakersfield Section: Air Quality Technical Report* [Authority and FRA 2012a]).

I011-6

The Kern National Wildlife Refuge (NWR) is located 9.8 miles west of the HST alternatives (i.e., the Allensworth Bypass Alternative). The HST alternatives do not overlap this NWR (see Figure 3.7-1c of the Revised DEIR/Supplemental DEIS), and the construction and operation of the HST alternatives would not result in direct or indirect impacts on Kern NWR or associated migratory birds. Impacts on birds protected under the Migratory Bird Treaty Act are discussed in Section 3.7, Biological Resources and Wetlands.

I011-7

The public outreach process for the Fresno to Bakersfield Section of the HST System has been extensive; this process has included hundreds of public meetings and briefings where public comments have been received, participation in community events where participation has been solicited, and development and distribution of educational materials to encourage feedback. These efforts are cited in Chapter 7 of the Revised DEIR/Supplemental DEIS. Public notification regarding the draft environmental

Response to Submission I011 (Sandra Descary, October 19, 2012) - Continued

I011-7

documents took place in the following ways: A notification letter, informational brochure, and NOA were prepared in English and Spanish and sent to landowners and tenants within 300 feet of all alignment alternatives. The letters notified landowners and tenants that their property may be necessary for construction (within the project construction footprint) of one or more of the alignment alternatives or project components being evaluated. Anyone who has requested to be notified or is in our stakeholder database was sent notification materials in English and Spanish. An e-mail communication of the notification materials was distributed to the entire stakeholder database. Public notices were placed in English- and Spanish-language newspapers. Posters in English and Spanish were posted along the project right-of-way.

I011-8

Engineering design of the HST System is being undertaken by licensed engineers.

Preparation of the EIR/EIS does not require engineering design expertise, but rather a range of expertise in the analysis of environmental impacts. A number of Professional Engineers participated in the preparation of the Revised DEIR/Supplemental DEIS. Section 9.2 of the EIR/EIS has been revised to identify these individuals.

I011-9

Route maps included in the Final EIR/EIS provide street names and label certain prominent structures, where feasible, to assist in identification and understanding of location and proximity. For example, Figure 2-42, Bakersfield Station–North Alternative, specifically identifies the Kern County Building, Rabobank Arena, the Marriott Hotel, Beale Memorial Library, the sites of the Chelsea and Mill Creek developments, and other landmarks in Downtown Bakersfield. For those interested in the specific parcels that would be affected by the HST project, Appendix 3.1-A depicts all parcels within the HST footprint and identifies them by Assessor Parcel Number.

Submission I012 (Terrell DeVaney, October 16, 2012)

Fresno - Bakersfield (July 2012+) - RECORD #297 DETAIL

Status :	Unread
Record Date :	10/17/2012
Response Requested :	
Stakeholder Type :	CA Resident
Affiliation Type :	Individual
Attorney or Law Firm? :	No
Interest As :	Individual
Submission Date :	10/17/2012
Submission Method :	Project Email
First Name :	Terrell
Last Name :	DeVaney
Professional Title :	
County :	
Business/Organization :	
Address :	1321 Whitley
Apt./Suite No. :	
City :	Corcoran
State :	CA
Zip Code :	93212
Telephone :	559-992-5107
Email :	calecon@lightspeed.net
Email Subscription :	
Cell Phone :	
Fax :	
Comment Type :	Issue (concern, suggestion, complaint)
Add to Mailing List :	

Stakeholder Comments/Issues : Dear High Speed Rail,

I012-1

When I voted for high speed rail, my vote was cast for an electric train, within a certain budget.

I voted for high speed rail because I thought it would be built where we need it most-

between Bakersfield and LA. There is no train route available, there is only
AMTRAK bus service.

This is the primary connection that needs to be made to connect southern
California with northern California.

Now you choose to start the project in the middle of the fertile productive valley, connecting towns with

small populations, taking their land from them, disrupting lives, and damaging the environment for a project that is doomed to fail.

I012-2

The young people in Corcoran as well as the elderly will no longer be able
to travel to and

from our town on Amtrak as our train station will be eliminated. We travel
on rail everyday from Corcoran

to go to the grocery store, the doctors, restaurants, and many students use
it to commute to college.

Our station is a connection for other transportation services that is used everyday by the young, elderly and disabled.

The station is also utilized as a cool center during the hot summer days and
is utilized to display historic Corcoran artifacts.

I012-3

The route through town will devastate our main entrance to our town and will
devastate our already

damaged economy.

I012-4
I012-5

The air quality will be compromised. The natural habitat for wildlife will be compromised.

I012-6

The farmers land will be compromised.

Submission I012 (Terrell DeVaney, October 16, 2012) - Continued

I012-6

The central California valley is a key producer of many products including
but not limited to dairy, beef, pork, tomatoes, cotton, wheat, corn,

safflower, pistachios, almonds and walnuts. Cutting through their property
will severely affect their farms and dairies, destroying valuable farmland

disrupting operations, destroying irrigation systems and destroying processing plants.

I012-7

Your budget is understated and not realistic! How will California be able to afford this mistake?

I012-8

Please reconsider building this stretch of high speed rail in our fertile valley and put it where it needs to be- connecting Bakersfield with Los Angeles,

connecting San Diego with LA, or connecting Sacramento with Tracy.

Sincerely,

Terrell DeVaney

Terrell DeVaney, Lic # 01085342

Cal-Econ Realty, Lic # 01057619

1321 Whitley

Corcoran, CA 93212

559-992-5107 Cell 559-799-9589

Subscription Request/Response :	
EIR/EIS Comment :	Yes
General Viewpoint on Project :	Mixed
Official Comment Period :	Yes

Response to Submission I012 (Terrell DeVaney, October 16, 2012)

I012-1

Refer to Standard Response FB-Response-GENERAL-13, FB-Response-GENERAL-12.

Environmental analysis of subsequent sections of the HST System that are planned to connect Bakersfield to Los Angeles is currently underway. The Central Valley sections of the HST System are an integral portion of the statewide system connecting San Francisco and the Bay Area to Los Angeles and Anaheim.

I012-2

Refer to Standard Response FB-Response-GENERAL-12.

I012-3

Refer to Standard Response FB-Response-GENERAL-05, FB-Response-GENERAL-10.

For information on the impacts to communities where no station will exist and for specific information on the potential for physical deterioration see EIR/EIS Volume I Section 3.12 Impact SO #16. Also see Mitigation Measure SO-5.

I012-4

Refer to Standard Response FB-Response-AQ-02.

I012-5

Refer to Standard Response FB-Response-GENERAL-14.

As described in Section 3.7, Biological Resources and Wetlands, of the Revised DEIR/Supplemental DEIS, the proposed project would impact wildlife species and their habitat. However, these impacts will be mitigated, minimized, and/or avoided through the implementation of mitigation measures, as described in Section 3.7.7.

I012-6

Refer to Standard Response FB-Response-GENERAL-04, FB-Response-SO-01, FB-Response-AG-01, FB-Response-AG-02, FB-Response-AG-03, FB-Response-AG-04.

I012-7

Refer to Standard Response FB-Response-GENERAL-17.

I012-8

Refer to Standard Response FB-Response-GENERAL-02.

Submission I013 (Doug DeVaney, J. G. Boswell Company, October 19, 2012)

Fresno - Bakersfield (July 2012+) - RECORD #383 DETAIL

Status :	Action Pending
Record Date :	10/19/2012
Response Requested :	No
Stakeholder Type :	CA Resident
Affiliation Type :	Individual
Interest As :	Individual
Submission Date :	10/19/2012
Submission Method :	Project Email
First Name :	Doug
Last Name :	DeVaney
Professional Title :	
Business/Organization :	J. G. Boswell Company
Address :	
Apt./Suite No. :	
City :	Corcoran
State :	CA
Zip Code :	93212
Telephone :	
Email :	ddevaney@jgboswell.com
Email Subscription :	
Cell Phone :	
Add to Mailing List :	

I013-1

I013-2

Stakeholder Comments/Issues :

As a lifelong resident of the community of Corcoran, I feel as though my concerns as a resident are not being fully considered in the decision to construct a High Speed Rail system through the valley; for the entire State for that matter. Many 'town hall' meetings have yielded a strong opinion from our community as well as other small communities in the San
Joaquin Valley against this H.S.R. boondoggle. The proposed project is significantly different now than what was presented as a voter initiative. It is easy to come away with a sense of being trod upon by the overbearing interests of government officials. This entire project wreaks of a "Bait and Switch" tactic forced upon the citizens of California. It is shortsighted and woefully short of accomplishing anything positive for the State of California, all at the significant cost and detriment to small communities like Corcoran in the San Joaquin
Valley. I join other citizens against our continued opposition and fight against High Speed Rail in the Valley and throughout the State. Please give the citizens of small communities consideration when making
these decisions as our safety, health, and quality of life is greatly impacted by the final outcome. Again, the City of Corcoran and it's citizen's overwhelmingly opposes the High Speed Rail project!

Respectfully,

Doug DeVaney

EIR/EIS Comment : Yes
Official Comment Period : Yes

Response to Submission I013 (Doug DeVaney, J. G. Boswell Company, October 19, 2012)

I013-1

Refer to Standard Response FB-Response-GENERAL-16.

The Authority has solicited public involvement and modified the project as a result of public feedback. These modifications include the introduction of the Hanford West Bypass 1 and 2 Alternatives and the Bakersfield Hybrid Alternative.

I013-2

Refer to Standard Response FB-Response-GENERAL-14, FB-Response-GENERAL-17.

The Authority used the information in the Final EIR/EIS and input from the agencies and public to identify the Preferred Alternative. The decision included consideration of the project purpose, need, and objectives, as presented in Chapter 1, Project Purpose, Need, and Objectives; the objectives and criteria in the alternatives analysis; and the comparative potential for environmental impacts. The Preferred Alternative balances the least overall impact on the environment and local communities, cost, and the constructability constraints of the project alternatives evaluated. The Preferred Alternative is identified and discussed in the Final EIR/EIS.

Submission I014 (Ursula Doan, October 18, 2012)

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Extendido el periodo de comentario público del Proyecto Revisado EIR/Proyecto Suplementario EIS **Julio 20 – Octubre 19**

Name/Nombre: URSULA DOAN
Organization/Organización:
Address/Domicilio: 2152 ORANGE AVE, CORCORAN, CA
Phone Number/Número de Teléfono: 559-992-2861
City, State, Zip Code/Ciudad, Estado, Código Postal: CORCORAN, CA 93212
E-mail Address/Correo Electrónico:
(Use additional pages if needed/Usar paginas adicionales si es necesario)

I014-1 WE NEED THE LOCAL CAL.TRANS. STATION!! HOW DO PEOPLE GO TO WORK, SCHOOL ETC. IN HANFORD WITHOUT OUR TRAIN STATION? HOW ABOUT TAKING THE TRAIN AT THE STATION IN CORCORAN TO GO - FOR INSTANCE - TO FRESNO + MUCH FARTHER NORTH WITH BUS CONNECTIONS TO SAN JOSE ETC. NOTHING?? WE DON'T COUNT?? I DON'T THINK SO!

Response to Submission I014 (Ursula Doan, October 18, 2012)

I014-1

Refer to Standard Response FB-Response-GENERAL-12.

Submission I015 (Millard F. Downing, October 18, 2012)

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Name/Nombre: MILLARD F. DOWNING
Organization/Organización:
Address/Domicilio: 9944 Ponderosa Rd, Hanford, Ca 93230
Phone Number/Número de Teléfono: 559-584-1046
City, State, Zip Code/Ciudad, Estado, Código Postal: Hanford, CA 93230
E-mail Address/Correo Electrónico: millardd@ymail.com
(Use additional pages if needed/Usar paginas adicionales si es necesario)

I015-1 The DEIR/DEIS does not address how they are going to provide natural gas to my new rural property should I be forced to move, and I have natural gas on my rural property now, which was the reason I selected Ponderosa Rd.

I015-2 The DEIR/DEIS does not address how you will compensate for the drilling of a new well, should it be able to find rural property that must have a well drilled. Wells vary in cost. I paid for the drilling of my present well, but no way to know what the next well will cost to be made whole.

Response to Submission I015 (Millard F. Downing, October 18, 2012)

I015-1

Refer to Standard Response FB-Response-SO-01, FB-Response-PU&E-03.

I015-2

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-04.

Submission I016 (Minnie Carol Downing, October 18, 2012)

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Name/Nombre: Minnie Carol Downing
Organization/Organización:
Address/Domicilio: 9944 Ponderosa Rd Hanford CA 93230
Phone Number/Número de Teléfono: 559 584-1046
City, State, Zip Code/Ciudad, Estado, Código Postal: Hanford CA 93230
E-mail Address/Correo Electrónico:
(Use additional pages if needed/Usar paginas adicionales si es necesario)

I016-1 The DEIR/DEIS does not address the health issues caused by Construction. Air pollution/Valley fever. With dust flying in the air we will have an increase in Valley Fever. The alignment in Kings County both east and west are near schools and can impact the health of our Children.

I016-2 The DEIR/DEIS does not address the noise from maintenance and the trains. It will cause a disturbence in sleep ~~patter~~ This will also cause health problems for Children. Constant noise will cause health problems for all of the people near the rail.

Response to Submission I016 (Minnie Carol Downing, October 18, 2012)

I016-1

Refer to Standard Response FB-Response-AQ-01.

Although valley fever fungi are commonly found in the soil in the Central Valley and can be stirred into the air by anything that disrupts the soil, the potential for the dust from construction would be low due to the dust minimization measures listed in Section 3.3.8 of the Final EIR/EIS, which would reduce fugitive dust emissions to a less-than-significant impact. Valley fever spores would be released when the soil is disturbed; however, due to the minimization measures, fugitive dust disturbance would be minimal. Therefore, impacts from valley fever spores would be less than significant, and health impacts for children would be minimal.

I016-2

Noise generated by maintenance will be much less than actual operations. There are no long-term health or hearing-loss issues associated with operations.

Submission I017 (Jimmy and Linda Duncan, August 16, 2012)

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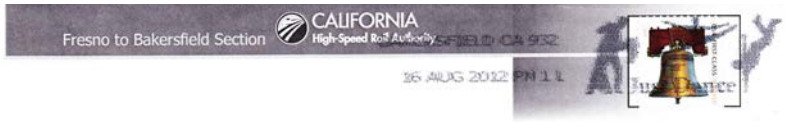
Name/Nombre: Jimmy & Linda Duncan
Organization/Organización:
Address/Domicilio: 2104 Jason St
Phone Number/Número de Teléfono: (661) 589-2670
City, State, Zip Code/Ciudad, Estado, Código Postal: Bakersfield, Ca. 93312
E-mail Address/Correo Electrónico:
(Use additional pages if needed/Usar paginas adicionales si es necesario)

RE: 10413 Glenn St, Bakersfield, Ca. 93312

I017-1 On March, 2011 After looking for a year, we purchased this property for our Son's home. We shopped for the lowest price. It was a foreclosure, and had been vandalized. We spent thousands of dollars for closing costs and repairs. We have worked hard. We won't be able to replace this home.

Linda Duncan



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770 L Street, Suite 800
Sacramento, CA 95814

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Response to Submission I017 (Jimmy and Linda Duncan, August 16, 2012)

I017-1

Refer to Standard Response FB-Response-SO-01.

Submission I018 (Tammy Ecklind, October 18, 2012)

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July 20 – October 19

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Julio 20 – Octubre 19

Name/Nombre: Tammy Ecklind
Organization/Organización:
Address/Domicilio: 1421 whitley AVE Corcoran Ca 93212
Phone Number/Número de Teléfono: 559-362-5871
City, State, Zip Code/Ciudad, Estado, Código Postal: Corcoran, Ca 93212
E-mail Address/Correo Electrónico: TECKLIND@Hotmail.Com
(Use additional pages if needed/Usar paginas adicionales si es necesario)

I018-1

What are the people who will have to re-locate do when the "fair Market Value" does not come close to putting them in a New home, what do the low income housing tenents do when they have to re-locate and there is all ready a 6-8 mth waiting list. How will you address those persons who will loose transportation to work when we loose our Amtrack. Where will the business's that are in the pathway move to.

Response to Submission I018 (Tammy Ecklind, October 18, 2012)

I018-1

Refer to Standard Response FB-Response-SO-01, FB-Response-GENERAL-12, FB-Response-SO-03.

See Impact SO #9 in Section 3.12, Socioeconomics, Communities, and Environmental Justice, for discussion of residential displacements.

Submission I019 (Willis Edwards, October 18, 2012)

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Name/Nombre: Willis Edwards
Organization/Organización:
Address/Domicilio: 614 OTis Ave. SP#1
Phone Number/Número de Teléfono: 1-559-992-3570
City, State, Zip Code/Ciudad, Estado, Código Postal: CORCORAN CA. 93212 (P.O. Box 892)
E-mail Address/Correo Electrónico:
(Use additional pages if needed/Usar paginas adicionales si es necesario)

I019-1 To Whom iT MAy CONCERN: My wife AND I LIVE AT 614 OTis IN A Mobile home. Kings Mobile Lodge is our home. WE HAVE Lived here SINCE 1975. WE ARE SENIORS AND LIVE ON A FIXED INCOME, AS do MANY OTHER PEOPLE. WE only HAVE Two Mobile HOME PARKS in CORCORAN And They ARE full. THEIR is NO WHERE for us To MOVE. WE CAN NOT Afford To Buy A NEW home. THERE will be MANY familys AFFECTED if This Route is chosen. WE ALso believe if This ROUTE is CHOSEN iT will RUIN OUR downTown AREA MANY BUSINESSES will BE AFFECTED AND iT could VERY well DESTROY OUR downTown AREA, which could VERY well MAKE US A GHOST TOWN. WE ASK you To PLEASE Choose ANOTHER ROUTE AND SPARE US AND OUR City This hARdship.

RESPECTfully YOURS

Willis Edwards

Response to Submission I019 (Willis Edwards, October 18, 2012)

I019-1

Refer to Standard Response FB-Response-SO-01, FB-Response-GENERAL-05, FB-Response-GENERAL-10, FB-Response-SO-03, FB-Response-SO-04.

For information on the impact to the community of Corcoran see EIR/EIS Volume I Section 3.12 Impact SO#6 and Mitigation Measure SO-1. For information on the property acquisition and compensation process see Volume II Technical Appendix 3.12-A.

Submission I020 (Ruben Espinoza, October 18, 2012)

CALIFORNIA
High-Speed Rail Authority

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al 20 enen que ser , el o antes

Name/Nombre: Ruben Espinoza
Organization/Organización:
Address/Domicilio: 614 OTIS AV. SP 5
Phone Number/Número de Teléfono: 559-639-96-05
City, State, Zip Code/Ciudad, Estado, Código Postal: Corcoran CA 93212
E-mail Address/Correo Electrónico:
(Use additional pages if needed/Usar paginas adicionales si es necesario)

I020-1 A quien corresponda por medio de este medio les comunico mi inconformidad del paso del nuevo tren por cual ningun beneficio tendra la ciudad de Corcoran.

Response to Submission I020 (Ruben Espinoza, October 18, 2012)

I020-1

Refer to Standard Response FB-Response-GENERAL-14, FB-Response-GENERAL-11.

Your opposition to the project is noted.

Consulte la Respuesta Estándar FB -Respuesta-GENERAL-14, FB-Respuesta-GENERAL-11.

Su oposición al proyecto ha sido notada.

Submission I021 (No Name Esteban, July 26, 2012)

Fresno - Bakersfield (July 2012+) - RECORD #65 DETAIL

Status :	Action Pending
Record Date :	7/30/2012
Response Requested :	No
Affiliation Type :	Individual
Interest As :	Individual
Submission Date :	7/26/2012
Submission Method :	Project Email
First Name :	Unknown
Last Name :	Esteban
Professional Title :	
Business/Organization :	
Address :	
Apt./Suite No. :	
City :	
State :	CA
Zip Code :	00000
Telephone :	
Email :	stevhenking@gmail.com
Email Subscription :	
Cell Phone :	
Add to Mailing List :	
Stakeholder Comments/Issues :	According to your HSR draft, my property is located at hwy 43 and prospect or ST-30. The noise pollution is unacceptable. It must be moved further East. Prime farmland is also at stake and we own 10 acres of organic ultra premium land. I am not in favor of the rail but strike the fair balance but keep it far further east of Wasco.
EIR/EIS Comment :	Yes
Official Comment Period :	Yes

I021-1

I021-2

Response to Submission I021 (No Name Esteban, July 26, 2012)

I021-1

Refer to Standard Response FB-Response-N&V-03, FB-Response-N&V-05.

I021-2

Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-04, FB-Response-GENERAL-10, FB-Response-AG-01.

Submission I022 (Mary Jane Fagundes, October 18, 2012)

Fresno to Bakersfield DEIR/EIS Comments October 18, 2012

Attention: California High Speed Rail Authority

770 L Street, Suite 800

Sacramento, CA 95814

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

My name is Mary Jane Fagundes and I live at 9785 Ponderosa Street, Hanford CA 93230. The following are comments/questions regarding the East/West Alignments through Kings County in regards to your EIR.

I022-1 1. How are you going to mitigate the air flow/breeze which will be immensely lessened by the barrier of the train 75 feet west of our front door?

I022-2 2. I am greatly concerned for our safety and those directly east or west of the train as I will have constant fear of derailment as did happen in China.

I022-3 3. Have you done a study regarding the SEVERE vibration in our area in regards to the foundation of our home as our log home is built on a stem wall not a cement slab? How will you mitigate this?

I022-4 4. Have you done a study regarding the SEVERE vibration in our area in regards to the well that is to the east of our home/yard and septic tank that is to the north of our home/yard within 150 feet of the track? How will you mitigate this?

I022-5 5. How are you going to mitigate these risks of damage to our well, foundation and septic tank?

6. Each and every time we have damage to our foundation, well and septic are you going to be there to repair those damages?

I022-6 7. Have you admitted in your EIR that we in the Ponderosa neighborhood do NOT have city services?

I022-7 8. Have you done a study on how the SEVERE vibration will increase chances of more bugs/termites/critters to uproot in our neighborhood and how will you mitigate those?

I022-8 9. How are you going to mitigate or compensate us for the HUGE DECREASE in value of our home with the train 75 feet from our front door?

I022-9 10. Living ACROSS (we are not technically NIMBY'S) from this train in such close proximity and isolation out of our front window can/will cause emotional/psychological trauma/damage of mental health to us and how will you mitigate this?

I022-10 11. We will lose the enjoyment of our view to the west of farmland, the West side and sunsets as "beauty is in the eye of the beholder" and how will you mitigate this?

I022-11 12. There will be GREAT lack of privacy due to riders above our home as your EIR already states it will not be "feasible: to have a barrier and a barrier probably wouldn't provide privacy much anyway as the train is to be 45 feet up in the air. You have stated that the train will be traveling at speeds of 220 mph however our area has possibly been designated to have a proposed station which will be more trains than NOT will be leaving from a few hundred feet from our door so the privacy will be a continual impact for us. How are you going to mitigate this?

I022-12 13. Emergency response time will be lengthened depending if Lacey Blvd. remains open or is closed.

I022-13 14. Exercise/walking route prohibitive.

I022-14 15. I am concerned about theft and loitering not only from the proposed station but also to the west of us as there is going to be the "temporary" equipment /construction yard which in itself will increase theft and loitering. Now not only will theft/loitering increase but if our emergency response times are lengthened due to possible closure of Lacey Blvd. or other roads that are in close proximity of our home, I am concerned how well will we be protected? Have you studied this?

I022-15 16. Our peace and quiet WILL BE GONE as noise level will be increased to over 91 decibels PLUS which the comfort of the birds in our area will be gone or greatly disturbed. Have you studied this?

I022-16 17. Have you studied how WE will be affected by the CONSTANT distraction of trains coming at speeds of 220 mph every 5 minutes for 19 hours per day? How will you mitigate this?

I022-17 18. There will be increased traffic due to people trying to find "supposed" station and just scoping out the area or just curiosity as well as increased danger in fog with more traffic. Have you done studies on this increase in traffic in our housing area?

I022-18 19. Have you done a study and what will the effects be with the severe vibration on even our sprinklers in both our front and back yards? How will you mitigate this?

I022-19 20. As we are going to have the "temporary" equipment/construction site to the west of us, I am concerned about the nighttime lighting issues and nuisance due to construction possibly 24 hours per day and how will you mitigate this?

I022-20 21. Have you done a study on the noise levels during construction possibly 24 hours per day and how will you mitigate this?

I022-21 22. What kind of access will we have in and out of our housing area/home until construction is complete?

I022-22 23. Temporary impacts to the Ponderosa area will be for how many YEARS AND YEARS???

I022-23 24. You have shown a simulated view of ¼ to ½ a mile away on HWY 43...we want to see a simulated view and study of this at 75 feet from our home to the train and what impact that in itself will have...we don't care about how it looks from ¼ to ½ a mile away...we want to see and we want YOU to see how that looks as we are NOT NIMBYS as the train will be in OUR FRONT YARD NOT OUR BACKYARD!

25. Who cares what the view the public will have from the 43 looking to the station? Really?!

I022-24 26. You have stated in your EIR that the view around the proposed station is NEPA SUBSTANTIAL AND CEQA SIGNIFICANT? How are you going to mitigate this?

I022-25 27. So in order to make us true NIMBYS, if we are FORCED to stay here on Ponderosa, are you going to make us a true NIMBY? That is, we expect at the very least that you make our front yard our

Submission I022 (Mary Jane Fagundes, October 18, 2012) - Continued

I022-25 back yard AND our back yard our front yard...and we will also request that you turn our LOG HOME 180 degrees to essentially have our now front yard be our back yard and we will also need visitors to access our "front" with a asphalted road to the north of our home all the way around to the "now" backyard. Is this a mitigation measure that you will consider? And if not, why?

I022-26 28. You have now stated in your EIR that this will be a blended approach and will for many years run conventional diesel trains on the HSR track. Where is your EIR study on these impacts as diesel trains will be in fact much louder and vibration more severe especially running every 5 minutes for 19 hours per day?

I022-27 29. Please provide me with YOUR HSR AUTHORITY TRANSLATION of "when justified" and "as feasible".

I022-28 30. There is a new fire station on Houston Avenue just east of HWY 43 in Hanford CA. This is the station that provides services to the Ponderosa area. This station will be severely impacted as there is to be an overpass just to the south of this station...literally almost to the front door so first, will this station be moved further back (that is if they have the property or can be permitted to do so) so the fire trucks can get OUT of their GARAGES or are you going to just remove this station? If we do NOT have a station within a certain perimeter of our homes in the Ponderosa area, the ISO (Insurance Services Office) rating will be impacted and we will see an increase in homeowners insurance policies by as much as double if not more. How will you mitigate this?

I022-29 31. Regarding noise and cows, it has been studied that they can tolerate 80 decibels and HSR has stated train will be quieter than that! My question is, with the new blended system and NO ELECTRIFICATION for years, have you done the studies with cows in such close proximity in regards to conventional diesel trains running at 220 mph 19 hours per day every 5 minutes?

I022-30 32. As our natural gas lines are on the west side of Ponderosa, will they be moved and at whose expense to allow those of us on the east side of Ponderosa to have continuation of utility?

I022-31 33. Have you done COMPLETE studies the same as you did for electrified train for conventional diesel trains running on the HSR tracks for an indefinite period of time in regards to noise/vibration/people/animals/insects/land?

I022-32 34. I believe it has been stated that 3 percent will ride HSR, so my question is, what are the other 97 percent going to be using??? Roads, I believe. and they will still need to be repaired/maintained and increased!!!!

35. And my last question and statement is this: When I decide I am going to make/bake a cake...there are SEVERAL things that must be established and considered and purchased and required as to knowledge and skill before this cake can be made. I need to know who I am going to make this cake for, how many people will be eating this cake and how many people my cake can serve, when I will need to have this cake available for them to eat, then I need to decide what I am going to make and whether there will be ingredients that not everyone will be able to eat then I need to see if I have ALL of the ingredients and, if I do NOT, then I see what other ingredients will be required and then I will need to make sure that I have ALL OF THE MONEY I need to purchase these ingredients. Then I will need to have the means available to get to the store to purchase them and upon my return make sure that I have the bowl, working mixer and oven that I need to make the cake and that the ingredients had a place to be stored 'til needed whether a working refrigerator or cabinet. Then at last and ONLY THEN, can I make this cake!!! There will be those that will not eat my cake for whatever reason and there will be others who will and enjoy it thoroughly and yet there will be others that will try it and weren't that crazy about the cake and will never eat it again! My QUESTION to you, California High Speed Rail Authority, have you taken the time to consider all the essential things in order to plan and build this HSR as I have to make my cake?? HAVE YOU established, considered, purchased and have required knowledge as to who you are building this for, how many people will it serve, will everyone be able to enjoy and benefit and use it, when will it be ready, do you have all the things you need and can YOU AFFORD and PAY for them before it is built, will there be adequate time and storage 'til it is ready, will you have ALL of the equipment and employees needed as well as FINANCIALLY PAID for to build, and then, if you say yes to ALL of these things BEFORE YOU START, then and only then, HAVE YOU considered whether this is for only the gratification/financial gain of this builder/baker to proceed or is this for EVERYONE...not just those that are now less than 50 percent that really want this or those that will never ride/eat it or those that will ride/eat it that are curious but will probably never ride/eat it again or if they do...maybe only once a year or every 3 years or whenever they decide to take a trip to Disneyland or to see the Giants/49's play a game? Now is this for the greater good (the less than 50 percent that now would VOTE for it...I didn't say ride it) or for those with pockets to fill...the select miniscule MINORITY?

I022-33

I022-34 I have sent many statements in and made many public comments to you, California High Speed Rail Authority, and to date, I HAVE NEVER HEARD OR HAD A RESPONSE FROM YOU other than Rebecca Nicholas stating to me that "HSR was NEVER going to take our home!" Please take whatever time you need although you did NOT give us enough time to do so in order to study the thousands of pages of the EIR...please respond to me at my current address of: 9785 Ponderosa Street, Hanford CA 93230. I eagerly await your response and I won't bake that cake as by the time you think and handle all of things addressed in my 35 questions and done your due diligence (I might add) my cake would be old, dry, molded, eaten by rodents or probably evaporated into thin air!

Mary Jane Fagundes
9785 Ponderosa
Hanford, CA 93230
Home: 559-584-8017
Cell: 559-707-7286

Response to Submission I022 (Mary Jane Fagundes, October 18, 2012)

I022-1

Refer to Standard Response FB-Response-AG-05.

The conclusion reached in the EIR/EIS is supported by the Agricultural Working Group White Paper entitled "Induced Wind Impacts," which was presented to the Authority Board in July 2011. The White Paper is available on the Authority's website.

I022-2

As discussed in Section 3.11, Safety and Security, of the EIR/EIS, the HST is an electrified passenger train. Therefore, in the event of an accident, there would not be a fire, explosion, or release of toxic gases associated with fuel or cargo. The design of the system also substantially minimizes the potential for accidents resulting in the derailment of trains.

The HST System design takes a collision avoidance approach (Rao and Tsai 2007; Wyre 2011) to preventing train-to-train accidents or collisions with objects entering the HST right-of-way. HST systems take advantage of a system-design approach in which the high-speed train, the automatic train control system, the electrification system, and the rail infrastructure include automation that will control or stop the trains without relying on human involvement. The general approach for the automatic train control system is to monitor the location and speed of all trains on the high-speed network and to coordinate and maintain enough physical separation to allow safe braking. If a fault occurs within the HST network (e.g., intrusion, derailment, significant natural event such as an earthquake), the automatic train control system would immediately slow or stop the train and minimize or eliminate a potential hazard. In areas of high risk, the system-design approach can also provide protection from other intrusions into the HST corridor, such as errant automobiles, trucks, or other unauthorized entry, by the use of intrusion-detection and other monitoring equipment to detect a fault and initiate action, as needed.

This design approach has been very successful in preventing major accidents on fully dedicated HST systems. Since 1964 and the inauguration of the first HST service in Japan, Japanese HST trains (the Shinkansen) have maintained a record of no passenger fatalities or injuries due to train accidents, including derailments or collisions (Central Japan Railway Company 2011). In France, HSTs (the TGV) have been

I022-2

operating for 27 years and currently carry more than 100 million passengers a year. Like Japan, the French HST system has not had a single HST-related passenger fatality on its dedicated HST trackway, which is similar to the dedicated trackway proposed for the California HST System (TGVweb 2011). Unlike France and Japan, Germany's HST, the InterCity Express (ICE), does not use an entirely dedicated track system, but shares track with freight and conventional passenger rail. An HST accident in the late 1990s prompted design changes to the wheels of German ICE trains to remedy a design flaw (National Aeronautics and Space Administration 2007; North East Wales Institute of Higher Education 2004). German ICE trains carry more than 66 million passengers a year. High-speed train service was introduced in China in 2007 and that country now has 6,012 miles of high-speed rail lines, the most of any country in the world (Railway-Technology.com 2012). On July 23, 2011, a high-speed train rear-ended another high-speed train on a viaduct in Wenzhou, killing 40 people and injuring 72. The crash was caused by the failure of signaling equipment. This equipment was determined to have a flawed design that was not properly identified during its development. The official investigation found that the accident was symptomatic of a lack of emphasis on safety by the management of China's rapidly growing high-speed train industry (Areddy 2011).

It is not possible to provide a mathematical probability/risk calculation for an accident on the California HST System that would result in injury to people adjacent to the right-of-way. Such a calculation requires multiyear information on passenger miles traveled and the number of accidents that result in offsite injuries and/or fatalities. There are no HST systems operating in the United States. Therefore, the data do not exist here.

Specific data on passenger miles traveled are not readily available for HST systems in other countries. According to news releases, the Japanese HST system carried approximately 6 billion passengers over 40 years between 1964 and 2004. The French TGV is reported to have carried about 1.7 billion passengers between 1981 and 2010. High-speed rail service in China, which began in 2007, is reported to have carried 796,000 passengers per day by 2010. Although a probability calculation cannot be made for the risk of injury to people adjacent to the California HST System right-of-way, it is clear from the evidence that the risk is very low. HST systems throughout the world have operated for billions of passenger miles for several decades with no injuries to people not traveling on the train.

Response to Submission I022 (Mary Jane Fagundes, October 18, 2012) - Continued

I022-3

The potential for structural damage due to vibrations from HST operations is limited to 30 feet from the tracks. The HST will be elevated as it passes by your log cabin, making the right-of-way width approximately 45 feet. For the structural integrity of your log cabin to be compromised by HST operations, it would have to be within 75 feet from the center line of the HST. Your log cabin is located approximately 136 feet from the center line of the HST. Because your log cabin is outside the 75 foot vibration impact contour, your home will not be impacted by vibration. Buiildings currently located adjacent to the existing BNSF tracks are subject to vibration levels substantially higher than the vibration levels that would be generated by HST operations. If the log cabin is not currently experiencing any of these problems under existing conditions, they would not be expected to experience these problems with the addition of HST operations.

I022-4

Wells/tanks currently located adjacent to the existing BNSF tracks are subject to vibration levels substantially higher than the vibration levels that would be generated by HST operations. If the wells/tanks are not currently experiencing any of these problems under existing conditions, they would not be expected to experience these problems with the addition of HST operations.

I022-5

Refer to Standard Response FB-Response-N&V-04, FB-Response-SO-01.

Wells/tanks currently located adjacent to the existing BNSF tracks are subject to vibration levels substantially higher than the vibration levels that would be generated by HST operations. If the wells/tanks are not currently experiencing any of these problems under existing conditions, they would not be expected to experience these problems with the addition of HST operations.

I022-6

As described in the Revised DEIR/Supplemental DEIS, Section 3.12, Ponderosa is a rural residential area in unincorporated Kings County. This community is on the outskirts of Hanford and does not have many services or facilities, but residents place a high value on living a rural lifestyle near city services, such as hospitals and government

I022-6

services offices, and on having access to regional transportation networks.

I022-7

A detailed study of noise and vibration impacts on movement of insects and wildlife into adjacent neighborhoods was not conducted. However, a noise and vibration study was conducted, the results of which are described in Section 3.4. Impacts associated with the movement of insects and wildlife to adjacent neighborhoods (as a result of vibration) are not anticipated; therefore, no mitigation is proposed.

I022-8

Refer to Standard Response FB-Response-SO-02.

For information on potential HST project impacts on property values, see Section 5.4.4.3 in the Community Impact Assessment Technical Report.

I022-9

The purpose of an EIR and EIS is to evaluate environmental impacts and socioeconomic effects and mitigate those that are identified as potentially significant. The visual impacts of the HST project are evaluated in Section 3.16, Aesthetics and Visual Resources, of the EIR/EIS, beginning on about page 3.16-82 and ending on about page 3.16-96. This analysis includes visual simulations of the project at-grade and on elevated structures. The analysis did find that there would be adverse effects on the visual intactness and unity from the introduction of this visually dominant feature. The Authority and FRA have committed to implementing mitigation measures that attempt to adapt the project to the local context. After implementation of mitigation measures, it was found that the visual impacts would remain significant. The Authority and FRA are not proposing any mitigation for emotional, psychological, or mental health effects because there is no causal link between visual impacts and these conditions. The comment presents no substantial evidence that there might be a link between visual impacts and mental health.

I022-10

Refer to Standard Response FB-Response-AVR-01.

Response to Submission I022 (Mary Jane Fagundes, October 18, 2012) - Continued

I022-10

The commenter's address is among those on Ponderosa Street that would directly adjoin the proposed right-of-way and elevated viaduct, just south of the Kings/Tulare Regional Station–East Alternative. The impact at this location is described on page 3.16-94 in Section 3.16, Aesthetics and Visual Resources, of the Revised DEIR/Supplemental DEIS and would be a significant and unavoidable adverse impact. Mitigation Measures AVR-MM#2c, #2d, and #2e would be applied to this and the other remaining homes in the vicinity. However, because of the direct adjacency of the property to the guideways, complete mitigation is likely to be infeasible.

I022-11

The proposed Kings/Tulare Regional Station–East Alternative would be located approximately 250 feet from the closest home on Ponderosa Road. The residences on this street are about 160 feet from neighboring homes. Therefore, any efforts made by residents to bolster the privacy of their home (e.g., growing hedges, installing curtains) will be sufficient to maintain this level of privacy and no mitigation is required.

I022-12

As indicated in Appendix 2-A of the EIR/EIS, the HST on the BNSF Alternative would be elevated over Lacey Boulevard. This road would not be closed by the project.

I022-13

The proposed HST should have little to no effect on exercise or walking routes. The HST would be grade-separated, and where exisiting roads would be closed, the proposed project would provide roadway overpasses approximately every 2 miles, resulting in no more than 1 mile of out-of-direction travel to cross the HST tracks. In most locations in the Fresno to Bakersfield Section, roadway overpasses would be provided more frequently, approximately every mile or less, because of the existing roadway infrastructure. Consequently, out-of-direction travel would be limited to approximately 1 mile in nearly all locations in the project area.

I022-14

The Kings/Tulare Regional Station alternatives are in an area of Hanford with limited urban development that would generally not provide an environment conducive to loitering. HST stations will have security personnel to discourage loitering and theft. Also, the HST Urban Design Guidelines (Authority 2011i) require implementing the principles of Crime Prevention through Environmental Design. This design method focuses on reducing opportunities for crime through the design and management of the physical environment. Four basic principles of Crime Prevention through Environmental Design will be considered during station and site planning: territoriality (designing physical elements that express ownership of the station or site); natural surveillance (arranging physical features to maximize visibility); improved sightlines (provide clear views of surrounding areas); and access control (physical guidance of people coming and going from a space).

To combat against crime at construction sites and minimize reliance on local law enforcement, construction contractors will institute security measures common to construction sites, including securing equipment and materials in fenced and locked storage areas and using security personnel after work hours.

I022-15

Refer to Standard Response FB-Response-N&V-01.

Impacts on birds and other wildlife species from increased noise levels are discussed in Section 3.7.5.3 (pages 3.7-107 through 3.7-108) and include (among other direct and indirect impacts) permanent disturbance or temporary displacement of special-status birds. Mitigation for the identified impacts are presented in Section 3.7.7. and include the following measures:
BIO-MM#29. Conduct Preconstruction Surveys and Delineate Active Nest Exclusion Areas for Other Breeding Birds.
BIO-MM#30. Conduct Preconstruction Surveys and Monitoring for Raptors.
BIO-MM#31. Bird Protection.
BIO-MM#32. Conduct Preconstruction Surveys for Swainson's Hawks.
BIO-MM#33. Swainson's Hawk Nest Avoidance and Monitoring.
BIO-MM#34. Monitor Removal of Nest Trees for Swainson's Hawks.
BIO-MM#35. Conduct Protocol Surveys for Burrowing Owls.
BIO-MM#36. Burrowing Owl Avoidance and Minimization.

Response to Submission I022 (Mary Jane Fagundes, October 18, 2012) - Continued

I022-15

BIO-MM#58. Compensate for Loss of Swainson's Hawk Nesting Trees.
BIO-MM#59. Compensate for Loss of Burrowing Owl Active Burrows and Habitat.
BIO-MM#65. Offsite Habitat Restoration, Enhancement and Preservation.

I022-16

Refer to Standard Response FB-Response-N&V-03, FB-Response-N&V-05.

I022-17

Refer to Standard Response FB-Response-S&S-01.

Traffic baseline and impact analysis studies were conducted in all station areas to determine impact significance levels and appropriate mitigation measures. Existing Plus Project and Future Plus Project Traffic impact analysis for the Kings/Tulare Regional Station-East Alternative is discussed in the Final EIR/EIS, Impact # 13-Impacts on the Local Roadway Network due to Station Activity, and the corresponding mitigation measure listed in Section 3.2.7.

I022-18

The vibration levels anticipated from train operations will not impact the sprinklers in any way, shape, or form. Areas currently located adjacent to the existing BNSF tracks are subject to vibration levels substantially higher than the vibration levels that would be generated by HST operations. If sprinklers are not currently experiencing any of these problems under existing conditions, they would not be expected to experience these problems with the addition of HST operations.

I022-19

Mitigation Measure AVR-MM#1b, Minimize Light Disturbance during Construction, addresses construction lighting impacts with measures typically applied in this type of situation, including shielding of all lighting used at the construction site so that all direct lighting is directed downward and restricted to within the construction site boundaries. Additional measures such as opaque screening and temporary landscaping could also be applied, if needed to reduce disturbance from construction lights.

I022-20

Construction noise is discussed in Chapter 8 of the Fresno to Bakersfield Section: Noise and Vibration Technical Report (Authority and FRA 2012j) and in Section 3.4.5.3 of the EIR/EIS. Mitigation measures are mentioned in Chapter 8 of the Fresno to Bakersfield Section: Noise and Vibration Technical Report (Authority and FRA 2012j) and Section 3.7.1 of the EIR/EIS.

I022-21

Refer to Standard Response FB-Response-TR-01.

I022-22

Project construction is expected to be completed within 7 years. This period extends from the beginning of the first phase of construction and continues through operational testing of the HST system. It is expected that heavy-construction activities, such as grading, excavating, and laying the HST railbed and trackway, would be accomplished within a 5-year period. The specific construction impacts on the Ponderosa community would not occur throughout the entire duration of the project construction period.

I022-23

Simulations are prepared for representative viewpoints, because it is not practical to develop simulations for every possible view of such a large project covering over a hundred miles of alignment. However, the Revised DEIR/Supplemental DEIS specifically recognizes that the visual impacts of the Kings/Tulare Regional Station–East Alternative would be significant on some adjoining residences, which include the commenter's residence (Section 3.16.5.3). These impacts could be reduced with available mitigation measures, but substantial impacts would be unavoidable at this specific location.

I022-24

Visual resource impacts around the proposed station would be reduced through implementation of Mitigation Measures AVR-MM#2c, #2d, and #2e.

I022-25

Refer to Standard Response FB-Response-SO-01.

Response to Submission I022 (Mary Jane Fagundes, October 18, 2012) - Continued

I022-25

The Authority will negotiate on a case-by-case basis with property owners whose land would be affected by the HST system.

I022-26

Refer to Standard Response FB-Response-GENERAL-13.

I022-27

The commenter does not specify the context in which "when justified" and "as feasible" are used. It is assumed that the commenter is referring to noise mitigation.

As discussed in FB-Response-N&V-05, the Proposed California High-Speed Train Project Noise and Vibration Mitigation Guidelines developed by the Authority (see Appendix 3.4-A of the Revised DEIR/Supplemental DEIS) were used to determine whether mitigation would be proposed for these areas of potential impact. The Guidelines require consideration of feasible and effective mitigation for severe noise impacts (impacts where a significant percentage of people would be highly annoyed by the HST project's noise).

The Authority will refine mitigation for homes with residual severe noise impacts (i.e., severe impacts that remain notwithstanding noise barriers) and address them on a case-by-case basis during final design of the Preferred Alternative. In addition to the potential use of noise barriers, other forms of noise mitigation may include improvements to the home itself that will reduce the levels by at least 5 dBA, such as adding acoustically treated windows, extra insulation, and mechanical ventilation, as detailed in Section 3.4.6, Project.

The Revised DEIR/Supplemental DEIS proposes noise barriers in areas of severe noise impacts resulting from the project, where the barriers meet the cost-effectiveness criteria. To meet the cost-effectiveness criteria, barriers must mitigate noise for more than 10 sensitive receivers, be not less than 800 feet in length, be less than 14 feet in height, and cost below $45,000 per benefited receiver. A receiver that receives at least a 5-dBA noise reduction due to the barrier is considered a benefited receiver.

I022-28

Information about the South Hanford Fire Station can be found in Volume I, Section 3.12.6.4, Affected Environment. Impact SO #1 describes the potential for construction to affect important community facilities and explains that emergency vehicle access for police and fire protection services would be maintained at all times. Consequently, homeowner insurance in the area will not be affected.

I022-29

No, there have not been any studies on diesel trains going 220 miles per hour (mph) for 19 hours every 5 minutes with cows in close proximity. The diesel trains that may be using the HST system will operate at somewhere between 90 and 125 mph, and at maximum capacity expect to run 6 to 8 trains per day in each direction.

I022-30

Refer to Standard Response FB-Response-PU&E-03.

The Authority would positively locate public utilities within the potential impact area (by probing, potholing, electronic detection, as-built designs, or through other means) prior to construction, in compliance with state law (i.e., California Government Code 4216). Where it is not possible to avoid utilities, they would be improved (e.g., steel pipe encasement) so that there is no damage or impairment to the operation of these utilities from the HST project, or relocated. If relocation is required, the Authority would work with the affected utility owner to relocate the utility and restore service to affected customers. Refer to Section 3.6.5.

I022-31

Refer to Standard Response FB-Response-GENERAL-13.

I022-32

The Statewide Program EIR/EIS for the California High-Speed Train System (Authority and FRA 2005) evaluated the expansion of roads and airports as an alternative to the HST for improving intercity travel in California. The Findings and Record of Decision for that EIR/EIS selected the HST as the best alternative to meet this transportation need.

Response to Submission I022 (Mary Jane Fagundes, October 18, 2012) - Continued

I022-32

The evaluation of alternative transportation modes is not relevant to the purpose and need of the Fresno to Bakersfield HST Section.

I022-33

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-17, FB-Response-GENERAL-24.

California has been planning a high-speed train (HST) system since the formation of the High-Speed Rail Authority (Authority) in 1996. The extent of study to date is easily seen by visiting the online library posted on the Authority's website.

By moving people more quickly and at lower cost than today, the HST System would boost California's productivity and also enhance the economy. The commenter is referred to Chapter 1 of the Revised DEIR/Supplemental DEIS, which explains the HST System's purpose, need, and objectives, including travel demand and capacity constraints; Chapter 2, which discusses the background of the HST project; FB-Response-GENERAL-01, which explains why the project is not fully designed at this point; and FB-Response-GENERAL-17 which explains funding sources and that the estimated $6 billion needed to build the Central Valley backbone has been fully funded.

I022-34

Pursuant to NEPA and CEQA guidelines, all public comments collected during a public comment period are formally responded to in the Final EIR/EIS. Copies of comments received during the Draft EIR/EIS comment period can be obtained upon request.

Submission I023 (Jerry Fagundes, October 18, 2012)

Fresno to Bakersfield DEIR/EIS Comments October 18, 2012

Attention: California High Speed Rail Authority Board Members

770 L Street, Suite 800

Sacramento, CA 95814

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

Chairman Dan Richard and California High Speed Rail Authority Board:

My name is Jerry Fagundes and my wife and I are landowners within 75 feet of the proposed East Alignment through Kings County. We reside at 9785 Ponderosa Street, Hanford CA.

I023-1

I have attempted to review the EIR/EIS for the Fresno to Bakersfield Section and I am enclosing comments based on some of the sections I attempted to read but unfortunately there was not ample time to review all sections and impossible to follow up with the technical documents as I can not access these documents with my limited internet accessibility. I have only been able to work off of the copy of the EIR DVD that I obtained at the HSR office in Hanford, CA. I believe we should be allotted more time to review this lengthy document.

Section 3.2 Transportation

I023-2

Page 359 of 2068 Changes in conventional passenger rail service mention of Amtrak San Joaquin rail service as a feeder for HST system. We (CCHSRA-Citizens for California High Speed Rail Accountability) have been to meetings where HSRA has stated that they will have track ready so Amtrak can run on HSR tracks until HST sets are ready to use. No EIR/EIS mention of testing for noise and vibration from diesel train sets. Not same train set connectors between cars to prevent derailing as we are told. HST will not leave the track bed if train derails. However in 2011 EIR/EIS it stated 3.2-48 passenger rail service could be discontinued in Hanford/Corcoran/Wasco. Who decides if Amtrak goes on HST railway? When will this study be prepared?

I023-3

Page 426 of 2068 Table 3.2-46 "roadway segments b" TRMM #8 Add lane to SR198? How do you propose to do this? CalTrans is just finishing a multi year project to go to 4 lane roadway. No room for an extra lane!

Page 247 of 2068 Table 3.2-47 Add signal lights at SR198 intersections on 4 cross streets? Has CalTrans been informed of this major highway change?

Page 428 of 2068 Table 3.2-48 Add signals to major traffic intersections including SR 198? Again who has told Caltrans about this change?

I023-3

Page 436 of 2068 Table 3.2-59 TR#12 Closures of roads. 21 roads on BNSF alternative? Safety of residences would be affected due to increased travel times for fire and law enforcement!

I023-4

Section 3.3 Air quality

Page 480 of 2068 Impact # AQ#2 The VOC NOx PM10Pm2.5 could exceed the SJVAPCD thresholds. NEPA impacts substantial! Valley already pays fines through DMV fees for non attainment on certain days, this will increase within this project!

Page 485 of 2068 LAO reports that GHG will exceed any levels now. Offset of this build verses HSR benefit to air quality will not take place for 40 to 50 years per LAO report. This EIR states less than 6 months of HSR operations will offset construction damages. Where is the EIR study that shows this?

Page 514 of 2068 Impact AQ#18 Odor impacts from operations. HSR engine electric..no Amtrak diesel (yes) If Amtrak uses HSR tracks yes will have odor and noise increases.

Page 516 of 2068 3.3.7.2 Transportation conformity..does not apply to this project? This statement is backed by what study?

I023-5

Section 3.4 Noise and Vibration

Page 3.4-3 "The Fresno to Bakersfield Section: Noise and vibration technical report provides details regarding noise and noise descriptors (Authority and FRA 2012) listed twice on page cannot find on DVD copy? Technical Reports should be available on DVD from the authourity.

Page 3.4-6 Table 3.4-2 Construction vibration damage criteria. See the Fresno to Bakersfield section. Noise and vibration technical report authority and FRA 2012 for description of the metrics not found!

Table 3.4-3 FRA noise sensitive land uses.

Table 3.4-4 Land use category 2 Outdoor Ldn Residence Type 8' residential 67 dba exterior 52 dba interior...Train is to be at 98 dba?

Page 3.4-10 Last paragraph: middle of paragraph "This testing showed that all residential structures within a distance of 86 feet...Have potential to be impacted by vibration levels from the HST project. Additional information technical report again stated as reference. How do you mitigate for vibration to residence.

Page3.4-13 Slab track used for elevated structures exceeding 1000 ft. in length where operating speeds are planned for 220 MPH operations. Slab track would be 3 dba louder than Ballast and tie track. What will be our noise level at approximately 90 feet from track?

Page 3.4-20 Noise and vibration measurement sites BNSF Alternative very few close to track line as proposed for East Hanford. Some tested for noise. No test for vibration?

Submission I023 (Jerry Fagundes, October 18, 2012) - Continued

I023-5

Page 3.4-33 BNSF Hanford East Slab..Distance for moderate impact...2110 to 2500 Feet...sever impact within 2110 feet. The HSRA consultants have told me numerous times that vibration will only be within 25' of elevated structures, no further out.

Page3.4-48 Annoyance from onset of HST pass bys. Distance from center of track within which annoyance or surprise can occur would be 45 feet within row. Where did study come from?

Table 3.4-28 Sensitive vibration receivers along BNSF alternative Hanford 8 residences ..addresses of affected homes?

Page3.4-54 * Acquire easements on properties severely affected by noise. Who and when will this be told to affected homes.

Table 3.4-29 East Hanford area number of severe residential impacts 178!! No sound walls?

Page 3.4-64 East Hanford noise receivers severely impacted 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. How do you pay for property noise easements? Hanford West by pass...also no sound barriers! N&V—MM #5. Special trackwork at crossovers and turnouts increased noise by 6dba over typical operations. Ponderosa community has turnouts and aerial structures.

I023-6

Section 3.8 Hydrology and Water Resources

No mention of number of ground water deep wells for farms or house wells affected by HST construction and ROW acquisition. Must know how many wells affected to allow monies to replace. When will this be addressed?

I023-7

Section 3.12 Socioeconomics' Communities and Environmental Justice

Page 3.12-6 At this state of project design, identifying the individual circumstances each partial acquisition of parcels is not possible. How do you know your costs if you do not know required property?

Page 3.12-66 "In the Ponderosa Road community...I live on this street approximately 90 feet from track line. I would like information on how this will affect my home and way of life. Jerry and Mary Jane Fagundes' Phone: 5595848017. * Footnote states that determination will be made at time of right of way phase of project. When? Date?

Impact SO#9 effects of project operations on children's health and safety...building during construction would be a huge factor of pollution for many years. Must affect health of all of us along right of way!

Page 3.12-80 and 3.12-81 One rural residential subdivision..My community!! My home is not a conventional home. Replacement of it would mean extremely high cost of like property and I hope that you know we will NOT be relocated into a conventional home

I023-7

MM SO-1 Meet with us? Shouldn't that have already taken place so we know what to expect if our route is chosen?

I023-8

Section 4(f)/6(f) evaluation

Page 1821 of 2068 Volume I Page 4-39 3 homes on west bypass routes are historic property and constitute a Section 4(f) use. "49 United States Code (U.S.C.) 303" Section 4(f). Does this mean that they have to be avoided by HST?

4.1 Introduction under Section 4(f) an operating agency of the U.S. Department of Transportation may not approve a project that uses protected properties unless there are no prudent or feasible alternatives to such use and the project includes all possible planning to minimize harm to such properties. Again

I023-9

refers to CHSR Train Fresno to Bakersfield Section: Revised supplemental historic property survey report (Authority and FRA 2012) of which I have no easy way to attain this information.

Sincerely submitted,

Jerry Fagundes

Jerry Fagundes

9785 Ponderosa Rd.

Hanford CA. 93230

Member of: Citizens for California High Speed Rail Accountability

Response to Submission I023 (Jerry Fagundes, October 18, 2012)

I023-1

Refer to Standard Response FB-Response-GENERAL-07.

Environmental documents are written to a specific and legally required standard. Fact sheets, brochures, and summaries were provided to ensure widespread understanding of the environmental documents and ease tin finding pertinent information. Additionally, public workshops were designed to answer and solicit feedback on the documents and to assist the public with finding pertinent information.

I023-2

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-13, FB-Response-N&V-02, FB-Response-N&V-03.

I023-3

Before construction is completed to widen the existing roadway, State Route (SR) 198 will be modeled conservatively as one lane in each direction as the existing roadway, and two lanes in each direction as the future roadway. The mitigation measures in Table 3.2-46 proposed adding a lane in both directions along several portions of SR 198 under existing conditions. However, once the current construction project is completed, further widening would not be needed to address the impacts identified in Table 3.2-6.

Any installation of traffic lights on SR 198 would have to be done by the California Department of Transportation (Caltrans) or under its oversight. As listed in Chapter 6, References, of the Fresno to Bakersfield Transportation Analysis Technical Report (Authority and FRA 2012n), numerous phone conversations and emails were exchanged between December 2009 to April 2010 with District 4 Claims Officers and Transportation Engineers.

The HST project would not preclude Caltrans from constructing any planned road improvements. If proposed HST mitigation measures are constructed under a separate project, then the measure would no longer be required to reduce impacts. All improvements on state facilities will include consultation with Caltrans.

Refer to Impact S&S #8 – Increased Response Times for Fire, Rescue, and Emergency

I023-3

Services from Permanent Road Closures of Section 3.11, Safety and Security, of the Final EIR/EIS. Because the project design would include coordination with emergency responders to incorporate roadway modifications that maintain existing traffic patterns and fulfill response route needs, effects on the response times by service providers would have negligible intensity under the National Environmental Policy Act (NEPA) and would be less than significant under the California Environmental Quality Act (CEQA).

I023-4

Refer to Standard Response FB-Response-AQ-02, FB-Response-AQ-04, FB-Response-PU&E-02, FB-Response-GENERAL-12.
EPA and FRA determined the applicable conformity.

I023-5

Refer to Standard Response FB-Response-N&V-05.

1) Technical reports were prepared to record additional details on the environmental setting, impact assessment methodology, and environmental impacts for the following environmental disciplines: transportation, air quality, noise and vibration, biological resources and wetlands, geology, hazardous wastes, community impacts, relocations, cultural resources, and aesthetics and visual resources. Preparation of technical reports is not required by CEQA or NEPA. CEQA and NEPA do not require that these reports be distributed for public review with an EIR/EIS. However, all of the technical reports except for the reports on cultural resources were posted on the Authority's website for public review at the same time as the Draft EIR/EIS and the Revised DEIR/Supplemental DEIS. The availability of these technical reports was included in the notices to agencies, elected officials, Native American tribes, organizations, individuals on the project's mailing list, and owners of land adjoining and near the alternative alignments.
2) The metrics are found in Table 3.4-2. PPV and VdB are the metrics used to analyze vibration damage.
3) The land use categories found in Table 3.4-3 are the land use categories that the FRA uses.
4) The train will be 99 dBA SEL at a distance of 100 feet. This is a different metric and only deals with a single event. The noise metrics found in Table 3.4-4 deal with the

Response to Submission I023 (Jerry Fagundes, October 18, 2012) - Continued

I023-5

noise metric Leq. Hourly continuous equivalent noise levels (Leq's) are used as a cumulative noise metric over an hour.
5) Vibration mitigation measures can be found in Section 3.4.7 of the report. Mitigation Measure N&V-MM#8 discusses potential mitigation measures for vibration.
6) Your home has an ambient noise level of 55 dBA Ldn and will have a total noise level (sum of project and ambient noise levels) of 75 dBA Ldn, making the FTA noise impact severe. To reduce the noise impact on your residence, mitigation in the form of home improvements to reduce noise levels to below 5 dBA, such as adding acoustically treated windows, extra insulation, and mechanical ventilation may be required, as detailed in Section 3.4.6 in the Draft EIR/EIS.
7) Vibration measurement locations needed to be meet certain criteria in order for measurements to be conducted. Measurements needed to be conducted near residences that were currently located near the existing BNSF rail line as well as the proposed HSR alignment.
8) Table 3.4-14 does not deal with vibration impacts. It deals with moderate and severe impacts due to noise only.
9) The study comes from the FRA *High-Speed Ground Transportation Noise and Vibration Impact Assessment* guidance manual (FRA 2005).
10) The BNSF Alternative through Hanford is no longer being looked at as a potential alignment.
11) Although the exact timeline for the start of property acquisition is undetermined at this time, property owners will receive at least 90 days notice if their property is affected. For more information on the property acquisition and compensation process, see Volume II, Technical Appendix 3.12-A.
12) Refer to Standard Response FB-Response-N&V-05
13) Figures 3.4-15 through 3.4-19 show the locations where the criteria were met for the construction of sound barriers for all HST alternatives. There would be a total of 178 severely impacted sites along the western and eastern sides of the BNSF Alternative through Hanford, which would exceed the $45,000 mitigation allowance for each benefited receiver, and therefore would not be eligible for sound walls. As noted by the commenter, the BNSF Alternative would use mitigation in the form of building insulation or payment of property noise easements to reduce severe impacts along the area east of Hanford, including Ponderosa; see N&V-MM#3: Implement Proposed California High-Speed Train Project Noise Mitigation Guidelines. The Authority will contact property

I023-5

owners eligible to receive building insulation or payment of property noise easements prior to construction of the preferred alternative.

I023-6

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-04.

The HST right-of-way is approximately 100 feet wide. Although the HST may affect numerous wells, since it occupies a very small percentage of the Valley floor and wells are scattered throughout the Valley, it will affect only a very small percentage of the wells. As the construction details for the HST are finalized and land acquisition commences, the location of wells that will be impacted by the construction will be identified. The Authority will fairly compensate landowners for loss or disruptions to their operations during the right-of-way acquisition process. The amount of money needed will be determined as part of the program of land acquisition. For the above reasons the exact number of wells impacted does not need to be known to determine the significance of the impact.

I023-7

Refer to Standard Response FB-Response-SO-01, FB-Response-AQ-05.

Page 3.12-6. Although the identification of individual circumstances surrounding each partial acquisition of parcels was not possible for inclusion in the Section 3.12 analysis, the right-of-way acquisition team is suited to make these determinations before the property acquisition and compensation phase of the project. These specific determinations do not preclude a calculation of the costs associated with property acquisition.

Page 3.12-66. Impacts on the Ponderosa Road community are explained here. Please refer to the Executive Summary, S.11, Next Steps in the Environmental Process, for information on the schedule for the selection of the preferred alternative, publication of the Fresno to Bakersfield Section Final EIR/EIS, issuance of the FRA's Record of Decision and the Authority's Notice of Determination, property acquisition, and start of construction. The property acquisition and compensation process will only begin once all necessary legal processes have been completed, funding has been secured, and

Response to Submission I023 (Jerry Fagundes, October 18, 2012) - Continued

I023-7

construction is ready to begin. This is scheduled to begin in 2013 and last through 2015.

Impact SO #9. In the long-term, the HST project would result in smaller increases in motor vehicle emissions than would occur with the No Project Alternative, and these reductions, along with the Voluntary Emissions Reduction Agreement between the Authority and the San Joaquin Valley Air Pollution Control District, would offset any short-term emission increases associated with the construction and long-term operation of the HST system itself (refer to Section 3.3.6 of the EIR/EIS).

Pages 3.12-80 and 3.12-81. As detailed in Section 3.12 of the RDEIR/SDEIS, Impact SO #7, up to half of the existing ranch-style homes in the Ponderosa Road community potentially could be displaced by the BNSF Alternative. In this location, residents enjoy a unique blend of amenities, and 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 the disrupted residential area to newly constructed housing elsewhere in the vicinity. 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.

Mitigation Measure SO-1. The public outreach process for the Fresno to Bakersfield Section of the HST has been extensive and includes hundreds of public meetings and briefings where public comments have been received, participation in community events where participation has been solicited, and educational materials have been developed and distributed to encourage feedback. These efforts are cited in Volume I, Chapter 7.

I023-8

The Revised DEIR/Supplemental DEIS identified potential Section 4(f) uses to historic homes from implementation of the Hanford West Bypass 1 and 2 alternatives. The BNSF Alternative also results in a Section 4(f) use to a historic property in the location where it parallels the Hanford West Bypass alternatives. Section 4(f) requires that the alternative that results in the overall least harm to Section 4(f) resources be selected when there is no feasible and prudent alternative that will avoid a Section 4(f) use. The Authority and FRA have worked to refine to the Hanford West Bypass alternatives to

I023-8

avoid and/or minimize impacts to these historic structures and a final, overall least harm determination is documented in the Final EIR/EIS.

I023-9

Please note that the document used for the Section 4(f)/6(f) evaluations in Chapter 4, Section 4(f)/6(f) Evaluation, of the Revised DEIR/Supplemental DEIS was the Supplemental Historic Property Survey Report (Authority and FRA 2012m). To protect cultural resources, this report was not distributed to the public at large. This report is available to qualified historians and archaeologists on request to the Authority and FRA. Requests for this and other cultural resources reports were made by several qualified individuals in Bakersfield and Kern County, and copies of the reports were provided to them.

Submission I024 (Kathleen Ellis Faulkner, Faulkner Law Offices, October 18, 2012)

Fresno - Bakersfield (July 2012+) - RECORD #328 DETAIL

Status :	Unread
Record Date :	10/18/2012
Response Requested :	No
Stakeholder Type :	CA Resident
Affiliation Type :	Individual
Interest As :	Individual
Submission Date :	10/18/2012
Submission Method :	Website
First Name :	Kathleen Ellis
Last Name :	Faulkner
Professional Title :	Lawyer
Business/Organization :	Faulkner Law Offices
Address :	
Apt./Suite No. :	
City :	Bakersfield
State :	CA
Zip Code :	93301
Telephone :	661-327-0601
Email :	kathleenfaulkner@me.com
Email Subscription :	Fresno - Bakersfield
Cell Phone :	
Add to Mailing List :	Yes
Stakeholder Comments/Issues :	High speed rail is long overdue. The benefits to our country and our state are manifold. We need to reduce our dependence on oil for transportation. We cannot afford the continued cost building more roads and maintaining the ones we have, nor the air pollution.
EIR/EIS Comment :	No
Official Comment Period :	Yes

I024-1

Response to Submission I024 (Kathleen Ellis Faulkner, Faulkner Law Offices, October 18, 2012)

I024-1

Refer to Standard Response FB-Response-GENERAL-09.

The commenter's support of the project is noted.

Submission I025 (Beatriz K. Fernandes, October 18, 2012)

CALIFORNIA High-Speed Rail Authority

RECEIVED 10/18/2012

Comment Card
Tarjeta de Commentarios

Fresno to Bakersfield High-Speed Train Section
Revised Draft Environmental Impact Report/ Supplemental Draft Environmental Impact Statement (Revised Draft EIR/Supplemental Draft EIS)

La Sección de Fresno a Bakersfield del Tren de Alta Velocidad
Proyecto Revisado de Informe de Impacto Ambiental/ Declaración de Impacto Ambiental Proyecto Suplementario (Proyecto Revisado EIR/Proyecto Suplementario EIS)

Please submit your completed comment card at the end of the meeting, or mail to:
Fresno to Bakersfield Revised Draft EIR/Supplemental Draft EIS Comment, 770 L Street, Suite 800, Sacramento, CA 95814

Por favor entregue su tarjeta completada al final de la reunión, o envíela por correo a la siguiente dirección:

The cc 201 Extended comment period for Fresno to Bakersfield High Speed Train Revised Draft EIR/Supplemental Draft EIS: **July 20 – October 19** er 20, ally, or 2012. El d re d Extendido el periodo de comentario público del Proyecto Revisado EIR/Proyecto Suplementario EIS **Julio 20 – Octubre 19** o al 20 ienen que ser s, el o antes

Name/Nombre: Beatriz K. Fernandes
Organization/Organización:
Address/Domicilio: 9797 Home Ave
Phone Number/Número de Teléfono: (559) 583-9568
City, State, Zip Code/Ciudad, Estado, Código Postal: Hanford, Ca. ; 93230
E-mail Address/Correo Electrónico:
(Use additional pages if needed/Usar paginas adicionales si es necesario)

I025-1 We are not against to new tegnology coming to our communities, it's the fact that Who ever is doing it its affecting a lots a familes, jobs, etc. We lose more jobs that what we going. Affecting what is also importal our enmroment. in our opinion you should go and start the proyet speed rail in San Francisco, Ca. to Los Angeles Ca. and come last to our Central Valley. Who ever is in charge of this Fast Rail YOU ARE AFECCTIN the Lives of our commonities in Kings County

Response to Submission I025 (Beatriz K. Fernandes, October 18, 2012)

I025-1

Refer to Standard Response FB-Response-GENERAL-10, FB-Response-GENERAL-05.

See EIR/EIS Volume I Section 3.12 Impact SO #9 for residential displacements. For information on new job creation and the resulting impacts to the regional economy see Volume I Section 3.12 Impact SO #13. Also see Section 5.1.2 of the Community Impact Assessment Technical Report (Authority and FRA 2012h) for more detailed information on short-term and long-term job creation.

Submission I026 (Cleotilde Figueroa, October 18, 2012)

CALIFORNIA High-Speed Rail Authority

RECEIVED 10/18/2012

Comment Card
Tarjeta de Commentarios

Fresno to Bakersfield High-Speed Train Section
Revised Draft Environmental Impact Report/ Supplemental Draft Environmental Impact Statement (Revised Draft EIR/Supplemental Draft EIS)

La Sección de Fresno a Bakersfield del Tren de Alta Velocidad
Proyecto Revisado de Informe de Impacto Ambiental/ Declaración de Impacto Ambiental Proyecto Suplementario (Proyecto Revisado EIR/Proyecto Suplementario EIS)

Please submit your completed comment card at the end of the meeting, or mail to:
Por favor entregue su tarjeta completada al final de la reunión, o enviela por correo a la siguiente dirección:
Fresno to Bakersfield Revised Draft EIR/Supplemental Draft EIS Comment, 770 L Street, Suite 800, Sacramento, CA 95814

Extended comment period for Fresno to Bakersfield High Speed Train Revised Draft EIR/Supplemental Draft EIS:
July 20 – October 19

El periodo de comentario es del 20 de Julio al 20 de Septiembre del 2012. Los comentarios tienen que ser recibidos electrónicamente, o matasellados, el o antes del 20 de Septiembre del 2012.

Name/Nombre: Cleotilde Figueroa
Organization/Organización:
Address/Domicilio: 2350 Sherman ave. APT-D
Phone Number/Número de Teléfono: 9924262
City, State, Zip Code/Ciudad, Estado, Código Postal: Corcoran, CA, 93212
E-mail Address/Correo Electrónico:
(Use additional pages if needed/Usar paginas adicionales si es necesario)

I026-1 No estoy de acuerdo porque mis hijos usan el tren de L.A. a Corcoran para visitarme; que pasara si mis hijos no pueden venir porque no esta el transporte del tren, Yo Tomo el tren in Corcoran, to Hanford por mirar mi medico, y hacer compras a mi necesidad; por favor Señor Alcalde ho a quien corresponda no permita que entre esa linea rapida por Corcoran.

f. Oct, 11, 2012

Response to Submission I026 (Cleotilde Figueroa, October 18, 2012)

I026-1

Your opposition to the project is noted.

Amtrak service will continue with the proposed project.

Su oposición al proyecto ha sido notada.

El servicio de Amtrak continuara con el proyecto propuesto.

Submission I027 (James Fujita, July 26, 2012)

Fresno - Bakersfield (July 2012+) - RECORD #64 DETAIL

Status :	Action Pending
Record Date :	7/30/2012
Response Requested :	No
Affiliation Type :	Individual
Interest As :	Individual
Submission Date :	7/26/2012
Submission Method :	Project Email
First Name :	James
Last Name :	Fujita
Professional Title :	
Business/Organization :	
Address :	4734 W. Caldwell Ave.
Apt./Suite No. :	Apt. D
City :	Visalia
State :	CA
Zip Code :	93277
Telephone :	
Email :	jim61773@yahoo.com
Email Subscription :	
Cell Phone :	
Add to Mailing List :	

Stakeholder Comments/Issues :

I027-1 Please get the high-speed rail line built as soon as possible.

I027-2 As a resident of the Central Valley who visits family in Los Angeles whenever possible, I would be a regular high-speed train rider if it was available here. I currently use Amtrak to get to Southern California and I would switch to HSR.
I have used Japan's Shinkansen and I would love to see something similar here.

I live in Visalia, so the nearest station for me would be the Hanford regional station. Obviously, the Hanford East location would be more convenient, but I could see advantages to the Hanford West location as well.

In Japan and in Europe (and even here in the United States), train stations have been magnets for new growth and development. I would hope to see more than just a "greenfield" station for Hanford. I would expect to see a hotel or even a shopping center directly linked to the train station.

The Hanford West station would appear to better located for this sort of development. However, there is no reason why Hanford could not direct growth to the east if the Hanford East route was selected.
I would also expect to see local bus or even rail connections to the HSR station at Hanford. The Hanford East location is near the cross-valley freight rail line, which was studied for possible passenger rail a few years ago.

I027-3 Please don't listen to the NIMBYs.

James Fujita
4734 W. Caldwell Ave., Apt. D
Visalia, CA 93277

EIR/EIS Comment : Yes
Official Comment Period : Yes

Response to Submission I027 (James Fujita, July 26, 2012)

I027-1

To maintain its eligibility for federal American Recovery and Reinvestment Act (ARRA) funding, the Authority intends to begin final design and project construction in early 2013. The Initial Operating Section (IOS) first construction is to be completed by December 2018. Service on the IOS is expected to start in 2022.

Your support for the project is noted.

I027-2

Refer to Standard Response FB-Response-GENERAL-10.

Your support of the proposed project is noted. There are two primary alternatives in the Hanford area: The BNSF Alternative (east of Hanford) and the Hanford West Bypass Alternative.

The Authority used the information in the Revised DEIR/Supplemental DEIS and input from agencies and the public to identify the Preferred Alternative in this Final EIR/EIS. The decision included consideration of the project purpose and need and the project objectives presented in Chapter 1, Project Purpose, Need, and Objectives, as well as the objectives and criteria in the alternatives analysis and the comparative potential for environmental impacts.

I027-3

Refer to Standard Response FB-Response-GENERAL-09.

Your support of the proposed project is noted.

Submission I028 (Aaron Fukuda, August 12, 2012)

Aaron Fukuda
7450 Mountain View Street, Hanford, CA 93230

August 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,

I028-1

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.

1 of 2

I028-1

- 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

2 of 2

Response to Submission I028 (Aaron Fukuda, August 12, 2012)

I028-1

Refer to Standard Response FB-Response-GENERAL-07.

Submission I029 (Aaron Fukuda, October 9, 2012)

Fresno - Bakersfield (July 2012+) - RECORD #247 DETAIL

Status :	Action Pending
Record Date :	10/9/2012
Response Requested :	Yes
Stakeholder Type :	CA Resident
Affiliation Type :	Individual
Interest As :	Individual
Submission Date :	10/9/2012
Submission Method :	Website
First Name :	Aaron
Last Name :	Fukuda
Professional Title :	
Business/Organization :	
Address :	
Apt./Suite No. :	
City :	Hanford
State :	CA
Zip Code :	93232
Telephone :	
Email :	cchsraorg@gmail.com
Email Subscription :	
Cell Phone :	
Add to Mailing List :	
I029-1 **Stakeholder Comments/Issues :**	I am reading the DEIR/EIS and one of the large assumptions lodged in the DEIR/EIS is the idea that the train can travel at 220 mph. Although this statement is made, I cannot find any evidence within the report that the system can travel at 220 mph. Although this seems to be a design feature, it does set the level of impacts associated with the project. Can the DEIR/EIS provide an analysis that the system can achieve 220 MPH. I cannot find any evidence in the world that there is a system successfully operating at 220 mph on a daily basis. If 220 MPH cannot be achieved it changes the project description.
EIR/EIS Comment :	Yes
Official Comment Period :	Yes

Response to Submission I029 (Aaron Fukuda, October 9, 2012)

I029-1

The requirements to design and construct a high-speed train system to operate at speeds of over 200 miles per hour (mph) and achieve the legislative travel time mandates are defined in Proposition 1A, the project's enabling legislation. The performance of the High-Speed Train System needed to achieve these requirements is documented in the California High-Speed Train System Basis of Design Technical Memorandum (Authority 2010b).

The Authority evaluated high-speed trainsets from around the world to confirm that available train technologies could satisfy the project's performance requirements. The evaluation is documented in the Selected Train Technologies Technical Memorandum (Authority 2008b) and the Trainset Configuration Analysis and Recommendation Technical Memorandum (Authority 2009c). High-speed trains in China have operated in revenue service at speeds of 220 mph and other high-speed train systems are planned to operate at 220 mph and faster as systems technology advances. Proven technology used elsewhere in the world demonstrates that high-speed rail in California will be able to operate revenue service at speeds of 220 mph.

Submission I030 (Aaron Fukuda, October 17, 2012)

Fresno - Bakersfield (July 2012+) - RECORD #306 DETAIL

Status :	Unread
Record Date :	10/17/2012
Response Requested :	Yes
Stakeholder Type :	CA Resident
Affiliation Type :	Individual
Attorney or Law Firm? :	No
Interest As :	Individual
Submission Date :	10/17/2012
Submission Method :	Project Email
First Name :	Aaron
Last Name :	Fukuda
Professional Title :	
County :	
Business/Organization :	
Address :	
Apt./Suite No. :	
City :	
State :	CA
Zip Code :	00000
Telephone :	559-707-8928
Email :	afukuda77@gmail.com
Email Subscription :	
Cell Phone :	
Fax :	
Comment Type :	Issue (concern, suggestion, complaint)
Add to Mailing List :	
Stakeholder Comments/Issues :	To Whom It May Concern:

I030-1

A few weeks ago I send a letter to the Authority requesting a time extension on the public comment period. With only three days left to read,
analyze and comment on the extensive EIR/EIS, I would like to petition the
Board to again consider an extension.

Has the Authority decided to honor my request? I believe there are others
who have requested the same privileged. I would appreciate an answer today
in order to determine what I am up against for the next several days.

I can be contact via email at afukuda77@gmail.com or my cellphone at 559-707-8928.

Thanks.

Aaron Fukuda

Subscription Request/Response :	
EIR/EIS Comment :	Yes
General Viewpoint on Project :	Unknown
Official Comment Period :	Yes

Response to Submission I030 (Aaron Fukuda, October 17, 2012)

I030-1

Refer to Standard Response FB-Response-GENERAL-07.

Submission I031 (Todd Fukuda, October 18, 2012)

Dan Richard

California High Speed Rail Authority

RE: Revised Draft EIR/EIS Fresno to Bakersfield

I have read the RDEIR/RDEIS part 3.14 Agricultural lands I find that there are many issues that are not detailed enough or not even documented at all. The following are the comments I have, wanting them entered into record.

I031-1

1. With the statement below, you did not follow the guidelines, and is there a study comparing hwy99 I-5 and the current alignment to see which follows the guidelines the most?

3.14 pg. 1 The Statewide Program EIR/EIS (Authority and FRA 2005) concluded that the project would have a significant impact on agricultural lands and committed to mitigation strategies and design practices to reduce those effects. These mitigation strategies and design practices include avoiding farmland when selecting the HST alignment, situating the alignment adjacent to existing railroad rights-of-way or U.S. Geological Survey section lines that divide properties, and securing conservation easements to mitigate impacts. Additionally, to the extent possible, the HST project has been designed to avoid existing railway spurs that service agricultural businesses (e.g., by using overpasses).

I031-2

2. With the statement below who, and what organizations did each member represent in the agricultural community? There were no references.

3.14 pg. 9 The Authority created an agricultural technical working group to study specific issues related to agriculture and the effects of the HST on it. The working group is evaluating project impacts to confined animal facilities. agricultural equipment, induced wind (pollination, bee, dust, and drift), agricultural infrastructure, and irrigation systems.

I031-3

3. Even with descriptions before this statement is still confusing, please reference a hypothetical

3.14 pg. 9 Thus, it is possible that a significant adverse effect may still exist when the intensity of the impact is determined to be negligible or even if the impact is beneficial.

I031-4

4. This fails under NEPA to review impacts other than acreage loss, such as farm labor, minority job loss due to the farmlands non-farmable, irrigation sets which would cause crop loss, and acreage loss. to determine the three categories

3.14 pg 9-10 An impact with negligible intensity would be a farmland conversion that would not be measurable by FMMP, which uses a minimum land use mapping unit of 10 acres. Temporary impacts (e.g., where farmland is restored following construction) also would be of negligible intensity.

I031-5

5. There were no CEQA impacts based on the criteria to see if other alternatives had greater or lesser impacts, comparisons to Hwy99 and I-5.

I031-5

3.14 pg. 10 The project would result in a significant impact on agricultural lands if it would:
• Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance or Farmland of Local Importance (collectively, "Important Farmland"), as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to a nonagricultural use.

• Conflict with existing zoning for agricultural use or a Williamson Act contract in a manner that would result in conversion of Important Farmland to nonagricultural use.

• Involve other changes in the existing environment that would result in conversion of Important Farmland to nonagricultural use because of their location or nature.

I031-6

6. There is no funding for a below grade station. Where is funding coming for a below grade station option. How far would below-grade tracks go to the north and south for a below grade station.

3.14 pg. 25 at-grade and below-grade options

I031-7

7. 3.14 pg. 31 Hanford West Bypass 1 and Hanford West Bypass 2 you say are similar but there is enough differences that they need to be listed, too vague and not acceptable for a final EIR/EIS. It also sets up the West as least impactful therefore according to this statement West alignment is your selected route.

I031-8

8. The EIR cannot define true impacts without adopting the SCS.

3.14 pg. 39 However, since SB 375-compliant SCSs have not yet been adopted and there are no data about their potential effectiveness, it is not known whether SCSs will effectively change this pattern of farmland conversion.

I031-9

9. Farmers, Dairymen and landowners were not consulted with as to whether these classifications under NEPA and CEQA are acceptable just because they are temporary land use. The land might have irreversible damage due to practices done on the land while being used.

3.14 pg. 41 These are impacts with negligible intensity under NEPA and less-than-significant impacts under CEQA because the land would be used temporarily and restored; the land would not be permanently converted to a nonagricultural use.

I031-10

10. We have comments documented that the HST will adversely affect aerial application. A bold statement that I think you can't back up

3.14 pg 44 None of the alternatives would cause adverse wind effects on adjacent agricultural lands nor would they interfere with aerial spraying of the crops.

I031-11

11. The conversion to non-farmable is not defines as to what makes the remnant non-farmable. You cannot refer to the FRA 2011, it was a separate document, and would not detail any changes from that report on. An updated guideline for the conversion is necessary for the reader to comprehend fully.

3.14 pg. 44The Fresno to Bakersfield Section Draft Relocation Impacts Report (Authority and FRA 2011) explains how analysts reviewed each affected parcel by alternative, considered usable and unusable remnants, and made preliminary recommendations for property acquisitions. The farmland conversion reported in this document reflects a 15% design level. As the design develops, this assessment will continue to be updated for the current property acquisition requirements.

I031-12

12. The state will still need highway expansion and airport growth and also without the HST the airports and highways will expand on EXISTING TRANSPORTATION CORRIDORS!/In Kings County and Hanford the

Submission I031 (Todd Fukuda, October 18, 2012) - Continued

I031-12

development has already built a non walkable city/county plan. Also when given a choice of living in a loft or livins with a family in a hope with a yard and on a large parcel of land, people will choose the large parcel home increasing the urban sprawl.

3.14 pg. 45 the HST System would ease the pressure on the state's agricultural land base by reducing the need for expanding airports and freeways./ There is an opportunity to encourage walkable, more-concentrated development patterns

I031-13

13. land will be hard to sell and will authority resolve issues as non compatible irrigation systems, different cropping histories, different fall of the ground

3.14 pg 48 This acreage is included in the permanent conversion data discussed above. Nevertheless, the Authority has committed to implement a Farmland Consolidation Program as part of the HST project, and will attempt to transfer these non-economic remainder parcels to neighboring landowners wherever possible to consolidate with adjacent parcels.

I031-14

14. With the size of agriculture equipment a shoulder plus added roadways right outside of the shoulder leaves a space for equipment and cars, even equipment/equipment to pass. With an overpass with 8ft shoulders on both sides are not sufficient, it needs to be expanded 15-20 ft on both ends at every crossing and underpass. Also the question is it 27 feet from the top of the HST or the tracks?
3.14 pg 48 The specifications are based on county road standards with shoulders 4 to 8 feet wide, depending on average daily traffic (ADT) volumes. The paved surface for vehicles would therefore range from 32 to 40 feet wide with a minimum clearance of 27 feet over the HST.

I031-15

15. It is not the main paved roads, it is the private dirt roads that provide quick access to many canals that in case of a blowout where at most a 250 cfs canal can have a break, and added 5 minutes for travel can cause major damage

Impact AG #8 – Effects on Irrigation Distribution Canals
3.14 pg 55 Irrigation districts have raised concerns that the HST could cause increased response time to emergencies such as a canal blowout. The project would close very few public roads (see Appendix 2-A). Those roads that are closed would typically result in 1 mile, or less, of out-of-direct travel.

I031-16

16. This is just a joke. 1. At 10% of velocity is still 20 miles per hour, how much is it 20 ft out according to your study, 30 ft. At how far out would you be violating Department of Pesticide Regulation rules. 2. It matters when there is a vortex, pesticides gets trapped in the vortex and gets carried alongside the train and slowly works its way down the track and deposited in bordering fields, I have not been satisfied even with the white papers that this has been studied.3. Bees, there has been a study on wing. has there been a study referring to the diesel engines pu on the tracks temporarily, the exhaust is an adverse impact. 4. The studies cited are based out of France, which is not US agriculture. it is also not a 220 mph train, the study was also referred to a personal communication, I think references that are published are the standard, a phone call does not count and lastly the study was done in 1977 that was the main citing.

3.14 pg 56 **Impact AG #10 – Wind-Induced Effects**

I031-17

17. No matter the research there is one thing that all the data will not overcome; reluctance of pesticide applicators and pest control applicators to work with growers with fields bordering the HST due to liability. Crops lost and jobs lost. Will we, the growers have a say in which organizations do our research or is that an ag czar(which I think is a joke) and authority decision. As a complete EIR/EIS these studies would have been finished and included in the reports. It is pathetic that they will do an EIR/EIS then after the finish do the research necessary. PATHETIC!

I031-17

Research. During the HST testing phase, the Authority will fund a program to undertake original research on the wind and noise effects of HST operations on agricultural activities. The Authority will engage qualified researchers within the University of California or California State University system to undertake this research. The researcher will be selected by the Authority through a request for proposal process. The research will include monitoring of noise and wind effects at representative points along the test track. The research period will include the testing phase and extend 2 years after commencement of revenue service. The Authority will publicly distribute a report of the findings of the research program.
The research will include, but is not limited to, the following subjects:
- Generated wind speed, duration, and area of influence from HST trainsets at typical operational speeds.
- Effects of HST-generated wind on the effectiveness of honey bee pollination.
- Dust production as a result of typical HST operations, including entrainment and dispersal patterns of dust in the HST slipstream.
- Generated noise levels and duration from HST trainsets at typical operational speeds.
- Noise contours depicting modeled noise levels at distance from the tracks.
- Practical methods for reducing effects on agriculture.

I031-18

18. In the Ag lands it does not refer to the cooperation of PCA's to growers to HST. The PCA would assume the same liabilities of the pesticide applicator

I031-19

19. The Authority writes of permitting, that is the permits required to build. There is not data in the 3,14 section that refers to permits as in the changes growers would have to file with the Kings County Ag Commissioners and what are the changes.

I031-20

20. Will land be sold using local real estate agents so money stays in the local cities and counties. Will local people with the knowledge of the area be used as appraisers?

3.14 pg 57 **Farmland Consolidation Program.** The Authority will establish and administer a farmland consolidation program to sell remnant parcels to neighboring landowners for consolidation with adjacent farmland properties.

I031-21

My last comment is based on the mismanagement of funds the CHSRA has been given to throw away. I am writing my comments in a list form to be sent with a group hand delivered to Sacramento. I find it irresponsible that we pay millions in a given day for consultants, for CEO's and for per diem fees for board members and we can't afford pre paid post card postage for the the comment cards. I would have to pay out of my pocket for each postage stamp. We delivered comment cards to people in low income minority areas to write comments, first they didn't have transportation to get the cards, they did not have transportation to deliver the cards to the post office and if they wrote several comments as many of us did, they could not afford postage. Many of the people in these communities also did not have computers and many worked and libraries with available documents were open . So this is my last comment and I hope all comments are considered and all questions are answered.

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Response to Submission I031 (Todd Fukuda, October 18, 2012)

I031-1

Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-04, FB-Response-GENERAL-10, FB-Response-AG-01.

As described in Section 1.5, Tiering of Program EIR/EIS Documents, of the Final EIR/EIS, in the 2005 Statewide Program EIR/EIS decision document (Authority and FRA 2005), the Authority and FRA selected the BNSF Railway (BNSF) route as the Preferred Alternative for the HST System between Fresno and Bakersfield. Therefore, the project EIR/EIS for the Fresno to Bakersfield Section focuses on alternative alignments along the general BNSF corridor.

I031-2

The Agricultural Working Group (AWG) was established in July 2011 to assist the Authority with an independent advisory group that could address the issues being raised by the agricultural community. The representatives of this group are specialists and experts in their specific fields of agriculture. They include University of California, Cooperative Extension, California State University, governmental agencies, county agricultural commissioners and agri-business representatives. You can find a list of the members of the working group in the "Agricultural Technical Working Group – Update Memo" currently provided on the Authority's website.

A series of White Papers were produced by this group and were presented to the High-Speed Rail Authority Board. The information contained in the White Papers produced by the Working Group is included in the Final EIR/EIS in FB-Response-AG-04, Severance – Farm Impacts; FB-Response-AG-05, Pesticide Spraying/Dust/Pollination; and FB-Response-AG-06, Confined Animal Facilities. The final White Papers are currently provided on the Authority's website.

I031-3

No, it is not possible to have a significant adverse effect within the definition of a negligible effect. That would make no sense. Adverse effects may exist when an impact is also beneficial. In such cases, the adverse effect is identified as adverse.

Cumulative impacts consist of the accumulated effects of numerous individual actions, including those that may be negligible by themselves. Analysis of cumulative impacts

I031-3

discloses those situations where the project's individual contribution is small, but its contribution to the cumulative impact is considerable. The Land Evaluation and Site Assessment (LESA) analysis undertaken for agricultural effects is an example of an evaluation of cumulative impacts.

I031-4

Refer to Standard Response FB-Response-GENERAL-04, FB-Response-AG-02, FB-Response-AG-03, FB-Response-AG-04, FB-Response-GENERAL-05.

The analysis also addresses impacts on communities. For information on the economic effects on agriculture see EIR/EIS Volume I Section 3.12 Impact SO #15. For a detailed analysis of the effects of the HST project on agricultural production, see Appendix C of the Community Impact Assessment Technical Report (Authority and FRA 2012h). The analysis in this appendix provides these results by county and by project alternative in terms of the number of acres of agricultural production loss, the resulting annual revenue loss in both dollar and percent terms for each type of agricultural product, and the employment loss.

I031-5

Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-04, FB-Response-GENERAL-10, FB-Response-AG-01.

As discussed in Master Response FB-02, I-5 and SR 99 were dismissed as potential alternatives in the 2005 Program EIR/EIS and there is no compelling reason to revive them. CEQA and NEPA require examination of the alternatives selected for analysis in an EIR/EIS. Alternatives that have been rejected require no analysis. Accordingly, there is no reason to make a comparison of the agricultural impacts between the alternatives selected for analysis in the Fresno to Bakersfield Revised DEIR/Supplemental DEIS and those that were not.

I031-6

The Kings/Tulare Regional Station is no longer considered a "potential" station. The Authority and FRA will construct a Kings/Tulare Regional Station in the vicinity of

Response to Submission I031 (Todd Fukuda, October 18, 2012) - Continued

I031-6

Hanford as part of the project. Construction timing would be based on ridership demand in the region, and would occur during Phase 2 of the statewide project, sometime after 2020.

As discussed in Section 2.4, Alignment, Station, and Heavy Maintenance Facility Alternatives Evaluated in the Revised DEIR/Supplemental DEIS, the Hanford West Bypass 1 and 2 alternatives include a design option where the alignment would be below-grade between Grangeville Boulevard and Houston Avenue. The below-grade Kings/Tulare Regional Station–West Alternative would be located along this alignment east of 13th Avenue, between Lacey Boulevard and the San Joaquin Valley Railroad (SJVR) spur.

I031-7

Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-04, FB-Response-AG-01.

The text on page 31 of Section 3.14 is just describing the existing environment. The current existing environment for both Hanford West 1 and Hanford West 2 is very similar in terms of the types of farmland affected and whether or not they are adjacent to any dairies. Where detailed numbers are presented for the prospective impacts of the alternative alignments, the differences between the alternatives are reflected in different acreages of impacts.

The Revised DEIR/Supplemental DEIS did not presuppose the selection of the preferred alternative. It simply noted that the Hanford West alternative alignment would have lesser impacts on agricultural land than would the BNSF Alternative that runs east of Hanford. The Preferred Alternative represents a balance of the least overall impact on the environment and local communities, cost, and constructability constraints of the project alternatives evaluated. The Preferred Alternative is reflected in the Final EIR/EIS.

I031-8

SB 375, adopted in 2008, requires California's urban regions to achieve mandated greenhouse gas (GHG) reductions through coordinated transportation and land use. SB 375 requires that California's metropolitan planning organizations (MPOs) work to

I031-8

achieve GHG reduction targets for 2020 and 2035 for automobiles and light trucks. However, SB 375 does not dictate the quantity of new GHG reductions, nor the procedure for allocating responsibility among MPOs for achieving these reductions. The law stipulated that California Air Resources Board (CARB) adopt the regional targets by September 30, 2010, in consultation with the MPOs. Going forward, CARB must update the targets, at minimum, every 8 years.

The heart of SB 375 is the requirement that each MPO develop and implement a Sustainable Communities Strategy (SCS) as part of its periodic regional transportation plan (RTP). The SB 375 process is iterative, dependent on RTP planning that occurs in 4-year cycles in most California regions. SB 375 benefits can be enhanced over time, especially if new supportive federal and state programs are enacted. The Sustainable Communities Strategy (SCS) will coordinate land use, housing needs, and transportation/transit planning to meet the regional target for the reduction of GHG emissions from automobiles and light trucks established by CARB. Coordination is enforced by requiring transportation projects identified in the RTP to comply with the SCS in order to receive state and federal funding through the regional housing needs allocation. The requirements of SB 375 will be reflected in the 2014 RTPs adopted by the Fresno Council of Governments, Kings County Association of Governments, and Kern Council of Governments. While the HST project is a project that would reduce GHGs, it is not a land use or regional transportation plan and therefore would not require "adopting the SCS" as suggested in the comment.

I031-9

Refer to Standard Response FB-Response-SO-01.

A temporary impact is a term applied to land that will be used for construction purposes of the HST and will be returned to the landowner once construction is completed. During the property acquisition process, losses in the value of the remaining property will be taken into account and compensation will be provided for the loss in productivity.

The lead agency (the Authority under CEQA, the FRA under NEPA) is responsible for determining the potential significance of project impacts. There is no requirement that landowners be consulted in order to obtain their concurrence with the designated level

Response to Submission I031 (Todd Fukuda, October 18, 2012) - Continued

I031-9

of significance.

I031-10

Refer to Standard Response FB-Response-AG-05.

The Authority formed an agricultural working group to assist the Authority on agricultural issues. The working group is composed of university, government agencies, and agri-business representatives. The group completed a white paper on pesticide use impacts in 2012 (this paper is on the Authority's website). That white paper reports there would be no need for new spraying regulations around the HST, as it would be treated like any other transportation corridor.

Statements regarding the termination of aerial application of pesticides within 0.25 mile of the HST alignment are an oversimplification of the aerial application process. To conduct aerial applications of pesticides, each farm must submit an application to its respective County Agricultural Commissioner, detailing what types of pesticide they are proposing to spray. It is after receiving this information that the Agricultural Commissioner places restrictions on the farm's application of pesticides. These restrictions include, but are not limited to: buffer zones, aerial spraying height restrictions, mesh size limits, and wind speed restrictions. When creating these restrictions, the Agricultural Commissioner is looking at nearby sensitive receptors (transportation corridors, houses, business, etc.), the proposed pesticides to be sprayed (different pesticides have different spraying restrictions based on the manufacturer's approved application rates), and several other factors that may influence environmental effects of pesticide application. As there are a large number of factors that influence the possible restrictions placed on aerial application of pesticides, an absolute statement of no spraying within 0.25 mile is not reasonable. There are several options available to farmers so they may not have new spraying restrictions placed on them by their Agricultural Commissioner. For example, the farmer could change the pesticides they are proposing to use that have fewer restrictions; they could also plant a different variety of crops next to the HST that does not require the application of pesticides with spraying restrictions.

The Authority recognizes that possible changes to current spraying practice from the

I031-10

HST may reduce the productivity of a farmer's remaining property. Those possible impacts would be taken into account by the appraiser at the time of right-of-way acquisition, and any diminution in value to a property owner's remaining parcel(s) will be estimated by the appraiser through the appraisal process. This involves appraising the remainder as it contributes to the whole property value before acquisition, then appraising the remainder in the after condition as a separate parcel as though the project was constructed, and including any estimated damages to remainder, such as, cost of re-establishing irrigation systems, replacing wells, providing buffers for aerial spraying, etc. The difference between these "before" and "after" values is called severance damages and will reflect any loss in value to the remainder of the parcel due to the construction in the manner proposed.

Land that may be affected by new aerial application restrictions would still be used by the farmer for agricultural purposes, as would new turning areas at the end of crop rows. Therefore, there is no conversion of agricultural land from project impacts to current aerial spraying practices; however, it is an economic hardship in terms of causing reduced production for the remaining parcels of a farm. As is the case with removing land planted in crops for use as equipment turning lanes, the need to provide a buffer for crop spraying will be analyzed and addressed at the appraisal stage with input from the property owners and managers, and experts in the field.

In April 2013, the Authority reached an agreement with agricultural interests on mitigation of agricultural land impacts for the Merced to Fresno Section of the HST System (Authority 2013). Under that agreement, the Authority will acquire agricultural conservation easements for its impact on Important Farmland (i.e., land classified as prime farmland, farmland of statewide importance, farmland of local importance, and unique farmland) at the following ratios:

- Important Farmland converted to nonagricultural uses either by direct commitment of the land to project facilities or by the creation of remnant parcels that cannot be economically farmed will be mitigated at a ratio of 1:1.
- Where HST project facilities would create a remnant parcel of 20 acres or less in size, the acreage of that remnant parcel will be mitigated at a ratio of 1:1.
- An area 25 feet wide bordering Important Farmland converted to nonagricultural uses by project facilities (not counting remnant parcels) will be mitigated at a ratio of 0.5:1.

Response to Submission I031 (Todd Fukuda, October 18, 2012) - Continued

I031-11

Refer to Standard Response FB-Response-AG-03.

The referenced Relocation Impacts Report describes how the affected parcels were analyzed. Referencing a document used in the analysis contained in an EIR/EIS is perfectly allowable under both CEQA and NEPA.

I031-12

The purpose of this project is to implement the Fresno to Bakersfield Section of the California HST System to provide the public with electric-powered high-speed rail service that provides predictable and consistent travel times between major urban centers and connectivity to airports, mass transit, and the highway network in the south San Joaquin Valley, and to connect the northern and southern portions of the system. The capacity of California's intercity transportation system, including that of the south San Joaquin Valley, is insufficient to meet existing and future travel demand. The current and projected future system congestion will continue to result in deteriorating air quality, reduced reliability, and increased travel times. The system has not kept pace with the tremendous increase in population, economic activity, and tourism in the state, including that in the south San Joaquin Valley. The interstate highway system, commercial airports, and conventional passenger rail system serving the intercity travel market are operating at or near capacity and will require large public investments for maintenance and expansion to meet existing demand and future growth over the next 25 years and beyond. Moreover, the feasibility of expanding many major highways and key airports is uncertain; some needed expansions may be impractical or may be constrained by physical, political, and other factors.

As discussed above, growth is expected to occur within the region under the No Project Alternative as well as with the HST System. High-speed rail would bring significant benefits to California, both in the near term and in the long run. It would benefit individuals and the state as a whole. Benefits would be statewide and would encompass both economic and environmental concerns. California's population is growing rapidly and unless new transportation solutions are identified, traffic and congestion will only worsen and airport delays will continue to increase. The proposed 220-mph HST System would provide lower passenger costs than travel by air for the same city-to-city

I031-12

markets. It would increase mobility, while reducing air pollution, decreasing dependence on fossil fuels, and protecting the environment by reducing greenhouse gas emissions, and would promote sustainable development. By moving people more quickly and at lower cost than today, the HST System would boost California's productivity and enhance the economy. In November 2008, California voters passed Proposition 1A, which provides $9 billion toward the implementation of HST service in California. Please see the Statewide Program EIR/EIS (Authority and FRA 2005) for more information in regard to the rationale for building the proposed HST System. Also see the discussion under Section 1.2.4, Statewide and Regional Need for the HST System with the Fresno to Bakersfield Section.

I031-13

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-03.

The Authority will take responsibility for finding adjacent landowners and selling them the land under the Farmland Consolidation Program. This program is described in the project design features in Section 3.14. The commenter's opinion about the difficulty of selling this land is speculative and is not supported by substantial evidence.

I031-14

Refer to Standard Response FB-Response-GENERAL-11, FB-Response-S&S-01.

Eight-foot (8-foot) shoulders are consistent with the existing road condition, and Caltrans stopping-sight distance criteria were used in developing the length of roadway curvature for improved safety. Additional coordination with the farming community has been initiated and will continue through the design and procurement process.

The 27 feet is measured from the top of the HST tracks.

I031-15

Authority policy is to provide roadway overpasses approximately every 2 miles, resulting in no more than 1 mile of out-of-direction travel for vehicles to cross the HST tracks. In most locations in the Fresno to Bakersfield Section, roadway overpasses would be

Response to Submission I031 (Todd Fukuda, October 18, 2012) - Continued

I031-15

provided more frequently, approximately every mile or less, because of the existing roadway infrastructure. Consequently, out-of-direction travel would be limited to approximately 1 mile in nearly all locations in the project area. The Revised DEIR/Supplemental DEIS, Section 3.11.6, explains that the project design would include coordination with emergency responders to incorporate roadway modifications that maintain existing traffic patterns and fulfill response route needs, resulting in negligible effects on response times by service providers. Section 3.11.5, Safety and Security Environmental Consequences, of the Revised DEIR/Supplemental DEIS provides additional detail regarding emergency response time during HST operations. Due to vehicle size and weight requirements, it is not common for emergency responders to use a private roadway.

I031-16

Refer to Standard Response FB-Response-AG-05.

The Authority formed an agricultural working group to assist the Authority on agricultural issues. The working group is composed of university, government agencies, and agri-business representatives. The group completed a white paper on pesticide use impacts in 2012 (this paper is on the Authority's website). That white paper reports there would be no need for new spraying regulations around the HST, as it would be treated like any other transportation corridor.

The white paper "Induced Wind Impacts" examined the potential for airflow from the train to create wind. It found that the induced wind speed would be 2.3 miles per hour at 30 feet from the train. This distance is well within the right-of-way of the system, so induced wind at the edge of the right of way would be very small. Note that HST trainsets are very streamlined and applicable and are not directly comparable to the wind effects of a typical freight train, even at higher speed. The typical HST trainset is sealed, with windows that cannot be opened, and no gaps between cars. If pesticide applicators apply pesticides close to the HST tracks in accordance with the existing regulations there should be no liability. If they fail to meet those regulations, the applicator would be liable for damages.

Statements regarding the termination of aerial application of pesticides within 0.25 mile

I031-16

of the HST alignment are an oversimplification of the aerial application process. To conduct aerial applications of pesticides, each farm must submit an application to its respective County Agricultural Commissioner, detailing what types of pesticide they are proposing to spray. It is after receiving this information that the Agricultural Commissioner places restrictions on the farm's application of pesticides. These restrictions include, but are not limited to: buffer zones, aerial spraying height restrictions, mesh size limits, and wind speed restrictions. When creating these restrictions, the Agricultural Commissioner is looking at nearby sensitive receptors (transportation corridors, houses, business, etc.), the proposed pesticides to be sprayed (different pesticides have different spraying restrictions based on the manufacturer's approved application rates), and several other factors that may influence environmental effects of pesticide application. As there are a large number of factors that influence the possible restrictions placed on aerial application of pesticides, an absolute statement of no spraying within 0.25 mile is not reasonable. Several options are available to farmers so they may not have new spraying restrictions placed on them by their Agricultural Commissioner. For example, the farmer could change the pesticides they are proposing to use that have fewer restrictions; they could also plant a different variety of crops adjacent to the HST that does not require the application of pesticides with spraying restrictions.

The Authority recognizes that possible changes to current spraying practice from the HST may reduce the productivity of a farmer's remaining property. Those possible impacts would be taken into account by the appraiser at the time of right-of-way acquisition, and any diminution in value to a property owner's remaining parcel(s) will be estimated by the appraiser through the appraisal process. This involves appraising the remainder as it contributes to the whole property value before acquisition, then appraising the remainder in the after condition as a separate parcel, as though the project was constructed, and including any estimated damages to remainder, such as, cost of re-establishing irrigation systems, replacing wells, providing buffers for aerial spraying, etc. The difference between these "before" and "after" values is called severance damages and will reflect any loss in value to the remainder of the parcel due to the construction in the manner proposed.

Land that may be affected by new aerial application restrictions would still be used by

Response to Submission I031 (Todd Fukuda, October 18, 2012) - Continued

I031-16

the farmer for agricultural purposes, as would new turning areas at the end of crop rows. Therefore, there is no conversion of agricultural land from project impacts to current aerial spraying practices; however, it is an economic hardship in terms of reduced production for remaining parcels of a farm. As is the case with removing land planted in crops for use as equipment turning lanes, the need to provide a buffer for crop spraying will be analyzed and addressed at the appraisal stage with input from the property owners and managers, and experts in the field.

The commenter offers only their unsubstantiated opinion regarding the trapping of pesticides "in the vortex" and effects on bees. Similarly, the commenter offers no evidence why studies of wind effects performed in other countries would not be applicable here.

Documented personal communications with an expert is a valid type of reference and is commonly used in CEQA and NEPA practice.

In April 2013, the Authority reached an agreement with agricultural interests on mitigation of agricultural land impacts for the Merced to Fresno Section of the HST System (Authority 2013). Under that agreement, the Authority will acquire agricultural conservation easements for its impact on Important Farmland (i.e., land classified as prime farmland, farmland of statewide importance, farmland of local importance, and unique farmland) at the following ratios:

- Important Farmland converted to nonagricultural uses either by direct commitment of the land to project facilities or by the creation of remnant parcels that cannot be economically farmed will be mitigated at a ratio of 1:1.
- Where HST project facilities would create a remnant parcel of 20 acres or less in size, the acreage of that remnant parcel will be mitigated at a ratio of 1:1.
- An area 25 feet wide bordering Important Farmland converted to nonagricultural uses by project facilities (not counting remnant parcels) will be mitigated at a ratio of 0.5:1.

I031-17

Refer to Standard Response FB-Response-AG-05.

I031-17

The conclusions in the Revised DEIR/Supplemental DEIS are based on the currently available literature studies on these topics. There is no literature on California's HST because it is not in operation. The Authority is committed in its project design features to undertake original research during the testing and early operations periods of the HST System (see Section 3.14.6). The results of that research will be used to refine future operations, if necessary.

I031-18

The Authority has no influence on the liabilities assumed by pesticide applicators and agricultural pesticide control advisors. The HST will be a new transportation corridor that farmers in the area do not currently have to deal with. The pesticide applicators and agricultural pesticide control advisors currently deal with transportation corridors throughout the San Joaquin Valley. In a white paper on pesticide use impacts produced by the Authority (this paper is on the Authority's website), it was found that no new regulations would result from the HST. This means that both the pesticide applicators and agricultural pesticide control advisors would deal with the HST in the same manner as they deal with all other transportation corridors they encounter.

I031-19

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-04, FB-Response-SO-01.

In EIR/EIS Section 3.14.6 Project Design Project Design Features, the Authority accepts the responsibility to help all agricultural operations affected by the HST to re-permit any permits that need to be changed.

To conduct aerial applications of pesticides, each farm must submit an application to its respective County Agricultural Commissioner, detailing what types of pesticide they are proposing to spray. After receiving this information the Agricultural Commissioner places restrictions on the farm’s application of pesticides. These restrictions include, but are not limited to: setbacks, aerial spraying height restrictions, mesh size limits, and wind speed restrictions. When creating these restrictions, the Agricultural Commissioner is looking at nearby sensitive receptors (transportation corridors, houses, business, etc.), the

Response to Submission I031 (Todd Fukuda, October 18, 2012) - Continued

I031-19

proposed pesticides to be sprayed (different pesticides have different spraying restrictions based on the manufacturer's approved application rates), and several other factors that may influence environmental effects of pesticide application. As there are a large number of factors that influence the possible restrictions placed on aerial application of pesticides, an absolute statement regarding the permits that may need to be changed on a farm-specific level is not reasonable.

Several options are available to farmers so they may not have new spraying restrictions placed on them by their Agricultural Commissioner. For example, the farmer could change the pesticides they are proposing to use that have fewer restrictions; they could also plant a different variety of crops adjacent to the HST that does not require the application of pesticides with spraying restrictions.

I031-20

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-02, FB-Response-AG-03.

I031-21

Refer to Standard Response FB-Response-GENERAL-07, FB-Response-GENERAL-16, FB-Response-SO-07.

The Authority appreciates the suggestion and will consider it for future public outreach as the project progresses.

Submission I032 (Aaron Fukuda, October 18, 2012)

AARON FUKUDA

7450 Mountain View Street, Hanford, California 93230
email: afukuda77@gmail.com

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:

Last fall the California High Speed Rail Authority (Authority) released the Draft Environmental Impact Report/Environmental Impact Statement for the Fresno to Bakersfield Section of the California High Speed Rail Project for public review. In early October 2011 the Authority announced that due to comments provided the Authority would be removing the Draft EIR/EIS from public review as the Authority attempted to integrate an alternative alignment through the Kings County area call the Hanford West Bypass. The announcement came very late in the public review process and my review of the Draft EIR/EIS had progress to about 30% of the entire document.

I032-1

The amount of time spent reviewing the Draft EIR/EIS last fall included approximately 250 hours of review. The outcome of that review are the attached notes and comments. Although these comments are provided for the previous Draft EIR/EIS, many of the comments are relevant to the current Draft EIR/EIS that is under review for the Fresno to Bakersfield section of the HSR Project. Please ensure that the questions and comments provided are addressed and the Draft EIR/EIS reflects the adjustment to the document and the cost estimates. Once the changes are made I ask that the Authority release the Draft EIR/EIS for another full 180 day public review process to ensure that the concerns indicated in the attached documents have been addressed. Only after the comments are addressed and released for another public review can the Authority under its lead agency status approve the Draft EIR/EIS for finalization.

Sincerely,

Aaron Fukuda

California High-Speed Train Project EIR/EIS
Fresno to Bakersfield Section

Comments provided by Aaron Fukuda

Section 3.11 Safety and Security

	Page	Comment
I032-2	12	Figure 3.11-4 This figure does not show the Kings County Houston Avenue fire station. This is a new fire station that serves the County and was strategically selected for its proximity to critical roadways and location in relation to the two stations that it replaced. Also located at this site is the Kings/Tulare Fire Training facility, which serves Kings and Tulare County public safety training. Lastly, located at this facility is a helipad, which houses two life flight helicopters that serve emergency services from Bakersfield to Fresno. Recommendation: Correct the map to indicate the facilities located at Houston Avenue and ensure that all analysis and determinations ensure that the facilities are accounted for.
I032-3	15	LAW ENFORCEMENT The Authority has not provided any analysis of County Sherriff crime rates or response times in this analysis. The alignment through Kings County travels through rural agricultural areas where law enforcement is served by the Kings County Sheriff. During the Coordination Process, the Sherriff submitted questions to the Authority, however those to date have not been answered. Recommendation: The EIR/EIS should provide an analysis of law enforcement statistics for Kings County and the potential impact that will be observed.
I032-4	15	Crime rates in Fresno and Bakersfield, where the stations would be located, were compared to crime rates in the state. Can the Authority please confirm within the section and acknowledge to the reader that the Kings Station is not included in this project, therefore indicating the lack of analysis of crime rates in Kings County. This section only analyzes or discusses crime rates in Fresno and Bakersfield. Recommendation: Provide an analysis of crime rates in Kings County and the potential impacts to response times given the alignment through Kings County.
I032-5	15	Three air ambulance services operate in the study area: out of the Fresno Community Regional Medical Center, the San Joaquin Community Hospital, and the Kern Medical Center. This document fails to identify the life flight response team that is located at Houston Avenue, approximately 1/2 miles to the east of Highway 43. This facility will be impacted by the overpass constructed on Houston Avenue. This station is critical to the Valley because it provide medical air support to the area between Fresno and Bakersfield. The remainder of this section must address this facility and reevaluate the impact based on this new station. Changing locations of this facility will impact response times and logistics. Recommendation: Provide recognition and discussion of the helicopter medical response facility located on Houston Avenue and ensure that the document provides a impact analysis that properly addresses the regional and local impact of either eliminating or moving this facility. This analysis should be reconciled with the rest of the document to ensure the appropriate findings and information are provided to the reader and the decision maker.
I032-6	22	Safety and security areas of concern include the potential for accidents to passengers, the public, and property.

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Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

		This statement indicates that an analysis of impacts to existing public safety services is not analyzed. This is an analysis of the safety of the project, however does this document analyze the impacts of this project on existing local safety service? If emergency personel are required to respond to incidences with the HSR including vandalism investigations, medical responses and false alarms, the EIR/EIS does not address the impacts to local emergency response services.
I032-7	23	**Standard implementation of a construction safety and health plan during construction would reduce risks to human health during construction and, therefore, effects would be negligible under NEPA and impacts would be less than significant under CEQA for all alignment and HMF alternatives.** This document does not given enough detail as to the impacts and mitigations in regards to construction safety for the reader to conclude that there are less than significant impacts. The Authority is required to provide an analysis of the potential for construction safety issues and document those in this section. The EIR/EIS does not provide enough information in regards to the construction safety and health plan for the reader and the decision maker to make an informed decision as to the impact of the construction safety.
I032-8	24	**Table 3.11-7** This list of road closures due construction does not correlate with the list of road closures provided in section 3.2 on page 51. This list provided in the earlier section provides those roads that would be closed due to the project. It would seem apparent that these roads would also have to be closed during construction. If this table were to reflect the true number of road closures and the impacts to safety access and safety concerns the analysis may merit an adjustment of the impact under NEPA or CEQA.
I032-9	25	**Criminal activity around HST construction sites would be typical of the types of crimes that occur at other heavy construction sites such as theft of equipment and materials or vandalism after work hours.** This section acknowledges that there will be construction thefts and potential vandalism, however does not provide analysis of the impacts to local law enforcement. The section does include measures a contractor may implement, however does not indicate any impacts to the response of the local Sherriff and the impacts it will have on local law enforcement. Sherriff Robinson pointed out to the Authority in a letter date April 11, 2011 (Letter is included with this packet) that response to these construction thefts will increase the cost to the Sheriffs and also reduce the availability of resources to respond to other safety concerns that would be present as a part of the No Project Alternative. The information provided does not allow the reader or decision maker enough information to make an informed decision on the impact of construction safety on local law enforcement. A study of potential response rates and associated costs and impacts should be presented to the reader and decision maker so that a true impact on law enforcement due to construction impacts can be assessed. Example impact study items: • Number and type of vandalism calls • Investigations into stolen property and equipment • False alarms on security concerns • Accidents caused by construction equipment on roads and on farms • The paperwork associated with filing any of the above concerns The above is not an exhaustive list and should be analyzed by a security specialist.
I032-10	26	**This approach is sometimes referred to as crashworthiness, as both of the lead vehicles, or locomotives, are designed to withstand the impact of a collision (Aldrich 2006).** This document was not included as a part of the EIR/EIS, nor was I able to find it on the internet. The Authority should provide this document and recirculate the document for public review.
I032-11	26	**This approach is sometimes referred to as crashworthiness, as both of the lead vehicles, or locomotives, are designed to withstand the impact of a collision (Aldrich 2006). If applied to all trains, this approach ensures that the trains would be of like weight and**

Page **2** of **6**

		strength and the impact would be distributed equally to the two trains involved in a collision. The result is a safer operating environment with a very heavy lead vehicle. The word "if" in this statement indicates that the Authority has not determined the safety feature to be implemented as a part of this project. The reader is not given enough information or detail to determine the scale or potential for impact.
I032-12	26	**Design of HST systems takes a different approach for ensuring safety of passengers from a train to train collision. This approach is known as collision avoidance (Wyre 2011; Rao and Tsai 2007).** This document was not included as a part of the EIR/EIS, nor was I able to find it on the internet. The Authority should provide this document and recirculate the document for public review.
I032-13	26	**HST systems take advantage of a system design approach in which the HST,** In previous sections the document indicates that the safety program to present train to train collisions was called "positive traction control." Can the Authority explain the difference in these two system?
I032-14	27	**As a result of implementing this system design approach, the direct effects from train-to-train collisions are not expected to occur under NEPA and impacts would be less than significant under CEQA.** There are very few cases in reality that are definite, as this statement is alluding to. The Authority has not provided enough data from either foreign or local information to indicate that no accidents will occur. Recently China had an accident were several people died due to a failure in the same system. An analysis of the ridership forecasted to be on a train, and the potential for failure of this system including the potential for fatality should be provided to the reader to ensure a full understanding of the potential risks and impacts. Recommendation: A full analysis of ridership versus potential for accident and fatalities should be included for the reader to ascertain the potential for a train-to-train accident. This information will help the reader and decision maker make an appropriate level of impact.
I032-15	27	**A horizontal separation of approximately 100 feet between the centerlines of adjacent conventional and HST trackways has been determined to be a distance sufficient to require no additional protection (FRA 1994).** This document was not included as a part of the EIR/EIS, nor was I able to find it on the internet. The Authority should provide this document and recirculate the document for public review.
I032-16	27	**Where a railroad line is less than 100 feet from a HST track and both are at ground level, additional protection may be required, including the use of earthen berms and swales or a physical barrier. The need and type of protection is subject to the distance between tracks and the risk of a derailment.** The Authority should provide analysis and information regarding the need and specific measures to prevent railroad accidents. The reader is not given enough information to know the true risks and impacts associated with adjacent railroad accidents. The Authority is postponing this analysis until a later time, which does not allow for a proper analysis under NEPA and CEQA.
		In the analysis of collision with vehicular traffic, the Authority and this document does not address the potential for collisions with farming equipment and any mitigation measures. Farming equipment is often oversized and can present problems when turning or other various malfunctions. There has been cases within Kings County where farm equipment has been struck by trains. Some were not part of a direct path into the train, however a part of the equipment extended beyond the operators judgment and it was struck by a train. The Authority should provide the reader with an analysis and mitigation measures for this concern. Recommendation: The analysis provided in the EIR/EIS seems to be focused on vehicular traffic in urban setting, an analysis of rural traffic including farm equipment should be provided such that the reader and decision maker has the

Page **3** of **6**

Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

		appropriate level of information to make a informed decision on the impact of motor vehicles with the HSR.
I032-17	28	**The HST tracks would be grade-separated and the roadways improvements near the stations and along the alignment would comply with design standards for pedestrian and bicycle safety. Therefore, effects to pedestrian and bicycle safety would be beneficial under NEPA and impacts would be less than significant under CEQA.** Currently, bicycle and pedestrian traffic located around the alignment trough Kings County is allowed and frequently found on dirt road with only agricultural equipment traffic. This project will force pedestrian and bicycle traffic on to rural roads, which do not accommodate either modes. Therefore, pedestrian and bicycle traffic will be at a great risk of accidents with vehicles. The Authority is request to make an analysis of the potential effects of forcing all modes of transportation on to county rural roads, which are only capable of handling vehicular traffic.
I032-18	29	**The project design includes fire warning and suppression systems, such as sprinklers, as well as emergency exits and notification systems. With implementation of these design features and the standard operating provisions listed in Section 3.11.6, Project Design Features, the risks to human health resulting from fire and explosion would result in negligible effects under NEPA and less than significant impacts under CEQA.** This analysis shows the impacts to passengers and users of stations, however the Authority and this document fails to address impacts to those emergency services that will respond to incidences along the HSR. The Authority is requested to make an analysis of the increase calls for fire suppression and law enforcement and the impact it will have on the remainder of the County. Sherriff Robinson posed the same question on April 11, 2011, however no answer was provided. The EIR/EIS also does not provide enough information for the reader to conclude that the impacts are negligible and less than significant. A full study of the potential for fire risk, the type of fire and the suppression of the fire should be analyzed. For example, if an electrical fire is started on the HSR while running and suppression measure are not implemented, how are the riders protected? In most instances a full fire cannot be contained by suppression methods and a fireman must be called to assist. How will firemen respond to a train traveling at 220mph? How will a firemen access trains stuck on elevated tracks? How will fireman access the trainset while it is in a fence corridor? Recommendation: The EIR/EIS simply does not provide enough analysis for the reader or decision maker to make an informed decision as to the current understanding or future potential of fire hazards and how they can be responded to. The EIR/EIS should include a better analysis of fire risks and suppression efforts.
I032-19	29	**Road crossings in rural areas would occur approximately every 2 miles. Because the project design incorporates roadway modifications to maintain existing traffic patterns and removes many existing at-grade crossings of BNSF tracks, the response times of service provides would be improved. This improvement would be a beneficial effect under NEPA and no impact under CEQA.** The Authority seems to be inconsistent on the number of crossing per mile. This section indicated one every 2 miles, however on drawings and in other sections crossing are provided every mile. The Authority is requested to verify this number and maintain consistency throughout the entire document. Also, the alignment through Kings County does not follow the BNSF for a majority of the alignment, therefore there is no beneficial gain. The Authority should provide a full analysis that indicates beneficial of detrimental effects to Emergency Service agencies response time. From the information provided the reader cannot conclude that this is beneficial nor a no impact issue.
I032-20	29	**in accordance with standard engineering design requirements (NFPA International 2001)** This document was not included as a part of the EIR/EIS, nor was I able to find it on the internet. The Authority should provide this document and recirculate the document for public review.

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I032-21	30	**As discussed above, project design features have minimized the potential for train accidents; therefore, local response to accidents is not expected to be required as any incident would be extremely rare.** The reader was not given enough evidence to support this statement. Items such as vagrants, vandalism, false alarms, animals and theft were not addressed by earlier sections. If an issue does arise, the Authority has not established if the local fire and safety response teams will be responsible. If burdened with real, perceived or even false emergencies, local agencies must use limited resources to handle HSR issues. The use of valuable resources therefore diminishes the ability to meet existing emergency service. The Authority cannot overlook many of these items and must provide more data and information to support these incorrect statement.
I032-22	30	**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** The preparation of this plan indicates that there is an impact to local emergency services, therefore the Authority shall analyze the impacts on local emergency services including the distribution of resources, fiscal impacts and training of staff to handle unique circumstances associated with the HSR.
I032-23	31	**Kings County has zoned land in the vicinity of the station site for commercial development, and the station could help accelerate this development.** The Authority shall verify that the land surrounding the station is zoned for commercial. The land has traditionally been zoned for agriculture.
I032-24	32	**None of the proposed HST facilities would penetrate the Part 77 surfaces for the Station #4 heliport. Therefore, the project would have no effect on the heliport under NEPA and there would be no impact under CEQA.** The EIR/EIS improperly analyzes the heliport at Houston Avenue. This facility is part of the Firestation #4, which means that there are shared facilities. This includes buildings and utilities. The overpass at this location will remove these facilities and therefore require the heliport to be moved. If the heliport is moved, this will obviously impact response times and potentially incur other impacts due to another location. Therefore the EIR/EIS does not provide a full and suitable analysis of the impacts to the heliport. Recommendation: The EIR/EIS should provide a sufficient investigation into impacts on the Kings County heliport to determine the true nature of the impacts.
I032-25	34	**Because of this dam safety program, the potential risk of inundation of the HST due to dam failure is considered to be small. Therefore, the effects of this hazard are considered negligible under NEPA and impacts would be less than significant under CEQA.** The Authority has not provided enough information for the reader to render the conclusion that this is negligible under NEPA and less than significant under CEQA. No data or information has been provided in the DSOD findings or results. However both Lake Success and Lake Isabella are currently being held under water constraints due to seismic concerns. The Authority should also provide a historical overview of flooding in the Tulare Lake Bottom to conclusively show that flooding is not an issue. Lastly, the Authority addressed flooding due to reservoir storage behind a dam, however the area is also subject to flooding from natural water courses that do not have a flood control dam.
I032-26	34	**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 which 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 negligible effects under NEPA and less than significant impacts under CEQA.**

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Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

	This section and discussion represents the sparse discussion of potential impacts and the analysis that this document represents. The document does not address who is to respond or handle any criminal or terrorist activity on the train. Will local law enforcement be forced to respond to these incidences? Has the Authority analyzed is local law enforcement is prepared to handle these cases in and around a HSR? Given the recent terrorist attacks on vulnerable facilities, has the Authority conducted any study on the threat and prevention? The reader is presented to very little to no information that would lead to a negligible or less than significant finding. Recommendation: The Authority is requested to conduct a criminal and terrorist threat analysis, along with an analysis of who and how shall law enforcement respond. This information will allow the reader and decision maker the appropriate level of information to make informed decisions.
38	As the project is implemented and creates an increased demand for services, pay a fair share impact fee to local service providers for the increased services attributable to the project. Please provide more details to the reader on this mitigation measure. Does the local law enforcement, fire protection and other services bill the Authority for added costs? Is this a one-time fee? In the future if response frequency increases to HSR related issues, can the locals request more funds from the Authority, or who shall they request it from? How does a local agency determine what costs to expect if all security threats and plans have not been analyzed? Where will the fees come from? Has this fee been incorporated into the operation and maintenance fees?
	The EIR/EIS fails to provide an analysis of impacts to local law enforcement and fire safety. The EIR/EIS does not provide a description of how these agencies will interface with the HSR project in responding to emergencies and does not provide an analysis of additional responses, access, required special equipment, procedures for interfacing with the HSR. The EIR/EIS also does not include an analysis of potential increases in staff required to respond to issues and concerns. Recommendation: The EIR/EIS is required to provide analysis of these issues as it pertains to law enforcement and fire protection services. Without know the impact to these agencies the EIR/EIS has failed to address the impacts that would affect response times and costs associated with addressing current agency issues.
	The EIR/EIS does not address the relocation or removal of Fire Station #4 in Kings County. This station is new to the County and was built to replace two stations. If this station is moved, the ISO ratings for homes surrounding the station will change, therefore causing a change in insurance rates. The EIR/EIS should look into the impacts that will be caused by moving Station #4. The analysis should also include the impacts associated with the helipad integrated into the station.
	The EIR/EIS does not address the fire training center located just east of the Kings County Fire Station #4. This training facility provides invaluable education to our local fire crews both in Kings County and Tulare County. The EIR/EIS does not address this facility and is requested to include the facility in the analysis.

I032-27

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California High-Speed Train Project EIR/EIS
Fresno to Bakersfield Section

Comments provided by Aaron Fukuda

Section 1.0 Project Need

Page	Comment
4	The purpose of this project is to implement the Fresno to Bakersfield Section of the California HST system to provide the public with electric-powered high-speed rail service that provides predictable and consistent travel times between major urban centers and connectivity to airports, mass transit, and the highway network in the south San Joaquin Valley, and connect the Northern and Southern portions of the system. This statement in the EIR does not properly describe the project laid out in the remainder of the document. The EIR for this project, which is from Fresno to Bakersfield does not include electrification of the rail lines. There are no plans or discussion of providing electrical power to this section of track. The reader, decision maker and public do not have any ability to judge the success of need of this project if electricity is not able to be implemented as a part of this project. Example: After the tracks have been laid, the Authority attempts to provide power to the rail and discovers regulatory, engineering or environmental concerns that do not allow transmission to be brought to the lines. The project objectives are now lost. Recommendations: Strike the statement that discusses electric powered high speed rail, as this is not the intent or outcome of this project. The intent of this project is to install facilities that would potentially serve as a high speed rail service.
13	UPRR operates 25 to 30 freight trains per day, and BNSF Railway operates 35 to 40 freight trains per day through Fresno (Council of Fresno County Governments 2010a). Given the close proximity of the HSR to local freight trains, the potential for accidents and fatalities is increased by placing the project along the BNSF. The EIR does not address this increase in risk, nor provides any mitigation or safety factors. The EIR also does not address alternatives that would reduce or eliminate this potential fatal exposure. Recommendation: Provide an analysis of safety concerns when located near any freight rail and an alternatives analysis that would show reduction in risks.
23	The 2011 RTP indicates that the HST alignment must be within the SR 99 corridor through the San Joaquin Valley rather than the I-5 corridor or coastal alignment; and that the HST must connect the major population centers within the San Joaquin Valley with the Los Angeles Basin and the Bay Area. Most local governments in the county support HST service to existing downtowns. Outlying suburban stations may require substantial local costs to provide connecting transit service to key activity centers downtown, and may encourage premature development. The EIR exhibits this statement from the Kings County 2011 Regional Transportation Plan, however does not reconcile here nor later in the document that the HST is planned by local agencies to be located the SR 99 corridor. The EIR also does not reconcile or discuss the fact that the RTP requires that stations be placed in downtown areas. Recommendation: Provide evidence and/or an equivalent analysis that would show the impacts of the current alignment and the SR99 alternative. For the purposes of NEPA and CEQA these must be carried out at the same level of detail and understanding.

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I032-29
I032-30

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Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

California High-Speed Train Project EIR/EIS
Fresno to Bakersfield Section

Comments provided by Aaron Fukuda

Section 3.02 Transportation

	Page	Comment
I032-31	7	**Traffic counts were conducted in November 2009 to collect turning movement volumes during the peak-hour traffic periods (generally 7 a.m. to 9 a.m. and 4p.m. to 6 p.m.).** In the rural ag areas, did the Authority take into account the heavy farming equipment seasons, which is not seen during the months of November. During November, most agricultural activities have tapered off. Peak traffic conditions occur during the spring, summer and fall months. The study also neglected an entire 7 hour period from 9:00 AM to 4:00 PM. During this time, traffic patterns are not obtained for lunch hour and also during the peak agricultural equipment movement period. Recommendation: To capture the average traffic patterns the Authority should conduct a spring, summer or fall in the rural and agricultural areas, which will better reflect the impacts to this area. Traffic volumes should also be conducted throughout the entire proposed section for an afternoon period.
I032-32	22	**SR 198 is two lanes in each direction west of SR 43, and one lane in each direction east of SR 43. SR 43 is one lane in each direction within the study area.** Highway 198 is currently under construction to be two lanes in each direction east of Highway 43. Recommendation: EIR/EIS should reflect the two lanes in each direction east of Highway 43 and make all appropriate adjustment in studies and finding.
I032-33	23	Table 3.2-8 Can the Authority please verify the LOS for the intersection of Highway 43 and Lacey Boulevard. This is a very congested intersection that is within close proximity to the Highway 198/Highway 43 on/off ramps. This intersection is a very critical junction as it serves a small community to the east, a school to the east and also acts as an entrance to Hanford to the west. It is difficult for me to believe that the LOS for this intersection is better than a D. Recommendation: Please reflect the intersection of Lacey Boulevard and Highway 43 and provide the necessary adjustments to the EIR/EIS studies and findings.
I032-34	23	**The Kings/Tulare Regional Station study area, located northeast of the SR 198 and SR 43 interchange, is in a rural area with no existing bike or pedestrian facilities.** By placing this alignment on outskirts of Hanford, it limits the potential for encouraging pedestrian or bicycle use of the station. However, if pedestrians or bicyclists do attempt to access the station, there are no provisions within the EIR/EIS that would allow safe access to the Station. Recommendation: The location of this station presents a major safety concern and could lead to fatalities when trying to cross Highway 43 and should be reflected as a significant impact with no current mitigation. An analysis of this safety concern should also be addressed in subsequent safety sections.
I032-35	25	Figure 3.2-10 Can the Authority please verify that the speed limit on Highway 43 between Hanford-Armona Road and Grangeville Boulevard is 55 and not 50. Also given that this document is making the case to use future traffic flows, Highway 198 is currently under construction to become a 4-lane highway, therefore the speed limit is anticipated to be 65 mph. Recommendation: Verify all roadway speed limits and reflect updated near future plans for Highway 198 4-lane expansion, and adjust all studies and findings within the EIR/EIS

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I032-36	39	**The connectivity that all project alternatives would provide between local and regional transit and the statewide HST System would result in beneficial impacts for commuters and local residents.** It is inappropriate for the Authority or this document to make this claim without providing any evidence that it will provide beneficial impacts. In the case of Kings County, the alignment is approximately 3 miles from the downtown area, in an area dominated and zoned for agriculture. There are no transportation linkages in that area. Recommendation: EIR/EIS should provide documentation and studies indicating the benefit.
I032-37	48	**Chapter 1.0 describes air travel service at Fresno-Yosemite International Airport, and Meadows Field Airport in Bakersfield. Fares for travel from these airports to San Francisco or Los Angeles are relatively high, especially with respect to the cost of travel by automobile. The HST would compete and would be expected to draw an estimated 16 travelers/day that would otherwise take a plane from or to Kern County (Meadows Field), and one flight is predicted to divert from the Fresno/Madera area Airport. The reduction of air travel would meet the purpose and need of the HST project. Hence, this would be a beneficial aspect of the project and is consistent with the goals set for the project.** Can the Authority please explain how these numbers were derived? Please cite a study or report that shows how these numbers were determine. Also, when one flight is removed, what size of flight this is projected to be? Can the Authority also verify that these numbers are correct. Recommendation: Provide evidence and data that supports the findings of this statement. The EIR/EIS should also perform an economic analysis on the impact that would be seen by the airline industry and its supporting industries near the airport.
I032-38	48	**With the introduction of HST service, the Amtrak San Joaquin rail service may be adjusted to function as a feeder service to the HST System. With the introduction of HST service, passenger rail service could be discontinued at Hanford, Corcoran, and Wasco. Existing riders would shift to HST service as it becomes available (for example, for Bay Area to Fresno trips). The San Joaquin route could be particularly important as a connecting service during Phase 1 HST operations, prior to the extension to Sacramento. There would be a negligible impact under NEPA and a less than-significant impact under CEQA because existing passenger rail service would not be limited or worsened as the HST maintain service between major cities on the San Joaquin route.** For the residents of Kings County this is a Significant Impact. Much of the downtown is centered around the Amtrak Station. Has the Authority conducted an impact analysis on the elimination of the Amtrak station in Hanford and the economic impacts to the community? Did the Authority analyze the income level of riders using Amtrak versus the cost of a HST ticket? Recommendation: The EIR/EIS does not provide a further study of the subsequent impacts of removal of the Amtrak station and service from Hanford. An analysis should be undergone to understand the number of people that utilize Amtrak and will potentially have to drive to Fresno (please see attached Amtrak ridership that indicates 187,000 riders). An analysis should also be done to show the impact of no Amtrak service and the subsequent socioeconomic impact to Hanford.
I032-39	48	**As with the Amtrak San Joaquin service, intercity bus service is likely to change as a result of the introduction of HST service. Many riders could switch to HST service, although the bus service pricing might help retain some riders.** The Authority recognizes the benefit of a lower cost transportation alternative, however does not provide this analysis in the Amtrak section.
I032-40	48	**Because the future plans for the intercity bus service are not defined, the project impacts were not analyzed.** I do not think this is a legitimate reason not to study the impacts to bus systems. The Authority should analyze what impacts would be incurred given current day bus systems and service. Recommendation: Utilizing current bus patterns and service, provide an

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Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-41

	analysis and impact.
49	The change in VMT represents total number of vehicle miles driven that would be removed from regional roadways. This is a net benefit to transportation and traffic operations because a reduction in vehicle miles traveled helps maintain or potentially improve the operating conditions of regional roadways. The reduction of ADT on regional roadways is considered beneficial to the project. Recommendation: Please provide evidence how the numbers created in Table 3.2-12 were derived. Did the analysis take into account: 1. The increase traffic due to the movement of vehicles and farm traffic that must travel around closed roads and no longer be able to travel between fields. Please see the attached Circle T Farms analysis of extra miles added to one farming operation. This analysis should be conducted for all farming operations to determine if the VMT should be reduced in the table. 2. The analysis should also analyze the potential traffic increase due to the removal of the Hanford, Corcoran and Wasco Amtrak stations. Ridership from these stations are significant and approximately 187,000 riders, 18,000 riders and 14,000 rider respectively. These riders will now have to travel to Fresno and Bakersfield and therefore will add VMT and lower the numbers in the table. 3. Did the analysis take into the account the socioeconomic usage of the rail in the valley and the increased traffic that would deter people from using the HSR. People who once used Amtrak may now use cars to travel long distances because ticket prices may be set above an Amtrak Ticket. This would add increased VMT and reduce the numbers in the table. 4. The EIR/EIS also alluded earlier that there will an influx of growth from people moving from urban areas that are seeking cheaper housing and access to the HSR. This increased population will bring more traffic to the area when not commuting to work. This increased traffic will add VMT to the Central Valley and decrease the numbers in the table.

I032-42

50	Kings County, three roads would be closed (9th, North, and Douglas avenues), but all other roads can maintain crossings or would be shifted/modified to avoid the HST within Kings County The EIR/EIS sites the road closures incorrectly. Lansing Avenue in Kings County will also be closed. Recommendation: Provide the appropriate reference number of road closures and adjust any studies of findings to reflect the additional road closure. Also provide a road closure and traffic impact for all roads being closed in Kings County. This study should provide alternate routes and potential increase in VMT.

I032-43

51	There may be potential impacts associated with property access as a result of these closures depending on the availability of alternative access routes. Because of potential property access issues, the road closure impacts are considered to be moderate under NEPA and significant impact under CEQA because local residents and commuters would experience worsening transportation service level due to the need for new access routes or increased travel times and congestion from redirected traffic to adjacent roadways Did the Authority analyze the impacts to properties that will lose access due to the overpasses? Did the Authority look at impacts to traffic due to the agricultural traffic being forced into a confined roadway (overpass) with other traffic? Recommendation: Provide a study to analyze the impacts of road closures to home access and also vehicle and farming practice impacts. These impacts may cause traffic to increase mileage to access destinations, therefore causing the VMT to increase and diminish the benefits of the HSR. Please see the Circle T Farms materials attached to this document, which will show the increase mileage accrued to one farming operation on an annual basis.

I032-44

63	One potential site was studied for the Kings/Tulare Station. Primary access would be from SR 43. The EIR/EIS labels this station as a "potential" station. Recommendation: Provide a

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	definition of "potential". Please identify if this station will be constructed as a part of this project, or will only be optional. If optional, the description and analysis as a part of this project should be removed. There is no guarantee that this station will be built and cannot be added to this project as a part of the analysis.

I032-45

65	the Authority 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. As part of this effort, the Authority may provide a portion of the Kings/Tulare Regional Station parking in downtown Hanford, Visalia, and/or Tulare. Reducing the number of spaces provided at the station area would allow for more open space areas around the station, discourage growth at the station, encourage revitalization of the downtowns, and reduce the development footprint of the station. Location of station parking in downtown areas would be done in consultation with local communities to avoid traffic congestion. The Authority is planning to alter the traffic patterns and development of Downtown Hanford as a part of this project, however I cannot find any analysis of the impacts to downtown traffic or the economic impacts to the downtown area. The statement provided also indicates that a study is to be conducted in the future, however the reader and the decision maker are not given the results of this study to determine its feasibility or impacts. Questions: • Would the proposed transfer of people from cities be sufficient to support the HSR station? • What form of regional transportation would be used, what would be the traffic impacts, air quality impacts and socioeconomic impacts of that system? • What impacts will be incurred with parking lots in the downtown areas? Will buildings need to be demolished? Recommendations: To comport with NEPA and CEQA, the EIR/EIS must provide the appropriate analysis at the time of the release of the EIR/EIS for the reader, the public and the decision maker to have enough information to retain a judgment of impacts. The EIR/EIS should therefore be amended with the proposed study and release for another public review period.

I032-46

66	**Kings/Tulare Area Freight Impacts** – As the proposed HST service would operate on an elevated structure through the Fresno Station area, it would not create any conflicts or impacts to UPRR freight operations. The EIR/EIS has an error in referencing the "Fresno Station" and the "UPRR" in the Kings/Tulare impact statement. Recommendation: Correct error.

I032-47

82	**Maintenance of Pedestrian Access.** Prepare specific construction management plans to address maintenance of pedestrian access during the construction period. 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.

I032-48

82	**Maintenance of Bicycle Access.** Prepare specific construction management plans to address maintenance of bicycle access during the construction period 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

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		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.
I032-49	82	During construction there is going to be a significant restriction of traffic in and around the alignment. How does the Authority intend to allow for public safety services to interface with the construction and road closures?
I032-50	89	Table 3.2-31 There is an incorrect label. The table indicates Seventh Street and Sixth Street. Thatshould be 7th and 6th Avenue. Can the Authority please provide evidence that the inclusion of signal lights along Highway 198 has been studies and is planned or acceptable to CALTRANS.
I032-51	90	Table 3.2-31 Can the Authority please provide information that would show that the signalization as proposed does not impact the traffic patterns within the area, given most of them are located on Highways? Can the Authority also provide evidence that CALTRANS has reviewed this information and can concur that it is acceptable for these two highway systems.
I032-52		There was no discussion on the impacts associated with overpasses. Overpasses will alter the traffic pattern and access to adjacent properties. The Authority should provide an analysis of the impacts associated with overpasses.
I032-53		How does this project intend to address the large farm equipment that must utilize rural roads? How will large farm equipment be impacted and addressed at overpasses?
I032-54		Is there a potential for increased road maintenance due to construction. This project will increase the amount of large construction equipment near rural roads. Increased loading combined with current loading may cause roadway to deteriorate. This will be an additional burden on our County resources to operate and maintain these roads.
I032-55		Has the Authority coordinated the road closures, signaling and traffic impacts with CALTRANS. The document does not seen to make reference to any coordination with CALTRANS. Please provide evidence that the proposed mitigations and analysis that was done meets CALTRANS future and current plans.

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California High-Speed Train Project EIR/EIS
Fresno to Bakersfield Section

Comments provided by Aaron Fukuda

Section 3.03 Air Quality

	Page	Comment
I032-56	13	Traffic data for the air quality analysis were derived from traffic counts and other information developed as part of an overall traffic analysis for the project. Where can this information be found? The ability to understand the traffic patterns that were observed are critical for the Kings County area. Timing of the study is important being that during seasonal operations, Kings County will see a surge of vehicular traffic to meet the agricultural demands. Therefore if the studies that were conducted were at certain times of the year, they may not capture the true traffic patterns. Recommendation: Provide a footnote or citation where to find the information utilized to determine traffic counts for the reader and the decision maker.
I032-57	16	The on-road vehicle GHG emission analysis was conducted using average daily VMT estimates and associated average daily speed estimates, which were calculated for each affected county. GHG emission factors were estimated from EMFAC2007, using parameters set within the program for each individual county to reflect travel within each county and statewide parameters appropriate for each county. Where in the EIR is the report and analysis? Does the VMT estimates take into account • Increase VMT due to the presence of the HST alignment. Please see the attached Circle T Farms analysis which show what one farmer must do to move vehicles around the HSR. The net increase for one farmer could be as high as 20,000 miles per year. • Increased VMT traveled due to the loss of an Amtrak station and the potential for no station in the Kings/Tulare area. This will force drivers from Visalia, Tulare, Hanford, Corcoran, and Wasco to travel to Fresno to access train service. • Did the analysis take into account future traffic due to increased population caused by the HSR. As pointed out in the document, there is a potential for the HSR to create commuter traffic and this will lead to high traffic patterns in the valley. Recommendation: Provide support documents for the VMT study and also ensure that the above issues are addressed.
I032-58	16	According to EMFAC2007, fuel economy factors are forecast to improve only slightly between 2008 and 2035. However, this conclusion does not consider recent regulatory actions that will likely result in substantial future improvements in fuel economy and CO_2 emission factors. The Authority made no attempt to factor in any improvements in fuel economy for vehicles that is improving annually to meet stricter requirements. Therefore, the results of their analysis will be biased towards vehicles being a higher pollutant source. My 2004 truck gets approximately 17 MPG, and my 2011 truck (same model Ford F150) is averaging 21 MPG. The President has mandated that fuel efficiencies reach an average of 35 mpg by 2020, which significantly increase efficiency and reduces emissions. Recommendation: The EIR/EIS should reflect current and future laws and regulations that are intended to improve air quality, without such analysis the results produced will be biased toward the beneficial side of the HSR.
I032-59	21	URBEMIS 2007 uses emission factor data for off-road equipment using the OFFROAD 2007 and EMFAC2007 models.

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		There is a discussion of the methodology used and a reference to a report that was done, however the results are not indicated in this section so the reader does not have an idea of what the levels were that were calculated as they read. Given the volume of this report is prohibitive to be cross referencing. A summary of data should be provided.
I032-60	22	**Emissions from the exhaust of trucks used to haul material to the construction site were calculated using the heavy-duty truck emission factors from EMFAC2007and anticipated travel distances of haul trucks within the San Joaquin Valley Air Basin (SJVAB).** There is a discussion of the methodology used and a reference to a report that was done, however the results are not indicated in this section so the reader does not have an idea of what the levels were that were calculated as they read. Given the volume of this report is prohibitive to be cross referencing. A summary of data should be provided.
I032-61	34	**Table 3.3-4** The data from the tables indicate that in general the particulate material is decreasing. This would indicate that implemented measures are working. Did the Authority calibrate their models with this information to ensure that the future projections will work? Recommendation: Provide evidence to the reader and the decision maker that the reduction in particulate matter has been decreasing and factor this in to the analysis for the HST.
I032-62	38	**The KCAG and TCAG 2011 RTP both discuss the background and purpose of the high speed train through the Central Valley. However, the HST project is not included in the unconstrained projects listed in Appendix II of the KCAG 2011 RTP (KCAG 2010a) or in Appendix D of the KCAG 2011 FTIP (KCAG 2010b) and is therefore not part of the air conformity analysis. In addition, the TCAG air conformity analysis Appendix B (Transportation Project Listing) did not list the HST project, and therefore the HST project was not considered in the TCAG air conformity analysis (TCAG 2010).** Did the Authority consult with these agencies to discuss the impacts of the HST on their plans? These plans took years to develop and made plans and assumptions that may not include the HST. Impacts that now must be incorporated in their reports and may change the outcome. Was an analysis done on the impact the HST and the potential for conflicts with these plans? Recommendation: Coordinate with the local KCAG and TCAG to determine the impact of the HST on current and future plans. Ensure that the HST abides by the air conformity analysis for each area to ensure that the potential for air quality concerns are addressed.
I032-63	38	**Although the HST project is not currently included in the Fresno COG, KCAG, TCAG, or Kern COG transportation conformity determination, it is anticipated that the next revision of the Fresno COG, KCAG, TCAG, or Kern COG RTPs will include the operation of the HST and that the associated conformity determination will likely include the HST project.** The Authority is assuming that an analysis will be done in the future to determine conformity, however this should be conducted as a part of this report to ensure that there is conformity. What is the outcome if a region determines it is not in conformity in the future however HST has already begun construction? In the King County we are anticipating an increase in traffic and VMT due to the fact that vehicles must travel extra distances to get around the HST and also must travel to Fresno or Bakersfield to get to a station. Recommendation: CEQA and NEPA do not allow for studies and analysis to be deferred to a later time. The EIR/EIS must address potential conformity issues and provide that analysis to the reader and decision maker to ensure that the requirements of NEPA and CEQA are met.
I032-64	38 Same argument also found on Page 39	**The length of the alignment for alternatives that deviate from the BNSF Alternative is comparable to the length of the BNSF Alternative for the equivalent section. Therefore, only construction emissions from construction of the BNSF Alternative are analyzed and presented. These emissions will be representative of the construction emissions from the other alternatives.** This is an invalid assumption being that the alternatives have different types of

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		construction involved, therefore they have different equipment and impacts. Urban alternatives will have much more demolition practices in homes and buildings. These impacts have more equipment use and potential for asbestos. Also installation of elevated tracks in the Corcoran area have different construction than the bypass alternatives. Recommendation: Provide an analysis of each different alternative that shows the differing air quality impacts from construction.
I032-65	38	**Operation of the HST alternatives would provide a net regional air quality benefit. Operation of the HST alternatives would generally reduce regional criteria and GHG pollutants and would have a beneficial impact under NEPA and a less-than-significant impact under CEQA on air quality** In previous sections the HST indicated that it would improve the situation, however the document here indicates that regional and local policies will be beneficial also. Was this taken in account when making the analysis? Therefore, HST does not bring anything beneficial to the region or local area.
I032-66	40	**The unmitigated emissions for construction of the BNSF Alternative are included in the Fresno to Bakersfield Section: Air Quality Technical Report (Authority and FRA 2011a).** A summary of the emissions should be included in this section of the report so the reader can understand what the levels are.
I032-67	41	**Impacts affecting air quality plan compliance would last the entire construction period (8 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. With mitigation, the annual construction emissions would exceed the SJVAPCD CEQA thresholds for VOC, NO_x, PM_{10}, and $PM_{2.5}$ for the entire construction duration. Therefore, project construction may impede implementation of the 8-hour SJVAPCD 2007 Ozone Plan, the 2004 Extreme Ozone 1-hour Attainment Demonstration Plan3, the 2007 PM_{10} Maintenance Plan, and 2008 $PM_{2.5}$ Plan.** Although the Authority categorizes short-term as 8 years, this is a significant impact on the region. The region is currently paying fines to EPA and enduring taxation due to elevated particulate matter. Therefore, if this project is increasing the fines levied against the region and prolonging any taxation, this should be analyzed. Recommendation: Provide a study and mitigation to indicate how the HST will address the increased air quality impacts and potential fines that citizens will pay. This should also be addressed in the socioeconomic impacts.
I032-68	44	**Material-Hauling Emissions Outside of SJVAB** The Authority is mainly addressing ballast material. There is a significant amount of material required to build the 40+ overpasses through the area. Has the Authority addressed where this material will come from and the environmental impact of using dirt from the area?
I032-69	44	**Therefore, under NEPA, the material hauling emissions outside of SJVAB would be substantial for NO_x emissions in the South Coast Air Basin and the Mojave Air Basin, but would be negligible for all other pollutants in these air basins. Under NEPA, the material-hauling emissions would be negligible for all pollutants in the other air basins.** The Authority needs to provide the level information in this section of the report so the reading can see where the anticipated levels are. This statement assumes that the Authority did the analysis correctly. Recommendation: Provide an analysis of the local and outside regions where material will be hauled from. The data and levels should be provided within this section so that the reader and the decision maker can have the appropriate level of information.
I032-70	46	**Sensitive receptors (such as schools, residences, and health care facilities) are located near the construction areas in Fresno, Bowles, Corcoran, Wasco, Shafter, Rosedale, Green Acres, and Bakersfield. During construction, sensitive receptors would be exposed to diesel particulate matter exhaust, which CARB classifies as a carcinogen.** The Authority does not define what the criteria is for being a receptor, however this list

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		does not include Kit Carson School and Lakeside School in Kings County. The analysis performed for Sensitive Receptors should include all schools.
I032-71	46	**The concrete generated would include concrete for the elevated structures (elevated rail) and retaining wall (retained fill rail).** The analysis does not include concrete that will be required for stations, maintenance facilities or for the numerous overpass structures. Recommendation: EIR/EIS should include an analysis of the concrete used for stations and supplemental structures along the alignment.
I032-72	48	**Motor vehicle emissions would decrease in the region as a result of the HST project. These reductions, however, would be offset by operational emissions associated with the train itself (the HST would be powered by electricity from the regional power grid), by station operations, and by HMF operations.** This analysis seems to disregard the increased traffic in Kings County and other areas due to the interference of the alignment. VMT is anticipated to increase as farmers on each side of the track must move around the track and in some cases increase their VMT by 10 miles for vehicles and for farm machinery. This analysis should also include the extra vehicle miles traveled for people from Visalia, Tulare and Hanford that must travel to Fresno or Bakersfield to get to a station. This report indicates that only the Fresno and Bakersfield stations are programmed at this time. Please see the attached Circle T Farms analysis which shows increase mileage for one farming operation in the Central Valley. An analysis of other operations will show that this increase of VMT is several magnitudes larger. Recommendation: Provide a detailed analysis of the increased VMT that will be created by the HST. This should include increase vehicle and farm equipment mileage to manage the interference of the HST and the increase VMT to travel to stations. These should not be the only areas studied and the EIR/EIS should show evidence that all areas have been investigated.
I032-73	51	**The Statewide Program EIR/EIS (Authority and FRA 2005) demonstrated that the overall statewide project would reduce long-distance, city-to-city travel along freeways and state highways within the SJVAB and would reduce long distance, city-to-city aircraft take-offs and landings within the air basin.** Since the time of the Programmatic EIR in 2005, the analysis has changed and the alignment has changed through our area. The Authority should provide evidence that the summaries in the 2005 report still hold true. In the Kings County area we are facing the potential of no station and a new isolation corridor through our county, which will increase traffic. Recommendation: Provide an analysis that indicates that findings done in 2005 are still appropriate at the project level EIR/EIS in 2011.
I032-74	51	**The regional VMT for the HST alternatives would decrease by about 10% compared to the No Project Alternative (2035) and about 2% compared to existing conditions. These reductions would result in lower pollutant emissions.** Where is the data or reports that indicate and show evidence for these reductions. As discussed in my earlier comments, there is the potential for increased VMT from having to navigate around the HSR and also having to travel to access stations. Recommendations: provide within the EIR/EIS section the data that was utilized to determine the findings for the reader and the decision maker. Also ensure that any analysis indicates potential areas for increased VMT due to the HST.
I032-75	52	**The HST project is projected to affect four regional airports: Fresno Yosemite International Airport, Hanford Municipal Airport, Visalia Municipal Airport and Meadow Fields Airport. The Statewide Program EIR/EIS (Authority and FRA 2005) demonstrated that the long-distance, cityto- city aircraft take-offs and landings within the Fresno to Bakersfield Section would be reduced by about seven flights per day.** The reduction of 7 flights per day would have a significant impact on FYI. Did the Authority analyze the loss of revenue and jobs at FYI and its socioeconomic impact?
	54	**Overall, the project operation would have a net beneficial impact on GHG emissions.**

I032-76		Can the Authority provide the report that indicates the beneficial impact? Did the analysis include increase VMT due to an isolation corridor and the travel distance to get around the tracks? Did the analysis take into consideration the increase VMT that residents will have to travel to Fresno or Bakersfield to get to a station? Did the analysis take into account the growth inducing potential of the HST on the Central Valley?
I032-77	56	**Table 3.3-15** Can the Authority please describe how the numbers were developed in this table? Understanding how the numbers were developed, helps the reader understand if there was an error or missing variable. Example, did the Authority take into account the increased farm traffic that will be located on Kings County roads due to the impassable corridor the HST creates?
I032-78	59	**The project would not worsen traffic conditions at intersections along the alignment because the alignment and roadways would be grade-separated.** Through the Kings Count area, the alignment of the HST creates an impassable corridor. Traffic that once moved between fields on farm roads will need to travel on roads and overpasses to get to adjacent fields. This now puts more vehicular traffic on the roads and forces farmers to use the roads and overpasses to move farm equipment. Therefore, the Authority should investigate how much increased vehicular traffic and farm equipment traffic will be increased. This is not addressed in the Traffic section as there is no recognition that the HST will create increased traffic.
I032-79	71	**All off-road construction diesel equipment greater than 50 hp will have to meet at least Tier 4 California Emission Standards unless such engines are not available for a particular piece of equipment. In the event that Tier 4 engines are not available for any off-road engine larger than 50 hp, the engine will have tailpipe retrofit controls that reduce exhaust emissions of NO_x and PM to Tier 4 emission levels.** Has the Authority discussed this mitigation measure with construction companies? This will add a significant cost to the project being that there are currently no tier 4 equipment on the market and the delivery of this equipment is unknown at this time, however most construction companies carry a fleet that is ready. This essentially means that for every contractor there will be a majority of new equipment purchased by this project. Given that tier 4 equipment is not available, has the EIR/EIS analyzed the air quality impacts that will ensue due to the use of Tier 3 equipment. Recommendation: Provide an analysis of impacts due to the usage of Tier 3 equipment such that the reader and the decision maker reading the EIR/EIS have a better understanding of the potential impacts. Mitigation Measures should also be appropriately adjusted and address the potential for increased fines from EPA during construction, which all residents must pay.
I032-80		There seemed to be no discussion on increased population due to commuters in the valley. If we have increase populations, we could see an increase in local traffic, which will increase our VMT. In the Kings County area we are looking to have an overall increase in VMT. The Authority must conduct its study of VMT based upon the Fresno and the Bakersfield station only being that those are the only two being studied and constructed under this project. It is also my understanding that our section will not be electrified until the entire section is build. So, the short-term analysis can lead to long term is the tracks are never used for HST's.
I032-81		Did the Ridership Forecast factor in income level and family size. As the cost of this system keeps increasing, I would assume that the cost of the ticket is increasing. As costs get higher certain socioeconomic groups will not be able to afford a trip. The analysis should also look at family size and determine if a car if more affordable if you can comfortably fit 4 people.
I032-82		Is NEPA and CEQA supposed to look at benefits? They keep making remarks that this is beneficial, but provide no evidence.
I032-83		The analysis seems to only take into account the alignment, the stations and the maintenance facility. They do not properly analyze any smaller facilities that are part of

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	the project and also the overpasses and road projects that are associated with the alignment.

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Fresno to Bakersfield Section

Comments provided by Aaron Fukuda

Section 3.04 Noise and Vibration

	Page	Comment
I032-84	10	Noise exposure limits for each are an SEL of 100 dBA from passing trains as shown in Table 3.4-5. What is the basis for the SEL to be set a 100 dBA?
I032-85	12	Eighteen vibration propagation measurements were taken to estimate the vibration transfer mobility along the proposed alignment between Fresno and Bakersfield. Given the length of this section of alignment 18 samples is not sufficient. There is a great deal of variation in soil strata and did 18 tests capture a complete picture? What criteria was utilized to arrive at the number of samples taken? Recommendation: Given the length of this alignment and the differing characteristics such as soil type, land use and presence of facilities, the EIR/EIS study should have enough sampling sites to ensure that each combination of land use and characteristic is addressed.
I032-86	13	These adjustments assumed that trainsets would be distributed-power EMU vehicles with 10 cars and a maximum speed of 220 mph. This report does not indicate the other levels of trainsets to determine if the appropriate level was chosen. Please provide the available choices and the criteria for the selection. Also, given that the Authority has not decided on a design of train, did the Authority select the most conservative value, otherwise the Authority will be forced to live within the limits of the identified trainset.
I032-87	18	The noise measurement locations are shown graphically on Figures 3.4-4 through 3.4-8. The noise samples that were taken in Kings County are not located near the alignment. Several measurements are several miles away from the alignment and do not represent the ambient noise around the proposed alignment. Recommendation: Provide a new noise and vibration analysis with sites located along the alignment from through Kings County. Also, please indicate on the map the location of any sensitive receptors and/or homes that will be impacted by noise and vibration.
I032-88	26	Operation of the HST along the Fresno to Bakersfield Section would increase noise levels above the ambient noise environment by as much as 22 dBA L_{dn} (Authority and FRA 2011). Some of the ambient sound levels were as low as 44 dBA, therefore the 22dBA could be as high as 45+ dBA increase, which is significant. Recommendation: After providing average dBA levels adjusted for locations along the proposed alignment through Kings County, provide data set for the reader and decision maker to analyze the average sound levels and subsequent increase in sound.
I032-89	28	Freight trains currently operating along the BNSF between Fresno and Bakersfield would continue to operate without the HST System. This section of the document is addressing the no project alternative. The Authority should make a distinction that the alignment north of Kings County is several miles away from the BNSF and continues this way until Corcoran. Depending on alternatives selected in Corcoran, it could still remain several miles away from the BNSF. In the case of my home, an average sound level taken over a 1 week period using noise samples in the morning and evening (utilized a soundmeter application on my phone called Smart Sound ver1.2.1) averaged around 45 dBA. In the no project analysis if we use 45 dBA and for

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		the project the EIR/EIS indicates the levels can be as high as 95 dBA at 220 mph. This is an increase of 50 dBA, which is not merely a doubling, but much larger since the noise level is calculated on a logarithmic scale. People generally cannot detect differences of 1 dBA to 2 dBA between sources. Under ideal listening conditions, differences of 2 dBA or 3 dBA can be detected by some individuals. A 5-dBA change probably would be perceived by most people under normal listening conditions. People generally perceive a 10-dBA increase in a particular noise level as a doubling of loudness. For example, the average person will perceive a 70-dBA sound to be twice as loud as one of 60-dBA. Recommendation: EIR/EIS provide recognition that the no project alternative for the Kings County area is not near the BNSF and that sound levels will increase significantly through Kings County.
I032-90	28	**These impacts are temporary during construction (see Chapter 2, Alternatives). Under these conditions potential effects would be moderate under NEPA and impacts would be significant under CEQA.** It would be appropriate for the document to define "Temporary" in terms of day or years. There is no discussion of how long construction would last as there is no construction plan. In the Ponderosa community there will be approximately 25 homes impacted with direct noise. During the Highway 198 expansion crews worked during the night and equipment could be heard approximately ¼ of a mile away. If construction takes approximately 5 years, this is significant for infants, and other sensitive homeowners.
I032-91	37	**These two tables also show the source height, land use type, measured existing noise level, projected HST noise level, and the moderate and severe impact criteria.** How does this document know what the existing sound levels where through the Kings County section being that the noise samples taken were miles away from the alignment as proposed. It would have been appropriate to place the reading and results in this section of the report to allow the reader the opportunity to see a summary of the results. The reading that were taken and reported were closer to Highway 43 and the BNSF alignment, therefore readings would be higher and result is a less significant impact. As you travel to the east here are fewer noise sources and one would expect the levels to be a few dB less, therefore when compacted to construction or the HST, the dB levels would have a larger effect.
I032-92	40	**Because fences control access to the right-of-way and the right-of-way would be 100 feet wide in rural locations, wildlife and domestic animals would have to be within approximately 50 feet of the edge of the right-of-way to experience noise effects above the recommended threshold.** Can the Authority define the "recommended threshold"? This document does not seem to provide this number and how the number was determined.
I032-93	40	**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** It should be pointed out that this document recognizes the benefits of being by a transportation corridor. Why is there no alternative in the Kings County area that looks at a transportation corridor alternative?
I032-94	43	**All of the increases in traffic volume would result in an increase in the future dBA L_{dn} values by 0.7 dBA or less. This slight increase would result in a negligible effect under NEPA and a less than significant impact under CEQA.** Did the Authority make an assessment of increased farm equipment traffic which has a tendency to have a higher dB level than vehicular traffic? Farm equipment traffic will significantly increase due to the limited access. Farm equipment traffic that typically would move along dirt roads and adjacent parcels will not be forced to travel on roadways

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		to navigate around the HST. Recommendation: EIR/EIS provide an analysis of noise and vibration increases caused by increase farm equipment traffic located on roadway and adjacent to sensitive receptors.
I032-95	47	Table 3.4-23 The Hanford area has 333 Severe Impact areas and does not get any sound mitigation, however areas in Shafter and Wasco have much smaller numbers of impacted areas and will be getting sound mitigation. Please provide a justification for this lack of consistency.
I032-96	55	**Noise receivers severely impacted in the Fresno, Hanford, Pixley, and Allensworth areas, as well as those noise receivers severely impacted in Corcoran, Wasco, Shafter, and Bakersfield that would not be mitigated by a sound barrier, would receive other forms of mitigation, such as building insulation or payment of property noise easements.** Given that this document has identified these as a higher significance of impact, it is appropriate to provide a discussion on how there mitigation measures will be implemented. This document spent several pages laying out how they will address some mitigation and spends one sentence dealing with the hardest impacts. This is severely deficient in its attempt to address impacts. 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: Provide a detailed discussion of impacts and mitigation measures for sensitive receptors to noise and vibration.
I032-97	57	**If final design or final vehicle specifications result in changes to the assumptions underlying the noise analysis, reassess noise impacts and recommendations for mitigation and provide supplemental environmental documentation, as required by CEQA and NEPA.** 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.
I032-98		This section does not address the impacts of vibration on existing utilities and replacement utilities under the right of way. Who is responsible for the operation and maintenance of facilities that cross under the right of way?
I032-99		There is not discussion on impacts of noise and vibration on confined animal operations. Studied have been conducted that show that cows are sensitive to sound and will reduce milk production when exposed to excessive noise.
I032-100		Could not find a good discussion of the noise attenuation. How far away from the tracks will noise be heard? What are the various sound levels as you move away from the tracks?
		In the attached Canadian Vibration Study, several researchers investigated vibration impacts due to trains in Canada. The found that damage from vibration could be seen as far as 800 feet from the tracks. The EIR/EIS seems to only look at a few hundred feet from the tracks. Recommendation: The EIR/EIS evaluate the potential for foundation and building damage at large distances away from the tracks.

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Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-101

	The Diary Industry has long known that increases in noise above 90 dBA cause responses such as: • The "startle response" • Freezing (a temporary stationary response) • Fleeing from the source There impacts have shown: • Reduced milk production and rate of milk release • Increased glucose concentration • Decreased levels of hemoglobin • Increase heart rate • Reduction of thyroid activity These impacts are also typically seen in other animals like swine and fowl. The EIR/EIS did not address these environmental impacts. Recommendation: Provide an analysis of environmental impacts due to noise on animal species in the area such as cows, swine and fowl. This analysis should look at noise and vibration impacts and mitigation measures to ensure the survivability and production value of the animals.

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California High-Speed Train Project EIR/EIS
Fresno to Bakersfield Section

Comments provided by Aaron Fukuda

Section 3.05 Electromagnetic Fields and Electromagnetic Interference

I032-102

I032-103

I032-104

Page	Comment
1	**susceptible to the EMFs produced by a HST. Such uses include universities, medical institutions, high-tech businesses, and governmental facilities that use equipment that could be affected by new sources of EMFs.** There is a large case that has been found for EMF's causing issues with milking cows. This can cause a loss in production. EMF's can also cause a metallic taste of water and cause cows to restrict water consumption, therefore causing a drop in milk production. See court case Kaech v. Lewis County Public Utilities District NO for a case where the Kaech family sued and won compensation for the impact of "stray voltage" that caused harm to their dairy cows. Recommendation: The EIR/EIS should provide an analysis of the potential for electrical current to be introduced to diary and other confined animal facility and the potential impacts to the animals. Given the impacts associated with Electromagnetic fields the EIR/EIS should provide the appropriate NEPA and CEQA finding and mitigation measures.
10	**These EMFs would have negligible effects on sensitive receptors, provided that typical magnetic shielding is installed.** Does the Authority intend to put corrosion protection hardware on all steel pipelines located within a distance from the alignment? Please see the attached study "Stray Current Corrosion in Electrified Rail Systems - Final report." This report shows that there is approximately $500 million in damage due to corrosion from electrified transit systems. 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: An analysis should be conducted on the potential for corrosion of metallic structures and the limit at which the corrosion will not be impacted. Given the impacts associated with Electromagnetic fields the EIR/EIS should provide the appropriate NEPA and CEQA finding and mitigation measures.
13	**If adjacent pipelines and other linear metallic structures are not sufficiently grounded through the direct contact with earth, the project would separately ground pipelines and other linear metallic objects in coordination with the affected owner or utility, as part of the construction of the HST System.** How does the Authority intend to implement this system? How will they know what pipeline needs to be grounded? Please see the attached study "Stray Current Corrosion in Electrified Rail Systems - Final report." This report shows that there is approximately $500 million in damage due to corrosion from electrified transit systems. Recommendation: An analysis should be conducted on the potential for corrosion of metallic structures and the limit at which the corrosion will not be impacted. The Study should not be limited to pipelines, but also other metallic structures throughout the alignment.

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Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-105

16	Interference from HST currents could result in a nuisance or reduction in operational efficiency by interrupting road and rail traffic. To preclude this possibility, the project design includes working with the engineering department of freight railroads that parallel the HST line to apply the standard design practices that a nonelectric railroad must use when electric power lines or an electric railroad are installed adjacent to its tracks. These standard design practices include assessment of the specific track signal and communication equipment in use on nearby sections of existing rail lines, evaluation of potential impacts of HST EMFs and RFI on adjoining railroad equipment, and the application of suitable design provisions on the adjoining rail lines to prevent interference. The Authority indicates that it is going to work with the adjacent railroad to implement mitigation measure. The mitigation measures are not described in this document? This impact is significant, due to the fact that if it interferes with the BNSF signaling system, it could cause a traffic accident. 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.

I032-106

	The document indicates that there is a potential for impacts to metal pipeline, gas, water and electric. The Authority does not provide any mitigation measures for this impact.

I032-107

	This section of the document does not include a discussion of EMF's and their affect on dairy cattle or other livestock ranches in the alignment or within the vicinity.

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California High-Speed Train Project EIR/EIS
Fresno to Bakersfield Section

Comments provided by Aaron Fukuda

I032-108

Section 3.06 Public Utilities

Page	Comment
2	On May 19, 2009, President Obama issued a Presidential Memorandum proposing a new national fuel economy program that adopts uniform federal standards to regulate both fuel economy and greenhouse gas emissions. The program covers model year 2012 to model year 2016 and ultimately requires an average fuel economy standard of 35.5 mpg in 2016 (39 mpg for cars and 30 mpg for trucks). In response to the Presidential Memorandum, an October 2010 Regulatory Announcement developed with support from industry, the State of California, and environmental stakeholders was issued by the EPA and DOT. Did the Authority utilize this information in its analysis of air quality impacts? The Air Quality section continually referenced the benefits to air quality, however if this new regulation is in place one would expect the future air quality to improve faster than current levels. This would therefore change the cost/benefit ratio of this project. Is there a cost/benefit ratio for this project? Recommendation: Ensure that the policies and programs that have been implemented since 2005 (Program EIR/EIS) are accounted for in analysis and studies for the Project EIR/EIS.

I032-109

Page	Comment
11	Water, wastewater, irrigation and stormwater canals, conduits, and pipes (outside diameter of 16 inches or larger). How did the Authority and its staff arrive at the 16" or larger diameter size? Many irrigation pipelines are from 10" up to 24". There are thousands of pipelines throughout the Kings County area. Our investigation with landowners shows that no landowner was ever contacted to identify pipelines, therefore please identify how the Authority identified and cataloged pipelines. What is the protocol for identification of pipelines, replacement and future operation and maintenance of these pipelines given they are within a restricted corridor. Does the Authority have any specifications for materials or placement given vibration and corrosion issues associated with the HST? Will the Authority contractor be replacing pipelines, or will the landowners. If the landowners are responsible what are the parameters for replacement? If the contractor is responsible, what are the parameters?

I032-110

Page	Comment
11	Water demand estimates for construction are based on an estimated 5-year time period in which earthmoving and construction activities requiring water use would occur within a longer overall construction period concluding in 2020. In previous sections, like Air Quality, the document discusses a construction window of 8 years. Can the Authority please clarify which time line is correct? Recommendation: Once the proper time line is determined the analysis must be adjusted for the appropriate time. Also ensure that through each of the sections the appropriate time line for construction is used.

I032-111

Page	Comment
11	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 proration of energy consumption is not an acceptable determination of energy consumption for this level of analysis. This document also does not indicate the method for which energy usage was calculated therefore leaving the reader to trust that the appropriate methods were used. For the Fresno to Bakersfield section the energy consumption would be drastically different than the mountain sections because you have to take into account several variables, including elevation change, temperature changes, wind effects and many other things. The electrical impacts on the valley, which is at times at its maximum service also has transmission issues.

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Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

		Recommendation: Therefore an independent analysis of energy consumption should be conducted. Energy consumption should also be based upon transets utilized, station utilization, HMF utilization and other facilities that will consume power. Given the project has moved towards 15% drawings the design and specifics from 2005 to now have changed. Simply relying on old data and prorating it is not acceptable at this level of the EIR/EIS. The practice of prorating energy consumption would be appropriate at the Program level, however for the analysis required at the project level the reader and the decision maker need a much more detailed analysis of energy consumption. This analysis should also take into account the timing of the power consumption.
I032-112	24	**Incorporated and unincorporated communities in Kings County provide wastewater services to their services areas. The incorporated areas potentially affected by the proposed HST facilities are in the cities of Hanford and Corcoran.** Can the Authority please elaborate on this. In the County, residents have individual septic systems and there is not public sewer system. The City of Hanford does not have sewer service east of Highway 43 and therefore will not have any service to the "potential" Kings/Tulare HSR Station. Recommendation: The EIR/EIS should address the lack of utilities that serve the "potential" Kings/Tulare station. This should include the environmental affects of brining the utilities to the site and also the cost associated with these utilities (will they be a project cost or a local entity cost).
I032-113	24	**The City of Hanford treats wastewater at a city-operated facility at 10555 Houston Avenue. The facility is permitted, and designed to treat 8.0 mgd (City of Hanford Public Works Department 2010a). The plant currently treats approximately 5.5 mgd of wastewater.** The HST alignment through Kings County travels outside of the City of Hanford. The City does not have any sewer lines in the vicinity of the HST. How does the Authority intend to bring sewer to the proposed station? Will the City have to pay for this and is it feasible given the distance from the wastewater treatment plant?
I032-114	32	Table 3.6-10 Why is the energy consumption for Kings County double Fresno county? And significantly higher than Tulare and Kern County? Given the smaller population the high number seems to be inconsistent with population and land usage practices within the counties.
I032-115	32	Generation In the section relating to energy there is a discussion of what the State produces and can import, however there is no discussion of what the Electrical Demands are of the HST and how they will ensure that power demand is met. Nor does this document talk about bringing power to the rail. Is power going to be placed on the rail as a part of this construction? There seems to be no discussion of the power distribution system to get power to the rail. There will be environmental impacts that need to be analyzed for the transmission system required to get power to the tracks.
I032-116	39	**For a project such as the HST project that would not commence operation for almost 10 years and would not reach full operation for almost 25 years, use of only existing conditions as a baseline for energy impacts would be misleading. It is more likely that existing background traffic volumes (and, thus the intensity of energy use) would change due to planned traffic improvement projects) between today and 2020/2035 than it is that existing traffic conditions would remain unchanged over the next 10 to 25 years.** The Authority is making the argument that the baseline is the future condition. Is this legitimate?
I032-117	39	**The electrical demand for the propulsion of the trains, the operation of the trains at terminal stations, and in storage depots and maintenance facilities etc., has been conservatively estimated by the project's engineers to be 8 GWhs per day. Transmission losses, the percentage of energy lost due to transmission from the power plant to the project, have been estimated to be approximately 4%. Applying this factor to the 8 GWh per day electrical requirement of the HST System results in a total electrical requirement at the power plant to be approximately 8.32 GWhs, or 28,389 MMBtus, per day.** Recommendation: Provide the reader and the decision maker with data that shows where this

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		information was developed, or how it was developed.
I032-118	40	**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 payback period for energy used demand during HST construction would be less than a year.** There is no evidence provided that supports these numbers or this statement, therefore it is simply a statement and not fact. Can the Authority please provide data that supports these findings.
I032-119	41	**Shutdown could interrupt utility services to industrial, commercial, agricultural, and residential customers. This would result in a negligible effect under NEPA and a less-than-significant impact under CEQA.** Does the Authority have a plan to ensure that irrigation systems and wells will be constructed such that they will ensure water supply to farms. Given crops are dependent upon water, if there is a lack of supply, is the Authority prepared to pay damages for lost crops. Does the Authority evaluate the crops for potential damage, ie. permanent crops like nut trees have a long life and production value. Lack of water can stress and kill the trees.
I032-120	44	**Existing water use within the project footprint is estimated to be 4,044 acre-feet/yr for the BNSF Alignment Alternative, and varies between 4 to 159 acre-feet/year depending on which of the five prospective alignment alternatives is selected.** Both during construction and operations, where will the Authority be getting water. Given that the Authority does not own any water supplies or wells, they will have to find a source of water.
I032-121	45	**As standard construction practice, the contractor would divert construction and demolition waste from landfills by reusing or recycling to aid with implementing the Local Government Construction and Demolition (C&D) Guide [Senate Bill 1374] and meet solid waste diversion goals to the extent practicable.** This has been laid out as a potential. How does the Authority intend to ensure this practice is carried out?
I032-122	51	**In the rural portion of the Fresno to Bakersfield Section, the project would cross irrigation pipelines and canals. The Authority would work with irrigation districts and landowners to protect these irrigation systems. Canals may be bridged or placed in pipelines beneath the HST right-of-way. Irrigation pipelines crossing the alignment would be buried to an appropriate depth to sustain the weight of the HST and placed in protective casing so that future maintenance of the line could be accomplished outside of the HST right-of-way. The BNSF Alternative would not result in prolonged disruption of services because of the need for relocation of or improvements to irrigation systems. This impact would be less than significant.** Given the number of facilities and the critical nature of District canal facilities, this document does not provide the reader with enough information to understand how the Authority intends to approach these irrigation systems with an specificity. What type of materials will be used, what is the life cycles of the materials being proposed, who is responsible for the operation and maintenance of the facility since it is in a corridor that cannot be accessed, who conducts the installation or removal, these are all questions that should be answered. The EIR/EIS does not indicate the number of facilities and the type of facilities for irrigation systems to be relocated or replaced. Recommendation: Provide a study of all irrigation systems that will be disrupted by the HSR. This number and the associated study will allow the reader and decision maker the ability to determine if the impact is less than significant. It is important to know the number of replacements because the number is significantly large number and will present a coordination and construction difficulty. If one does not get relocated in time, landowners are presented with a difficult position as they may lose service and damage a crop. CEQA and NEPA require the EIR/EIS to provide an appropriate level of analysis and reporting, this section does not provide enough information to the reader on the number and type of replacements for an appropriate determination.

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Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-123

61	28,404.48 MMBtus per day. This energy estimate, reflecting a refinement of the analysis conducted in the 2005 Bay Area to Central Valley Program EIR energy assessment, utilizes current conversion factors, ridership forecasts, trainsets, and vehicle miles traveled. This analysis was based on the original ridership forecasts. The Authority is refining ridership forecasts and must redo this analysis with the new ridership numbers.

I032-124

62	When compared to future conditions, analysis of the projected effects of the HST on VMT in the Fresno to Bakersfield region indicates that the HST would reduce daily VMT in Fresno, Kings, Tulare, and Kern counties by nearly 7.3 million miles a day, or 10%, due to travelers choosing to use the HST rather than drive. Did this analysis take into account the Kings/Tulare Station? The current proposal does not have the Kings/Tulare station listed as a construction project, however it is listed as a "potential" station. If it was used, the Authority is requested to run the numbers again to determine if it is still a 10% value.

I032-125

62	As shown in Table 3.6-20, the number of plane flights statewide (intrastate) would decrease with the California HST System when analyzed against both the future conditions and existing conditions baselines because travelers would choose to use the HST rather than fly to their destination. This document is lacking the information that would indicate that travelers would choose HST over airlines. Without this information this is an unsubstantiated claim and cannot be accepted as fact or used in this document. Also did the analysis of financial revenue take into account the lower of airline fares to compete with HST if the above statement is true and what effect that would have on HST tickets and its revenue stream?

I032-126

64	To enhance the benefits of the HST, the Authority would purchase up to 100% clean, renewable electricity to provide power for HST operations. Note to Authority: This is one of my favorite quotes from the EIR. "up to 100%". Thanks! How does the Authority intend to discriminate between Green power and traditional power? If the HSR is not generating its own electricity it is somewhat difficult to identify what the source is.

I032-127

64	The Statewide Program EIR/EIS (Authority and FRA 2005) predicted that the HST System would increase overall direct electric energy consumption by 10% over current conditions, increasing projected electricity demand statewide by approximately 0.96% in 2030. The Authority should provide evidence that the methodology used to derive these numbers is legitimate.

I032-128

64	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. Can the Authority verify that proportioning of power consumption is a scientifically sound practice. The Central Valley typically has very high energy consumption during the peak hours due to air conditions and groundwater deepwells being used. Has the Authority investigated this effect during the summer time and the extra capacity and transmission capability.

I032-129

64	Summer 2010 electricity reserves were estimated to be between 27,708 MW for 1-in-2 summer temperatures and 18,472 MW for 1-in-10 summer temperatures (Pryor et al. 2010). Can the Authority please provide evidence of this information. The reader would like to see how the values were derived.

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Fresno to Bakersfield Section

Comments provided by Aaron Fukuda

I032-130

Section 3.07 Biological

Page	Comment
6	Habitat Conservation Plan The Authority should address the Kaweah Delta Water Conservation District Habitat Conservation Plan, which is an area that the alignment travels through.

I032-131

7	Project biologists conducted field surveys to determine the presence or absence of biological resources and to document the location of any biological resources through habitat characterization and mapping. Habitat characterization and mapping were conducted throughout the study area where access was granted and where properties were inaccessible. Where permission to enter was not granted, field crews used public roads, and adjacent parcels to characterize and map biological resources. Access was granted to approximately 40% of the study area Biologists conducted surveys on the Proposed April 2010 alignment. Landowners along the new alignment were not contacted, nor were any surveys on these properties. The Authority should include a statement to explain that site visits were not made along the Kings County alignment on property that is directly impacted by the alignment. The public was told that biologists could simply do "drive by" assessments.

I032-132

27	The Fresno to Bakersfield HST alignment alternatives were designed to avoid the Tulare Lakebed Mitigation Site; therefore, the Tulare Lakebed Mitigation Site is not discussed further in this document Although the HST travels around the Tulare Lake Mitigation Site, it travels adjacent to the site. Did the Authority conduct a study to analyze the impacts of noise, vibration and the physical path of the HST in relation to the Mitigation Site? These animals may not respond well to the noise and HST traveling adjacent to the mitigation site.

I032-133

32	In addition, development would indirectly degrade remaining habitat through pollution, noise, and dust. Can the Authority please provide the reader with further information and data that would indicate form the basis of this statement? Without any evidence for this statement the Authority should remove it.

I032-134

36	Two species of special-status plant species, heartscale and little mouse tail, have been identified within the BNSF Alternative. It is advised that the authority verify the presence of the Elderberry Bush, as it is a protected habitat for the Elderberry Longhorn Beatle and is located along the Kings River.
	It appears that the Authority has not done specific field inventories within the project area. It is anticipated that these site specific animal and plant surveys will be done at a later time. The Authority must produce these reports prior to the NEPA and CEQA analysis in order to allow the public full knowledge of the impacts. With the information presented the public does not know the true impact to biological resources.

I032-135

57	In addition to the special-status plant communities that have been observed, a number of special-status plant communities could occur in unsurveyed habitats that have the potential to support special-status plant communities where permission to enter was not available Can the Authority please clarify if access to property was denied or never requested?

Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

California High-Speed Train Project EIR/EIS
Fresno to Bakersfield Section

Comments provided by Aaron Fukuda

Section 3.08 Hydrology

	Page	Comment
I032-136	11	**The HMF would require approximately 52 acre-feet per year on average for domestic use. This corresponds to a pumping rate of about 32 gallons per minute (gpm) on average (assuming pumping 24 hours per day continuously) or about 65 gpm if pumping occurs 12 hours per day.** This document should include a summary of common uses required at the HMF facility. The reader and the decision maker need a sense of what usages are included in the estimates in order to ensure that the water usage rates are realistic. Recommendation: Provide a study and list of water consumption rates for HMF and Stations.
I032-137	16	**The old channel, known as Old River, is usually dry.** The Old Channel is now being utilized by the Kings County Water District as a groundwater recharge bank. There is typically recharge water in the channel annually. Has the Authority investigated impacts of the alignment to the groundwater bank (Apex Ranch Bank)? Recommendation: Ensure that all analysis takes into account water that is being placed in the Old River for recharge.
I032-138	17	**The creek is a CVFPB-designated floodway where the BNSF Alternative and the Corcoran Bypass Alternative cross it just north of Corcoran Reservoir and east of SR 43, so a permit from the CVFPB would be required before any work can be conducted at this crossing.** Has the Authority coordinated with the CVFPB to determine requirements for the permit? Has the recommendations from the CVFPB been implemented and analyzed as a part of this Project Level EIR/EIS?
I032-139	33	**Table 3.8-9** Has the Authority coordinated with the USACE, the Kings River Water Association and the Kings River Conservation District to coordinate the type of crossing designed for the Kings River? I would think it is imperative that the operations and maintenance of such a river would require a continual travel path along the river banks. In this table it indicates that it will be elevated, however it does not say to what height. Recommendation: Include design requirements and information required by the Kings River agencies including the Army Corp of Engineers.
I032-140		Has the Authority studied the growth inducing factors associated with having commuters located within our cities. This increase in population will cause an increase in the groundwater consumption. By State Law any project must address future groundwater impacts as required by SB622. Recommendation: Provide an analysis of increased groundwater consumption caused by growth impacts created by the HSR.
I032-141	38	**Temporary changes to stormwater drainage patterns and runoff would be minimal and have a negligible effect under NEPA and a less-than-significant impact under CEQA because they would be temporary, would not alter drainage enough to displace a large-enough volume to increase flood risk, and construction would not occur in stream or river channels during the winter storm season.** The Authority has not provide any information or data that would show that an effort was made to determine the potential for drainage or erosion impacts during construction. Given the size of this project, it is expected that a large amount of heavy construction will be occurring over a span of 5-8 years. During that time period it would be expected that

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		the area would experience one very wet year. Excess rainfall and harsh winter conditions would cause site conditions to potentially discharge into natural rivers and streams and on to adjacent fields. The Authority has provide no empirical data that would lead the reader to believe that the impacts are less-than-significant. The Authority should provide further study and information to verify the finding. The Authority has also not addressed farming operations that could potentially drain water towards the tracks. Most agricultural field are laser graded to drain a certain direction. If a field is draining towards the tracks, will the Authority require property owners to reverse grade their fields?
I032-142	42	**Drainage pipes under the portions of at-grade track would collect stormwater for discharge to drainage swales running parallel to the track.** This document addresses the channeling of stormwater drainage away from the tracks, however there is no discussion of how the water is to be managed once it is in the swales. This document has not addressed the volume of stormwater that will be generated nor the capacity of swales of management sites that will collect the drainage water. There also must be a discussion of the water quality aspects of the stormwater that is received and collected. Does the HSR project have a potential to create pollutants that will be within the right of way and can then migrate to other areas during a storm event. Given a full analysis of the impacts of drainage water, the Authority may have to adjust the findings for NEPA and CEQA that have already been made in this document. Recommendation: The EIR/EIS should provide a surface water runoff analysis that quantifies the amount of water expected to be generated by the HSR, Stations and HMF. The study should also address potential water quality issues. The Union Pacific Railroad requires the following hydrology study: 1. Prepare a drawing showing the area involved. This drawing should include the top of rail elevation, the top of subgrade elevation, the bottom of ditch elevation, the invert elevation of the drainage structure and show the track, subgrade, ditch and any other important information (fences, pipelines, other culverts, etc.). 2. Prepare a drawing showing a cross section at the point the water enters the railroad right of way. 3. Advise the drainage area, the amount of water, the flow rate, the type of protection provided at the outlet end, where the water will flow, the nearest structure to remove the runoff from the right of way and the capacity of the existing structure. 4. Advise the existing and proposed 50- and 100-year water surface elevations at both the point the water enters the right of way and at the existing structure that removes the water from the right of way. The above principles should be used in studying the hydrology effects of the HSR.
I032-143	45	**The electric trains would use a regenerative braking technology, resulting in reduced physical braking and associated wear. Runoff from the at-grade tracks and the elevated guideways would have minimal pollutants.** The Authority has not provided any evidence other than this statement that there would be minimal pollutants. Has the Authority conducted a study on the metal degradation that will occur? A typical train is traveling much slower than the HSR and would this increase the metallic residue that will accumulate in the area and get captured during a storm event. Also there has been not discussion of potential pollutants that may be introduced during the operation and maintenance phase like herbicide and pesticides. Given the close proximity to crops, has the Authority also conducted a study to determine

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I032-144

I032-145

I032-146

I032-147

I032-148

	what pesticides are safe?
50	Because of the narrow, linear project footprint, effects to groundwater recharge would be negligible under NEPA and impacts would be less than significant under CEQA. The HSR project intends to eliminate numerous wells throughout the area. The Authority has not explained how existing wells will be destroyed. If this is not done correctly, there is a significant impact on groundwater quality given that abandoned and improperly destroyed wells are a direct source of pollutants to reach groundwater. The EIR/EIS does not provide any discussion of potential groundwater contamination nor any mitigation measures. 6
50	The HMF sites would have outdoor washing and fuel storage areas, as well as parking lots, which could generate polluted stormwater runoff. The HMF would include a system to recycle the wash water from the train sets to reduce water consumption and improve water quality in discharge water. None of the HMFs are located in areas of shallow groundwater so percolation of stormwater into groundwater would not affect groundwater quality, resulting in no effect under NEPA, and a less-than-significant impact under CEQA. The EIR/EIS does not address where water that is no longer recyclable is disposed of. The Regional Water Quality Control Board for the Central Valley (District 9) does not allow for the discharge of wash water directly to recharge ponds. The EIR/EIS should provide a study of the potential pollutants that will be found in the wash water. Although the Fresno and Bakersfield HMF stations may be able to discharge wash water to wastewater treatment plants, the Kings HMF will need to place the water in some storage system as there is no means to get the water to a water treatment facility.
52	Although pier construction methods have not been determined and would be based on local conditions, it is possible that some crossings would require in-water work for pier construction. Design of these bridge crossings would include measures to minimize the effects of placing piers in the floodplains and floodways. Without knowing if or how internal piers will be included, the reader and the Authority is unable to determine the potential impacts on rivers and channels and their potential for flooding. The Authority must determine the need for piers and given an indication on sizing in order this the document to properly inform the reader on potential flooding impacts.
	The EIR/EIS does not include any analysis of the supplemental facilities like road overcrossing as a part of the analysis. These traffic features typically have their own set of environmental impacts. Recommendation: The EIR/EIS should investigate the water quality and quantity impacts from road overpasses. As more traffic is concentrated to roads and hence to overpasses, water quality impacts should be investigates especially since these overpasses are in remote areas without the potential to deal with stormwater. The EIR/EIS should also address water runoff, erosion and drainage issues associated with overpass structures.
	The EIR/EIS does not address the act of subsidence in the Central Valley and how the HSR will accommodate this phenomenon. Given the long track and inability to tolerate shifts in elevations at 220 mph, the EIR/EIS should address subsidence. In an article written in the China Daily, titled "Experts Warn of Subsidence Threat Along New Railway" (document is provided with this packet) the Beijing-Shanghai high-speed rail line was warned to keep subsidence of the foundation of the railway to 5 millimeters in 100 years. They recommended that water extraction within that area should be prohibited. Recommendation: The EIR/EIS address subsidence threats to the HSR and mitigation measures to ensure the safety of the public.

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California High-Speed Train Project EIR/EIS
Fresno to Bakersfield Section

Comments provided by Aaron Fukuda

I032-149

I032-150

I032-151

I032-152

Section 3.09 Geology, Soils, and Seismicity

Page	Comment
2	The Fresno to Bakersfield Section of the HST project would require approximately 2,300,000 tons of aggregate and 1,300,000 cubic yards of fill (assuming no fill is provided by project excavation). Can the Authority verify if this value includes aggregates and dirt required for roadway adjustments, including Highway 99 and overpass structures. There is a significant number of overpass structures that will require a great deal of natural resources (dirt and aggregate). Recommendation: Ensure that the aggregate and dirt quantities cited and studied include that material required for overpass structure, stations, HMF and any other ancillary facility. It is not clear to the reader and the decision maker that these quantities reflect all of these facilities. This statement does indicate that this quantity if for the Fresno to Bakersfield section."
30	The HST project design would incorporate design methods that consider the short- and long-term impacts of unstable soils on the HST and nearby facilities. Where appropriate, engineered ground improvements, including regrading or groundwater controls, would be implemented to avoid long-term impacts from unstable soils. Implementation of these methods during final design would meet standards of design and building code requirements to provide either sufficient bearing capacity and slope stability or measures that protect the facility from loads associated with unstable soils. Can the Authority please clarify what techniques will be used? It appears that the Authority has not conducted a suitable geotechnical analysis of the alignment to determine the presence of potential soil stability issues. The EIR/EIS requires an appropriate level of analysis such that a reader and/or decision maker can determine if an impact is significant or not. The EIR/EIS cannot defer studies or analysis to a later time. Recommendation: A full geotechnical analysis of the Fresno to Bakersfield section be conducted to determine the potential for unstable soils and an approximate quantity. Given the knowledge of potential soil issues the appropriate level of significance can be determined and appropriate mitigation measures can be assigned.
31	A number of locations along the project footprint would require new earth fills. Some of these areas are potentially underlain by settlement-prone (loose or soft) soils. These specific locations would be identified during preconstruction and construction investigations and engineered solutions would be implemented for site-specific conditions. Given the initial identification of settlement prone areas within the alignment, and its potential to cause catastrophic damage, the Authority should have conducted a pre-study of the area to identify the total number of settlement-prone areas. Given the number of areas, the Authority may have made a different decision.
34	Detailed slope-stability evaluations would be conducted, and engineering measures such as ground improvement, use of retaining walls, or regrading of slopes would be implemented, as appropriate, to reduce the potential for seismically induced slope failures; localized instabilities that may occur would be handled as a maintenance issue. Given that the stability of the track for the HSR is critical to operation and safety, this document should study further the impact of instable soils and the potential for failure. Allowing this sort of study to be conducted in the future, pre-determines the options utilized and this document should analyze alternatives before making decisions. The

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Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

		study of soil stability can also alter the footprint of the track bed, also the footprint of the overpass structures and the stations. Not knowing this information is pre-determining the alignment and not fully addressing the potential for failure.
I032-153	34	According to the Tulare County General Plan, the failure of Success Dam could cause substantial flooding in Tulare County and would likely inundate sections of the BNSF Alternative Alignment (Tulare County 2010b). This document does not address that Success Dam has been deemed unsafe by the U.S. Army Corp of Engineers and is currently being managed to avert seismic damage. The Document does not address the concerns surrounding the seismic stability of the dam and how it increases the chances of flooding on the HSR alignment.
I032-154		The EIR/EIS does not address the geotechnical aspects of the overpass structures. Where is the material going to be sourced from? The significant quantities of materials merits a discussion of location and environmental impacts to import the material. Recommendation: EIR/EIS identify how material is going to be supplied to the project including overpass structures and the environmental impact of providing borrow material.
I032-155		The EIR/EIS does not address the act of subsidence in the Central Valley and how the HSR will accommodate this phenomenon. Given the long track and inability to tolerate shifts in elevations at 220 mph, the EIR/EIS should address subsidence. In an article written in the China Daily, titled "Experts Warn of Subsidence Threat Along New Railway" (document is provided with this packet) the Beijing-Shanghai high-speed rail line was warned to keep subsidence of the foundation of the railway to 5 millimeters in 100 years. They recommended that water extraction within that area should be prohibited. Recommendation: The EIR/EIS address subsidence threats to the HSR and mitigation measures to ensure the safety of the public.

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California High-Speed Train Project EIR/EIS
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Section 3.12 Socioeconomic, Communities, and Environmental Justice

	Page	Comment
I032-156	4	Initially, potential impacts were identified through intensive review of aerial photographs and GIS layers showing the spatial relationship between the proposed alternatives and existing community resources. Potential impact findings were verified through field research and discussions with persons knowledgeable about local community conditions and neighborhood characteristics, such as local elected officials, service providers, city planners, and community residents. The Kings County residents realize that a majority of the alignment selection was done with aerial photographs instead of on the ground engineering. The Authority has also consistently utilized differing aerial photographs, which depict different places in time. Can the Authority please provide specific meetings and notes where local officials, service providers, planners and community residents were consulted to determine impacts. If the local governments and residents were not consulted then the EIR is deficient in credible data to support this section.
I032-157	5	Potential impact findings were verified through field research and discussions with persons knowledgeable about local community conditions and neighborhood characteristics, such as local elected officials, service providers, city planners, and community residents. This seems to be simply a statement. In Kings County land will be converted from a property sales tax base to a non tax base. In simple terms for Kings County and the alignment only, no supplemental or support property the alignment is 28 miles long and 100 feet wide. That is approximately 340 acres and if the average acre price is $12,000 then the County loses approximately $40,800.00 per year in perpetuity. Also if Kings County also does not get a station then people will still be driving to Fresno to access the HSR, therefore no new sales tax or property tax will be generated. Where are any of the studies that support this statement?
I032-158	6	It is important to note, however, that there is likely to be some production that cannot be easily relocated; and production that is relocated would take time to become re established. Therefore, some short-term reduction in production would be likely. I think that once the land is taken by the Authority it will no longer be able to produce crops, therefore it is a eternal loss and not a short-term loss.
I032-159	29	One area that the EIR does not address is the loss of rural residential homes. As they come through the Kings County area they destroy numerous "ranchette style" home which are situated on 1-5 acres. The County no longer allows these types of rural residential homes, therefore they are significantly impacting our community and the homeowners in the rural area.
I032-160	31	Some clusters of rural residences are in the vicinity of Corcoran, but outside the city limits. A county fire station is located within the study area. The document does not identify the Kings/Tulare fire training center and the emergency helicopter service along Houston Avenue. The Document also does not address Lakeside School, which is within about 1 miles of the tracks and will influence traffic.

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I032-161

33	The region as a whole has a high percentage of minority and low-income individuals. As we have all estimated from the beginning the Authority chose this route because they thought it was cheap and easy. Now we add to the fact that this alignment probably has the highest amount of EJ issues and there is no information on alternative routes that could have lower EJ issues.

I032-162

38	As construction begins the increased dust in the area will cause farmers to apply more chemical to reduce the impacts of mites and other dust related problem. Pesticide applicators will also not apply chemical around the construction zones due to claims. This will increase the frequency of infestations in the crops, which will yield damage and loss of value. Also during construction the entire community will be subject to travel delays and detours, which will increase the air pollution in our area. Has the Air Board been consulted as any increase in air pollution must be mitigated.

I032-163

39	Construction of the project would provide economic benefits for the entire region. See the Fresno to Bakersfield Section: Community Impact Assessment Technical Report for a more detailed discussion of the anticipated economic effects of project construction (Authority and FRA 2011a). Need to read this report to determine how exactly they plan to ensure that our area sees the benefits and they have stated here. There is the potential that many companies outside of our area will come to work on this project.

I032-164

39	There is the possibility of short-term property tax revenue reductions as a result of lower perceived property values caused by nearby construction activities. Sales prices of such properties changing ownership in advance of planned construction or during the construction period may be lower than current assessed values and may result in lower property tax revenues. While this effect cannot be quantified, it would be short term and likely affect only areas adjacent to project construction activities. We are already seeing the real estate impacts of the proposed alignment as landowners are either not able to sell their homes or the values are very low in comparison to other parcels in areas not near the alignment. The Authority needs to provide evidence that the effects will be short term. When a person makes an analysis of purchasing ground, being located adjacent to the HSR and the impacts of dealing with the HSR will surely affect the value of the land. Also, landowners will lose acreage that was once farmed and productive (right of way and frontage roads) therefore reducing in total amount of producing acreage and therefore the loss of value. Also the loss of land impact the farmers loaning capacity. With less collateral a lender will not take the risk of loaning money.

I032-165

39	Estimated increases in tax revenues for each of the counties are $7 million for Fresno, $700,000 for Kings, $2.8 million for Tulare, and $3.5 million for Kern. For the amount of track that travels through Kings County, the residents of our community will see very little benefit. It should be pointed out that we get only $700K in sales tax benefit and are being asked to build our own station while Fresno get $7 million in benefit and a station.

I032-166

40	The employment created through project construction would employ workers in the regional labor force and has the potential to attract small numbers of workers to the region as a result of employment opportunities. The increase in population from in-migrating construction workers would not affect the ability of local jurisdictions to provide government and public services. The Authority has provided no evidence that the this project will bring regional jobs. The Authority should provide policies and procedures that ensure local and regional jobs, otherwise the public procurement process will and most likely result in a majority of jobs being imported from other regions or other states.

I032-167

	Employment Discussion The Authority did not address long term impacts of fluctuating employment. Over the last 5-6 years we are seeing the effects of an over inflated construction economy. Once the construction is gone, the market will crash. How does the Authority intend to address the construction industry after the project has been completed?

I032-168

46	Table 3.17-7 Because traffic volumes and population densities are sparse in rural areas, transportation and access impacts are expected to be minimal. Although the area may see minimal traffic (what is the threshold for minimal versus significant) the report does not look at the type of traffic in rural areas. When looking at the Kings County area, traffic may be minimal, but it includes a great deal of farm equipment and farming vehicles. These types of transportation are critical to the operation of a facility and also present traffic hazards. Increased usage of these vehicles also has an increase cost associated with more miles traveled.

I032-169

46	Table 3.17-7 All alternatives have the potential to improve regional air quality by reducing regional automobile travel and associated emissions. Operation of all the HST alternatives would have a beneficial or less-than-significant impact on air quality. Can the Authority provide a report indicating that the air quality will be reduced. Under the current design, traffic from Hanford, Visalia, Tulare and all surrounding areas will increase as we have the need to travel to Fresno to access the HSR. Also farming equipment will be significantly impacted now that fields will be broken into smaller pieces and access is limited to driving around the property. Without any evidence, this is simply a statement.

I032-170

46	Table 3.17-7 The HST System would provide benefits to safety and security under all project alternatives. Sherriff Robinson prepared a list of concerns. Most importantly the HSR introduces a new element and target for criminal response. Does the Authority intend to rely upon local law enforcement to take care of criminal activities. How does the Authority intend the local law enforcement agencies to respond to issues? The closure of read severely hampers the law enforcements ability to respond to emergencies.

I032-171

55	unincorporated portions of Kings (45 units and 150residents) This number seems low and we need to verify the number of homes that are taken out.

I032-172

55	An examination of suitable replacement housing alternatives indicates that all areas with displacements have a sufficient number of comparable replacement residences currently available. The communities in unincorporated Fresno and Kings counties, as well as in Corcoran and the Bakersfield districts – where 95% of the total residential displacements would occur – have vacancies in excess of the estimated displacements. Can the Authority provide a listing of comparable housing situations. Therefore given the numbers the Authority is using the area around Hanford should have approximately 45+ rural residential property available. The report produced numbers for the Bakersfield area, however no numbers were produced for the Kings County area. If 45 homes will be taken the Authority should ensure that we have ample opportunity to relocate and replace with the same exact style.

I032-173

57	Two exceptions to this finding of sufficient vacant current residences are rural residential subdivisions in the vicinity of Ponderosa Road and Edna Way northeast of Hanford and the Newark Avenue area northeast of Corcoran. In these two locations, residents enjoy a unique blend of amenities (spacious lots, city services, and a country setting close to town). There may be very few vacant, comparable, developed rural residential homesteads to be used as relocation resources. If so, it may be necessary to consider constructing housing of last resort, or even duplicating the disrupted residential areas elsewhere in the vicinity. This will not be a substantial number of homes and therefore the impact is less than significant under CEQA. Who and how does the decision get made for the Ponderosa group. Without any explanation this is simply a statement and no assurances area made. Therefore it should be classified as a significant impact.
58	Although residential displacements in unincorporated Kings and Fresno counties are

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I032-174

	smaller in number, they are still considerable and represent about 12% and 5%, respectively, of all residential displacements along the alignment. Because the majority of displacements in unincorporated counties are typically single-family residential homesteads on working agricultural lands, it may be difficult to find comparable replacements and relocating existing housing to nearby land may take time. As discussed above, this may be especially difficult for rural residential subdivisions such as Ponderosa Road northeast of Hanford and the Newark Avenue area northeast of Corcoran. In an earlier paragraph the document explains that there are large numbers of lots and homes available. This section indicates that it may be difficult and could be impossible. Did this analysis also take into account the local ordinances prohibiting the development of such homes and small lots in the future. Once the resources is taken, it cannot be recreated. This in my opinion is a significant impact versus a moderate, since the General Plan must be modified.

I032-175

58	Based on known demographics of the study area, residential displacements associated with the HST project could result in the relocation of high percentages of sensitive populations, including elderly (over 65), disabled, female heads of household, and linguistically isolated residents. It should also be pointed out that in several instances the HSR cuts through family owner property where family members live on different parts of the property. In some instances it isolates family members from each other and requires them to travel several miles around the tracks. In one instance is also isolates and elderly family from their family. I am not sure if this is addressed in community impacts.

I032-176

61	unincorporated Kings County (1 business and 40 employees) I believe the Authority is making reference to Bakers Commodity, however there are some businesses along Hanford-Armona Road and the helicopter pad and fire station at Houston Avenue. Although the number may seem small, Bakers serves all dairies from Fresno, Kings and Kern County. This business has a very significant impact on the dairy industry. The remainder of the section makes no mention of the Bakers, however given the impact it can have on the community, the Authority should provide some recognition and methods to address the business.

I032-177

67	If any relocation was determined necessary, an examination of vacant and for-sale agricultural properties and operations revealed a substantial supply of potential replacement properties were available (Loopnet 2010). In July 2010, there were 380 agricultural properties for sale in the region, with 195 in Fresno County, 23 in Kings County, 97 in Tulare County, and 65 in Kern County. These operations include vacant agricultural land, as well as land and facilities for pasture/ranch, field crops, vineyards, dairy, and nut and fruit tree operations. This document and the Authority fail to understand that when the alignment travels through a property is may only take a few acres. Most land is sold in 20 acre and above increments. Small parcels are hard to find and very expensive. Farmers will also not purchase small acreage because it is not cost effective to farm. Although the document indicates that there is a sufficient supply of available parcels, there is no analysis of the likelihood of purchasing the property.

I032-178

68	The overall effect of the BNSF Alternative on agricultural business operations would be moderate under NEPA in the short term as agricultural operation adjustments are made, and in the long term, these effects would be negligible under NEPA. This document does not take into account the moving of irrigation canals, which are a business element of farming. The document also does not take into consideration the timing of replacements. Given the size and breadth of this project, every landowner along the alignment will have some irrigation system that is impacted. The open and available timing for working on these systems is very limited. If a farmer is caught without irrigation water and the crop requires it, there will be crop losses.
69	These benefits accrue not only to travelers on the HST, but also to travelers using other

I032-179

	transportation modes in the region because trips would be diverted from highways and airports, resulting in reduced congestion (Cambridge Systematics Inc. 2003, 2007). Did the Authority study the increased traffic by locals from Visalia, Hanford and Tulare traveling to the stations in Fresno and Bakersfield? Given that this document does not analyze a station in Hanford, I would believe that the base case is no-station in Kings, Tulare, Visalia area. Also has the Authority studied the increase traffic on local roads given farm equipment and vehicles must now access properties on the east and west via roadways instead of dirt roads. This increased traffic will also cause increase wear and tear on roadways and require the County to invest more in operation and maintenance of the roads.

I032-180

69	This increased connectivity in business operation and employment also translates into improved efficiencies in population growth as new growth concentrates around these stations' areas, thus reducing urban sprawl into the region's agricultural lands (Cambridge Systematics Inc. 2003, 2007). The document is inconsistent with the designs as the proposed station in Hanford will cause the sprawl of business to areas outside of the sphere of influence of this City of Hanford and an area identified by the County as Agriculture. The design alignment will actually increase the amount of sprawl.

I032-181

69	Property tax revenues would increase as property values across the region rise as a result of project benefits and also as new housing to accommodate growth is constructed and added to the tax rolls. Are there any studies that indicate that properties around the high speed rail will increase? If the Authority cannot cite any studies that show that Ag land is going to increase one would assume that land would decrease because it makes the property more difficult to farm. Small remnant pieces will also be devalued because they cannot be used.

I032-182

69	A 2010 study examining these opportunities determined that the HST System would encourage more compact and efficient growth in the region. This growth would encourage development within cities by incorporating more multifamily and attached single-family housing units in downtown areas. Can the Authority provide any evidence that having the rail 3-4 miles east of the city of Hanford would encourage compact growth in the City?

I032-183

70	For the BNSF Alternative, the overall long-term net benefits of the project would be positive. Increases in property values and in the associated increased tax base as a result of project induced growth in the region would more than offset the negligible reduction in property tax revenues due to property acquisition. Along the BNSF Alternative, displacement of residences, businesses, and agricultural lands would result in estimated annual losses of approximately $2.5 million in property tax revenue to the four counties in the region. This estimated amount represents approximately 0.5% of the total fiscal year 2009-2010 combined property tax revenue of the counties and cities in the study area. For Kings County the base condition is to assume that there is no station, since it is not reviewed in this document. Therefore increase property development will not been seen like in other areas, as anticipated. Also lands that were once owned and operated by farms and creating tax revenue, may potentially not be purchased because they are not farmable and not desirable for a home site. Also, being that the County has an ordinance on rural homes on small acreages, the County will loose some rural homes to the tax base. Generally rural homes are more valuable than City homes and yield more tax dollars.

I032-184

74	Compensation for any lost production would be incorporated into property values and compensation paid to owners during the land acquisition process. This includes any value of existing assets (such as orchards) that have a future value for production. I was told on cases that I have worked on that future value of crops is not part of the assessment nor can be compensated. What documentation or law does the Authority cite

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		that allows them to compensate for crop loss? How does the Authority intend to determine the life of the crop and the long term usage of land?
I032-185	24	The relocation of a waste pond or onsite facility could require undergoing a time-consuming process to obtain a new air quality or water quality permit to replace the lost facility. Also, any full acquisition of an operation, where the project is going through the heart of the facilities, would require the entire operation to relocate, a difficult and time-consuming process given current and projected future environmental regulations. Therefore, given the time likely required to relocate affected crop and animal operations, some short-term reduction in agricultural production can be expected. The Authority recognizes the need to move dairy facilities to accommodate features of the HSR. In moving facilities more land may be taken from the permitted facility therefore reducing the number of cows that are allowed to be on the facility. Has the Authority addressed the loss of cow milk production. For the Gaspar Dairy it is estimated that they will lose approximately 105 cows, which yields the dairy approximately $330,000 per year in milk revenue. This equates to a over $1 million in economic damage to the community.
I032-186	74	Specifically, there is an estimated total reduction of approximately $15 million for the region as a whole, which represents less than 0.1% of the region's estimated $16 billion annual agricultural production. Is the $15 million in loss the direct agricultural loss, or does this have the 3.5 multiplier applied. This potentially could be a $45 million dollar loss to the region.
I032-187	74	Impacts would be highest in Kings County ($8.7 million and 53 employees), with $7 million of this loss occurring in the dairy sector (see details below). The Authority should note that its alignment section causes the greatest amount of damage to Kings County and we do not have any alternatives to try and minimize the impacts.
I032-188	75	Given that all facilities on Kings County dairies would be at least 100 feet from the project, there would be no need to relocate structures as a result of noise effects. Cows are very calm animals and do not produce milk if stressed. At the Gaspar Dairy the alignment travels through the cow corrals, therefore I believe this statement is incorrect. Also the alignment travels within feet of the milking barn at Gaspar Dairy. I have personally whiteness that the noise of a door opening startles the cows and they removed themselves from the milking parlor.
I032-189	75	To be conservative and not underestimate any potential effect resulting from this loss of land, it was assumed that dairy operations would need to reduce their milk production in the short term until they found replacement lands for all of the 184 acres acquired by the project. As a result, this short-term effect on the Kings County dairy sector is estimated at around $7 million, which represents 1% of the total county revenue generated annually in this sector. To be conservative, the Authority should assume that suitable replacement ground is not found in the future and there is a permanent loss of revenue. The Authority minimizes this impact, however cannot ensure that replacement ground is found.
I032-190	77	The presence of HST operations close to residential neighborhoods could affect community character and perceptions of quality of life in small rural communities along the route. However no economic consequences can be linked to these effects and the resulting potential for physical deterioration. Can the Authority provide evidence that homes located adjacent to the alignment in the Ponderosa neighborhood will not lose property value? Given that there will be a visual impairment, noise issues and vibration issues, the value of land would severely decrease in that area.
I032-191	83	The Authority will develop and implement a construction management plan to address communications, community impacts, visual protection, air quality, safety controls, noise controls, and traffic controls to minimize impacts on low-income households and minority populations.

		I believe the Authority cannot site that a mitigation is to make a mitigation plan. This EIR/EIS should indicate what the mitigation measures will be. What specific mitigation measures will be implemented?
I032-192	83	Before any acquisitions occur, the Authority will consult with affected communities and counties to develop a relocation mitigation and enhancement plan that will How can the public ascertain if this mitigation will be effective or reliable given there are no details or a plan.
I032-193	83	Authority will minimize impacts associated with the BNSF Alternative in the rural residential areas around Ponderosa Road/Edna Way northeast of Hanford and the Newark Avenue vicinity northeast of Corcoran by conducting special outreach to affected homeowners 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 facilities if necessary. This is a very interesting statement, because in early discussions with URS and the Authority we had mentioned this as an option (to relocate the community) and we were told it was impossible. Between that conversation and the publishing of the EIR, what information did the Authority learn that it can accommodate "constructing suitable facilities"? Under what circumstances will the Authority provide this replacement of facilities?
I032-194	84	the Authority will also initiate community workshops and conduct other types of community outreach to obtain input from neighborhood residents about the future use of the area beneath the rail guideway and identify design and use options that could strengthen community cohesion and be compatible with the character of the adjacent community. What assurances does the public have that the Authority will follow through with these actions. The Authority did not engage the public in determining the impacts that would shape and form this document, therefore what policy or legal responsibility will ensure that the Authority carries through with this action?
I032-195	85	In addition, the unique services provided by the rendering facility in Kings County are critical to dairy and livestock operations in the region. Therefore, relocation of this facility will occur before the existing facility is closed or steps will be taken to ensure that sufficient capacity is available at other facilities so there is no interruption to the services provided. This is the only mention of the Baker Commodity facility in this section. We need to follow up on this item.

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California High-Speed Train Project EIR/EIS
Fresno to Bakersfield Section

Comments provided by Aaron Fukuda

Section 3.13 Land Use and Station Planning

	Page	Comment
I032-196	1	By following existing transportation corridors as much as possible, the design of the HST project reduces land use conflicts. The Authority has stated in several sections that following transportation corridors reduces land use and other environmental impacts. I request that the Authority provide within the document for the reader and the decision maker an analysis of the reasons for not being on a transportation corridor in Kings County for almost the entire length through our County. This includes 30 miles of track that does not contain any transportation corridor. This analysis would be critical to understanding why the engineering choice was made to increase the potential for impacts.
I032-197	18	The area is characterized by large parcel sizes and some single-family residential buildings. Two residential neighborhoods are located in the study area: one cluster of homes is immediately to the east of the proposed station area; and a residential subdivision is approximately 0.5 mile west, across SR 43. This statement does not take into account the residential neighborhood immediately south of the proposed station. There are approximately 25 homes located in this area. The document should be revised to ensure that these 25 homes are recognized and taken into account when making analysis. Please ensure that all sections of the document acknowledge the presence of this neighborhood and the impacts.
I032-198	25	The No Project Alternative includes many planned projects that will likely be implemented by the year 2035. Chapter 2, Alternatives, describes the No Project Alternative. Section 3.19, Cumulative Impacts, provides foreseeable future projects in the Fresno to Bakersfield Section. These projects include shopping centers, large residential developments, office buildings/complexes, schools and hospitals, industrial facilities, agricultural business, and transportation projects. Growth would result in congestion, which based on experience in other parts of California, is likely to pressure expansion and new roadways. This statement in the document is unfounded. Please provide evidence that the future development within areas will increase congestion. Practices that are being implemented through planning and engineering are designed to cope with the future development. In Kings County, planners have implemented most of the current practices to promote concentric growth and to preserve agriculture. Recommendation: provide evidence that the future growth will bring congestion or remove the statement from the document.
I032-199	26	While infill development could occur without the HST to act as a catalyst, much TOD development would likely not be attracted to the downtown areas of Fresno and Bakersfield with the No Project Alternative. The EIR does not provide an impact associated from HSR to the Kings County Station, there is only a mention of Fresno and Bakersfield. Please provide a statement or reason on the Kings County station and how it will impact TOD development.
I032-200	26	Construction would primarily occur in agricultural, commercial, and industrial surroundings, which are less affected by construction activities. This statement in the EIR is not founded on any facts or data. There is no information provide before or after this statement that would indicate to the reader that the effects on

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		these areas are a lesser impact. The EIR should address the impacts of construction to agriculture which include transportation impacts, agricultural practices (including spraying practices, harvesting, irrigation patters and safety), economic impacts (if construction halts or damages a crop the impact to the adjacent farmer is multiplied because it impacts the vendors used by that farmer), noise and vibration (construction can create noise and vibration that will impact animals and crops). Recommendation: provide evidence that the impacts from construction on these industries are "less affected".
I032-201	27	Construction impacts would be temporary in duration or occur intermittently and, in general, would occur during the designated construction The EIR does not provide a definition or "temporary". Given the size of this project, construction could occur over several years. Those construction impacts could cause significant impacts to a multi-year timeframe. Example: Currently your construction staging area within Kings County is staged on 200 acres of a dairy operation. This 200 acres requires the dairy farmer to reduce his herd size by approximately 1,000 cows. This farmer will lose production of 1,000 cows for approximately 5 to 8 years (dates provided in this EIR), which is a significant amount of money (easily in the millions of dollars) Recommendation: Provide a definition of "temporary" and provide an analysis that the impacts to farmers and businesses during construction will not impact their way of life. Given this analysis this analysis provide an appropriate level of impact under NEPA and CEQA for the change in land use.
I032-202	28	The proposed Kings/Tulare Regional Station would be located near the city limits of Hanford, in unincorporated Kings County, at considerable distance from the downtown area. Therefore, the potential for land use changes created by the Kings/Tulare Regional Station would be low. The EIR does not provide any evidence or information that would indicate that land use changes would be "low". Currently the land use around the area is agriculture and rural residential. In previous sections the indication is that development would be encouraged around the stations for high density housing and commercial/services development. Given that Kings County has adopted "smart-growth" principles and agricultural preservation practices, it would stand that the land use changes surrounding the proposed station would be significant. It would not create smart growth, as it would encourage development at the edges of the development sphere and it would convert "prime farmground" to urban uses prior to the natural growth from the center of the City of Hanford towards the outside. Recommendation: Provide evidence that the land use changes around the station would be "low" or utilize the terminology "significant" or "high".
I032-203	28	Increased development density in and around the HST stations would provide public benefits beyond the access benefits to the system itself. These include relief from traffic congestion, improved air quality, promotion of infill development and job opportunities, natural resource preservation, more affordable housing, less energy consumption, and better use of public infrastructure. Another positive outcome would be a revitalized downtown that would attract residents who would not ride the HST (as well as those who would). There is no evidence provide in this section for any of these statements in regards to the King County station. The location of the station will increase traffic in a very congested intersection of two highways and also create limited access to the station from Highway 43. The location of the station will not cause infill development as it is located 3 miles from downtown Hanford. It will not preserve any natural resources. It will cause new public infrastructure to be constructed in an area not currently served. Utilities will need to be developed from the current edge of development to several miles outside of town. The location of this station will cause a leapfrogging effect and leave open land between the current edge of the city and the new station. It will also not revitalize downtown as the location of the rail and the station is 3 miles outside of the City of Hanford.

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		Recommendation: Provide some evidence that these statement are valid for the reader and the decision maker to have.
I032-204	29	Table 3.13-1 This table indicates that 2,678 from agriculture, which was based upon the requirement for facilities. The EIR does not address the removal of farm ground associated with the impacts of the rail. Example: Farmers will need to create turning roads at the edge of the fencing along the tracks, which in some cases can add an additional 25 feet along the fence line that will be required. Recommendation: Provide an analysis of additional farm ground that will be removed to accommodate farming practices and reflect the full loss of acreage in this table.
I032-205	33	Experience in the United States demonstrates that new transit facilities development has been concurrent with major changes in land development near stations (typically within 0.25 mile of the station). The EIR in an earlier statement indicated that the station in Kings County would have a "low" impact on land use. This statement seems to contradict the previous statement.
I032-206	24	Stations are located in prime regional and community activity centers that are attractive to typical market forces. The location of the Kings County station is approximately 3 miles east of the downtown center. The station is approximately 1.5 miles east of any residents and several miles away from any commercial or office space. Recommendation: The EIR should address how the Kings County station meets this requirement and also address any adverse impacts associated from not meeting this objective.
I032-207	36	The City of Hanford General Plan states that the development of any Urban Reserve lands is either not anticipated within the planning horizon, or will require the resolution of significant infrastructure constraints in the area prior to moving any projected development threshold. The City of Hanford General Map designates land on the west side of the city as Residential (Very Low-, Low-, Medium-, and High-Density), Office, Light- and Heavy-Industrial, and Public Facilities. A significant amount of these areas, although designated with these land uses, are still undeveloped. None of the land uses in this area include the Urban Reserve prefix. Therefore, the City of Hanford is not anticipating any constraints in developing this area and would likely approve development on the west side of Hanford prior to developing any Urban Reserve lands on the east side. The placement of a station east of Highway 43 and several miles east of this Urban Reserve area is inconsistent with the principles laid out for concentrict and urban growth. The placement of the station east of Highway 43 will create urban sprawl if the concepts applied to stations become a reality. Urban homes, shops and businesses will develop around the station and be several miles away from town. The Urban Reserve area may also be left undeveloped and create a "leap-frog" scenario where there is an empty corridor several miles wide between the City of Hanford and the proposed HST station. Recommend: Providing an analysis of the impact associated with being several miles from town so the reader and the decision maker can make an appropriate decision.
I032-208	36	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, the potential for the Authority to purchase conservation easements around the station, and the Authority's vision for the Kings/Tulare Regional Station to act as a transit hub, the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station is low. Due to land use planning in the station area and measures that the Authority would take to preserve agricultural lands in the area, indirect effects from land use changes surrounding the Kings/Tulare Regional Station would be negligible under NEPA. Indirect impacts would be less than significant under CEQA. The evidence provided so far in the EIR does not lead to these conclusions:

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		The placement of the station in Kings County is located 3 miles to the east of downtown Hanford where the current miltimodal station is located. The core downtown area will not be served by the HST. Being located on the rural fringe of the City also leaves the area to undergo a large land use change from Agriculture and Rural Residential to hi density homes and businesses. The station also has a significant impact by potentially creating urban sprawl and forcing development outside of the City before undeveloped land is developed. Recommendation: The Authority provide evidence that these impacts are minor or change the CEQA and NEPA designations appropriately.
I032-209	36	The FRA's and Authority'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 Authority 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. The Authority is deferring the study of the Kings Station as a transportation hub to a later date and time. This information is needed within this report for the reader and the decision maker to understand if the Kings Station can be used as a transportation hub, the associated costs and the realistic outcomes. Recommendations: The Authority should postpone the EIR completion until the document is completed or remove this statement from the EIR.
I032-210	39	The area affected by the potential for TOD development and the surrounding region would realize beneficial effects including increased employment, recreation, and community cohesion. No incompatible changes in land use patterns or intensities are anticipated. Consequently, HST station effects related to increased density and TOD development would be beneficial under NEPA. Additionally, station effects related to increased density and TOD development would be beneficial and the impacts are considered less than significant under CEQA. The EIR does not appropriately address the impacts around the Kings Station. The land that is currently around this area is either agriculture, rural residential or urban reserve. By placing a station and encouraging a TOD, the land will be permanently converted to residential, business or industrial, which is not compatible with its current zoning. Recommendation: The EIR reevaluate the land use changes around the Kings County station to reassess the NEPA and CEQA impacts.
I032-211	39	However, the San Joaquin Valley Council of Governments has adopted 12 Smart-Growth Principles, a density commitment, and maps. Principles 7, 8, 11, and 12 are relevant to the HST project. The EIR does not include this information. Recommendation: Provide this information within the EIR and re-circulate for review by public and decision makers.
I032-212	39	In addition, the BNSF Alternative would be consistent with San Joaquin Valley Blueprint Principles 7 and 12 inasmuch as the BNSF Alternative follows the existing rail right-of-way to the greatest extent feasible. Although the EIR does not include the San Joaquin Valley Blueprint Principles, it seems as if being along the BNSF is a benefit. However, the EIR states that it is along the BNSF for the "greatest extent feasible." The EIR does not define nor describe what "feasible" is, therefore the reader and the decision maker is left without the knowledge to accept the current alignment as "feasible" Recommendation: Provide the selection process and data that provides evidence that the alignment being proposed is the most feasible route and that staying along the BNSF if not feasible.
I032-213	40	Local and regional transportation plans related to the Fresno to Bakersfield Section identify the need to improve mobility in the Central Valley and to reduce dependency on automobile travel by improving transit accessibility and by encouraging the use of alternative transportation modes. The EIR does not provide any evidence of the applicability of HSR to these local and

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		regional goals. The placement of a station in Fresno and Bakersfield may not decrease the level of traffic on road and if Kings County does not build a station then it could increase the traffic as more people will have to travel to Fresno and Bakersfield to access the train. This should also be studied in concert with the statement made earlier in the EIR that the Amtrak service in Hanford may cease given we cannot support two train systems. Recommendation: Provide evidence through a study or data that shows that people will ride the train in the Central Valley and there will be a net reduction in vehicle miles traveled.
I032-214	40	**The station area is zoned as light industrial by Kings County and the station would be compatible with this zoning. Land uses surrounding the HST station are zoned as commercial and industrial. Zoning in the study area is compatible with the Kings/Tulare Regional Station and would not be inconsistent with a policy adopted to avoid physical impacts. Since the station use would be consistent with existing land use zoning, effects would be negligible under NEPA. Impacts would be less than significant under CEQA.** The land that the Kings Station sits on is Limited Agriculture. To the south of the station is Heavy Industrial and Very Low Density Residential. The land surrounding the station is Limited Agriculture. The placement of a station is not compatible with the Limited Agriculture and the Very Low Density Residential. Please see Figure LU-16 of the Kings County General Plan - Land Use Planning document. Recommend: Reviewing the land use designations by Kings county and adjusting the CEQA and NEPA analysis and the subsequent findings to reflect this adjustment. Document should be adjusted and released for public and decision makers review.
I032-215	41	**The program design strategies of involving the local jurisdictions in the development of station planning and alignment design considerations, in identification of issues, and in avoidance measures and solutions, and also of providing information to assist local jurisdictions in accommodating the proposed HST and TOD opportunities around stations in updates of local general plans, are collectively reducing the potential for land use conflicts.** The Authority has consistently ignored contact to "coordinate" with the Kings County Board of Supervisors as evidenced in a letter and supporting documents sent on August 2, 2011 to the Federal Railroad Administration. Can the Authority please provide evidence within the EIR that would indicate that the design strategy of coordination with local jurisdictions has taken place. Please provide meeting times and dates along with minutes and outcomes. Recommendation: Provide evidence that local coordination efforts have taken place and that the coordination provided substantive results that would minimize the impacts to land use around stations and along the alignment of the HSR. If no evidence is provided please provide notice within the EIR that no, or very little local coordination as taken place.
I032-216	42	**Permanent conversion of land to transportation-related land uses is considered a negligible effect because the new transportation land uses would be adjacent to existing transportation corridors and would not result in substantial impacts on land use patterns. Lands changed to transportation-related land uses would encompass less than 0.01% of the total land area in Fresno, Kings, Tulare, and Kern counties.** This statement does not take into account that for Kings County (one jurisdiction with its own General Plan and Land Use element), that nearly 100% of the track through the County is not located near a transportation corridor. A new transportation corridor is being established with excessive curves that creates small remnant pieces of property. These small pieces of property are in direct conflict with local and regional regulations to protect farm ground in 20 acre, 40 acre and 80 acre blocks of ground. The project also eliminates nearly 65 homes in Kings County that qualify under the Very Low Density (1 home per acre) land use. These parcels are very unique and under the Land Use document in Kings County are no longer allowed. It therefore follows that this type of

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		analysis needs to be conducted for the entire route. For Kings County, which is approximately 25% of the first segment of track, this is a significant impact. Recommendation: Provide an analysis of the conversion of land use when fields are not utilized along transportation corridors and a study of the loss of the rurual residential homes. This study will necessitate the revisitationof the impacts under CEQA and NEPA.
I032-217	42	**Effects related to increased density around the HST stations that would minimize sprawl and promote TOD are considered beneficial and would revitalize the downtown areas of Fresno and Bakersfield.** This statement in the EIR does not address the Kings/Tulare Station. In the Kings/Tulare station if the station is constructed it does stand to promote sprawl in the community of Hanford and create an area 3 miles east of the Downtown that is not currently served by any utilities or services and is separated by a urban reserve area that is not targeted for any immediate or long term development. The EIR and the Authority is attempting to identify benefits, while ignoring the impacts. Recommendation: Provide an analysis of the Kings/Tulare Station that addresses directly the location of the station at 3 miles east of the Hanford downtown. This should include land use changes that must take place to accommodate the station along with the short term and long term land use plans from the edge of any development along the City of Hanford to the proposed station. An analysis of the definition of sprawl and its relation to this station should also be provided.

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California High-Speed Train Project EIR/EIS
Fresno to Bakersfield Section

Comments provided by Aaron Fukuda

Section 3.14 Agricultural Land

	Page	Comment
I032-218	1	The Statewide Program EIR/EIS (Authority and FRA 2005) concluded that the project would have a significant impact on agricultural lands and committed to mitigation strategies and design practices to reduce those effects. These mitigation strategies and design practices include avoiding farmland when selecting the HST alignment, situating the alignment adjacent to existing railroad rights-of-way or U.S. Geological Survey section lines that divide properties, and securing conservation easements to mitigate impacts. Can the Authority please explain how the alignment through Kings County fits this description of mitigation? One of the mitigation measures cited in this statement is situating the alignment adjacent to existing railroad rights-of-way, however there is no discussion in the EIR/EIS that provides evidence that the alignment through Kings County is scientifically justified to be outside of the railroad alignment. There are no studies presented that show any engineering aspects that would prevent the HSR from following the BNSF corridor. Recommendation: Provide analysis and data that would indicate that the alignment through Kings County requires the alignment to travel through prime farm ground not adjacent to the railroad rights-of-way.
I032-219	1	The Farmland Protection Policy Act (FPPA, 7 U.S.C. Section 4201 et seq.) is intended to protect farmland and requires federal agencies to coordinate with the U.S. Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS), if their activities may irreversibly convert farmland to nonagricultural use, either directly or indirectly. Did the authority coordinate with the USDA or the NRCS in selecting this alignment or any of the design features?
I032-220	8	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 remainder parcel(s) that would be too small to be farmed economically. The quantity of the non-economic remainder parcels was then added to the footprint quantity to identify total Important Farmland converted to nonagricultural use for each alternative. Who determines what parcels are too small to be farmed economically? Was an agricultural specialist used in determining what is too small to be farmed economically? What were the criteria for unusable parcels? Recommendation: Provide further information on how the remainder parcels were determined and the process for determining the economic viable farming operation on that land. It is also critical that someone or some firm that is credentialed to make such determinations be utilized. This information is critical to the decision making process of the reader and the decision maker.
I032-221	8	Project staff combined the scores for both the land evaluation and site assessment portions of Form NRCS-CPA-106 to arrive at a total score for each alternative. The maximum possible score is 260 points. If the score is less than 160 points, no further evaluation is necessary under the FPPA. If the score is greater than 160, the FPPA requires consideration of alternatives that avoid or minimize farmland impacts. Recommendation: Provide the NRCS-CPA-106 forms for the reader and decision maker to review. This form could not be found easily within the document.
	8	Agricultural lands are not replaceable, and therefore any farmland conversion is a

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I032-222

	permanent depletion of the resource. Did the analysis of farmland conversion take into account the need to provide a buffer along the alignment to allow for turning and traveling parallel with the alignment. If this number was not used, it will affect the total acreage converted. The Authority has consistently not recognized the need for a buffer (turning lane) along the alignment to allow for access and setbacks, which will remove ground from farming.

I032-223

23	Tulare and Kings counties have the greatest percentage, 84% and 82%, respectively, of their Important Farmland and Grazing Land in Williamson Act and FSZ contracts, while Kern and Fresno counties have the smallest percentages, at approximately 62% and 68%, This shows the importance of farming to the County.

I032-224

29	In accordance with Federal Aviation Regulations 137, Agricultural Aircraft Operations, and the California Code of Regulations, Division 6, Pesticides and Pest Control Operations, aircraft apply some pesticides when the wind speed and direction are favorable to avoid dispersing chemicals beyond the target area. Aerial applications occur near existing railroad tracks (Karen Alfson, Agriculture Standard Specialist III, Fresno County Agriculture Commission, Tim Niswander, Agriculture Commissioner, Kings County, Judy Brandt, Agriculture Inspector, Tulare County, Ruben Arroyo, Agriculture Commissioner, Kern County, April 20, 2011, personal communication)). Approximately 85% of aerial application occurs at night in the south San Joaquin Valley; a 200-acre field takes about 15 minutes to spray by air (Dennis Hansen, Owner, Kerman Air Services, April 20, 2011, personal communication). This description of aerial application of pesticides is very disjointed. Did they ascertain if applicator apply pesticides in the presence of a train? They can spray around the tracks, however I do not believe they spray if there is a train present. This area also does not address the application of pesticides and herbicides from ground application. This is very prevalent in the farming community.

I032-225

29	The 100-foot wide right-of-way for the BNSF Alternative would cross through the property of 1 dairy and 1 poultry farm in Fresno County, 12 dairies and 1 cattle feedlot in Kings County, and 1 dairy and 1 cattle feedlot in Tulare County. The Authority should understand that in Kings County the alignment does not follow a transportation corridor, therefore the impacts are increased. These numbers show how Kings County is much higher in impacts to dairies than other counties.

I032-226

31	The No Project Alternative would result in substantial farmland conversion to accommodate anticipated growth in the region that would occur without the proposed HST project. In comparison, the HST alternatives would convert farmland for construction of the project, but would also provide opportunities for focusing future development on land that is already urbanized. This could reduce the amount of farmland converted to urban uses to accommodate projected future growth, depending on future local land use decisions. This discussion within the EIR/EIS needs more description. The EIR/EIS does not address facts such as: • In Kings County under the Cortezi, Knox, Hertzberg Act of 2000, counties were required to review their Sphere of Influences and municipal service areas. In Kings County the County was able to reduce their SOI by 11,000 acres therefore reducing the chances of conversion of farm ground • Kings County has implemented Land Use Planning policies in the recent general plan update that enforces large parcel sizing (to support farming) and restricts and eliminates small parceling of land for developments and rural housing projects. • The earlier sections of the EIR/EIS indicate that the HSR will introduce growth to the area due to access by other cities to cheap housing in the Central Valley. This increase housing need will also put pressure on developers to convert farm ground to housing.

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	• The location of Stations, although in Fresno and Bakersfield are in urban settings the Kings/Tulare station is proposed to be on ag ground located 3 miles from the downtown Hanford area. This will cause growth and conversion of the surrounding farm ground to support the station. • In the Fresno station area, the business and area is suffering from blight and neglect. Several projects have been in progress in the downtown Fresno area to encourage a redevelopment and smart growth initiative, however none of these projects have been successful. The EIR/EIS for this project does not present any data, facts or evidence that this project will create any of this success or return to downtown. Therefore it could also be realized that increased growth will be in conversion of farm ground and may be potentially increased due to the population the HSR will bring to Fresno. Recommendation: Address the above concerns.

I032-227

32	Table 3.14-5 This table indicates that the acreage of Important Farmlands Permanently Affected is 733 acres for Kings County. This number is much larger than the other Counties such as Fresno and Tulare County. Recommendation: The EIR/EIS look at alternatives to minimize this conversion like an investigation into an alignment that follows the BNSF through Kings County. The EIR/EIS provides no attempt to minimize the impact to farm ground by looking objectively at alternatives.

I032-228

35	As shown in Figure 3.14-1, most development in the southern San Joaquin Valley that is currently being planned or permitted is located in the vicinity of urban centers and/or along SR 99. The EIR/EIS identifies the population growth areas will occur along Highway 99. Why does the EIR/EIS not provide an alternative analysis of an alignment along Highway 99 as a part of the EIR/EIS. As the population grows in that area, access to HSR would be critical. As they puruse their growth patterns they will have greater ridership and potential for uban development. This would preserve the smaller farming based communities along the BNSF corridor and allow for greater amounts of farmland protection. Recommendation: Provide an alternatives analysis within the EIR/EIS that shows the benefits and impacts between the BNSF and a potential Highway 99 alternative. The analysis should be on an even CEQA and NEPA basis so the reader and decision make can make an appropriate analysis and decision.

I032-229

38	None of the alternatives would cause adverse wind effects on adjacent agricultural lands nor would they interfere with aerial spraying of the crops. The Kings County Ag Commissioner has consistently informed the Authority that spraying of chemical adjacent to the HSR would present problems. This is the case for both aerial application and ground application of chemicals. The potential for drift and migration of chemicals has not been addressed by the EIR/EIS. The Authority has also not provided any evidence from the applicators as to any impacts. From discussion with local spraying companies, the potential for drift and migration is significant and will impact their insurance ratings. Therefore, the applicators may hold a policy not to spray along the HST. Recommendation: CEQA and NEPA require the lead agency to provide analysis into potential impacts due to a project. This EIR/EIS relies upon limited to no information to make claims. In regards to spraying of crops, the EIR/EIS provides little to no data, studies or information that would lead the reader or decision maker to believe that it is a minimal impact. The EIR/EIS should provide a full analysis of both aerial and ground spraying and the potential impacts from the HSR.

I032-230

39	Table 3.14-9 How were these values calculated? If the remnant pieces increased, doe it also increase the factor. Need to identify how the remnant pieces were calculated and which pieces were determined to be remnants (basically where is the backup data)?

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I032-231

41	The alignments follow existing transportation corridors (i.e., SR 43, UPRR, and BNSF) as much as possible, but in some cases the alignments deviate from those corridors and bisect agricultural parcels. The reasons for these deviations include maintaining mandated travel times, optimizing the location of a potential Kings/Tulare Regional Station, and reducing impacts to urban areas, farmland, waters of the U.S., and habitat for threatened or endangered species. This seems to be the explanation for routing the alignment away from the BNSF and having it go to the east.

I032-232

41	The right-of-way acquisition process provides additional opportunities to reduce hardships caused by access severance. As part of this process, the Authority's right-of way agents would work with each affected property owner to address issues of concern. Agents would attempt to resolve conflicts, for example by arranging additional property transfers to consolidate ownership. For large properties, agents may be able to arrange for additional grade separated crossings (e.g., underpasses or small overpasses). It seems that the Authority is not addressing this issue, but leaving it to a later time. The potential for increased land to be converted from Prime Farmland at a later time would impact the factors in Table 3.14-9 and therefore change the 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. Changes in values may indicate this as a significant impact once all parcels are counted.

I032-233

43	Agents would attempt to resolve conflicts, for example by reconfiguring facilities so that there is no net loss of operational capacity. The agents might not be able to resolve all issues, and would offer compensation to landowners that demonstrate a hardship from loss of facilities. Does this qualify as one of those items that they are leaving for a future analysis? Did the Authority do its due diligence in understanding the costs associated with the loss of cows on annual production? 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.

I032-234

44	FRA found that the airflow dissipates in less than 1 second (FRA 1999). Another study found that wind generated by the train has a velocity of approximately 10% of the train velocity at a distance of 3 meters (approximately 10 feet) from the train (Neppert and Sanderson 1977; Mark Sterling and Chris Baker, School of Engineering, University of Birmingham, United Kingdom, August 23, 2010, personal communication). This means that at 10' from the track the wind velocity will be approximately 22 mph. At 15 or 20 feet from the track it could be as high as 10-15 mph. I believe spray operations do not apply in anything over 15 mph. The information seems to be week in that it was simply a personal communication and there are no studies to back it up.

I032-235

45	Aerial Spraying They are only concerned with the height of structures. They did not address drift or the presence of humans during and after construction. In a discussion with Blair Air, the owner indicated that the greatest concern is the application of chemicals near people. There will be multiple claims against his company. They will apply at night and workers will smell the chemical in the morning and make claims. He is also worried about the drift situation. Need to also address the increased testing regime and the lowering to the PPT limit and the zero tolerance regulations.

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Fresno to Bakersfield Section

Comments provided by Aaron Fukuda

I032-236

I032-237

Section 3.16 Aesthetics and Visual Resources

Page	Comment
34	Under all alternatives, the proposed HST stations would not substantially degrade the existing visual character or quality of the site and its surroundings. The design of the Fresno and Bakersfield HST stations could offer a strong focal element unifying the surrounding urban elements. The EIR does not address the visual impacts of the Kings/Tulare Station, and only indicates visual impacts in this statement for the Fresno and Bakersfield section. Recommendation: Provide a statement indicating the impact on visual appearance of the Kings/Tulare Station. Under the description of criteria, the station given its surroundings would be a significant impact to the visual quality of the environment.
37	In urban areas, staging areas would be largest at the HST stations. Both urban HST stations (Fresno Station and Bakersfield Station) would be adjacent to the BNSF right-of-way, where adjacent land uses are accustomed to freight and industrial movements. The EIR does not include an analysis of the visual impact on adjacent land uses for the Kings/Tulare Station. Recommendation: The EIR seems to selectively include and omit the Kings/Tulare station. If this station is not currently planned for construction under this project scope, it should be removed from the analysis given the construction of the station is not a concrete item.

California High-Speed Train Project EIR/EIS
Fresno to Bakersfield Section

Comments provided by Aaron Fukuda

I032-238

I032-239

I032-240

I032-241

Section 3.18 Regional Growth

Page	Comment
1	The BNSF Alternative would result in approximately 9,000 acres of addition growth over the No Project Alternative, or an increase of approximately 0.9% more acres of induced urbanization. Can the Authority provide evidence and/or a study that shows where this number was calculated. The reader and the decision makes do not have the ability to determine if the process to develop the number is legitimate. Recommendation: Provide evidence supporting that that increased growth for the Fresno to Bakersfield section of the No Project Alternative is 9,000 acres.
1	Taken together, these results suggest that additional population growth under HST would be driven by job growth due to the initiation of HST service, rather than due to long-term population shifts from the Bay Area and Southern California based on long-distance commuting. The EIR does not provide any evidence, nor site any study or location within the Program EIR/EIS that would substantiate this claim. In all cases through California, people follow access to cheaper housing and balance this with commuting. Example: Tracy, California is a large suburb of the San Jose and San Francisco area. People did not locate to this area for jobs, the located there for cheaper housing and commute to other areas. Allow people access to cheaper housing in the central valley will increase the population of the central valley. This will increase the amount of farm ground taken out of production, increase air quality problems and increase the amount of traffic congestion within the Valley. Recommendations: Provide a Project Level analysis that looks at the over costs of homes and the potential for induced growth given a certain price to travel on high speed trains.
1	The Final Program EIR/EIS for the Proposed California HST System (Statewide Program EIR/EIS) (Authority and FRA 2005) and the Final Bay Area to Central Valley High-Speed Train (HST) Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) (Authority and FRA [2008] 2010) did not identify growth impacts requiring mitigation. Therefore, no program-level mitigation strategies related to growth have been incorporated into the proposed HST alternatives for the Fresno to Bakersfield Section. The EIR is pointing and referencing a document that is not included in the materials for the EIR nor produced for public review at any of the locations nor on the CD's passed out to the public. The public and the decision makers do not have information that would justify that these statements are correct. The analysis conducted in 2005 may also be different given we are now 6 years after that report. Given the long lapse of time, it is insufficient to rely upon an old document. The Program EIR/EIS also takes a look at things from a macro level, and Project level documents are intended to look much closer at details. Recommendation: A full analysis at the Project level be conducted for growth inducing element. This should include all impacts within the CEQA and NEPA document.
2	The San Joaquin Valley Blueprint Roadmap (the Blueprint) (San Joaquin Valley Regional Policy Council 2010) is a plan for the future of the San Joaquin Valley. The San Joaquin Valley Blueprint Roadmap is a very important document adopted by several agencies in the Central Valley. The inclusion of this report for reader and decision makers is critical. Recommendation: Include the Blueprint as an appendix within the EIR/EIS or provide relevant text within the EIR/EIS so the reader and decision maker can ensure that the statements in the Blueprint are properly cited and utilized in the EIR/EIS.
2	Blueprint scenario that the San Joaquin Valley Regional Policy Council approved, less land is

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Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

		planned for development; more resources are preserved for future generations; distinctive communities are enhanced; and more travel choices, including high-speed rail, are available in the future than currently exist. The EIR
I032-242	16	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 slightly raise the projected population and employment growth beyond growth anticipated under the No Project Alternative. The EIR does not contain the "analysis" cited in this statement. There is no information or data that would allow the reader or the decision maker the opportunity to determine if the project will create jobs and not induce a large amount of population growth within the Central Valley, which will have negative impacts on the Valley. Recommendation: Provide an analysis of anticipate population growth within the Valley as a part of the EIR. Reference recent transportation projects that have created "bedroom communities" that allow commuters to seek lower housing costs and access public transportation.
I032-243	16	The HST-induced growth would, therefore, not require farmland conversion or the extension of public infrastructure beyond what is currently planned. The Final Bay Area to Central Valley High-Speed Train (HST) Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) reported that the more compact development patterns likely to occur under the HST alternatives could reduce farmland conversion by 30,000 acres statewide by year 2030 (Authority and FRA [2008] 2010). The alignment of the HSR through Kings County travels through farm ground and the proposed Kings/Tulare Station is 3 miles from Downtown Hanford. This will require the conversion of farm ground to other land uses and will encourage development in that area, therefore forcing the conversion of land use. This alignment was only recently changed. This Project Level EIR/EIS cannot rely upon Program level analysis and decisions. Recommendations: A full project level analysis be conducted on the proposed project to determine the impacts on climate, land use, and infrastructure policies.
I032-244	16	Analysis of population increase prepared for the HST project shows that population and employment growth would be consistent with and support regional growth management plans and programs, which encourage infill development, concentrating growth in urban areas, and providing transit options and connections for regional residents and workers. This statement by the Authority within the EIR is not founded on any fact or data provided in this report. In the event that a Kings/Tulare station is built it will not encourage infill, it will encourage sprawl and being that it is 3 miles from Downtown Hanford it will not concentrate growth in Urban Areas. If the station is never build it will remove transportation connections for the residents in the Kings and Tulare County area. As indicated in earlier sections, the area will not support two train systems and Amtrak may be eliminated. Therefore residents in Kings and Tulare Counties will have to drive to Fresno or Bakersfield to access the HSR. Recommendation: Provide an analysis of the increased population that will be induced by HSR. Specifically look at the items in this section and evaluate the impacts on a CEQA and NEPA basis.
I032-245	17	Table 3.18-7 The EIR does not provide any background on how the numbers in this table were produced. What are some of the Direct Employment job and Indirect and Induced Employment. Recommendation: Provide the reader and decision makers with background on how the numbers were derived and what types of jobs can be expected.
I032-246	25	As shown in Table 3.18-16, the HST would increase population by approximately 3%, or approximately 110,650 people over the 2035 population forecasted in regional planning documents. Based on a probable population density of approximately 10 persons per acre (see Section 2.4, No Project Description for justification), an additional 11,065 acres of land would be needed to accommodate this additional population. How did the EIR calculate this increase in population? No data or background water provided to

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		the reader in how these numbers were determine. The Land Use section of this report also did not analyze the land use conversion due to the induced population by the HSR. The number provided seem somewhat low being that the HSR would allow people to access the Bay Area and Los Angeles area as a work commute. Recommendation: Provide the reader and the decision make with the analysis utilized to determine the values in Table 3.18-16 and release the document for another public review.
I032-247	25	The HST project would encourage increased densities resulting in more compact urban development around the Fresno and Bakersfield stations. The Fresno downtown area has undergone decades of attempts to revitalize the area. Including the construction of a AAA baseball stadium that was intended to spur development. Unfortunately, all attempts at this have failed. The EIR does not provide any evidence that a station in Fresno or Bakersfield will ensure the development of high density urban infill. Recommendation: Provide a study or analysis that shows that the Fresno and Bakersfield stations will ensure urban infill development.
I032-248	26	However, this loss of farmland would occur even absent the HST, and development around HST stations would direct housing into higher-density and more sustainable development patterns and help achieve the goals of regional growth management plans and General Plans in these areas. The EIR does not address the Kings/Tulare station which does not direct housing to higher-density and more sustainable development. It actually directs development 3 miles outside of town on ground that is currently zoned for agriculture and rural residential lots. Recommendation: Provide data and evidence that the Kings/Tulare station does not provide higher density and smart growth.

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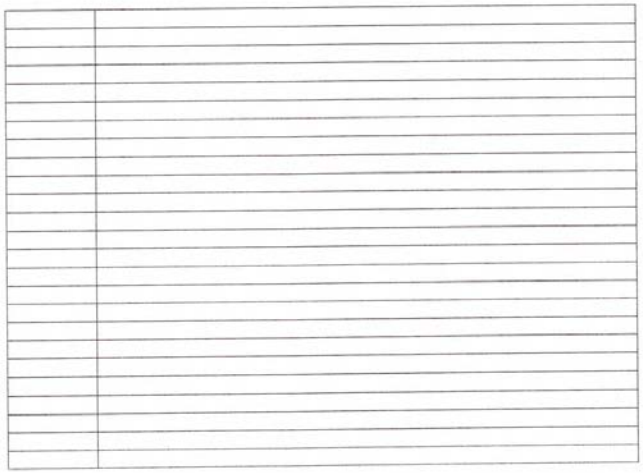

Response to Submission I032 (Aaron Fukuda, October 18, 2012)

I032-1

Refer to Standard Response FB-Response-GENERAL-07.

I032-2

Figure 3.11-4 has been modified in the Final EIR/EIS to indicate the location of the Kings County Houston Avenue fire station.

The impact of the HST alternatives on this station was analyzed in the Draft EIR/EIS and Revised DEIR/Supplemental DEIS. The BNSF Alternative is located near the station to the east. The HST would not alter any public roads in the vicinity of the fire station that are used for emergency response. As described in Section 3.11.5, the BNSF Alternative is approximately 845 feet east of the heliport at the station. In addition, the Houston Avenue overcrossing of the HST alignment is located about 320 feet south of the heliport at its closest point. The Part 77 approach and departure surface for a heliport has an 8 to 1 slope and extends 4,000 feet from the takeoff and landing area, which is centered on the helipad. The HST would be at-grade in the vicinity of the heliport, which would put the top of the catenary system for the train at an elevation of about 35 feet above the ground surface. The helipad Part 77 approach and departure surface is about 105 feet above the ground surface at this location. The helipad Part 77 surface is about 40 feet above the ground surface at its closest point to the Houston Avenue overcrossing. At this location, the overcrossing would be approximately 12 feet above ground surface. None of the proposed HST facilities would penetrate the Part 77 surfaces for the station heliport.

I032-3

Responses to questions submitted by the Kings County Sheriff are provided in Volumes IV and V of the Final EIR/EIS.

I032-4

The design of the Fresno to Bakersfield Section provides for a station platform for the Kings/Tulare Regional Station. Construction of the station will depend on ridership demand.

Section 3.11.4 of the EIR/EIS provides an analysis of crime statistics for

I032-4

Hanford, Fresno and Bakersfield. Crime statistics are provided for Hanford because the Kings/Tulare Regional Station would be located adjacent to the city and it is likely that crime rates in the station area would be similar to those in the city of Hanford rather than Kings County as a whole.

I032-5

SkyLife helicopter service based at Fresno Yosemite International Airport seasonally staffs an air ambulance at Kings County Fire Station #4 from June through September. This information has been included in Section 3.11 of the Final EIR/EIS. The project would not impact the use of the helipad at station #4.

I032-6

As described in Impact S&S #10 in Section 3.11 of the EIR/EIS, the Fresno and Bakersfield HST stations would introduce new activity centers into the downtown areas. The Kings/Tulare Regional Station-East Alternative would be located immediately east of the city of Hanford's sphere of influence. Kings County has zoned land in the vicinity of the station site for commercial development, and the station could help accelerate this development. The Kings/Tulare Regional Station-West Alternative is located adjacent to the city of Hanford planning boundary and is within the Armona Community Planning Area of Kings County. The station site land use designation within Kings County is Limited Agriculture. This station could stimulate development in the area. The associated development and economic activity that would indirectly result from the presence of the HST stations could increase demand for local emergency responders and require new or physically altered government facilities (such as police or fire stations) that might affect the environment.

The stations themselves would introduce new passengers into the cities, which could increase the demand for fire and ambulance services. Because the stations would have onsite security patrols, no increased demand for police protection is anticipated. Increased economic activity around stations would result in increased property and sales tax revenues to help offset costs of additional service demands. However, since the project could increase the demand for fire and ambulance services, the construction of which might affect the environment, the impact on emergency response could have moderate intensity under NEPA and could be significant under CEQA.

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-6

The Authority has developed Mitigation Measure S&S MM#1 to mitigate this impact. That mitigation measure is described in Section 3.11.7 of the EIR/EIS.

I032-7

Construction accidents can happen, as indicated in Section 3.11.5 of the EIR/EIS, but as discussed in Section 3.11.6, construction safety and health plans developed by the Authority will establish safety and health guidelines for contractors. These plans require contractors to develop and implement site-specific measures that address regulatory requirements to protect human health and property at construction sites. In addition, final design includes development of a detailed construction transportation plan that would include coordination with local jurisdictions on emergency vehicle access. The plan would establish procedures for temporary road closures, including access to residences and businesses during construction, lane closure, signage and flag persons, temporary detour provisions, alternative bus and delivery routes, emergency vehicle access, and alternative access. The potential risk and consequences of construction accidents were not judged to be great enough to warrant further evaluation.

I032-8

There is no list of temporary road closures provided in Section 3.2. Section 3.2 describes the permanent road closures for each project alternative. The number of permanent closures are as follows:

BNSF Alternative - 45
Hanford West Bypass alternatives - 5
Corcoran Elevated Alternative - 1
Corcoran Bypass Alternative - 7
Allensworth Bypass Alternative - 3
Wasco-Shafter Bypass Alternative - 18
Bakersfield South Alternative - 3
Bakersfield Hybrid Alternative - 10

Adding the permanent and temporary road closures would not change the conclusions of the analysis. Not all roads that would be temporarily or permanently closed would be

I032-8

closed at the same time. Temporary and permanent road closures would be phased so that impacts on traffic circulation would be minimized. As described in Section 3.11.6, final design includes development of a detailed construction transportation plan that would include coordination with local jurisdictions on emergency vehicle access. The plan would establish procedures for temporary road closures, including access to residences and businesses during construction, lane closure, signage and flag persons, temporary detour provisions, alternative bus and delivery routes, emergency vehicle access, and alternative access locations.

I032-9

The analysis requested in this comment would be speculative. It is not possible to accurately estimate the number and nature of calls to law enforcement regarding vandalism and theft at a construction site. All other information requested in this comment is based on the number and nature of incidents.

As indicated in Section 3.11, the construction contractor would provide appropriate security at construction sites; therefore, the number of incidents of vandalism and theft are expected to be low as is the case at most other large construction sites. As a result, project construction is not expected to tax the resources of the Kings County Sheriff Department. No information provided in these comments or in the Kings County Sheriff's comments provides substantive evidence that this would not be the case.

CEQA does not consider demands for government services an environmental issue. Environmental impacts related to public services under CEQA are associated with the provision of and the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services, including fire protection, police protection, and emergency services. No information provided in these comments or comments provided by the Kings County Sheriff indicates that the Sheriff's Department would need to construct new facilities or physically alternative existing facilities to respond to security issues at project construction sites.

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-10

Section 15148 of the CEQA Guidelines states: "Preparation of EIRs is dependent upon information from many sources, including engineering project reports and many scientific documents relating to environmental features. These documents should be cited but not included in the EIR."

The book by Mr. Aldrich would have been made available at the Authority's office in Hanford if the commenter had requested to review the book. No such request was received by the Authority during the public comment period.

I032-11

The design for ensuring safety of passengers from a train-to-train collision within an HST system is provided in the paragraph following the sentence referenced in this comment.

I032-12

Section 15148 of the CEQA Guidelines states: "Preparation of EIRs is dependent upon information from many sources, including engineering project reports and many scientific documents relating to environmental features. These documents should be cited but not included in the EIR."

The paper by Rao and Tsai is available at http://www.trb.org/Publications/Blurbs/159315.aspx. This reference would have been made available at the Authority's office in Hanford if the commenter had requested to review it. No such request was received by the Authority during the public comment period.

I032-13

Section 3.11 states that physical containment elements, such as derailment walls, are one of a variety of strategies to ensure containment of the HST within the right-of-way in the event of a derailment. Additional strategies encompass design, operation, and maintenance of the system to prevent derailments and to contain the train within the right-of-way in the event of a derailment. For example, the equipment specifications for California HSTI call for undercarriage clamps and traction motor casing designs that will enable the trains to “hug” the rails in the event of a derailment and keep them in

I032-13

alignment with the track structure. This feature, plus the tight-coupled, articulated nature of the train sets will allow the trains to behave during a derailment in a manner which promotes the safest possible outcome. The operating system for the train will be fully automated with state-of-the-art communication, access-control, and monitoring and detection systems to help prevent derailments from occurring. The proposed automatic train control system will prevent train-to-train collisions in the HST system. The proposed seismic detection system will allow the HST system to react to detected seismic events in a manner what will provide options for significantly reducing the risk of derailment and/or injuries and damage in the event of a major earthquake. As a standard maintenance procedure, the track at any point will be inspected several times a week using measurement and recording equipment aboard special measuring trains that will run between midnight and 5 a.m. and usually pass over any given section of track once in the night. Irregularities in the rail would be fixed immediately.

I032-14

It is not possible to provide a mathematical probability/risk calculation for an accident on the California HST System that would result in injury to people adjacent to the right-of-way. Such a calculation requires multiyear information on passenger miles traveled and number of accidents that result in offsite injuries and/or fatalities. There are no HST systems operating in the United States. Therefore, the data do not exist here.

Specific data on passenger miles traveled are not readily available for HST systems in other countries. According to news releases, the Japanese HST system carried approximately 6 billion passengers over 40 years between 1964 and 2004 (Central Japan Railway Company 2011). Over that period, there has never been an injury or fatality to people adjacent to the right-of-way. Also, no passenger fatalities have occurred on the Japanese HST system due to derailments or collisions. There have been injuries caused by doors closing on passengers or their belongings. The French TGV is reported to have carried about 1.7 billion passengers between 1981 and 2010. Where the train operated on dedicated track, there have been 8 passenger injuries due to derailments and no injuries to people adjacent to the right-of-way (TGVweb 2011). High-speed train service has operated in Germany since 1991. No statistics on passenger-miles-traveled are readily available for the German HST system. The accident on the German HST system reported in Section 3.11, Safety and Security, of

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-14

the EIR/EIS resulted in 101 fatalities and 87 injuries to passengers but no injuries to people outside the right-of-way (National Aeronautics and Space Administration 2007; North East Wales Institute of Higher Education 2004). High-speed rail service began in China in 2007. It is reported that HSTs account for 25.7% of total passenger traffic in China, with HSTs transporting 1.33 million passengers daily (International Railway Journal 2013). As reported in Section 3.11, an accident in 2011 on the Chinese HST system resulted in 40 deaths and 72 injuries. Some of the casualties of this accident were members of the public not riding the train but present in the vicinity of the accident.

Although a probability calculation cannot be made for the risk of injury to people adjacent to the California HST System right-of-way, it is clear from the evidence that the risk is very low. HST systems throughout the world have operated for billions of passenger miles for several decades with no injuries to people not traveling on the train.

I032-15

Section 15148 of the CEQA Guidelines states: "Preparation of EIRs is dependent upon information from many sources, including engineering project reports and many scientific documents relating to environmental features. These documents should be cited but not included in the EIR."

This reference would have been made available at the Authority's office in Hanford if the commenter had requested to review it. No such request was received by the Authority during the public comment period.

I032-16

Section 3.11 of the EIR/EIS provides the specifications for protection barriers based on the design Technical Memorandum 2.1.7. Volume III of the EIR/EIS provides plan drawings showing the location of intrusion barriers. This is adequate information for decisionmakers and the public to understand the safety of the system with regards to intrusions into the HST right-of-way. The comment provides no substantive evidence that additional information is required for the environmental analysis of safety.

The HST right-of-way would be fenced with a 7-foot-high, galvanized steel, woven mesh or chain-link fence secured at the top and bottom to galvanized pipe railing. Fence posts

I032-16

would be set in concrete footings set into concrete retaining walls or set in rigid traffic barriers. The fence would be equipped with electronic intrusion-detection devices. Intrusion of farm equipment would be immediately detected by these electronic devices, which would cause an emergency stop of trains in the section. This would minimize the potential of collisions between the HST and farm equipment.

I032-17

This comment implies that there is a great deal of pedestrian and bicycle traffic using private unpaved roads that would be forced to use public roads with the construction of the HST and those public roads are implied to be unsafe. No evidence is provided that substantial pedestrian and bicycle traffic would be put at risk with this scenario. Kings County has road design standards that provide for shoulders that can be used safely for pedestrian and bicycle traffic. The comment provides no substantive evidence that the shift of some pedestrian and bicycle traffic from private unpaved roads that are not required to meet any roadway design standards to public roads that have been built to adopted safety standards would put this pedestrian and bicycle traffic at greater risk for accidents.

I032-18

Refer to Standard Response FB-Response-S&S-04.

As described in Section 2.2.1, HST operation would follow safety and security plans developed by the Authority in cooperation with FRA to include the following:

• A System Safety Program Plan, including a Safety and Security Certification Program, which would be developed during the final design and construction phases to address safety, security, and emergency response as they relate to the day-to-day operation of the system.

• A Threat and Vulnerability Assessment for security and a Preliminary Hazard Analysis and Vehicle Hazard Analysis for safety during the preliminary engineering phase to produce comprehensive design criteria for safety and security requirements mandated by local, state, or federal regulations and industry best practices.

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-18

• A Fire Life Safety Program and a System Security Plan. Under federal and state guidelines and criteria, the Fire Life Safety Plan would address the safety of passengers and employees as it relates to emergency response. The System Security Plan would address design features of the project intended to maintain security at the stations, within the trackwork right-of-way, and onboard trains. Compliance with these measures would maximize the safety and security of passengers and employees of the HST project so that adverse safety and security impacts would be less than significant.

Additional information regarding system safety and security is provided in Section 3.11 of the EIR/EIS. This section states that fire and rescue agencies follow their own standard emergency response protocols for industrial sites when responding to emergencies at high-risk facilities. See also Impact S&S #7 – Risk of Fire.

As discussed in Section 3.11 of the Revised DEIR/Supplemental DEIS,project design features have minimized the potential for train accidents; therefore, local response to accidents along the HST alignment 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 need for local emergency services along the track would be extremely rare, estimation of increased calls for fire suppression along the alignment would be speculative.

As indicated above, a Fire Life Safety Program and a System Security Plan will be developed for the project in accordance with federal and state guidelines. This plan will address the types of fires that could occur on an operating train and the systems that would be used to suppress these fires and protect passengers. Development of this plan is a commitment of the project designer to meet federal and state safety performance standards; therefore, CEQA and NEPA do not require the environmental document to contain a full study of potential for fire risk.

This comment states: "In most instances a full fire cannot be contained by suppression methods and a fireman must be called to assist." This statement is purely speculative and not supported by any factual evidence provided in the submission. The comment

I032-18

goes on to ask how firemen respond to a train traveling at 220 mph. In the very unliley event of a fire on an operating train, the response would depend upon the specific location of the train. Trains in the immediate vicinity of a station would likely be brought into the station where passengers would be evacuated and the fire suppressed. Trains not in the immediate vicinity of a station would make an emergency stop on the tracks, passengers would be evacuated and the fire would be suppressed. As described in Impact S&S #9 in Section 3.11, elevated track would include a walking surface and a lateral safety railing, in accordance with standard engineering design requirements (NFPA International 2001). The design also would include ground access from the elevated tracks at regular intervals along the elevated structure, allowing for emergency passenger evacuation and emergency vehicle access if needed, as well as for routine track maintenance. Emergency vehicle access to fencedc at-grade sections of the right-of-way would be provided at regular intervals adjacent to public roadways.

I032-19

Refer to Standard Response FB-Response-TR-02

Authority policy is to provide roadway overpasses approximately every 2 miles, resulting in no more than 1 mile of out-of-direction travel for vehicles to cross the HST tracks. In most locations in the Fresno to Bakersfield Section, roadway overpasses would be provided more frequently, approximately every mile or less, because of the existing roadway infrastructure. Consequently, out-of-direction travel would be limited to approximately 1 mile in nearly all locations in the project area. The Revised DEIR/Supplemental DEIS, Section 3.11.6, explains that the project design would include coordination with emergency responders to incorporate roadway modifications that maintain existing traffic patterns and fulfill response route needs, resulting in negligible effects on response times by service providers. Section 3.11.5, Safety and Security Environmental Consequences, of the Revised DEIR/Supplemental DEIS provides additional detail regarding emergency response time during HST operations.

I032-20

Section 15148 of the CEQA Guidelines states: "Preparation of EIRs is dependent upon information from many sources, including engineering project reports and many scientific documents relating to environmental features. These documents should be

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-20

cited but not included in the EIR."

This reference would have been made available at the Authority's office in Hanford if the commenter had made a request to review it. No such request was received by the Authority during the public comment period.

I032-21

Section 3.11.5 fully addresses a variety of safety issues, including train accidents, under Impact S&S #4 – Train Accidents. See also Impact S&S #16 – Criminal Activity Aboard Trains and at Stations, which addresses safety issues associated with theft and violence. As described in Section 3.11.1, the HST system would be fully access-controlled with intrusion monitoring systems. This means that the HST infrastructure (e.g., mainline tracks and maintenance and storage facilities) would be designed to prevent access by unauthorized vehicles, including large equipment, people, animals, and objects. The system would also include appropriate barriers (fences and walls). Fencing and intrusion protection systems will be remotely monitored, as well as periodically inspected. Project Design Features identified in Section 3.11.6 include threat and vulnerability assessments during the engineering design and construction phases, which would establish provisions for the deterrence and detection of, as well as the response to, criminal and terrorist acts at rail facilities and for system operations. Additional provisions include security procedures and training and closed-circuit televisions. Furthermore, Mitigation Measure S&S-1 states that the Authority will provide a fair share of the cost of emergency services based on monitoring of local fire, rescue, and emergency service providers to incidents at the stations and HMF before and after construction.

I032-22

Coordination of fire and life safety programs for major transportation systems with local emergency providers is a standard practice throughout California. This does not imply that there will be substantial demand on local emergency services. As stated in Section 3.11.6 of the EIR/EIS, the Authority would provide emergency service providers with an understanding of the rail system, facilities, and operations, and obtain their input for modifications to emergency response operations and facilities, such as evacuation routes.

I032-22

CEQA does not consider fiscal impacts to government services an environmental issue. Environmental impacts related to public services under CEQA are associated with the provision of and the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services, including fire protection, police protection, and emergency services. No information provided in these comments or in the comments provided by emergency service providers indicates that those providers would need to construct new facilities or physically alter existing facilities to respond to security issues at project construction sites.

I032-23

Current zoning for the land surrounding the Kings/Tulare Regional Station-East Alternative is shown on Figure 3.13-4 of the Revised DEIR/Supplemental DEIS. As shown on the figure, the alternative station site and most of the land to the south is zoned industrial. Other zoning in the vicinity of the station site includes single-family residential, commercial, and agriculture.

I032-24

The overcrossing of Houston Avenue has been redesigned so that Fire Station #4 and its support facilities will not require relocation. As a result, existing access to the station will not be impeded. Please see the design drawings provided in Volume III of the Final EIR/EIS.

I032-25

As stated in this comment, the Division of Safety of Dams (DSOD) has required these reservoirs to be held at lower levels to avoid failure of the associated dams in the event of a major seismic occurrence. These reservoirs will be required to remain at reduced levels until the dams are brought up to current seismic standards as required by DSOD. The mission of DSOD is to protect people against loss of life and property from dam failure (see http://www.water.ca.gov/damsafety/). As the state's expert on dam safety, DSOD has required reduced operational levels of Lake Success and Lake Isabella to

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-25

minimize the potential for dam failure. This is adequate information to conclude that the potential risk of inundation of the HST by failure of these dams is less than significant.

Section 3.9.5.3, subheading “Secondary Seismic Hazards”, discusses potential impacts of water inundation resulting from the failure of dams including Terminus, Pine Flat, Success, and Lake Isabella dams. The potential for dam failure is based on evaluation of California Emergency Management Agency’s dam inundation maps, local planning agencies estimates for length of time to inundate areas by more than 1 foot, dam operating restrictions, and other relevant data. For the Fresno to Bakersfield Section, the impacts associated with exposing people or structures to inundation hazards resulting from seismically induced dam failure are anticipated to result in effects with negligible intensity under NEPA and less-than-significant impacts under CEQA. This is because dam failure is unlikely to occur and the amount of time before inundation of the portions of the HST System (on the order of several hours) would allow for evacuation of people from the system.

I032-26

As described in Section 2.2.1 of the EIR/EIS, the Authority would conduct a threat and vulnerability assessment for security during the preliminary engineering phase to produce comprehensive design criteria for safety and security requirements mandated by local, state, or federal regulations and industry best practices. A System Safety Program Plan, including a Safety and Security Certification Program, would be developed during the final design and construction phases to address security and emergency response as it relates to the day-to-day operation of the system. The FRA is currently developing safety requirements for HSTs for use in the United States, and is working with the Department of Homeland Security with regard to security requirements for potential terrorist threats. The FRA will require that the HST safety regulations be met prior to revenue service operations.

The Authority is expecting to maintain its own security force for patrolling and maintaining security for its trains and stations, including response to terrorist threats. The Authority will work with existing state law enforcement agencies to develop and implement this capability prior to revenue service operations. The Authority's security department would also coordinate with local law enforcement agencies prior to revenue

I032-26

service operations.

I032-27

The emergency service provider would provide the Authority with a bill for the Authority's fair share of services above the average baseline service demand. As stated in Mitigation Measure S&S-1, the fair share will be based on projected passenger use for the first year of operations, with a growth factor for the first 5 years of operation. This cost-sharing agreement will include provisions for ongoing monitoring and future negotiated amendments as the stations are expanded or passenger use increases. Such amendments will be made on a regular basis for the first 5 years of station operation. After this period, the Authority will enter into a new or revised agreement with the public service provider.

The Authority will pay for local emergency response services from operating revenues. The cost of these services has been included in operating and maintenance costs provided in Chapter 5 of the EIR/EIS.

As indicated in Section 3.11.6 of the EIR/EIS, the Authority will prepare a fire/life safety program for the project that implements the requirements set forth in the Federal Rail Safety Improvement Act of 2008. This program will address the safety of passengers and employees both prior to and during emergency response operations. The program development and implementation will be coordinated with state and local emergency response organizations to provide them with an understanding of rail system, facilities, and operations, and to obtain their input for modifications to emergency response operations and facilities, such as evacuation routes.

In accordance with CEQA Guidelines, increased demand on emergency services is not an environmental issue per se. A project would result in a significant environmental impact if it resulted in the provision of and the need for new or physically altered government facilities (the construction of which could cause significant environmental impacts) in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services, including fire protection, police protection, and emergency services. As described in Section 3.11.5 of the EIR/EIS, project design features have minimized the potential for train accidents; therefore, local

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-27

response to accidents is not expected to be required because any incident would be extremely rare. This is borne out by the safety record of high-speed trains throughout the world, which is described in Section 3.11. However, the increase in people in the vicinity of stations and at the HMF could result in sufficient demand for emergency services to require provision of and the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts. Mitigation Measure S&S MM-1 has been designed to mitigate that potential impact. Information about the South Hanford Fire Station and emergency helicopter service center can be found in Volume I, Section 3.12.6.4 Affected Environment. The facility would not be displaced, but a small portion of the property would be acquired for a retaining wall to support the Houston Ave. road overpass. Impact SO #1 describes the potential for construction to affect important community facilities and explains that existing emergency vehicle access for police and fire protection services would be maintained at all times.

I032-28

Refer to Standard Response FB-Response-PU&E-01, FB-Response-PU&E-02.

The California High-Speed Rail Authority (Authority) does propose to construct, operate, and maintain an electric-powered high-speed train (HST) system in California. See Section 2.2.6.1 in the EIR/EIS, which describes the method and source of electrification of the HST.

Please refer to Section 2.2 of the EIR/EIS, HST System Infrastructure, for discussion and description of system requirements, vehicles, stations, infrastructure components, traction power distribution, and maintenance facilities. Section 2.2 describes and depicts the many infrastructure components and facilities that will deliver electricity through the HST System. Plans for the provision of electricity to this section of track are specifically discussed in Section 2.2.6, Traction Power Distribution.

Section 3.6, Public Utilities and Energy, discusses the electrical requirements of the HST System as well as energy impacts associated with the HST System. Please refer to Section 3.6.5, Environmental Consequences, for more detail.

I032-29

Impact S&S #4 in Section 3.11.5.3 describes accidents caused by vehicles or other trains entering the HST right-of-way and the design measures that would be taken to avoid these types of accidents. No records have been found of this type of accident occurring on any existing HST system in the four decades that HSTs have been in operation. Therefore, the potential for such an accident is extremely low.

The only alternatives that would eliminate any potential of this type of accident is to separate the HST from all other transportation facility corridors, which is not consistent with the requirements of the legislated mandate for the project.

I032-30

Refer to Standard Response FB-Response-GENERAL-02.

The Authority has determined that the SR 99/UPRR corridor is not practicable for the proposed project as described in FB-Response-GENERAL-02. Therefore, an alternative alignment along the SR 99/UPRR corridor need not be carried through the EIR/EIS.

I032-31

Details of the traffic study methodology are contained in the *Fresno to Bakersfield Section: Transportation Analysis Technical Report* (Authority and FRA 2012), which is the basis for the transportation section in the EIR/EIS. The peak-hour turning-movement volumes at the study intersections and operating conditions on roadway segments were collected during multiple periods in November 2009 (Fresno), March 2011, January 2012, and February 2012 during the peak hours from 7 to 9 a.m. and from 4 to 6 p.m. Turning-movement volumes at the study intersections for the Hanford East Station were collected in the Spring, during March 12-18, 2010, between 7 to 9 a.m. and 4 to 6 p.m., not in November as the comment contends (Appendix A of Authority and FRA 2012).

Collecting the AM and PM peak-hour volumes captures the general commute times for background traffic when it is considered the highest level that would be experienced during the day. As such, an evaluation of other periods of the day or night such as the lunch hour or middle of the day hours during which agricultural equipment is moved would only show lower impacts and are not reported. These peak periods are then used

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-31

for analysis of impacts when the additional project-related traffic is added for each alternative studied.

I032-32

The upgrade of SR 198 to four lanes (construction beginning in November 2009) was included in the traffic analysis. This was documented in the HST Fresno to Bakersfield Section: Transportation Analysis Technical Report, July 2012, page 4-28 (Authority and FRA 2012n).

I032-33

The intersection at Highway 43 and Lacey Boulevard was determined to operate at LOS D for existing conditions, in the Table 3.2-8 of the Final EIR/EIS. This is a stop-sign controlled intersection, and delays can fluctuate within the peak period, which may effect the the commenter's opinion of the intersections operating conditions. The LOS D represents an average delay during the peak period. In regards to the comments recommendation, the intersection analysis provided confirms a LOS for the intersection of Lacey Boulevard and SR 43.

I032-34

The EIR/EIS describes the proposed station setting with respect to non-motorized access on page 3.2-103. The stations would include bicycle racks, pedestrian connections to the existing sidewalks, and bicycle lanes and facilities where they can be accommodated. Outside of the HST station, future bike improvements would have to be developed with or by the agency with jurisdiction, including the California Department of Transportation (Caltrans) and/or the county on or across State Route (SR) 43.

Refer also to Impact S&S #5 – Motor Vehicle, Pedestrian, and Bicycle Accidents Associated with HST Operations.

I032-35

Refer to Standard Response FB-Response-GENERAL-22.

The commenter is correct the speed on Highway 43 between Hanford-Armona Road and Grangeville Boulevard is 55 and not 50. This number was provided as a reference, and no impacts discussions used speed limit as a threshold criteria. Figure 3.2-12 was updated in the Final EIR/EIS to reference the speed limit for SR-43 as 55 miles per hour.

I032-35

The upgrade of SR 198 to four lanes (construction beginning in November 2009) was included in the traffic analysis. This was documented in the HST *Fresno to Bakersfield Section: Transportation Analysis Technical Report,* July 2012, page 4-28 (Authority and FRA 2012). Refer to Response 461-3142.

I032-36

The Final EIR/EIS states that there is no existing transit service at the proposed Kings-Tulare Regional Station–East or –West sites because these sites currently are in undeveloped areas. The development of the final design of the station will involve coordination with local and regional transit agencies to accommodate an extension of their transit systems to the proposed rail station.

I032-37

Page 3.2-48 of the Draft EIR/EIS describes project impacts to air travel at Bakersfield and Fresno. The document states: "The HST would compete and would be expected to draw an estimated 16 travelers/day that would otherwise take a plane from or to Kern County (Meadows Field), and one flight is predicted to divert from the Fresno/Madera area Airport." Fresno Yosemite International Airport currently has 37 departures/day (http://www.flyfresno.com/). Because of the estimated change in only 16 travelers/day, out of a total of 37 plane departures per day at the airport, the effect is reasonably within an average or every day fluctuation in airport passengers, and is not expected to have substantial economic consequences and an economic study was not performed. Except for a small increase in commercial airline departures in 2008, there has been a steady decline in departures from the Fresno Yosemite International Airport over the past 7 years. The annual departures from the airport totaled 18,493 in 2006 and 12,975 in 2012, a reduction of about 30%.

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-38

Refer to Standard Response FB-Response-GENERAL-12.

I032-39

Refer to Standard Response FB-Response-GENERAL-13.

In Section 1.2.3.1 Travel Demand and Capacity Constraints of the Purpose and Need of the Final EIR/EIS, the HST is compared in travel costs to personal vehicle and air travel.

I032-40

This statement is not included in the Revised DEIR/Supplemental DEIS.

I032-41

Table 3.2-12 reference in the comments contains analysis for Intersections Operating at LOS E or F around the Proposed HMF Locations under Existing Conditions in the Revised DEIR/Supplemental DEIS. Refer to Section 5.4.4 Heavy Maintenance Facility Site Alternatives within the Fresno to Bakersfield Transportation Analysis Technical Report for analysis and methods of Proposed HMF Stations. The analysis does not include vehicles diverted from road closures outside of the study area; these number were determined to be less then significant based on the daily trips on rural roads proposed to be closed. The HST will not close any Amtrak Stations, although several alternative may require existing stations to be relocated. Temporary stations would be provided during construction. HST is a intraregional transit system, competing primarily with air travel, not local Amtrak service. Finally, increases in growth and traffic were taken into account in the analysis of impacts; the 2035 study year represents a forecast of future growth and conditions with the train operating.

I032-42

Refer to Standard Response FB-Response-TR-02.

Under the discussion of Impact TR #11 on Page 3.2-74, the RDEIR/SDEIS stated that Lansing Avenue in Kings County would be closed by the BNSF Alternative. As stated, because the traffic volumes on the roads proposed for closure are low and the detours would be limited in rural areas, the affects to traffic circulation would not be significant.

I032-43

Refer to Standard Response FB-Response-TR-02, FB-Response-S&S-01, FB-Response-AG-02.

Although the project might change how access is gained to an existing property, the project would not leave a property with no formal access at all, otherwise the acquisition of the property and relocation services and/or compensation would be appropriate. Proposed road closures may require out-of-the way travel, where the closure is on a relatively low traveled roadway and an overcrossing is not proposed. However, overcrossings will generally be less than 1 mile apart, limiting the amount of out-of-way travel with respect to the existing conditions.During the growing and harvesting seasons, the movement of large agricultural implements (i.e. tractors, combines, mechanical picking equipment etc.) may occur, and are already occurring on roadways. The California Vehicle Code allows for the movement of agricultural related vehicles, and provides both exemptions and restrictions for the movement of such vehicles (California Vehicle Code, Division 16, Section 36000). These rules involve both the size of the vehicles (e.g., vehicle width and load), and the distance of the trip (e.g., less than 25 miles on a highway). The project would change periodic trips by shifting the route of some large agricultural vehicles onto a state highway for short distances (e.g., one or two interchanges, well within the DMV restriction of 25 miles). The farm vehicle trips would be occasional as well as seasonal, and this change is not considered a substantial change in traffic from existing conditions.

Owners who believe they may suffer a loss of property value or financial loss as a result of the project may address this issue during the right-of-way and acquisition phase of project development, and file a claim with the State of California's Government Claims Board. More information about the claims process may be obtained online at: www.vcgcb.ca.gov/claims. In general, anyone who wishes to file a lawsuit against the State or its employees for damages must first pursue an administrative remedy through the GCP claims process.

I032-44

Refer to Standard Response FB-Response-GENERAL-02.

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I032-44

Refer to Section 2.2.3, Stations, of the Final EIR/EIS. The Fresno to Bakersfield Section would include a station in Fresno and a station in Bakersfield. The Authority is also considering a potential station location in the Hanford area, the Kings/Tulare Regional Station.

I032-45

The Kings/Tulare Regional Station serves the area of Hanford projected in the EIS/EIR, and accounts for future growth that will occur. Drivers will utilize the station, and existing regional transit agencies (buses) are expected to revise their routes to include a stop at the stations, but no substantial changes in local transportation modes are foreseen at this time. The transportation analysis in the EIR evaluates these trips for the current and future study years. The evaluation is considered representative of the system's potential use, as well as expansion of use within the future study years presented in the RDEIR/SDEIS. The air quality and community impacts evaluations are based on the same forecasted trips, and travel patterns and travel mode. No additional regional studies are anticipated.

Adequate parking to serve the riders is already proposed at the HST station site. In the event parking demand is higher than expected, additional parking can be incorporated at the station in the future. For example, increased demand after decades of population growth has been met at other regional transit systems (e.g., Bay Area Rapid Transit or BART) through reconstruction of the parking garages at or immediately adjacent to the existing station sites. If this were necessary, it would require an individual review and public input at the time it is proposed. Private property owners can always choose to provide parking or convert their properties for parking use, but this conversion generally occurs in more highly developed urban/suburban areas where high parking fees can be charged. This is not anticipated as it would require that demand and the associated parking revenue would be so high that it would justify the expense of installation and operation of such a service. This is not a reasonably foreseeable future event in the vicinity of this station area, and therefore demolition of private buildings for parking is not expected or planned.

The Authority may provide a portion of the Kings/Tulare Regional Station Alternative's parking in Downtown Hanford, Visalia, Tulare, or other nearby cities and communities,

I032-45

with transit connectivity to the stations; although no specific site location(s) have been determined. Reducing the number of spaces provided at the station area would allow for more open space areas around the station, discourage growth at the station, encourage revitalization of the downtowns (by providing direct shuttles between downtown and the station), and reduce the development footprint of the station. The FRA's and Authority's goals for the Kings/Tulare Regional Station include creating a station that serves as a regional transportation hub to provide quick transit connections from the station to the downtown areas regionally local cities and communities.

The Authority prepared and distributed Urban Design Guidelines (Authority [2010] 2011b) available on the Authority's website to provide assistance in urban planning for the stations to help achieve great placemaking. The guidelines are based on international examples where cities and transit agencies have incorporated sound urban design principles as integrated elements of large-scale transportation systems. The application of sound urban design principles to the HST System will help to maximize the performance of the transportation investment, enhance the livability of the communities it serves, create long-term value, and sensitively integrate the project into the communities along the HST System corridor. The Authority and FRA have also provided planning grants for cities that could have an HST station to assist them in land use planning in the areas surrounding the stations. The stations will be approved by the local jurisdiction through use permits.

As design progresses and refinements are made, additional information will become available. The Authority and FRA will consider whether changes in design, changes in circumstances, or new information will result in a new or more severe environmental impact. In those cases, subsequent or supplemental environmental analyses will be undertaken consistent with CEQA Guidelines Section 15162 -- 15164 and FRA Procedures for Considering Environmental Impacts (64 FR 101, page 28545, section 13(c)17. This will result in additional CEQA and NEPA review, as required under those laws.

As stated by the court in the case, *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002)102 Cal.App.4th 656, 698: "[T] here is no statutory or case authority requiring an EIR to identify specific measures to provide

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I032-45

additional parking spaces in order to meet an anticipated shortfall in parking availability. The social inconvenience of having to hunt for scarce parking spaces is not an environmental impact; the secondary effect of scarce parking on traffic and air quality is. Under CEQA, a project's social impacts need not be treated as significant impacts on the environment. An EIR need only address the *secondary physical* impacts that could be triggered by a social impact." (See also, CEQA Guidelines, § 15131(a).) Notably, in 2010, the California Natural Resources Agency amended Appendix G of the CEQA Guidelines to delete parking adequacy from the checklist.

Further, because adequate parking is planned to serve the Project and projected parking demands, there would not be any indirect impacts, such as air quality or traffic impacts, resulting from the Project's effects on parking.

I032-46

Text was corrected in the Revised DEIR/Supplemental DEIS.

I032-47

Refer to Standard Response FB-Response-TR-01.

Pedestrian access will be maintained during the construction period, to the extent feasible. This is considered an element of project design and construction planning, and Section 3.2.6 has been revised to clarify this commitment. For any construction project, access through the project's active work areas will fluctuate depending on what activities the contractor is engaged in and whether safe access can be maintained. The exact staging of the construction activities is in many cases the responsibility of the contractor, and will be determined after the construction contract is awarded. Pedestrian and bike access may at times have to be temporarily detoured safely outside of the construction area.

I032-48

Refer to Standard Response FB-Response-TR-01.

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I032-48

feasible. This is considered an element of project design and construction planning, and Section 3.2.6 has been revised to clarify this commitment. For any construction project, access through the project's active work areas will fluctuate depending on what activities the contractor is engaged in and whether safe access can be maintained. The exact staging of the construction activities is in many cases the responsibility of the contractor, and will be determined after the construction contract is awarded. Pedestrian and bike access may at times have to be temporarily detoured safely outside of the construction area.

I032-49

Refer to Standard Response FB-Response-S&S-01, FB-Response-TR-01.

The Construction Period Traffic plan will require safe vehicular and pedestrian access to local businesses and residences during construction. The plan will provide for emergency access and scheduled transit access where construction would otherwise impede such access. Where an existing bus stop is within the work zone, the design-builder will provide a temporary bus stop at a convenient location away from where construction is occurring. Adequate measures will be taken to separate students and parents walking to and from the temporary bus stop from the construction zone.

EIR/EIS Section 3.11.6 explains that the project design would include coordination with emergency responders to incorporate roadway modifications that maintain existing traffic patterns and fulfill response route needs, resulting in negligible effects on response times by service providers. Section 3.11.5, Safety and Security Environmental Consequences, of the EIR/EIS provides additional detail regarding emergency response time during HST operations.

I032-50

Refer to Standard Response FB-Response-GENERAL-08.

The California High-Speed Rail Authority will continue to coordinate with the City of Hanford and the California Department of Transportation (Caltrans) during the procurement stage to agree on the required level of roadway improvements associated with the HST project. Table 3.2-31 is updated in the Final EIR/EIS to reference 7th

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I032-50

Avenue and 6th Avenue for these specific intersections.

I032-51

Refer to Standard Response FB-Response-GENERAL-08.

The California High-Speed Rail Authority will continue to coordinate with the California Department of Transportation (Caltrans) during the procurement stage to agree on the required level of roadway improvements associated with the HST project.

I032-52

Refer to Standard Response FB-Response-TR-02.

I032-53

Refer to Standard Response FB-Response-S&S-01.

HSR policy is to provide roadway overpasses approximately every 2 miles, resulting in no more than 1 mile of out-of-direction travel for vehicles to cross the HST tracks. In most locations in the Fresno to Bakersfield Section, roadway overpasses would be provided more frequently, approximately every mile or less, because of the existing roadway infrastructure. Consequently, out-of-direction travel would be limited to approximately 1 mile in nearly all locations in the project area.

All roadways will be constructed in accordance with the appropriate jurisdiction (City, County, Caltrans, etc.) design and safety requirements. 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. Oversized loads require Caltrans permits, and are subject to operating restrictions and lighting/signage

I032-53

requirements. Because of the width of the overcrossings and motor vehicle requirements for oversized loads, 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.

I032-54

Refer to Section 3.2.6, Project Design Feature (Page 3.2-125 of the Revised DEIR/Supplemental DEIS) - Protection of Public Roadways during Construction. This design feature requires repair of any structural damage to public roadways, returning any damaged sections to their original structural condition. The contractor will survey the condition of the public roadways along truck routes providing access to the proposed project site both before construction and after construction is complete. The contractor will complete a before-and-after survey report and submit to the Authority for review, indicating the location and extent of any damage. The contractor will then be required to repair the damage.

I032-55

Refer to Standard Response FB-Response-GENERAL-08.

As stated in Chapter 6.0, References, of the Fresno to Bakersfield Transportation Technical Analysis Report, numerous phone conversations and emails were exchanged between December 2009 to April 2010 with District 6 Claims Officers and Transportation Engineers. The Authority and FRA have consulted with public agencies during the process of planning and designing the HST project, including during preparation of the Preliminary and Supplemental Alternatives Analysis Reports. Chapter 7 of the Revised Draft EIR/Supplemental Draft EIS documents more recent agency consultation activities (see Table 7-1). In addition, as described in FB-Response- 17, the Authority and FRA have exceeded the basic requirements for outreach during the CEQA and NEPA processes.

I032-56

Detailed traffic counts can be found within Appendix A of the Fresno to Bakersfield Section: Transportation Technical Report (available at the Authority's website). Turning

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-56

movements at intersections included in the study are provided in Appendices B, D, E, and F of the Transportation Technical Report. Existing turning-movement volumes at the study intersections for the Hanford East Station were collected during March 12-18, 2010, between 7 to 9 a.m. and 4 to 6 p.m. and Dec 8-14, 2011, and between 7 to 9 a.m. and 4 to 6 p.m. (Appendix A of Authority and FRA 2012). Seasonal and exceptional events are short-term and do not necessarily increase the peak-hour traffic volumes, which have already been conservatively modeled to represent a typical day traffic volumes and are further combined with conservative meteorological and background ambient air quality recommendations. Footnotes will be added to the air quality analysis to indicate the source of VMT information utilized in the emissions analysis.

I032-57

Refer to Standard Response FB-Response-AQ-03, FB-Response-GENERAL-03, FB-Response-GENERAL-05, FB-Response-GENERAL-10, FB-Response-GENERAL-12, FB-Response-GENERAL-13, FB-Response-TR-01.

At full build-out, the HST would operate separately from the state-supported Amtrak service.

Details of the VMT (vehicle miles traveled) emission estimates can be found in Appendix A of the *Fresno to Bakersfield Section: Air Quality Technical Report* (Authority and FRA 2012).

I032-58

The Revised DEIR/Supplemental DEIS was revised to include information about the CAFÉ (future corporate average fuel) standards, adopted on May 7, 2010, which would require substantial improvements in fuel economy for all vehicles. Information about the updated federal fuel-economy standards can be found in Section 3.3.4.2 of the Revised DEIR/Supplemental DEIS.

I032-59

Appendix A of the Fresno to Bakersfield Air Quality Technical Report (Authority and FRA 2012f) contains the detailed schedule, equipment list, and emission factors that are

I032-59

necessary to develop the emissions inventory, utilizing the appropriate methodology outlined by the EMFAC, OFFROAD, and AP-42 documentation (CARB 2006a, 2006b; EPA 2006).

I032-60

Appendix A of the Fresno to Bakersfield Section Air Quality Technical Report (Authority and FRA 2012f) contains the detailed schedule, equipment list, and emissions factors that are necessary to develop the emissions inventory, using the appropriate methodology described in the EMFAC, OFFROAD, and AP-42 documentation (CARB 2006a, 2006b; EPA 2006).

I032-61

The SJVAPCD takes into account emission trends and emission reduction goals when establishing limits for rules, regulations, and CEQA significance thresholds. In determining if a Project will cause or contribute to exceedances of the ambient air quality standards, it is common practice and conservative to use current ambient air concentrations as background to which the Project dispersed emissions are added to the background. The vehicle and construction equipment emission factors have taken into account reductions in emission factors that will affect future emissions such as regulations and vehicle mix based on CARB's EMFAC and OFFROAD models.

I032-62

The intent of a regional transportation plan's (RTP's) unconstrained projects list is for a Metropolitan Planning Organization (MPO) to list the projects that are needed that do not have a funding source. As stated in the California Transportation Commission's 2010 Regional Transportation Plan Guidelines, "in addition to the current list of financially constrained projects identified in the RTP, each Plan should contain a list of needed unconstrained projects (Illustrative projects). Illustrative projects are additional transportation projects that may (but are not required to) be included in the RTP if reasonable additional resources were to become available. This unconstrained list will identify projects that are recommended by the MPO/RTPA [MPO/Regional Transportation Planning Agency] without a funding source identified. The list should be included separately from the financially constrained project list." It is not appropriate for

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I032-62

the HST to be included in the unconstrained project lists in the two RTPs mentioned. The project will not preclude MPOs from including the HST in future RTPs. The Fresno to Bakersfield Section of the HST project is not subject to the transportation conformity rule. However, if the project requires future actions that meet the definition of a project element subject to transportation conformity, additional determinations and associated analysis will be completed as may be required.

I032-63

Refer to Standard Response FB-Response-AQ-03.

The project will not preclude the Metropolitan Planning Organizations from including the HST in future regional transportation plans. Compliance with the General Conformity Rule for the preferred alternative is required prior to the construction of the HST project, but may be completed concurrent with EIR/EIS certification. The Fresno to Bakersfield Section of the HST project is not subject to the transportation conformity rule. However, if the project requires future actions that meet the definition of a project element subject to the transportation conformity rule, additional determinations and associated analysis will be completed as may be required.

I032-64

As stated in Section 3.3.6.3, Impact AQ #1, the BNSF Alternative was used as the proxy alignment to estimate air quality emissions for the at-grade and elevated alignments for all alternatives.As stated in Section 3.3.6.3, Impact AQ #1, the BNSF Alternative was used as the proxy alignment to estimate air quality emissions for the at-grade and elevated alignments for all alternatives. This alternative was chosen because the length of this alternative is comparable to the others. In addition, the BNSF Alternative analysis included the worst case demolition scenarios for each alternative. For example the proposed North Bakersfield station location was estimated to require more demolition than the proposed South Bakersfield location, therefore the demolition required for the North Bakersfield station was included in the construction emission estimates. As such, the emission estimates are conservative in that they represent the worst case construction scenario for air quality impacts.In the Final EIR/EIS the construction air quality and GHG emissions for the Alternatives was calculated based on scaling the different construction phase activities (e.g demolition, track at grade, elevated track) for

I032-64

each Alternative based on the amount of track or structures needing demolition compared to the equivalent amount of track or structures in the BNSF Alternative. This is appropriate since all unique construction phase activities were defined for the BNSF Alternative. For localized air quality impacts, each unique construction phase activity was evaluated in the Final EIR/EIS as fully described in Appendix H of the Fresno to Bakersfield Air Quality Technical Report.

I032-65

Refer to Standard Response FB-Response-AQ-04.

Regional and local policies were taken into account in both the no build and build analyses.

I032-66

A summary of the emissions has been added to Table 3.3-7 of the Revised DEIR/Supplemental DEIS.

I032-67

Mitigation Measure AQ-4: Offset Project Construction Emissions through an SJVAPCD VERA, provides that the Authority and the San Joaquin Valley Air Pollution Control District will enter into a contractual agreement to mitigate by offsetting to net zero the project's actual emissions by providing funds for the district's Emission Reduction Incentive Program. These funds will be provided at the beginning of the construction phase. Therefore, mitigation/offsets will occur in the year of impact or as otherwise permitted by 40 CFR Part 93 Section 93.163. There will be no long-term delay in achieving the net-zero emission reductions through the construction offset agreement. During operation, under various ridership scenarios, the HST will result in a net decrease in both criteria and greenhouse gas emissions.

Vehicle registration fees are assessed on vehicles registered in the San Joaquin Air Basin as part of the San Joaquin Valley Air Pollution Control District's alternative fee collection, pursuant to Section 185 of the Clean Air Act (CAA). The mandatory fee for non-attainment established by the CAA requires collection of fees equivalent to $5,000

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I032-67

(1990 dollars) per ton of NOx or VOC emitted by stationary sources. However, under Section 172e of the CAA, the district may propose alternative means of collecting this fee if it can demonstrate that an equivalent amount of emissions has been collected. Since mobile sources are a major source of NOx and VOC in the air basin, it was determined that this source should have incentives placed on it to decrease the emissions associated with it. This is allowed under the public safety code and vehicle code of California.

Furthermore, Assembly Bill 2522 (Arambula 2008) authorized additional vehicle registration fees to be collected in the San Joaquin Air Basin of up to $36 through 2024 only if the area has been reclassified by the EPA from severe to extreme by the end of the 2012-2013 fiscal year. Any additional fees imposed on motor vehicles would require amendments to the state law. The fees would not be required once the air basin achieves attainment of the National Ambient Air Quality Standards. The fees collected are used to implement emissions reductions in the air basin and to reduce the vehicle miles traveled, with at least a portion focused on public health and on communities disproportionately impacted by the emissions. Therefore, there will be no additional fines associated with construction of the project.

I032-68

On page 3.3-28 of the Final EIR/EIS, emissions from material hauling have been quantified. Material hauling includes such things as dirt, concrete slabs, aggregate, and ballast. Material was estimated to come from both within and outside the San Joaquin Valley Air Board.

I032-69

Mitigation Measure AQ-5 states the the quantity of emissions that may be needed from other air basins. This measure states that 3 tons per year of nitrogen oxide (NOx) credits are needed from the Mojave Desert Air Quality Management District, and 20 tons of NOx per year are needed from South Coast Air Quality Management District. Depending on the scenario, 6.24 tons of NOx credits may be needed from the Bay Area Air Quality Management District. Further details are contained in Appendix A of the Fresno to Bakersfield Air Quality Technical Report (Authority and FRA 2012f).

I032-70

Refer to Standard Response FB-Response-HMW-01.

The analysis conducted in the Final EIR/EIS did not specifically identify individual sensitive receivers. Instead, as a generalized classification, sensitive receivers (such as schools, residences, day care centers, and health care facilities) were analyzed to determine appropriate distances from the construction operations that would result in less-than-significant impacts with respect to health risks. Because the guideway/alignment would run past any specific sensitive receiver for less than 1 year, the short period and level of exposure are not expected to increase the cancer risk of 10 in a million to sensitive receivers.

Section 5.6 of the Air Quality Technical Report has been revised to explain the methodology used to identify sensitive receivers (Authority and FRA 2012f). Sensitive receivers were identified using the Geographic Names Information System to identify both schools and hospitals (USGS 2011). Residences were identified using parcel and zoning information. Sections of the HST track that do not have any sensitive receivers other than residences are not shown, but the whole section of track was analyzed to identify sensitive receivers within 1,000 feet of the track. The schools mentioned were more than 1,000 feet from the track.

I032-71

Refer to Standard Response FB-Response-AQ-02.

Emissions generated due to the use of concrete were included in the analysis and were based on the estimated quantities required to build the project.

I032-72

Refer to Standard Response FB-Response-AQ-03, FB-Response-GENERAL-05.

I032-73

Refer to Standard Response FB-Response-GENERAL-01.

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-74

Refer to Standard Response FB-Response-AQ-03, FB-Response-AQ-04.

I032-75

Section 3.3.6.3 of the Revised Draft EIR/Supplemental Draft EIS states that the long-distance, city-to-city aircraft take-offs and landings within the Fresno to Bakersfield Section would be reduced by about seven flights per day, and goes on to say that the latest analysis shows that the HST project would reduce regional long-distance, city-to-city aircraft take-offs and landings within the Fresno to Bakersfield Section by seven to five flights per day in 2035 (less in 2009). The number of flights projected to be lost at the Fresno Yosemite International Airport could range from zero to seven, and would depend on a number of factors. Considering that the highest estimate of lost flights is seven throughout the Fresno to Bakersfield Section, this number of lost flights would not be economically significant when considering the four airports in the vicinity of this HST section, and no analysis of loss of revenue and jobs is warranted.

I032-76

Refer to Standard Response FB-Response-AQ-03.

The Final EIR/EIS contains an analysis of greenhouse gas emissions during operation of the HST system in Section 3.3.6.3, Impact AQ #11. The details of this analysis are supported by Section 7.9 in the Fresno to Bakersfield Section: Air Quality Technical Report (Authority and FRA 2012f).

I032-77

Refer to Standard Response FB-Response-GENERAL-05, FB-Response-AQ-03,

I032-78

Refer to Standard Response FB-Response-AQ-03, FB-Response-GENERAL-05.

I032-79

According to Mitigation Measure AQ-1, all off-road construction diesel equipment will use the cleanest, reasonably available equipment, but in no case less clean than the average fleet mix from the California Air Resource Board's (CARB's) OFFROAD

I032-79

database. The average fleet mix from CARB's OFFROAD database was used in the analysis; therefore, any equipment better than this will result in emissions reductions. Furthermore, emissions reductions to offset all criteria pollutant construction emissions is covered under Mitigation Measure AQ-4 through a Voluntary Emissions Reduction Agreement with the San Joaquin Valley Air Pollution Control District .

Vehicle registration fees are assessed on vehicles registered in the San Joaquin Air Basin as part of the San Joaquin Valley Air Pollution Control District's alternative fee collection, pursuant to Section 185 of the Clean Air Act (CAA). The mandatory fee for non-attainment established by the CAA requires collection of fees equivalent to $5.000 (1990 dollars) per ton of nitrogen oxide or volatile organic compounds emitted by stationary sources. However, under Section 172e of the CAA, the district may propose alternative means of collecting these fees if it can demonstrate that an equivalent amount is collected. Since mobile sources are a major source of nitrogen oxide and volatile organic compounds in that air basin, it was determined that these sources should have incentives placed on them to decrease the emissions associated with them. This is allowed under the public safety code and vehicle code of California.

Furthermore, Assembly Bill 2522 (Arambula 2008) authorized additional vehicle registration fees to be collected in the San Joaquin Air Basin of up to $36 through 2024 only if the area has been reclassified by the EPA from severe to extreme by the end of 2012-2013 fiscal year. Any additional fees imposed on motor vehicles would require amendments to the state law. The fees would not be required once the air basin achieves attainment of the National Ambient Air Quality Standards. The fees collected are used to implement emissions reductions in the air basin and to reduce the vehicle miles traveled, with at least a portion focused on public health and communities disproportionately impacted by the emissions. Therefore, there will be no additional fines associated with construction of the project.

I032-80

Refer to Standard Response FB-Response-GENERAL-03, FB-Response-GENERAL-13.

The HST would be electrical powered, so there will be no diesel operational emissions from the train.

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-81

The ridership and revenue model was developed by a nationally recognized leader in forecasting, Cambridge Systematics (2007). The ridership model "produces results that are reasonable and within expected ranges for the current environmental planning and Business Plan applications," according to a ridership and revenue peer review panel of leading U.S. and international experts in travel forecasting (Independent Peer Review Panel 2011). In addition, the air quality and greenhouse gas analyses in the Revised DEIR/Supplemental DEIS that are related to ridership have been updated to reflect two ridership scenarios—one with fares at 50% of airfare prices and one at 83% of airfare prices—to provide a range of potential impacts.

I032-82

CEQA only considers the impacts (negative) on the environment. NEPA, however, considers both the negative and positive (beneficial) effects on the environment. The Air Quality analysis in the Revised DEIR/Supplemental DEIS, Section 3.3, indicates that operational emissions are anticipated to result in a net benefit due to the decrease in emissions from riders using the HST instead of cars and planes.

I032-83

The construction analysis broke the construction into activity phases which included not only the alignment, stations and maintenance facility, but also included other activities such as road crossing projects, power substations, and demolition.

I032-84

Research on noise effects on wildlife and livestock by the Federal Rail Administration (FRA, 2005) suggests that noise levels about 100 decibels (dBA) Sound Exposure Level (SEL) (the total A-weighted sound experienced by a receiver during a noise event, normalized to a 1-second interval) may cause animals to alter behavior. Accordingly, the FRA *High Speed Ground Transportation Noise and Vibration Impact Assessment* manual (FRA 2005) Table 3-3 considers an SEL of 100 dBA the most appropriate threshold for disturbance effects on wildlife and livestock of all types. The level is based on a summary of the research and studies referenced in the FRA Guidance Manual in Appendix A. Given a reference SEL of 102 dBA at 50 feet for a 220-mph HST on ballast and tie track, an animal would need to be within 100 feet of an at-grade guideway to

I032-84

experience an SEL of 100 dBA. At locations adjoining an elevated guideway, an SEL of 100 dBA would not occur beyond the edge of the elevated structure. Refer to Section 3.4.3.3, Impact Assessment Guidance, and Section 3.4.5.3, High-Speed Train Alternatives, of the Revised DEIR/Supplemental DEIS under the heading Noise Effects on Wildlife and Domestic Animals for further information regarding noise effects on wildlife and livestock.

Table 3.4-24 of the Revised DEIR/Supplemental DEIS presents the screening distances to the HST tracks within which the level would exceed the criteria and therefore may affect animals for both at-grade and elevated structures. The criterion for assessing potential noise impact on wildlife and domestic animals is an SEL of 100 dBA from HST pass-by events. This criterion is based on research into potential effects from HST noise on animals. These potential effects include relocation, running, physiological effects such as changes in hormones or blood composition, and startle. The criteria for potential startle from rapid onset rates of HST noise apply to humans, as the supporting research is based primarily on human response to rapid onset rates from military aircraft flights. At this time, there is no conclusive evidence of noise and vibration decreasing production in livestock or affecting breeding habits.

I032-85

The Noise group worked with the geologists to come up with the 18 transfer mobility testing sites that were representative of the types of soils in each area of the alignment.

I032-86

Technical Memorandum 6.1, Selected Train Technologies (Authority 2008) and Technical Memorandum 6.3, Trainset Configuration Analysis (Authority 2009c) provide the evaluation used to determine the type of trainset for the project. Key factors in the decision included operating speed, capacity, competition, platform height, and ceiling height. These technical memoranda are available on the Authority's website.

The noise prediction model consists of more than identifying the number of cars and speed of the train. Section 5.2 of the Noise Technical Report describes the noise prediction components that were utilized as part of the project. The (1) propulsion or machinery noise; (2) mechanical noise resulting from wheel/rail interactions and/or

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-86

guideway vibrations; and (3) aerodynamic noise result from airflow moving past the train are all taken into account in the noise model. If construction goes forward and the HST project is operational, a train set will be chosen that incorporates the latest advancements in technology in order to generate the lowest amount of noise possible.

I032-87

Noise measurements were conducted for this alignment. The alignment shifted from near the BNSF line further east. The land use area where the alignment shifted did not change, making the existing ambient noise measurements representative of the area. The noise sources in this particular land use area, which is mainly agricultural, consist of farming equipment and local vehicular traffic. Additionally, a reasonable number of measurements were taken for the BNSF Alternative that would have gone through the middle of town, and this data is sufficient enough to use for noise modeling purposes. The locations of noise sensitive receivers are show graphically in a Figure 3.4-9 in Section 3.4 of the Fresno to Bakersfield EIR/EIS.

I032-88

Refer to Standard Response FB-Response-N&V-03, FB-Response-N&V-05.

I032-89

The train will be at 99 dBA SEL at a distance of 100 feet. The SEL metric is a different metric (SEL = Single Event Level) than what is reported for the noise exposure throughout an entire day (Ldn = day-night noise level). The two different metrics cannot be summed in order to calculate the noise level at your home.

I032-90

Length of construction can be better estimated once the final design is done, the time spent near your area will depend on the construction schedule, which will not be known until a contractor is chosen. At this time all we can say is that the project could take up to, or as long as, the duration of construction that you experienced with the SR 198 project.

I032-91

The measured existing Ldn values at noise-sensitive receivers located throughout the stretch of homes where measurements were conducted are comparable to the existing Ldn values at noise-sensitive receivers located further east and closer to the current segment of the BNSF Alternative that runs east of Hanford. Additionally, the land use area where the alignment shifted did not change, making the existing ambient noise measurements representative of the area. The noise sources in this particular land use area, which is mainly agricultural, consist of farming equipment and local vehicular traffic. Evidence of this can be found in Table D-2 of Appendix D in the Fresno to Bakersfield Technical Report, which identifies the dominant noise sources at long-term sites 97 and 110 as wind, farm equipment and vehicular traffic.

I032-92

Refer to Standard Response FB-Response-N&V-02.

Research on noise effects on wildlife and livestock is limited, but suggests that noise levels about 100 decibels (dBA) Sound Exposure Level (SEL) (the total A-weighted sound experienced by a receiver during a noise event, normalized to a 1-second interval) may cause animals to alter behavior. Accordingly, the FRA High Speed Ground Transportation Noise and Vibration Impact Assessment Manual (2005) considers an SEL of 100 dBA the most appropriate threshold for disturbance effects on wildlife and livestock of all types. The level is based on a summary of the research and studies referenced in the FRA Guidance Manual in Appendix A. Given a reference SEL of 102 dBA at 50 feet for a 220-mph HST on ballast and tie track, an animal would need to be within 100 feet of an at-grade guideway to experience an SEL of 100 dBA. At locations adjoining an elevated guideway, an SEL of 100 dBA would not occur beyond the edge of the elevated structure. Refer to Section 3.4.3.3, Impact Assessment Guidance, and Section 3.4.5.3, High-Speed Train Alternatives, of the RDEIR/SDEIS under the heading Noise Effects on Wildlife and Domestic Animals for further information regarding noise effects on wildlife and livestock.

Table 3.4-24 of the RDEIR/SDEIS presents the screening distances to the HST tracks within which the level would exceed the criteria and therefore may affect animals for both at-grade and elevated structures. The criterion for assessing potential noise impact on wildlife and domestic animals is an SEL of 100 dBA from HST pass-by events. This

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-92

criterion is based on research into potential effects from HST noise on animals. These potential effects include relocation, running, physiological effects such as changes in hormones or blood composition, and startle. The criteria for potential startle from rapid onset rates of HST noise apply to humans as the supporting research is based primarily on human response to rapid onset rates from military aircraft flights. At this time, there is no conclusive evidence of noise and vibration decreasing production in livestock or affecting breeding habits.

I032-93

Refer to Standard Response FB-Response-GENERAL-02.

The Authority and the FRA's prior program EIR/EIS documents (see Section 1.5, Tiering of Program EIR/EIS Documents) selected the BNSF Railway route as the preferred alternative for the Central Valley HST between Fresno and Bakersfield in the 2005 Statewide Program EIR/EIS decision document. Therefore, the Project EIR/EIS for the Fresno to Bakersfield Section focuses on alternative alignments along the general BNSF Railway corridor.

In the case of Hanford, it was not feasible to follow the BNSF Railway through the city. The BNSF Railway in the Hanford area has several curves too severe for an HST and constructing the HST through Hanford would have resulted in a substantial impact to residential and commercial properties in the city. That is why the preferred alignment for the Fresno to Bakersfield Section was selected to bypass Hanford in the Statewide Program EIR/EIS for the California High-Speed Rail System.

I032-94

There are no anticipated noise impacts due to new routes for farming equipment. The added traffic volumes from farming equipment is expected to be minimal compared to the existing traffic on these roads, resulting in no perceived changes in traffic noise due to farming equipment. Additionally, farming equipment, such as tractors, would be moving at very low speeds compared to existing traffic speeds, and thus generating lower noise volumes than existing traffic.

I032-95

Refer to Standard Response FB-Response-N&V-05.

I032-96

Refer to Standard Response FB-Response-N&V-05.

I032-97

Refer to Standard Response FB-Response-GENERAL-21, FB-Response-N&V-03, FB-Response-N&V-05.

I032-98

The utilities will continue to be under the responsibility of whoever installed them.

I032-99

Refer to Standard Response FB-Response-N&V-01.

I032-100

Refer to Standard Response FB-Response-N&V-03, FB-Response-N&V-05.

I032-101

Refer to Standard Response FB-Response-N&V-01.

I032-102

Refer to Standard Response FB-Response-AG-06.

People and businesses in California use electric power and radio frequency (RF) communications for many purposes and services, in homes, businesses, farms, and factories. The intensive use of electric power and RF communications in California and all developed countries has ensured that the potential health effects of electromagnetic fields and resulting currents and voltages on people and animals have been thoroughly studied. As a result, the levels at which electromagnetic fields (EMF) and RF fields can cause health or behavior effects are well established. Broadly used international standards were created based on intensive investigation to ensure that:

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-102

* EMF and RF fields and resulting stray currents and voltages are measured and controlled.
* Fields do not disturb or injure people or animals.

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 were 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 for 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).

Because 735-kV utility power transmission lines run up and down the state, cattle and people near those lines are exposed to these levels on a continuing basis. Consistent with the McGill study, epidemiological evidence does not indicate that cattle or people near existing 735-kV utility power transmission lines are generally or broadly affected by the fields.

California HST traction power 60-Hz current will flow in the overhead contact system (OCS) and running rails to provide power to trains. The traction power system is called a 2x25 kV system because it uses 25 kV voltage for the trains and uses two nearby cables with opposite phase of the 25 kV to distribute the power down the tracks. Currents in this California HST 2x25 kV system create EMFs and static electric fields near the HST tracks. However, the HST levels will be lower than the fields typical of a 735-kV utility power transmission line. This is because the separation between California HST OCS cables is less, cable-to-cable voltage levels and cable current levels are less, and the HST cables are closer to the ground so that they are closer to the reducing effect of the fields in the ground, all compared to the 735-kV utility power cables.

I032-102

California HST TM 300.07, EIR/EIS Assessment of CHST Alignment EMF Footprint, shows that at the closest fence line to the HST tracks, the expected magnetic field is 60 mG, less than one-fifth the level from a transmission line. Since cattle cannot be inside the fence line and people can only be inside the fence line at passenger stations, the possible HST EMF exposure is:

* Low compared to the 735 kV utility power transmission line.
* Therefore, below the level at which the McGill study showed no effect on cows and milk production.

Similarly, the electric field from the California HST 25 kV 60 Hz OCS will be low compared to the exposure from a 735-kV utility power transmission line.

For these reasons, EMF effects on livestock and poultry are expected to have negligible intensity under NEPA, and the impact would be less than significant under CEQA. See Standard Response FB-Response-AG-06: Confined Animal Facilities regarding the impact of EMF emissions on dairies.

I032-103

Stray voltages occur when there is a voltage or potential difference between the neutral conductor on an electrical system and the ground (earth). Stray currents occur when the earth conducts some of the current of a power system. Stray voltages and currents exist whenever a power system has more than one connection to the earth, so they are a general condition in homes, factories, farms, and anywhere electric power is used. As a result, engineers and power systems have well-established procedures and standards to provide protection against effects of stray voltages and currents.

Regarding the corrosion effect of stray current, this is a significant concern for electrified transit systems that use DC power. The one-way current flow of DC power causes a continuing removal of metal from buried pipelines under some conditions. By comparison, AC power systems, such as the California HST and utility power systems around the world, do not cause continuing removal of metal, because the direction of current switches back and forth in each power cycle, 60 times per second.

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I032-103

The techniques which control stray voltages and currents to prevent against shocks are described in the Revised DEIR/Supplemental DEIS under Impact EMF/EMI #8 - Potential for Nuisance Shocks. These same provisions further reduced the possibility of corrosion of pipes or other buried metal structures.

Section 3.5 Electromagnetic Fields and Electromagnetic Interference, Impact EMF/EMI #7, on page 3.5-17 of the Revised DEIR/Supplemental DEIS, evaluates corrosion impacts on pipelines, cables, and adjoining rail in detail. The analysis states that if adjacent pipelines and other linear metallic structures are not sufficiently grounded through direct contact with the 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.

The California HST traction power and rail designs recognize the need to control stray voltages and currents to avoid shocks. The bonding and grounding of HST equipment will fulfill the requirements of EN 50122-1:2011, Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 1: Protective provisions against electric shock, Section 9.2.2. This standard was established specifically to protect people near traction power systems like the one for the HST.

For the California HST, the running rails will be periodically connected to earth all along the track, and the rails will carry a significant amount of train propulsion current, called return current. This return current will create a stray voltage along the rails, which also will be connected to the earth due to the periodic grounding,

The project will calculate the maximum stray voltages, and will provide all necessary protections against shock from stray voltage, such as grounding procedures for metal fences, buildings, buried pipes, and aboveground irrigation pipes that run parallel to the track.

I032-103

The California HST project will avoid damaging buried structures through corrosion and avoid disturbing or injuring cattle or other animals or people near the HST track by:

* Using the broad knowledge of currents and fields from existing electric railways in the U.S. and around the world.
* Learning from the experience in preventing adverse effects.
* Performing the HST project actions to apply necessary protections along the HST track.

A Mitigation Monitoring and Enforcement Plan (MMEP) is required to ensure that adopted project design features and mitigation measures are successfully implemented. The Authority is the lead agency for the proposed project and is responsible for implementation of the MMEP. The MMEP will be active through all phases of the project, including design, construction, and operation. The project will be developed in phases and may include permits required for implementation of project components. There are mitigation measures that must be continuously implemented throughout the development and operation of the HST project. The MMEP identifies those mitigation measures required by the Authority to mitigate or avoid significant adverse impacts associated with the implementation of the proposed project, identifies the entity responsible for the monitoring and timing of implementation, identifies the project phase each measure applies to, and verifies completion. The MMEP is also an aid to implementing the measures, monitoring their effectiveness, and preparing documentation. As individual mitigation measures are completed, the compliance monitor will sign and date the MMEP, indicating that the required mitigation measure has been completed for the subject period. The compliance monitor will also note the documentation (title of the monitoring report) that was submitted for each mitigation measure.

I032-104

As noted above, stray voltages occur when there is a voltage or potential difference between the neutral conductor on an electrical system and the ground (earth). Stray currents occur when the earth conducts some of the current of a power system. Stray voltages and currents exist whenever a power system has more than one connection to the earth, so they are a general condition in homes, factories, farms, and anywhere

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-104

electric power is used. As a result, engineers and power systems have well-established procedures and standards to provide protection against effects of stray voltages and currents.

Regarding the corrosion effect of stray current, this is a significant concern for electrified transit systems that use DC power. The one-way current flow of DC power causes a continuing removal of metal from buried pipelines under some conditions. By comparison, AC power systems (such as the California HST and utility power systems around the world) do not cause continuing removal of metal because the direction of current switches back and forth in each power cycle, 60 times per second.

The techniques that control stray voltages and currents to prevent against shocks are described in the Revised DEIR/Supplemental DEIS under Impact EMF/EMI #8 - Potential for Nuisance Shocks. These same provisions further reduced the possibility of corrosion of pipes or other buried metal structures.

For the California HST, the running rails will be periodically connected to earth all along the track, and the rails will carry a significant amount of train propulsion current, called return current. This return current will create a stray voltage along the rails, which also will be connected to the earth due to the periodic grounding,

The California HST project is implementing an Electromagnetic Compatibility Program Plan (EMCPP) during project planning, construction, and operation to achieve and ensure electromagnetic compatibility (EMC) with neighboring systems and equipment, including radio communications. The EMCPP's purpose is to ensure that the HST, including its trains, traction power system, and communications systems, do not interfere with neighbors or with HST equipment.

As one of the EMCPP activities, the project will calculate the maximum stray voltages, and will provide all necessary protections against shock from stray voltage, such as grounding procedures for metal fences, buildings, buried pipes, and aboveground irrigation pipes that run parallel to the track.

I032-105

Refer to Standard Response FB-Response-S&S-02.

The California High-Speed Train Project is implementing an Electromagnetic Compatibility Program Plan (EMCPP) during project planning, construction, and operation to achieve and ensure electromagnetic compatibility (EMC) with neighboring systems and equipment, including adjacent railroads. The EMCPP's purpose is to ensure that the HST System, including its trains, traction power system, and communications systems, do not interfere with adjacent railroads, neighbors, or with HST equipment.

During the planning stage through the preliminary system design, the Authority will perform EMC/electromagnetic interference (EMI) safety analyses to identify adjacent railroad sections and systems, will initiate joint working groups with adjacent railroad engineering authorities, will assess and calculate specific characteristics of potential interactions, and will work with the adjacent railroads to implement design provisions wherever needed.

Adjacent railroads have extensive experience protecting against the 60-hertz (Hz) electromagnetic fields that are the most likely source of possible interference, because railroads experience the same effects from adjacent utility power lines that they will experience from the HST traction power and overhead contact system (OCS).

The HST project would use radio systems for automatic train control, data transfer, and communications. HST radio systems would transmit radio signals from antennas located at stations and the heavy maintenance facility (HMF) along the track alignment and on locomotives and train cars. Radio spectrum would be dedicated for HST use, and EMI with other users would not be expected. Communications systems at stations may operate at Wi-Fi frequencies to connect to stationary trains; channels would be selected to avoid EMI with other users, including Wi-Fi systems at use at nearby schools (Authority 2011c, 2011f).

Most radio systems procured for HST use are expected to be commercial off-the-shelf systems (COTS) conforming to Federal Communications Commission (FCC) regulations at Title 47 Code of Federal Regulations Part 15, which contains emissions requirements

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-105

designed to ensure EMC among users and systems. The Authority will require all non-COTS systems procured for HST use to be certified in conformity with FCC regulations for Part 15, Sub-part B, Class A devices. HST radio systems will also meet emissions and immunity requirements (which are contained in the European Committee for Electrotechnical Standardization [CENELEC] EN 50121-4 Standard for railway signaling and telecommunications operations) and designed to provide electromagnetic compatibility with other radio users (CENELEC 2006).

All California HST radio systems will fully comply with applicable FCC regulations, whose purpose is to ensure that authorized radio systems can operate without disturbance from all other authorized systems.

The EMCPP will specify and design systems to prevent EMI with identified neighboring uses, including adjacent railroads; will require compliance with international standards limiting emissions to protect neighboring uses; and will incorporate these design requirements into bid specifications used to procure radio and all other HST systems, including trains, traction power systems, and communication systems. The implementation stage will include 100% system design and will include final engineering design, monitoring, testing, and evaluation of system performance.

I032-106

The commenter does not mention any specific impacts with regards to metal pipelines, and gas, water, and electric lines. However, Section 3.5, Electromagnetic Fields and Electromagnetic Interference, Impact EMF/EMI #7, page 3.5-17, of the Revised DEIR/Supplemental DEIS evaluates corrosion impacts on pipelines, cables, and adjoining rail in detail. Also, Section 3.6, Public Utilities and Energy, includes a comprehensive evaluation of impacts on water, gas, and electric lines.

The project will calculate the maximum stray voltages and will provide all necessary protections against shock from stray voltage (such as grounding procedures for metal fences, buildings, buried pipes, aboveground irrigation pipes) that run parallel to the track.

The California HST project will avoid disturbing or injuring cattle or other animals or

I032-106

people near the HST track by:

* Using the broad knowledge of currents and fields from existing electric railways in the U.S. and around the world.
* Learning from experience in preventing adverse effects.
* Performing the California HST project actions to apply necessary protections along the HST track.

I032-107

Refer to Standard Response FB-Response-AG-06.

The intensive use of electric power and radio frequency (RF) communications in California and all developed countries has ensured that the potential health effects of electromagnetic fields and resulting currents and voltages on people and animals have been thoroughly studied. As a result, the levels at which electromagnetic fields (EMF) and RF fields can cause health or behavior effects are well established. Broadly used international standards were created based on intensive investigation to ensure that:

* EMF and RF fields and resulting stray currents and voltages are measured and controlled.
* Fields do not disturb or injure people or animals.

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 were 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 for livestock, from nonexistent to relatively small to positive. One study suggests a beneficial application for ELF-EMF in broiler chickens to fight a common parasitic

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-107

infection called Coccidiosis (Golder Associates 2009).

Since 735 kV utility power transmission lines run up and down the state, cattle and people near those lines are exposed to these levels on a continuing basis. Consistent with the McGill study, epidemiological evidence does not indicate that cattle or people near existing 735 kV utility power transmission lines are generally or broadly affected by the fields.

California HST traction power 60 Hz current will flow in the overhead contact system (OCS) and in the running rails to provide power to trains. The traction power system is called a 2x25 kV system, because it uses 25 kV voltage for the trains, and uses two nearby cables with opposite phase of the 25 kV to distribute the power down the tracks. Currents in this HST 2x25 kV system create EMFs and static electric fields near the HST tracks. However, the HST levels will be lower than the fields typical of a 735 kV utility power transmission line. This is because the separation between HST OCS cables is less, cable-to-cable voltage levels and cable current levels are less, and the HST cables are closer to the ground so that they are closer to the reducing effect of the fields in the ground, all compared to the 735 kV utility power cables.

California HST TM 300.07, EIR/EIS Assessment of CHST Alignment EMF Footprint, shows that at the closest fence line to the California HST tracks, the expected magnetic field is 60 mG, less than one-fifth the level from a transmission line. Since cattle cannot be inside the fence line and people can only be inside the fence line at passenger stations, the possible California HST EMF exposure is:

* Low compared to the 735 kV utility power transmission line.
* Therefore, below the level at which the McGill study showed no effect on cows and milk production.

Similarly, the electric field from the California HST 25 kV 60 Hz OCS will be low compared to the exposure from a 735 kV utility power transmission line.

For these reasons, EMF effects on livestock and poultry are expected to have negligible intensity under NEPA, and the impact would be less than significant under CEQA. See

I032-107

Standard Response FB-Response-AG-06: Confined Animal Facilities regarding the impact of EMF emissions on dairies.

I032-108

Section 1 of the EIR/EIS provides the purpose, need and objectives of the high-speed rail system. The decision to construct a system in California was not predicated on a cost-benefit ratio, but rather the need to address the mobility demands of the growing population of the state. The possibility of improved air quality in the Central Valley as a result of new fuel economy rules does not diminish the positive benefits associated with the HSR system.

On August 28, 2012, the Obama administration finalized its new fuel economy rules, requiring the fleet-wide fuel economy average of new cars and trucks sold in the U.S. to double over the next 13 years. The average fuel economy must reach 54.5 miles per gallon by 2025, up from 28.6 mpg at the end of last year. EMFAC2011, which was approved by the EPA for use in 2013, reflects the emissions benefits of ARB's recent rulemakings including on-road diesel fleet rules, Pavley Clean Car Standards, and the Low Carbon Fuel standard. These changes were considered in the air quality analysis for the Final EIR/EIS.

I032-109

Refer to Standard Response FB-Response-AG-04.

The diameter size of water pipelines evaluated is 6 inches and greater. The Revised DEIR/Supplemental EIS contains a typographical error and has been corrected in the Final EIR/EIS. Information on utilities was gathered from data provided by local utilities service providers within the study area and from field survey information gathered in 2009 and 2010. The locations of above-ground and underground utilities (e.g., natural gas lines, petroleum pipelines, fiber optic, cables, and telecommunication infrastructure) were verified or corrected based on field observations and were mapped by recording the GIS coordinates of their above-ground signage. Refer to Section 3.6.3.1 for more information. In addition, the Authority is actively assimilating information on existing and planned utilities. The design presented in the Revised Draft EIR/Supplemental Draft EIS is based on preliminary engineering. The Authority will coordinate with utility owners to

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-109

refine this information, identifying and evaluating all known facilities within the footprint during future design phases.

Where existing underground utilities, such as gas, petroleum, and water pipelines, cross the high-speed train (HST) alignment, these affected utilities would be placed in a protective casing to allow for maintenance of the utility from outside the access-controlled HST right-of-way. The project construction contractor would coordinate schedules for utility relocations and protection-in-place with the utility owner to ensure the project would not result in prolonged disruption of services. Section 3.6, Public Utilities and Energy of the Revised DEIR/Supplemental DEIS acknowledges the Authority's compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 on compensation for impacts on property owners and tenants who must relocate if they are displaced by a federally sponsored project. This Act applies to all real property, including the acquisition of land for relocation of utilities (including agricultural wells).

I032-110

Both time lines are correct. The current schedule calls for mobilization to begin in 2014 with project construction completed by 2021, a period of 8 years. However, within that 8 years, water demand will be most intensive for 5 years during demolition, land clearing, earthmoving, construction of elevated structures, construction of track, and the initial phases of station and HMF construction which will extend from 2014 through 2019.

I032-111

The potential impacts of the HST System on electricity generation and transmission includes the entire state of California (and western states that produce energy that is exported to California) because the HST System would obtain electricity from multiple connection points throughout the statewide grid. Prorating the electricity requirements for any one segment of the HST System based on statewide demand is a reasonable approximation due to the operational requirements of HST across multiple project sections and the power for those sections being provided by the statewide (and multi-state) electrical grid. The HST System is expected to require less than 1% of the state's future electricity consumption. The Fresno to Bakersfield Section of the HST is estimated to require 78 megawatts (MW) of peak demand, which is within existing

I032-111

reserves. The HST project would not require the construction of a separate power source and would not impact power reliability.

Appendix 3.6-C of the Revised Draft EIR/Supplemental Draft EIS discusses the methodology for estimating electricity demand.

I032-112

Should the Kings/Tulare Regional Station-East Alternative be built, the Authority would pay for the extension of the City of Hanford's existing sewer trunk line on the east side of Hanford to the station site. The Authority would compensate the City for this infrastructure extension. The Final EIR/EIS includes the potential impacts of extending the City's sewer trunk line in Section 3.6 Public Utilities and Energy.

I032-113

Should the Kings/Tulare Regional Station-East Alternative be built, the Authority would pay for the extension of the City of Hanford's existing sewer trunk line on the east side of Hanford to the station site. The Authority would compensate the City for this infrastructure extension. The Final EIR/EIS includes the potential impacts of extending the City's sewer trunk line in Section 3.6 Public Utilities and Energy.

I032-114

Table 3.6-10 of the Revised DEIR/Supplemental DEIS notes electricity consumption in Fresno, Kings, Tulare, and Kern counties in 2009, as documented by the California Energy Commission. Electricity consumption depends upon other factors besides population and land use. Local climate, economic activity, and local policies can all cause differences in electricity usage between counties. See Section 3.6, Public Utilities and Energy for more information.

I032-115

Refer to Standard Response FB-Response-PU&E-01, FB-Response-PU&E-02.

I032-116

Refer to Standard Response FB-Response-GENERAL-22.

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I032-116

The proposed project's energy impacts are evaluated both against existing conditions and against background (i.e., No Project) conditions as they are expected to be in 2035. Results for both baselines are presented. The results comparing the project with existing conditions are summarized in this document, and details are presented in Appendix 3.6-A, Existing Plus Project Conditions Energy Analysis. This approach complies with CEQA (see Woodward Park Homeowners Assn v. City of Fresno [2007], 150 Cal.App.4th 683, 707, Sunnyvale West Neighborhood Assn. v. City of Sunnyvale [2010], 190 Cal.App.4th 1351, and Neighbors for Smart Rail v. Exposition Metro Line Construction Authority [2012], 204 Cal.app.4th 1480) by informing the public of potential project impacts under both baselines, but focuses the analysis on the baseline analysis more likely to occur. Court decisions indicate that a projected future baseline is an appropriate means to analyze environmental effects of a long-term infrastructure project when that future baseline is supported by substantial evidence (refer to Section 3.36.5).

I032-117

The Revised DEIR/Supplemental DEIS discusses the methodology for estimating electricity demand. In the 2008 Bay Area to Central Valley Program EIR/EIS (Authority and FRA 2008), the statewide energy impacts of the proposed HSR project were analyzed using a methodology from the 2005 Statewide Program EIR/EIS (Authority and FRA 2005). The 2012 energy impact analysis reflects a refinement to the analysis presented in those documents. The 2012 analysis utilizes updated conversion factors, ridership forecasts, train sets and vehicle miles traveled, among other parameters. Please refer to Appendix 3.6-C and cited references and assumptions for detailed information on various parameters, along with the values used in the two analyses.

I032-118

The construction energy payback period is the number of years required to pay back the energy used in construction with operational energy consumption savings of the high-speed train (HST) alternative prorated to statewide energy savings. The payback period is calculated by dividing the estimated HST System construction energy by the amount of energy per year that would later be saved by the full operation of the HST System (based on the prorated statewide value). The calculations assume that the amount of energy saved in the study year (2035) would remain constant throughout the payback

I032-118

period.

The construction energy is estimated in Table 3.6-2 in the Revised DEIR/Supplemental DEIS. The energy saved is estimated in Table 3.6-12. These estimates have also been updated to consider revised vehicle miles traveled and other new data.

I032-119

Refer to Standard Response FB-Response-AG-04, FB-Response-SO-01.

Impacts on specific crops have not been evaluated since the crops are seasonal and depend on soil suitability. The Authority would, however, compensate for losses that occur due to the proposed project as part of the right-of-way acquisition process.

I032-120

During construction, local utilities would supply water to the Authority's contractors. Sometimes a small volume of water storage is used on site during construction to provide temporary capacity that can help reduce lengthy trips for water trucks between the construction site and a water source.

During operations, it is anticipated that station sites would connect to the existing municipal systems. The at-grade and below-grade options of the Kings/Tulare Regional Station – West Alternative are inside the City of Hanford's urban growth area (sphere of influence) and water service area, and would rely on the city for water service to the station. The Kings/Tulare Regional Station – East Alternative is outside of the City of Hanford water service area, and therefore the station would likely pump and treat groundwater for use as municipal supply. Refer to Appendix 3.6-B for more information.

I032-121

The Authority has signed Policy Directive POLI-PLAN-03 Subject: Sustainability that establishes construction waste practices of recycling all steel and concrete and diverting 75 percent of total waste from landfill, unless local regulations are higher. These requirements have been implemented in Construction Package 01 as general provisions of the contract and will be implemented in subsequent construction contracts. Adopting

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-121

these requirements as state policy, incorporating them as defined features of the HSR project, and specifying them as provisions of the construction contracts ensures that these practices will be carried out.

I032-122

Refer to Standard Response FB-Response-AG-04, FB-Response-HWR-01, FB-Response-SO-01.

The Authority would work with irrigation districts and landowners to protect irrigation systems. Canals may be bridged or placed in pipelines beneath the HST right-of-way. Irrigation pipelines crossing the alignment would be buried to an appropriate depth to sustain the weight of the HST and placed in protective casing so that future maintenance of the line could be accomplished outside of the HST right-of-way. The designs presented in the Revised DEIR/Supplemental DEIS are based on preliminary engineering. Therefore, the Authority will continue to work with utility owners during final design and construction to ensure all utilty conflicts are resolved. Any relocated utilities would continue to be owned and maintained by the existing utility owner. The project would not result in the loss of or reduced access to public utility pipes. Refer to Section 3.6.5 for more information.

I032-123

The energy estimate of 28,404.48 MMBtus per day in the Revised DEIR/Supplemental DEIS reflects a refinement of the analysis conducted in the 2008 Bay Area to Central Valley Program EIR/EIS energy assessment (Authority and FRA 2008), utilizing current conversion factors, ridership forecasts, train sets, and vehicle miles traveled.
This increase in energy consumption represents less than 1% of statewide consumption, which is equivalent to the consumption for a city of 200,000 people.

I032-124

The vehicle miles traveled (VMT) reduction assumes full project build-out, including a Kings/Tulare Regional Station. Please note that the energy estimate has since been refined using current conversion factors, ridership forecasts, train sets, and VMT.

I032-124

The Final EIR/EIS has been revised to include the King/Tulare Regional Station as part of the project. This station will be constructed and is no longer a "potential" project component.

I032-125

As discussed in Chapter 1 of the EIR/EIS, California's population is growing rapidly and, unless new transportation solutions are identified, traffic will only become more congested and airport delays will continue to increase. The proposed 220-mph HST System would provide lower passenger costs than air travel for the same city-to-city markets, faster travel time than automobile travel, and additional amenities such as increased passenger space and comfort, food service, and wireless internet. These factors would make high-speed rail travel an attractive choice for people when they are deciding how to move around the state. The HST system would increase mobility while reducing air pollution, decreasing dependence on fossil fuels, protecting the environment by reducing GHG emissions, and promoting sustainable development in the areas near the stations, in comparison to existing trends. By moving people more quickly and at lower cost than today, the HST System would boost California's productivity and also enhance the economy. See the discussion under Section 1.2.4, Statewide and Regional Need.

Substantially more energy is required to move a person by car or by airplane than by rail. Current estimates indicate that HSTs would require approximately one-third of the energy required by an airplane. The number of plane flights statewide (intrastate) would decrease with the California HST System when analyzed against both the future condition and existing condition baselines because travelers would choose to use the HST rather than fly to their destination. The average fuel consumption rate for aircraft is based on the profile of aircraft currently servicing the San Francisco to Los Angeles airline corridor. The number of air trips removed due to the HST System was estimated by using the travel demand modeling analysis conducted for the project. This information is discussed in more detail in Appendix 3.6-A, Existing Plus Project Conditions Energy Analysis.

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I032-126

Refer to Standard Response FB-Response-PU&E-02.

The text in the Final EIR/EIS has been revised to reflect the Authority's policy to use 100% renewable energy and not some increment less.

I032-127

Appendix 3.6-C of the Revised DEIR/Supplemental DEIS discusses the methodology for estimating electricity demand. In the 2008 Bay Area to Central Valley Program EIR, the statewide energy impacts of the proposed HST project were analyzed using a methodology from the 2005 Statewide Program EIR/EIS (Authority and FRA 2005, 2008). The 2012 energy impact analysis reflects a refinement to the analysis presented in those documents.The 2012 analysis utilizes updated conversion factors, ridership forecasts, train sets, and vehicle miles traveled, among other parameters. Please refer to Appendix 3.6-C for detailed information on various parameters, along with the values used in the two analyses.

I032-128

The potential impacts of the HST System on electricity generation and transmission includes the entire state of California (and western states that produce energy that is exported to California) because the HST System would obtain electricity from multiple connection points throughout the statewide grid. Prorating the electricity requirements for any one segment of the HST System based on statewide demand is a reasonable approximation due to the operational requirements of HST across multiple project sections and the power for those sections being provided by the statewide (and multi-state) electrical grid. The HST System is expected to require less than 1% of the state's future electricity consumption. The Fresno to Bakersfield Section of the HST is estimated to require 78 megawatts (MW) of peak demand, which is within existing reserves. The HST project would not require the construction of a separate power source and would not impact power reliability.

Appendix 3.6-C of the Revised Draft EIR/Supplemental Draft EIS discusses the methodology for estimating electricity demand.

I032-129

The supporting data on this information is provided in the California Energy Commission Staff Report and is cited as a source in the references. See the "Summer 2010 Electricity Supply and Demand Outlook" (Pryor 2010) for additional information.

I032-130

The Kaweah Delta Water Conservation District released and approved a Plan of Study for the development of a Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) in 2007. The Plan of Study is divided into three phases: (1) Project Development, (2) HCP Development, and (3) Environmental Analysis and Review. Because the Kaweah Delta Water Conservation District HCP/NCCP has not been adopted nor is it anticipated to be adopted by the time project construction starts, it is not included in the Revised DEIR/Supplemental DEIS Biological Resources section.

To date, a publicly available draft HCP/NCCP has not been released by the Kaweah Delta Water Conservation District (draft date is unknown), and no agency notifications or applications are known. Furthermore, there are no notices on the Kaweah Delta Water Conservation District website with respect to development of the HCP/NCCP. For reasons described in the paragraph above, this project is not included in the cumulative impact analysis and is not considered reasonably foreseeable.

I032-131

Refer to Standard Response FB-Response-BIO-03.

Contrary to the commenter's suggestion, surveys of the Hanford West Bypass were conducted. The statements "Landowners along the alignment were not contacted…" and "…site visits were not made along the Kings County Alignment…" made by the commenter are not correct. Field surveys and site visits were conducted by biologists between the DEIR/DEIS and the RDEIR/SDEIS. The field assessments were conducted November and December 2011 for the Hanford West Bypass 1 and 2 alternatives (as well as on other occasions, for other project modifications) on parcels within the study area where permission to enter was granted in King County. Letters requesting permission to enter the properties in Kings County that would be impacted by the HST were sent to landowners except in a few instances. Requests for permission to enter were not made for urban areas (Fresno, Corcoran, Wasco, Shafter, or Bakersfield), for

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I032-131

properties less than 0.5 acre in size or for properties zoned as commercial or industrial. Requests for permission to enter in urban areas were not made because the effort required to obtain permission to enter into the thousands of parcels would not likely result in additional environmental resource findings (including biological). Furthermore, public access and visible assessments of the urban areas were possible. As stated in Section 3.7.3.3, access was granted in approximately 40% of the study area.

In many instances, permission to enter was granted by landowners; however, permission to enter was not available for numerous properties because the request was denied (not granted), no response was received, or the property owner requested actions that could not reasonably be met (i.e., indemnification). Details on access and other survey limitations are provided in Section 3.7.3, as well as in other parts of Section 3.7, of the Biological Resources and Wetlands Technical Report.

As such, a statement or additional explanation regarding surveys in Kings County as requested by the commenter is not required.

I032-132

Refer to Standard Response FB-Response-N&V-01, FB-Response-N&V-03.

As stated in the Section 3.7.4.5, the Fresno to Bakersfield Section HST alignment was designed to avoid the Tulare Lakebed Mitigation Site. Because the alignment avoids this area, impacts were not addressed specific to this conservation area in the document, and it is not included in any discussion of impacts on conservation areas. The Authority did not conduct a specific study to analyze the impacts of noise, vibration, and the physical path of HST in relation to specific natural and/or public lands such as the Tulare Lake Mitigation Site. However, impacts on special-status wildlife and the effects associated with noise are described in the document under both the construction period and project period indirect impacts (pages 3.7-56 and 3.7-108). Furthermore, the HST alignments adjacent to this area parallel existing infrastructure, including the BNSF and SR 43, which produce significant noise. The Tulare Lakebed Mitigation Site is constructed and surrounded by an earthen berm that impounds the water and provides a buffer against noise generated from the train.

I032-133

Impacts resulting from the No Project Alternative are discussed in Section 3.7.5.2. Analysis in this section is limited to a broad level that focuses on consequences of continued transportation and infrastructure growth, urban development, and other land use changes.

I032-134

Refer to Standard Response FB-Response-BIO-03.

Potential impacts on the Valley Elderberry Longhorn Beetle are disclosed in Section 3.7.5 [Direct (BIO #2) Impacts during Construction Period, Indirect (BIO#2) Impacts during Construction Period, Indirect (BIO #5) Project Impacts, and Direct (BIO #6) Project Impacts]. The project could result in the elimination of elderberry shrubs, the sole host plant of the valley elderberry longhorn beetle, which is considered a potentially significant impact if not mitigated.

As stated in Section 3.7.7 mitigation measure Bio-MM#21 (Implement Conservation Guidelines for the Valley Elderberry Longhorn Beetle), conservation guidelines will be implemented which include protocol-level surveys for the valley elderberry longhorn beetle and its host plant at the project site. The amount of mitigation is directly related to diameter of the stems, presence/absence of exit holes and whether or not the elderberry shrubs are located in riparian habitat. In accordance with the conservation guidelines, this mitigation measure will identify shrubs that would be affected by the project (based on diameter size class and external evidence of beetle presence), plant replacement habitat (conservation planting) for affected shrubs, and establish and maintain a buffer zone around elderberry plants. If the project cannot avoid affecting an elderberry plant that meets the habitat criteria, the plant may be transplanted to a conservation area (with possible exemptions based on plant condition or access problems, at the discretion of USFWS).

This mitigation is defined by the USFWS as the protocol for mitigating for impacts to this species and is proven successful, as the USFWS has petitioned to delist the species. Protocol-level surveys prior to the analysis provided in the Revised DEIR/Supplemental DEIS would not change the conclusion that this would be a significant impact without

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I032-134

mitigation, and with implementation of the mitigation identified, the impact would be less than significant.

I032-135

Refer to Standard Response FB-Response-BIO-03.

Permission to enter (access) was not granted for all properties within the project study areas. As stated in Section 3.7.3.3, access was granted in approximately 40% of the study area. Requests for permission to enter were not made for urban areas (Fresno, Corcoran, Wasco, Shafter, or Bakersfield), for properties less than 0.5 acre in size or for properties zoned as commercial or industrial. Requests for permission to enter in urban areas were not made because the effort required to obtain permission to enter into the thousands of parcels would not likely result in additional environmental resource findings (including biological). Furthermore, public access and visible assessments of the urban areas were possible.

In many instances, permission to enter was granted by landowners; however, permission to enter was not available for numerous properties because the request was denied (not granted), no response was received, or the property owner requested actions that could not reasonably be met (i.e., indemnification). Details on access and other survey limitations are provided in Section 3.7.3, as well as in other parts of Section 3.7, of the Biological Resources and Wetlands Technical Report.

The Authority maintains a log of the permission to enter letters sent to property owners. The log identifies the county, assessor's parcel number (APN), the name of the owner and other relevant information. Furthermore, the Authority maintains on file the responses to permission to enter request received from land owners. These received responses generally fall into three categories, do not access, permission to enter granted, and permission to enter granted with special conditions.

I032-136

Water use was evaluated in Section 3.6, Public Utilities and Energy, and in Appendix 3.6-B, Water Usage Analysis Technical Memorandum. Appendix 3.6-A (page 3) details the assumptions used to derive heavy maintenance facility (HMF) water usage rates.

I032-136

Operational data from the Hayward BART facility (water rate usage of 31 gallons per employee per day) was selected as a basis for developing a water use factor for the HMF facility, as the facilities are similar in function (both perform heavy maintenance and cleaning for electrically powered train sets). The number of train sets and employees for both the BART (actual numbers) and HST facilities (planned numbers) were compared and climatic conditions (precipitation, average temperature, humidity) and landscaping were considered, as well as the expected use of newer water recycling and reuse technologies at the HMF. Due to these considerations, the water usage factor for the HMF was adjusted slightly downward to 30 gallons per employee per day. With the ongoing improvement in water recycling and reuse technologies that would be employed at the HMF, it is likely that this water use factor may be conservatively high, but appropriate for use in the analysis.

I032-137

The HST would cross the Kings River channel (Old River) by a bridge which is connected to an aerial structure. This bridge would have one footing within the banks of the channel, within a high flow area. The river channel has very little, if any, base flow during most of the year. However, the Kings County Water District recharges groundwater by releasing flows into Old River which has a very permeable bottom. Water that is released into the channel for groundwater recharge would likely remain in the low flow channel prior to infiltration where there is minimal to no reduction in the amount of surface area available for infiltration. Also, if water for recharge were to reach a level that came into contact with the HST structure the amount of surface area occupied by the HST structure (i.e., the one footing) would be minor compared to the area available for recharge. Potential inferences from HST infrastructure to groundwater recharge would be minimal. In addition, KCWD would still be free to release the same amount of water into Old River for groundwater recharge as they do now.

For information regarding the quality of stormwater runoff from bridges and potential indirect connections to river channels or groundwater recharge, see Section 3.8.5.3 of the EIR/EIS.

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I032-138

Refer to Standard Response FB-Response-HWR-03.

Section 3.8, Hydrology and Water Resources, discusses the regulatory authority of the Central Valley Flood Protection Board (CVFPB) and requirements associated with CVFPB-designated floodways and federal flood control projects. The Authority is working with the CVFPB regarding requirements for the Kings River crossings. The details of the agreement concerning Kings River crossings have not been finalized, but agreed upon changes will be incorporated into the design.

I032-139

The Authority is working with all agencies that the alignments cross or impact, including the
USACE, Kings River Water Association, and Kings River Conservation
District. The project design analyzed in the Revised DEIR/Supplemental DEIS had bridges
with 4 feet of clearance of the Cole Slough and Kings River levees
(please see Volume III: Section A – Alignment Plans). Subsequent
consultation with Kings River Conservation District regarding
levee maintenance activities has led to a modification of the profile
at these crossings to allow 18 feet of clearance at the levees, which is
reflected in the design drawings for the Final EIS/EIR.

I032-140

Induced growth is analyzed in Section 3.18, Regional Growth. The HST's induced growth in Fresno, Kings, Tulare and Kern counties is estimated to be 2% to 3%, depending on the county. Projected water demand under future conditions and water demand associated with the HST's induced growth are discussed in Section 3.19, Cumulative Impacts. Projections of future water demand in the Tulare Lake Basin have been analyzed by the Department of Water Resources (DWR). Overall, estimates by DWR show a range of possible future trends in water demand in the Tulare Lake Basin, which vary depending upon several factors, including how climate change is factored into the model. The majority of the scenarios predict a decrease in future water demand. Water demand from the HST's induced growth would be partially offset by a reduction in water demand from irrigated lands. Appendix 3.6-B, Water Usage Analysis Technical

I032-140

Memorandum, discusses HST water uses in relation to SB 221 and 610 for developments of more than 500 homes (which is equivalent to 250 acre-feet/year). Because the stations and HMF are expected to require less than 250 acre-feet/year, water supply assessments will not be needed for these facilities, and no other special action to secure water from the local agencies will be needed.

I032-141

Refer to Standard Response FB-Response-AG-04.

Impact HWQ#1, Temporary Changes to Drainage Patterns and Stormwater Runoff, discusses construction impacts. The Authority will be implementing Best Management Practices (BMPs) at construction sites to minimize any contaminated runoff from reaching streams. Numerous studies have been conducted over the years to evaluate the effectiveness of standard construction site BMPs (see http://www.bmpdatabase.org/). Farm fields will not need to be re-graded to change runoff patterns. Agricultural drainage will be accommodated by agricultural drainage systems on the edges of the fields. Local flooding that drains towards the HST tracks would pass through culverts in the track embankment.

I032-142

Refer to Standard Response FB-Response-HWR-05.

The HST track area that is relatively impermeable is only about 40 feet wide. The extra runoff generated above existing conditions along this 40-foot width will drain from the tracks to both sides and typically infiltrate locally. The capacities of the swales are part of the engineering design. Water will infiltrate within the right-of-way or swales will discharge to the local stormwater drainage system (MS4), or will be handled following guidance contained in the Post-Construction Stormwater Quality Standards Technical Memorandum developed as part of the 401 Certification. For small events, it is not anticipated that drainage will be collected and transported very far from where it is generated because local soils have a high infiltration capacity. If stormwater drainage does occur, pollutants could be conveyed with the stormwater. However, most pollutants will be removed during the physical, biological, and chemical processes that take place within the swales and best management practices. Potential pollutants and

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-142

water quality effects are discussed under Impact HWQ#6. Required engineering studies, including hydrology studies used to size the swales for stormwater treatment, will be conducted as part of the engineering design

The Union Pacific Railroad requirements for hydrology studies relate the design requirements for their drainage facilities next to their tracks. Similar design guidelines will be used when designing the drainage facilities for the HST.

I032-143

The use of regenerative braking technology will reduce brake pad wear and the amount of metal particles deposited in the track right-of-way. Anecdotal information from Britain's Class 323 fleet trains has indicated that with regenerative braking enabled, the brake's disc pad life was around 18 months. When the electric braking was switched off, pad life fell to 18 days (Railway Gazette 2007 [http://www.railwaygazette.com/news/single-view/view/regenerative-braking-boosts-green-credentials.html]). Additional studies have also been conducted that show substantially reduced brake wear for high-speed trains (Sjöholm 2011).

For the operation period, the Authority would generally follow the procedures established in Chapter C2 of the California Department of Transportation (Caltrans) Maintenance Guide to manage vegetation on Authority property (Caltrans 2010a [http://www.dot.ca.gov/hq/maint/manual/-17_Chpt-C2_01-26-11.pdf]). Vegetation would be controlled by chemical, biological, cultural, mechanical, structural, and manual methods.

Only Caltrans-approved herbicides would be used in the vegetation control program. Pesticide application would be applied in accordance with all requirements of the California Department of Pesticide Regulation and County Agricultural Commissioners by certified pesticide applicators. Noxious/invasive weeds would be treated where requested by County Agricultural Commissioners. The Authority would cooperate in an area-wide control of noxious/invasive weeds if established by local agencies. Farmers/landowners who request weed control on state right-of-way that is not identified in the annual vegetation control plan would be encouraged to submit a permit request application for weed control that would identify the weeds and control method desired.

I032-144

Section 3.10, Hazardous Materials and Waste, discusses the abandonment of oil and gas wells and the wells associated with landfills. Agricultural water supply wells, if abandoned, will be done in accordance with local regulations to minimize the potential impacts on groundwater quality.

I032-145

Potential water quality effects are discussed under Impact HWQ#6 in Section 3.8, Hydrology and Water Resources, of the Revised DEIR/Supplemental DEIS. Train wash water would be directed to onsite infiltration basins or other best management practices (BMPs) designed for water quality treatment prior to discharge off site. The selection, sizing, and siting of BMPs at the heavy maintenance facility (HMF) is part of the engineering design. The HMF will be permitted by the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Board (RWQCB) under the Industrial Storm Water General Permit (Order 97-03-DWQ, or as amended), which requires implementation of BMPs that will achieve the performance standard of best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT). The Permit also requires the development of a Storm Water Pollution Prevention Plan (SWPPP) and monitoring plan for ongoing operations. Additional measures would be provided, if required, by the SWRCB or RWQCB. No mitigation measures are required, but water quality design measures that will be implemented for the protection of water quality are listed and described in Section 3.8.6, "Project Design Features."

I032-146

Refer to Standard Response FB-Response-HWR-03.

The project analysis is based on a 15% design, and details for the crossing would be determined at later stages of design. For the analysis in the Revised DEIR/Supplemental DEIS, piers were assumed to be placed in river channels with spans greater than 120 feet. The cross section of any piers used for construction will be small relative to the size of floodplains, so they will not increase flood levels.

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-147

Stormwater collected from road overpasses would be directed to best management practices (BMPs) developed for the HST project. The closure of some roads and the redirecting of traffic to locations with overcrossings of the HST will increase the level of traffic on those roads with overcrossings. However, data on the quality of runoff from highways do not indicate a strong correlation between traffic volume and amount of pollutants in highway runoff except in a broad sense. High-traffic urban roads (> 30,000 average daily trips) have more pollutants than low-traffic rural highways, but within a category of highway (e.g., low-traffic rural highways) the level of traffic does not have a strong effect on the level of pollutants (FHWA 1990). Since it is not expected that the HST will change the nature of any of the overcrossings (i.e., convert low-traffic rural highway to high-traffic urban highway), the increase in traffic on some roads should not result in a significant increase in the pollutants in the runoff from the overpasses.

I032-148

Subsidence from groundwater or petroleum withdrawal is addressed in the Final EIR/EIS (Section 3.9.4.4, Geologic Hazards). The section states that substantial subsidence has occurred in the San Joaquin Valley, primarily due to groundwater extraction; however, the areas with greatest land subsidence are in the western portion of the San Joaquin Valley where subsidence of nearly 30 feet was recorded between 1926 and 1970. In the area of the HST alternatives, including stations and heavy maintenance facilities (HMFs), subsidence has been far less dramatic than on the western side of the valley, with subsidence measured at less than 1 foot between 1926 and 1970 (Faunt 2009; Galloway et al.). Over the last several decades, the use of pipelines and aqueducts for surface water deliveries from other parts of California has reduced dependence on groundwater for agricultural use, and land subsidence has slowed or reversed in some areas of the San Joaquin Valley. During drought conditions, however, increased reliance on groundwater may result in increased subsidence rates.

Construction and operation of the Fresno to Bakersfield Section of the HST would not change subsidence rates compared to existing conditions. The project does not include features (e.g., major new sources of groundwater extraction) that would contribute to subsidence. In fact, the project would cause land (under the preferred alternative) to be removed from agricultural production. Some of these lands are irrigated with groundwater, and therefore localized groundwater withdrawals would likely be reduced.

I032-148

The project will be designed so that geotechnical constraints (e.g., subsidence from groundwater withdrawal, soil settlement from new earth loads, etc.) do not result in premature degradation of the alignment such that speeds are reduced or operation and maintenance costs are unacceptably high. Prerequisite geotechnical and geologic evaluations, design features, and management measures to reduce or eliminate risk from poor or unexpected geologic conditions or from long-term effects of the project on geology are described in the EIR/EIS.

Information related to subsidence used in this response was obtained from the following sources:

Faunt, C.C., ed., 2009, Groundwater Availability of the Central Valley Aquifer, California: U.S. Geological Survey Professional Paper 1766, 225 p.

Galloway, D.L., D.R. Jones, and S.E. Ingebritsen, 2000, Land Subsidence in the United States, USGS Fact sheet-165-00. December.

I032-149

The figures cited in the Revised DEIR/Supplemental DEIS for the amount of aggregate and dirt required to construct the Fresno to Bakersfield Section of the HST include all facilities required for the project.

I032-150

Refer to Standard Response FB-Response-GENERAL-01.

Impacts associated with unstable soils would be the same for all alternative alignments, station alternatives, and potential HMF sites. The project would minimize impacts from potentially unstable soils through foundation design for site-specific conditions, such as the use of deep foundations (piles) based on site-specific geotechnical investigations (for examples, see Section 1802 of the IBC).

Site-specific geotechnical studies would be conducted once an alternative is chosen. These studies are not needed to assess the potential impacts of construction on unstable soils. Dealing with unstable soils from an engineering standpoint is fairly

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I032-150

routine, and a number of standard engineering design techniques are available to reduce or eliminate the impact, as described above. The specific design features used would depend on the site-specific situation and be determined by final design. In no case would a structure be built on unstable soils without specifications for reducing the impact on the structure to less than significant.

I032-151

As described in Section 3.9, soils along the alignments are generally competent (medium-dense, stiff, or better), although localized deposits of soft or loose soils could occur at various locations, particularly at water crossings where soft or loose soils appear to be more prevalent. Geotechnical explorations to be undertaken prior to final design and prior to construction would identify the locations with the potential for settlement. In such locations, where subsurface conditions may not be capable of supporting the additional loading induced by additional fill, standard engineering design features that address soft deposits of silty or clay soils would be incorporated, such as preloading to accelerate settlement or adding wick drains if applicable. Site-specific studies were not required to disclose the potential impacts, nor were they needed to discuss engineering design features that would reduce the impacts of construction on settlement-prone soils.

I032-152

The HST project design addresses slope stability by incorporating standard IBC and other engineering standards and criteria. Detailed slope stability evaluations would be conducted and impact avoidance measures, such as structural solutions (e.g., tie backs, soil nails or retaining walls), or geotechnical solutions (e.g., ground improvement or regrading of slopes), would be implemented, as appropriate, to reduce the potential for future slumps and slope failures. In the case of elevated structures, the location of the foundation would be sited during final design to avoid the area of slope failure.

I032-153

Section 3.9.5.3 has been modified to include information on the operating status of Success Dam. It should be noted that this entire section of the Revised DEIR/Supplemental DEIS discusses the potential secondary seismic hazards and

I032-153

discloses potential risks of flooding from failures of local dams, including Success Dam.

I032-154

Fill material for overpass structures would be excavated from permitted local borrow sites and transported by truck from 10 to 40 miles to the preferred alignment.

The California Geological Survey (CGS) estimates that only about 6% of the total aggregate resources available have been developed in the areas they studied. The areas studied by the CGS include 31 regions of the state that range from Shasta County in the north to San Diego County in the south, indicating that statewide only 6% of potentially available aggregate resources have been developed.

Aggregate and fill resources for the proposed Fresno to Bakersfield Section HST could be obtained from five of the areas studied by the CGS. These include the Fresno (greater Fresno-Clovis metropolitan area), north Tulare County (Visalia/Tulare Area), south Tulare County (Portersville area), Bakersfield (Oildale to Tehachapi), and Palmdale. Within these five areas, as of 2006, there were 379 million tons of permitted aggregate resources, not including the south Tulare County area, which was not reported because the information is proprietary. Of this permitted material, the proposed HST segment would require about 2.3 million tons, representing 0.6% (2.3 million tons/379 million tons permitted) of the currently permitted aggregate resources in these five areas. These aggregate resources are typically mined from alluvial sources, which contain large amounts of soils material in addition to the aggregate material. The project would not rely on any one area for all its material. The text in the Final EIR/EIS, Section 3.9.1, has been updated to reflect this information.

I032-155

The Revised DEIR/Supplemental DEIS evaluates whether the project is located on a geologic unit or on soil that is unstable, or that would become unstable, as a result of the project. One of the considerations is subsidence from groundwater or petroleum withdrawal. The Revised DEIR/Supplemental DEIS (see Section 3.9.4.4, Geologic Hazards) states that substantial subsidence has occurred in the San Joaquin Valley, primarily due to groundwater extraction; however, the areas with the greatest land subsidence are in the western portion of the San Joaquin Valley, where subsidence of

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-155

more than 28 feet was recorded between 1926 and 1970. In the area of the HST alternatives, including the north-south alignments, wyes, stations, and HMF, subsidence has been far less dramatic than on the western side of the valley, with subsidence measured at less than 1 foot between 1926 and 1970 (Faunt 2009; Galloway and Riley 1999). Over the last several decades, the use of pipelines and aqueducts for surface water deliveries from other parts of California has reduced dependence on groundwater for agricultural use, and land subsidence has slowed or reversed in some areas of the San Joaquin Valley. During drought conditions, however, increased reliance on groundwater may result in increased subsidence rates.

Construction and operation of the Fresno to Bakersfield Section would not change subsidence rates compared with existing conditions. The project does not include features (e.g., major new sources of groundwater extraction) that would contribute to subsidence. As described in Section 3.8, the project would cause land to be removed from agricultural production. Some of these lands are irrigated with groundwater, and therefore localized groundwater withdrawals would likely be reduced.

The project will be designed so that geotechnical constraints (e.g., subsidence from groundwater withdrawal, soil settlement from new earth loads) do not result in premature degradation of the alignment so that speeds are reduced, or operation and maintenance (O&M) costs are unacceptably high. Prerequisite geotechnical and geologic evaluations, design features, and management measures to reduce or eliminate risk from poor or unexpected geologic conditions or from long-term effects of the project on geology are described in the EIR/EIS.

I032-156

Refer to Standard Response FB-Response-GENERAL-16, FB-Response-GENERAL-21.

The number of residential units displaced is an estimate based on parcel-by-parcel examination of the project alternative alignments as presented in EIR/EIS Volume III. See Appendix A of the Community Impact Assessment Technical Report (Authority and FRA 2012h) for a description of the methodology used in the property analysis.

I032-157

Refer to Standard Response FB-Response-SO-05.

The sentence cited in the comment was not meant to be applied to the issue of tax revenues in particular, but to the community assessment and environmental justice impacts overall.
Section 5.4.4.2 of the Community Impact Assessment (CIA) Technical Report (Authority and FRA 2012) examines the reduction in property tax revenues that would result from acquisition of land for project construction. As discussed in Section 3.12 Impact SO#12, the economic impact from the reduction in property tax revenues is insignificant and would not be perceptible to community residents, and no mitigation is required.

The short-term reductions in sales tax revenues are discussed in EIR/EIS Section 3.12 Impact SO #12, because the need to acquire land will necessitate the relocation of businesses along the project alignment. With the relocation assistance provided under the Uniform Act, including assistance in finding replacement properties, moving expenses, and obtaining permits, temporary reductions in sales tax revenue from business displacement would be minimal. A detailed discussion of potential sales tax revenue losses is presented in Section 5.4.4.4 of the CIA. Losses would be an insignificant amount of the annual revenue from sales tax collected by the cities and counties. Therefore, the economic impact is measurable, but would not be perceptible to community residents and no mitigation is required.

Because the construction of a Kings/Tulare Station will be dependent on ridership demands, if one is not constructed, no additional tax benefits will occur. However, Kings County will benefit from construction-and operation-related sales tax gains, see Section 5.4.6 of the Community Impact Assessment Technical Report.

I032-158

Refer to Standard Response FB-Response-GENERAL-04.

See the Revised DEIR/Supplemental DEIS, Volume I, Section 3.14, Impact AG #4. for information on the permanent conversion of agricultural land, and see Mitigation Measure AG-1 for measures to preserve the total amount of prime farmland.

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I032-159

Refer to Standard Response FB-Response-SO-01.

As detailed in EIR/EIS Section 3.12 Impact SO#6, in the Ponderosa Road community, potentially up to half of the existing ranch-style homes could be displaced by the BNSF Alternative. In this location, residents enjoy a unique blend of amenities and 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 area to newly constructed housing elsewhere in the vicinity. 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.

I032-160

Refer to Standard Response FB-Response-TR-02.

For information on impacts on schools and bus transportation see EIR/EIS Volume II Technical Appendix 3.12-B. Lakeside Elementary School is not within the 0.5-mile study area of the alternatives, it is 1.2 miles from the BNSF Alternative and 2 miles from the Hanford West Bypass alternatives. Road closures and residential displacements for the Lakeside Union Elementary School District, which includes Lakeside Elementary School, were analyzed in this appendix.

The Kings/Tulare fire training center and emergency helicopter service along Houston Avenue is identified. Information about the South Hanford Fire Station can be found in EIR/EIS Volume I Section 3.12.6.4 Affected Environment. Impact SO #1 describes the potential for construction to affect important community facilities and explains that emergency vehicle access for police and fire protection services would be maintained at all times.

I032-161

Refer to Standard Response FB-Response-GENERAL-02, FB-Response-SO-07.

I032-161

The environmental justice analysis adheres to the definition given by Executive Order 12898 and U.S. Department of Transportation Order 5610.2, which defines an environmental justice effect as a "disproportionately high and adverse effect on minority and low-income populations." This is an adverse effect that is predominately borne by a minority population and/or a low-income population, or that would be appreciably more severe or greater in magnitude for the minority and/or a low-income population than the adverse effect that would be suffered by the nonminority and/or non-low-income population along the project.

Section 4.3 in the Community Impact Assessment Technical Report (Authority and FRA 2012h) identifies the environmental justice populations along the project. The methodologies for identifying these populations are detailed in Appendix A of the Community Impact Assessment Technical Report. Section 5.3 in the Community Impact Assessment Technical Report provides detailed information on the potential for substantial environmental justice effects across resources along the project. EIR/EIS Volume 1 Section 3.12 Impacts SO#17 and SO#18 summarize these findings.

I032-162

Refer to Standard Response FB-Response-AQ-01, FB-Response-AG-05, FB-Response-TR-02, FB-Response-AQ-05.

A detailed Construction Transportation Plan (CTP), (see Section 3.2.6) and the Construction Management Plan (see Section 3.12.10, Design Features), will be prepared as the project progresses into the final design phase and more details are developed regarding construction plans. CTPs are standard means of minimizing traffic conflicts during construction, and depending on the type and extent of construction, typically include detours and lane control features such as signage, lighting, and flag persons.

Section 3.2.6, Project Design Features, in the Final EIR/EIS describes the types of activities addressed by the CTP. On average, roadway overpasses would be provided approximately every 2 miles along the track. It is estimated that the proposed project would result in no more than 1 mile of out-of-direction travel for vehicles to cross the HST tracks. The air quality analysis has identified emission impacts from the project

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during the construction phase. The regional significant construction emission impacts will be completely offset to below a level of significance through the Voluntary Emission Reduction Agreement (VERA) between the Authority and the San Joaquin Valley Air Pollution Control District.

I032-163

See the EIR/EIS, Volume I, Section 3.12, Impact SO #5, Temporary Construction Employment, for information on the number of construction jobs created as a result of the project and on the ability of the existing regional labor force to fill the demand for the direct construction jobs as well as the resulting indirect and induced jobs. Volume I, Section 3.18, presents the amount of construction- and operation-related employment created by the project. Over the entire construction period, project expenditures would result in 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.

The San Joaquin Valley has greater unemployment and a lower per capita income than the state as a whole. The Authority has adopted a Community Benefits Policy, which requires that design-build construction contracts will be required to adhere to the National Targeted Hiring Initiative, which states a minimum of 30% of all project work hours will be performed by national targeted workers and a minimum of 10% of national targeted workers hours will be performed by disadvantaged workers. This, along with other hiring policies, will make sure that employment and business opportunities created by the project are accessible to the local community. For more information on hiring policies, see the Authority's website.

I032-164

Refer to Standard Response FB-Response-SO-01, FB-Response-SO-02, FB-Response-SO-05.

For more information on the property acquisition and compensation process, see the Revised DEIR/Supplemental DEIS, Volume II, Appendix 3.12-A. For information on potential HST project impacts on property values, see Section 5.4.4.3 in the Community Impact Assessment Technical Report.

I032-164

Impact Assessment Technical Report.

I032-165

Refer to Standard Response FB-Response-SO-05, FB-Response-GENERAL-03.

For information on the HST operation-related property and sales tax revenue effects, see the EIR/EIS, Volume I, Section 3.12, Impact SO #3, Impact SO #4, and Impact SO #12.

I032-166

For information on new job creation and the resulting impacts on the regional economy, see Volume I, Section 3.12, Impacts SO #5 and SO #13. Also see Section 5.1.2 of the Community Impact Assessment Technical Report for more detailed information on short-term and long-term job creation.

Jobs created by construction and operation of the project would likely be filled by workers in the region. To help offset any disproportionate effects, the Authority has approved a Community Benefits Policy that supports employment of individuals who reside in disadvantaged areas and those designated as disadvantaged workers, including veterans returning from military service. This policy helps to remove potential barriers to small businesses, disadvantaged business enterprises, disabled veteran business enterprises, women-owned businesses, and microbusinesses that want to participate in building the high-speed rail system.

Under the Authority's Community Benefits Policy, design-build construction contracts will be required to adhere to the National Targeted Hiring Initiative, which states a minimum of 30% of all project work hours will be performed by national targeted workers and a minimum of 10% of national targeted workers hours will be performed by disadvantaged workers. According to the National Targeted Hiring Initiative, disadvantaged workers either live in an economically disadvantaged area or face any of the following barriers to employment: being homeless, being a custodial single parent, receiving public assistance, lacking a GED or high school diploma, having a criminal record or other involvement with the criminal justice system, being chronically unemployed, being emancipated from the foster care system, being a veteran, or being an apprentice with

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less than 15% of the required graduating apprenticeship hours in a program. The Community Benefits Policy will supplement the Authority's Small Business Program which has an aggressive 30% goal for small business participation, and includes goals of 10% for disadvantaged business enterprises and 3% for disabled veteran business enterprises.

I032-167

See Section 4.4 of the Community Impact Assessment Technical Report for information on the employment conditions of the local economies. Following the collapse of the real estate market, the San Joaquin Valley lost about 32,300 construction jobs between 2006 and 2009. Section 5.1.2 shows that during peak construction, project spending would result in about 3,300 jobs per year. While these jobs would benefit the local labor force, in the context of total regional employment around 1 million, the percentage of jobs created by the project is not significant enough to cause a labor market crash after project completion.

In addition to the temporary construction jobs generated by the project, permanent jobs will be created to operate and maintain the HST System. See Section 3.12 Impact SO #13 for more information on long-term job creation.

I032-168

Refer to Standard Response FB-Response-TR-02.

Impact SO #7 (Section 3.12, Volume I of the EIR/EIS) acknowledges that in areas where the project alignment departs from the existing BNSF corridor and introduces a new linear feature, there would be impacts on agricultural communities. However, on average, roadway overpasses would be provided approximately every 2 miles along the track. It is estimated that the proposed project would result in no more than 1 mile of out-of-direction travel for vehicles to cross the HST tracks. The width of the roadway overpasses would accommodate both farm equipment and school buses traveling in opposite lanes. Due to the frequency of roadway overpasses, additional distances traveled by vehicles to cross the HST tracks are expected to be negligible.

I032-169

Refer to Standard Response FB-Response-AG-02, FB-Response-AG-03, FB-Response-TR-02.

As discussed in Chapter 1 of the Final EIR/EIS, California's population is growing rapidly, and unless new transportation solutions are identified, traffic will only become more congested and airport delays will continue to increase. The proposed 220-mph HST system would provide lower passenger costs than would air travel for the same city-to-city markets, and would provide service competitive with automobile travel. The HST would increase mobility while reducing air pollution, decreasing dependence on fossil fuels, protecting the environment by reducing GHG emissions, and promoting sustainable development in the areas near the stations, in comparison to existing trends.

The Authority is committed to working with agricultural property owners to resolve or mitigate, if possible, partial acquisitions that result in the division of farmlands resulting in large farmable lots on either side of the HST alignment. Efforts to minimize these impacts include frequent public road crossings in the project design. For example, most of the new public road overcrossings would be located at intervals of 2 miles or less, with many crossings located at intervals of 1 mile or less. Areas with longer intervals between road crossings would generally occur in areas with no current crossings (i.e., no change from existing conditions). Additional access across the HST right-of-way may be preserved by creation of private overcrossings or undercrossings at reasonable intervals (see Mitigation Measure SO-4). This may include the construction of grade-separated equipment crossings to allow farm equipment continued access to bisected land holdings. However, if the cost of such a crossing would exceed the value of the affected remainder lands, rather than provide a crossing, the Authority would offer to acquire the affected lands or otherwise compensate the farm owner for the loss in value.

I032-170

Refer to Standard Response FB-Response-S&S-01, FB-Response-S&S-03, FB-Response-S&S-04, FB-Response-S&S-05.

I032-171

Alignment plans and maps of parcels directly affected by the project, where the whole parcel or a portion thereof would be acquired by the project, are provided in Volume III

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-171

of the Revised DEIR/Supplemental DEIS. The number of residential units displaced is an estimate based on parcel-by-parcel examination of the project alternative alignments presented in Volume III. See Appendix A of the Community Impact Assessment Technical Report for a description of the methodology used in the property analysis. All final determinations on property acquisition would occur during the acquisition process. See Volume II, Appendix 3.12-A, for details.

I032-172

Refer to Standard Response FB-Response-SO-01.

Please see Section 5.2.2 of the Draft Relocation Impacts Report for more information on residential displacements and for an analysis of available vacant residential units in all communities impacted by the HST alternatives, including Hanford and the unincorporated areas of Kings County.

The displacement of residential, business, and community facilities will be mitigated for because the Authority will comply with applicable federal and state laws and regulations, including the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. The act and its amendments provide guidance on how federal agencies, or agencies receiving federal financial assistance for a project, will compensate for impacts on property owners or tenants who need to relocate if they are displaced. The Authority will compensate all property owners or tenants in accordance with this act, which applies to all real property. All benefits and services will be provided equitably without regard to race, color, religion, age, national origins, and disability, as specified under Title VI of the Civil Rights Act of 1964. The Relocation Assistance Program was developed to help displaced individuals move with as little inconvenience as possible and has commonly been used for large infrastructure projects, such as the HST project, that displace a large number of residences and businesses, and is considered successful standard practice for mitigating the impacts on individual property owners.

I032-173

The EIR/EIS states that impacts on the Ponderosa Road community would be of substantial intensity under NEPA and be a significant impact under CEQA. For

I032-173

information on how potential impacts on the Ponderosa community will be mitigated, see Volume I, Section 3.12.11, Mitigation Measure SO-1 .

I032-174

Refer to Standard Response FB-Response-SO-01.

As detailed in Chapter 3.12 Impact SO#6, in the Ponderosa Road community, potentially up to half of the existing ranch-style homes could be displaced by the BNSF Alternative. In this location, residents enjoy a unique blend of amenities and very few comparable, vacant, developed rural residential homes may be available as replacement properties. It may be necessary to consider constructing housing of last report, including rehabilitation of existing housing or relocation of disrupted residential area to newly constructed housing elsewhere in the vicinity zoned for low density residential use in the General Plan. For more information on the property acquisition and compensation process, see the EIR/EIS, Volume II, Appendix 3.12-A.

Given these impacts, the project would affect community character, social interactions, and community cohesion by displacing potentially half of the households, and by exposing the remaining rural residential homes to increased noise, visual, and traffic impacts. This would be of substantial intensity under NEPA and a significant impact under CEQA. Mitigation Measure SO-1: *Implement measures to reduce impacts associated with the division of residential neighborhoods*, was developed to reduce the impacts associated with the division of existing communities, including Ponderosa, by conducting special outreach to affected homeowners and residents to fully understand their special relocation needs. Even with this mitigation, the impact related to the division of existing communities would remain significant.

I032-175

Refer to Standard Response FB-Response-TR-02, FB-Response-AG-02.

For information on the potential for disruption and division, see the EIR/EIS, Volume I, Section 3.12, Impact SO #6.

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I032-176

Refer to Standard Response FB-Response-SO-01.

See Appendix A of the Community Impact Assessment Technical Report for a description of the methodology used in the property analysis. All final determinations on property acquisition would occur during the acquisition process. See the Volume II, Appendix 3.12-A, for details.

Information about the South Hanford Fire Station can be found in Volume I, Section 3.12.6.4, Affected Environment. Impact SO #1 describes the potential for construction to affect important community facilities and explains that emergency vehicle access for police and fire protection services would be maintained at all times.

For information about the impacts on Baker Commodities, see Volume I, Section 3.12, Impact SO #11. Information on mitigation measures for this important facility can be found in Mitigation Measure SO-3. Baker Commodities is also mentioned in Section 5.2.4 of the Community Impact Assessment Technical Report under agricultural displacements and in Section 6.4.3 of the Draft Relocation Impacts Report under special relocation considerations.

I032-177

Refer to Standard Response FB-Response-AG-02, FB-Response-AG-03, FB-Response-SO-01.

For more information on the property acquisition and compensation process, see the Revised DEIR/Supplemental DEIS, Volume II, Appendix 3.12-A.

I032-178

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-04.

Compensation for loss of infrastructure (irrigation facilities, wells, etc.) would be paid, and the farm owner would have time to restore infrastructure before construction begins and before the start of the growing season. However, in those cases where construction would need to occur before infrastructure can be restored or before the growing season, the farm owner would be compensated for the loss of agricultural production resulting

I032-178

from the disruption.

I032-179

Refer to Standard Response FB-Response-TR-02, FB-Response-AG-02.

The study area for each station was established by considering the potential for impacts on roadway segments and at intersections from new, station-related traffic (i.e., traffic generated by that station). The traffic analysis considered traffic increases on nearby streets that would be expected to result from the projected ridership at each station (see the Revised DEIR/Supplemental DEIS, Volume I, Section 3.2.4). This analysis included considerations of parking demand at the stations and their impact on existing parking facilities (see Section 3.2.5).

I032-180

Refer to Standard Response FB-Response-LU-03.

The Kings/Tulare Regional station (either West or East alternatives) is not consistent with the general plans of either Kings County or the city of Hanford, nor is it discussed in the San Joaquin Valley Blueprint. The West alternative site is in line with urbanization trends in the Hanford area; the East alternative, on the other hand, is surrounded by agricultural land. Development of this station would reinforce the importance of Hanford as a transportation hub, but would not result in higher-density development in the city's downtown. As discussed in Section 3.13, Station Planning, Land Use, and Development, of the EIR/EIS, the Kings/Tulare Regional Station sites would change the pattern and intensity of the use of the land and would be incompatible with adjacent land uses. The presence of a station at either site would be likely to result in some unplanned changes in the use of existing adjacent land.

I032-181

Refer to Standard Response FB-Response-GENERAL-04, FB-Response-AG-03, FB-Response-SO-02.

A comprehensive literature review in section 5.4.4.3 of the Community Impact

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I032-181

Assessment Technical Report presents research studies conducted on the effect of constructing new commuter rail lines on residential and commercial real estate values. The research was conducted on the property value impacts of different types of rail transit and the majority of the studies found that rail transit access had a positive influence on residential property values, due to a presumed relationship between property values and improved accessibility (both of residents to regional jobs and of employers to a larger labor pool). In a study of the property value impacts associated with a variety of disamenities, such as environmental contamination or proximity to linear features like roadways and railroads, Simons (2006) reviewed several rigorous studies (conducted in Ohio, Georgia, and Norway) of the relationship between residential property values and proximity to rail lines, and concluded that there were negative property value impacts in the single digits (e.g. 2 or 3%) for residential properties within 750 feet of an active railroad track. Although considerable research has been conducted on the property value impacts of rail transit, especially on residential property values near transit stations, no studies were found that examine the specific question of high-speed rail impacts on real estate property values. Therefore, it is not clear how these findings would apply to high-speed rail projects and it is unclear whether the property value impacts would be similar. As a result, a calculation of loss of value of property adjacent to the project would be speculative.

The Fresno to Bakersfield HST will result in benefits to cities and communities in the region through job creation and sales tax gains.

See Volume I Section 3.12 Impact SO #5- Temporary Construction Employment, for information on the number of construction jobs created as a result of the project as well as the ability of the existing regional labor force to fill the demand for the direct construction jobs as well as the resulting indirect and induced jobs. Impact SO#13-Employment Growth, details the long term jobs created to operate and maintain the project in the region, as well as the jobs created as a result of the improved connectivity of the region to the rest of the state. The total number of new jobs created is estimated to be a 3.2% increase in total employment above the 2035 estimate of 1.4 million total jobs in the region under the No Project Alternative (Cambridge Systematics 2010).

Construction- and operation-related sales tax gains are examined in section 5.4.6 of the

I032-181

CIA. The impacted cities and counties will have considerable additional revenues attributed to the construction and operation of the HST.

I032-182

Refer to Standard Response FB-Response-GENERAL-03, FB-Response-LU-03.

Future development intensification near the Fresno and Bakersfield stations would support local land use plan changes near the stations encouraged by the San Joaquin Valley Blueprint and anticipated in the City of Fresno and City of Bakersfield General Plans. It would reduce the demand for new development areas to the extent that some of the region's anticipated future growth would be captured by the mixed-use, transit-oriented development envisioned for the areas around the stations. The Kings/Tulare Regional Station West–Alternative site is in line with urbanization trends in the Hanford area; the East alternative, on the other hand, is surrounded by agricultural land. Development of this station would reinforce the importance of Hanford as a transportation hub, but would not result in higher-density development in the city's downtown.

I032-183

Refer to Standard Response FB-Response-SO-05.

As described in Section 3.12, overall, property and sales tax revenues are expected to increase as a result of the project. Short-term reductions in property tax revenues caused by private property being acquired for a public transportation purpose, and related sales tax revenue reductions associated with relocating businesses, will cause a tax revenue reduction. These revenue losses, however, are expected to be more than offset by both short-term increases in sales tax revenues from construction spending and long-term increases in the regional property and sales tax bases resulting from increased property values and new economic development through improved connectivity of the region to the rest of the state.

The analysis in Section 3.12 describes how a short-term reduction in property tax revenues may occur due to property acquisition by removing parcels from county tax rolls. This estimated amount is 0.2% in Kings County. The intensity is negligible for all

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-183

alternatives because the economic impact is measurable, but would not be perceptible to community residents.

The short-term reductions in sales tax revenues are discussed in Section 3.12 Impact SO #12, because the need to acquire land will necessitate the relocation of businesses along the project alignment. With the relocation assistance provided under the Uniform Act, including assistance in finding replacement properties, moving expenses, and obtaining permits, temporary reductions in sales tax revenue from business displacement would be minimal. A detailed discussion of potential sales tax revenue losses is presented in section 5.4.4.4 of the CIA. Losses would be an insignificant amount of the annual revenue from sales tax collected by the cities and counties. Therefore, the economic impact is measurable, but would not be perceptible to community residents and no mitigation is required.

Additionally, the expected annual gain in sales tax revenue from project spending is greater than the expected loss from business relocation. Construction- and operation-related sales tax gains are examined in section 5.4.6 of the CIA. The impacted cities and counties will have considerable additional revenues attributed to the construction and operation of the HST.

I032-184

Refer to Standard Response FB-Response-SO-01.

For a detailed analysis of the effects of the HST project on agricultural production, see Appendix C of the Community Impact Assessment Technical Report. The analysis in this appendix provides these results by county and by project alternative in terms of the number of acres of agricultural production loss, the resulting annual revenue loss in both dollar and percentage terms for each type of agricultural product, and the employment loss. For more information on the property acquisition and compensation process, see the Revised DEIR/Supplemental DEIS, Volume II, Appendix 3.12-A.

I032-185

Refer to Standard Response FB-Response-AG-06, FB-Response-SO-01.

I032-185

See the EIR/EIS, Volume I, Section 3.12, Impact SO #15, and Volume II, Appendix 3.14-B, for impacts on confined-animal agriculture. The Authority has committed to maintain a permit bureau to help businesses (including confined-animal operations) overcome the regulatory disruptions caused by the project.

I032-186

Refer to Standard Response FB-Response-GENERAL-04.

Please see Appendix C of the Community Impact Assessment Technical Report for all of the methodological detail, discussion of assumptions, and exact estimates of reduction in agricultural production. The analysis conducted has been thorough and takes into account the unique circumstances of agricultural production in the four-county region.

In brief, this analysis examined potential losses in revenue resulting from: (1) the loss of agricultural production on agricultural land acquired in the project right-of-way and (2) potential yield losses occurring up to 500 feet away from the project as a result of factors such as the reduction in crop growth from dust, wind effects resulting in reduced pollination benefits, and difficulties and limitations imposed in applying pesticides near the project, etc.

These are the direct effects of the project on agriculture. To determine the resulting indirect and induced effects to economic activity in other related sectors, such as agricultural processing and transportation, Bureau of Economic Analysis (BEA) RIMS II multiplier for agricultural production in the region is used. The BEA estimate is a multiplier of 1.96, or for every dollar of agricultural production lost in the region, an additional 96 cents of output is lost across related sectors. Therefore, it is reasonable to almost double the estimate of loss to agricultural production to get an overall estimate.

I032-187

Refer to Standard Response FB-Response-GENERAL-02.

The property lines of agricultural parcels tend to reflect the township/range surveys of the 19th century and are typically oriented along north-south and east-west axes. The

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-187

Central Valley is aligned along an axis that trends from northwest to southeast. The Valley's urban corridor and the transportation infrastructure connecting its cities are similarly aligned along this northwest to southeast axis, diagonal to most property lines in agricultural areas. As a result, there is no practicable alignment that would meet the objectives of the project and the demands of an HST alignment, while also running along north-south property lines.

I032-188

Refer to Standard Response FB-Response-N&V-01, FB-Response-AG-06.

Contrary to the claim, there is no substantial evidence to support the assertion that dairy cows produce less milk when exposed to levels of noise expected from the proposed project. Based on existing research, the FRA has established a threshold for HST noise effects on livestock of 100 dBA SEL (FRA 2005). As discussed in the Revised DEIR/Supplemental DEIS, Section 3.4, Noise and Vibration, the term SEL, or the sound exposure level, represents the noise generated during a single event, such as the train passing a given point. At a distance of 100 feet, the SEL for project operations at all dairies along the alignment in Kings County would be less than 100 dBA SEL. Facilities on operations not located at least 100 feet from the project would experience moderate noise and vibration effects. (See Appendix B of Section 3.14, Agricultural Lands, for details on these effects to animal operations.) Because no significant impact on milk production would occur, no adverse economic conditions would result, and no mitigation is needed.

I032-189

Refer to Standard Response FB-Response-GENERAL-04.

See the Revised DEIR/Supplemental DEIS, Volume I, Section 3.14, Impact AG #4, for information on the permanent conversion of agricultural land, and see Mitigation Measure AG-1 in Volume I, Section 3.14, for measures to preserve the total amount of prime farmland.

The commenter has not submitted any evidence to support the statement that suitable replacement land cannot be found. There is no reason therefore to assume that all

I032-189

revenue losses would be permanent.

I032-190

Refer to Standard Response FB-Response-SO-02.

The EIR/EIS states that impacts on the Ponderosa Road community would be of substantial intensity under NEPA and a significant impact under CEQA. For information on how potential impacts on the Ponderosa community will be mitigated, see Section 3.12.11, Mitigation Measure SO-1.

I032-191

Refer to Standard Response FB-Response-GENERAL-01.

I032-192

As described in Section 3.12.10, Project Design Features, of the Final EIR/EIS, the Authority must comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act). The Authority has developed more detailed information about how it plans to comply with the Uniform Act and the California Relocation Assistance Act. The Authority has developed three detailed relocation assistance documents modeled after the California Department of Transportation's (Caltrans') versions. The documents are included in Appendix 3.12-A, Relocation Assistance Documents. Before any acquisitions occur, the Authority will develop a relocation mitigation plan, in consultation with affected cities and counties. Included in this plan will be an ombudsman to act as a single point of contact for property owners, residents, and tenants with questions about the relocation process. The ombudsman will be charged with representing the interests of the public and will be a mechanism for keeping the Authority accountable.

I032-193

Refer to Standard Response FB-Response-SO-01.

As detailed in Chapter 3.12 Impact SO#6, in the Ponderosa Road community, potentially up to half of the existing ranch-style homes could be displaced by the BNSF Alternative.

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I032-193

In this location, residents enjoy a unique blend of amenities and 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 area to newly constructed housing elsewhere in the vicinity. 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.

The commenter's assertion that the Authority's ability or intention to construct replacement housing has changed is incorrect. The Authority has always had the option to utilize a method called Last Resort Housing. Last Resort Housing allows the Authority to construct, rehabilitate or modify housing in order to meet the needs of the people displaced from a project. The Authority can also pay above the statutory limits of $5,250 and $22,500 in order to make available housing affordable. For more information on the housing of last resort see Volume II Technical Appendix 3.12-A. This will be determined during the right-of-way property acquisition and compensation process.

I032-194

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-16.

I032-195

For information about the impacts on Baker Commodities, see the EIR/EIS, Volume I, Section 3.12, Impact SO #11. Information on mitigation measures for this important facility can be found in Mitigation Measure SO-3. Baker Commodities is also mentioned in Section 5.2.4 of the Community Impact Assessment Technical Report under agricultural displacements, and in Section 6.4.3 of the Draft Relocation Impacts Report under special relocation considerations.

I032-196

Refer to Standard Response FB-Response-GENERAL-02.

As discussed in FB Response-GENERAL-02: Alternatives, due to HST engineering and

I032-196

operational needs, the HST alignment in the Central Valley cannot feasibly be built solely within the existing transportation corridors. Existing corridors are not sufficiently straight nor are their curve radii long enough to support high-speed operation along their full lengths. Safety considerations also dictate the need to separate the HST from roads and conventional rail (see Section 2.4.2.A, Alignment Requirements). Impacts on land uses, including agricultural lands, from the alternatives are discussed in Section 3.13.5.3, Land Use, and Section 3.14.5.3.

I032-197

All residential impacts are detailed in Section 3.12 Impact SO #6- Disruption to Community Cohesion or Division of Existing Communities from Project Operation. This discussion includes the potential divisions resulting from the removal of homes, businesses, and important community facilities as well as other environmental impacts such as increases in noise or traffic in the Ponderosa Road community.

In the Ponderosa Road community, potentially up to half of the existing homes could be displaced by the project. Remaining homes would be close (less than 200 feet) to the new HST guideway, which would be elevated 40 feet above ground level. The Kings/Tulare Regional Station–East Alternative would be built on the elevated guideway in the immediate vicinity of this community, just north of the existing freight-rail tracks. Given these impacts, the project would affect community character, social interactions, and community cohesion by displacing potentially half of the households, and by exposing the remaining rural residential homes to increased noise, visual, and traffic impacts. This would be of substantial intensity under NEPA and a significant impact under CEQA. Mitigation Measure SO-1: *Implement measures to reduce impacts associated with the division of residential neighborhoods*, was developed to reduce the impacts associated with the division of existing communities, including Ponderosa by conducting special outreach to affected homeowners and residents to fully understand their special relocation needs. Even with this mitigation, the impact related to the division of existing communities would remain significant.

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I032-198

As discussed in Section 2.4.1.1, the San Joaquin Valley is projected to grow at a higher rate than any other region in California. The four counties of Fresno, Kings, Tulare, and Kern are projected to continue to grow at an average of 2.9% per year. General plan updates in each of the counties and incorporated cities in the region have occurred since 2002 in preparation for this projected growth. Fresno County would require nearly 185,500 new units and almost 23,200 acres of land for housing, Kings County would require approximately 37,000 new units and 5,000 acres of land, Tulare County would require 113,100 dwelling units and 21,300 acres of land, and Kern County would require 214,000 dwelling units and 36,600 acres of land.

Collectively, this would result in 86,100 acres of land needed just to accommodate future housing. However, this does not take into account commercial, transportation, and supporting infrastructure such as parks, water treatment, and medical facilities. With necessary supporting infrastructure, including commercial, office, transportation, parks, and schools, a typical density for an area similar to the San Joaquin Valley would result in 8 to 10 people per acre of land development. Under this scenario, the total four county growth projections would result in approximately 173,000 acres of needed development.

As discussed in Section 3.13.5.2, local jurisdictions are currently working to address what this growth means for their communities. One planning tool is the San Joaquin Valley Blueprint Process that engaged Fresno, Kings, Tulare, and Kern counties. The San Joaquin Valley Blueprint committee adopted smart-growth principles and worked with each county to identify its preferred growth scenario. Although infill development could occur without the HST to act as a catalyst, it is not likely much transit-oriented development would be attracted to the downtown areas of Fresno and Bakersfield with the No Project Alternative. As an example, newly planned residential development proposed in the four counties would primarily be located on currently undeveloped lands planned for that use. The current pattern of low-density development (four to eight dwelling units per acre) would likely persist until an incentive develops to do otherwise.

The regional transportation plan/sustainable communities strategies (RTP/SCSs) adopted by the regional agencies pursuant to SB 375 are expected to direct future transportation funding in a manner that will discourage sprawl and encourage more

I032-198

compact growth as a means to reduce greenhouse gas emissions from autos and light trucks. The RTP/SCSs will be integrated with the Regional Housing Needs Allocations that affect city and county general plan housing elements, which would be an impetus to provide new housing opportunities in a manner that encourages more compact growth patterns. However, the extent to which SB 375 will result in compact growth depends upon the extent to which cities and counties decide to reflect the RTP/SCSs in their land use decisions. This factor cannot be known at this time.

The general plans of Fresno and Bakersfield include goals and policies that support development of an HST system to achieve their economic development goals. Overall, the No Project Alternative would not be as strong a catalyst for the development envisioned in these general plans and other planning documents as would the HST alternatives.

I032-199

Because the Kings/Tulare Regional Station would be located outside of a city center, growth is not desirable. Therefore, the Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the station by restricting onsite parking and encouraging transit to the station from downtown Hanford, Visalia, and Tulare, and purchasing agricultural conservation easements from willing sellers of adjacent agricultural lands. The presence of the station is likely to result in some unplanned changes in the use of existing adjacent land. Therefore, the land use effect of the Kings/Tulare Regional Station–East and Kings/Tulare Regional Station–West would have substantial intensity under NEPA, and the impact would be significant under CEQA. See Section 3.13.5.3 for discussion of the Kings/Tulare Regional Station and the potential for future increased density and transit-oriented development at the station.

I032-200

Construction impacts on agricultural land are discussed in Section 3.14.5.3, including temporary use of agricultural land outside the permanent right-of-way, disruption of some utilities and infrastructure, and the temporary disturbance of confined animal facilities. Economic impacts on the regional agricultural community are discussed in Section 3.12.8.2.

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I032-201

Given the size and complexity of the HST project, construction work would occur in phases over 7 years and vary depending on the project component being constructed. Impacts during construction are temporary, such as temporary construction staging, because they will cease when construction is completed. Construction impacts on agricultural land are discussed in Section 3.14.5.3, including temporary use of agricultural land outside the permanent right-of-way, disruption of some utilities and infrastructure, and the temporary disturbance of confined animal facilities. Economic impacts on the regional agricultural community are discussed in Section 3.12.8.2.

I032-202

Section 3.13.5.3 includes an analysis of the land use impacts of all the HST stations in the Fresno to Bakersfield segment, including the Kings/Tulare Regional Station—East Alternative and the Kings/Tulare Regional Station—West Alternative. The Authority chose to study a station in the Hanford area in keeping with the commitment made in the Statewide Program EIR/EIS to investigate alternatives that serve a potential station in the Visalia-Tulare-Hanford area as outlined in the Visalia-Tulare-Hanford Station Feasibility Study (Authority 2007).

As discussed in the Revised DEIR/Supplemental DEIS, the Kings/Tulare Regional Station–East Alternative would convert about 22 acres of agricultural land in unincorporated Kings County into a transportation use. The Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the station by restricting onsite parking and encouraging transit to the station from downtown Hanford, Visalia, and Tulare, and purchasing agricultural conservation easements from willing sellers of adjacent agricultural lands. However, it is likely that the location of the station at this site would attract at least transportation-oriented commercial development. While current zoning allows for industrial uses of some of the land adjoining the Kings/Tulare Regional Station–East Alternative, most of the area continues to be zoned for agriculture and is in agricultural use. In addition, current plans and policies of the City of Hanford call for development to the west of the city and not to the east. This is partially due to the lack of sewer conveyance facilities on the eastern edge of Hanford and the expense of extending this infrastructure out to the proposed station site. The Revised DEIR/Supplemental DEIS notes that the Kings/Tulare Regional

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Station–East Alternative would change the pattern and intensity of the use of the land, would be incompatible with adjacent land uses, and is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, developing the Kings/Tulare Regional Station—East Alternative could remove a barrier to growth through the extension of infrastructure to the station. This would allow for more development to occur around the station and along the path of the infrastructure expansion. Developing around the stations may be desirable to businesses and residences by creating a direct transportation link to areas with more business and employment opportunities. That is, people could travel from Hanford to meetings or jobs in Bakersfield or Fresno more easily and quickly. Even given the Urban Reserve and agricultural land use designations surrounding the Kings/Tulare Regional Station–East Alternative area, the potential for the Authority to purchase agricultural conservation easements around the station (easements must be purchased from willing sellers), and the Authority's vision for the Kings/Tulare Regional Station–East Alternative to act as a transit hub, the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–East Alternative is high. 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. However, the EIR/EIS does acknowledge the potential for undesired growth to occur.

Section 3.13.5.3 discusses that the Kings/Tulare Regional Station–West Alternative would convert about 44 acres of agricultural, residential, and industrial land uses to a transportation use. Like the Kings/Tulare Regional Station–East Alternative, the Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the Kings/Tulare Regional Station–West Alternative. However, it is likely that at least transportation-oriented commercial development would take place in the vicinity of the station, which would be incompatible with current land uses. Although the City of Hanford is directing growth on its western edge, future commercial development is envisioned closer to SR 198 than the Kings/Tulare Regional Station–West Alternative. Plans and policies for land use in the vicinity of the station site continue to be largely focused on agricultural uses. The Kings/Tulare Regional Station–West would change

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-202

the pattern and intensity of the use of the land and would be incompatible with adjacent land uses. The presence of the station is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, the Kings/Tulare Regional Station–West Alternative consists of unincorporated land adjacent to the City of Hanford's western Planning Area Boundary, and within the Armona Community Planning Area of Kings County. The station site would be located in an area categorized in the Kings County General Plan as Urban Fringe, in an area designated as a Primary sphere of influence. The "Urban Fringe" Land Use Category is intended to represent residential, commercial, and industrial land uses immediately adjacent to Hanford. The station site land use designation within Kings County is Limited Agriculture, as is all adjacent land to the west, north, and east. Developing a station could remove a barrier to growth through the extension of infrastructure to the stations. This would allow for more development to occur around the stations and along the path of the infrastructure expansion. Developing around the stations may be desirable to business and residences by creating a direct transportation link to areas with more business and employment opportunities. Therefore, the EIR/EIS acknowledges that the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–West Alternative is high.

I032-203

Section 3.13.5.3 includes an analysis of the land use impacts of all the HST stations in the Fresno to Bakersfield segment, including the Kings/Tulare Regional Station—East Alternative and the Kings/Tulare Regional Station—West Alternative. The Authority chose to study a station in the Hanford area in keeping with the commitment made in the Statewide Program EIR/EIS to investigate alternatives that serve a potential station in the Visalia-Tulare-Hanford area as outlined in the Visalia-Tulare-Hanford Station Feasibility Study (Authority 2007).

As discussed in the Revised DEIR/Supplemental DEIS, the Kings/Tulare Regional Station–East Alternative would convert about 22 acres of agricultural land in unincorporated Kings County into a transportation use. The Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the station by restricting onsite parking and encouraging transit to the station from downtown

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Hanford, Visalia, and Tulare, and by purchasing agricultural conservation easements from willing sellers of adjacent agricultural lands. However, it is likely that the location of the station at this site would attract at least transportation-oriented commercial development. While current zoning allows for industrial uses of some of the land adjoining the Kings/Tulare Regional Station–East Alternative, most of the area continues to be zoned for agriculture and is in agricultural use. In addition, current plans and policies of the City of Hanford call for development to the west of the city and not to the east. This is partially due to the lack of sewer conveyance facilities on the eastern edge of Hanford and the expense of extending this infrastructure out to the proposed station site. The Revised DEIR/Supplemental DEIS notes that the Kings/Tulare Regional Station–East Alternative would change the pattern and intensity of the use of the land, would be incompatible with adjacent land uses, and is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, developing the Kings/Tulare Regional Station—East Alternative could remove a barrier to growth through the extension of infrastructure to the station. This would allow for more development to occur around the station and along the path of the infrastructure expansion. Developing around the stations may be desirable to businesses and residences by creating a direct transportation link to areas with more business and employment opportunities. That is, people could travel from Hanford to meetings or jobs in Bakersfield or Fresno more easily and quickly. Even given the Urban Reserve and agricultural land use designations surrounding the Kings/Tulare Regional Station–East Alternative area, the potential for the Authority to purchase agricultural conservation easements around the station (easements must be purchased from willing sellers), and the Authority's vision for the Kings/Tulare Regional Station–East Alternative to act as a transit hub, the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–East Alternative is high. 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. However, the Revised DEIR/Supplemental DEIS does acknowledge the potential for undesired growth to occur.

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

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Section 3.13.5.3 discusses that the Kings/Tulare Regional Station–West Alternative would convert about 44 acres of agricultural, residential, and industrial land uses to a transportation use. Like the Kings/Tulare Regional Station–East Alternative, the Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the Kings/Tulare Regional Station–West. However, it is likely that at least transportation-oriented commercial development would take place in the vicinity of the station, which would be incompatible with current land uses. Although the City of Hanford is directing growth on its western edge, future commercial development is envisioned closer to SR 198 than the Kings/Tulare Regional Station–West Alternative. Plans and policies for land use in the vicinity of the station site continue to be largely focused on agricultural uses. The Kings/Tulare Regional Station–West Alternative would change the pattern and intensity of the use of the land and would be incompatible with adjacent land uses. The presence of the station is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, the Kings/Tulare Regional Station–West Alternative consists of unincorporated land adjacent to the City of Hanford's western Planning Area Boundary, and within the Armona Community Planning Area of Kings County. The station site would be located in an area categorized in the Kings County General Plan as Urban Fringe, in an area designated as a Primary sphere of influence. The "Urban Fringe" Land Use Category is intended to represent residential, commercial, and industrial land uses immediately adjacent to Hanford. The station site land use designation within Kings County is Limited Agriculture, as is all adjacent land to the west, north, and east. Developing a station could remove a barrier to growth through the extension of infrastructure to the stations. This would allow for more development to occur around the stations and along the path of the infrastructure expansion. Developing around the stations may be desirable to businesses and residences by creating a direct transportation link to areas with more business and employment opportunities. Therefore, the Revised DEIR/Supplemental DEIS acknowledges that the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–West Alternative is high.

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For the direct effects on land use, the study area includes the construction footprint and the proposed HMF sites. Not all land inside the construction footprint would remain in permanent use by the HST. The analysis in the Revised DEIR/Supplemental DEIS represents a conservative analysis and took into account a larger area than would be needed to reconfigure a property. Therefore, the acreage provided is an estimate based on the best technical knowledge available at the time of the Revised DEIR/Supplemental DEIS. As each agricultural operator may choose to reconfigure their property and operations differently, it is not possible to provide a more accurate estimate than is provided in Table 3.13-1.

I032-204

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Section 3.13.5.3 includes an analysis of the land use impacts of all the HST stations in the Fresno to Bakersfield segment, including the Kings/Tulare Regional Station—East Alternative and the Kings/Tulare Regional Station—West Alternative. The Authority chose to study a station in the Hanford area in keeping with the commitment made in the Statewide Program EIR/EIS to investigate alternatives that serve a potential station in the Visalia-Tulare-Hanford area as outlined in the Visalia-Tulare-Hanford Station Feasibility Study (Authority 2007).

As discussed in the Revised DEIR/Supplemental DEIS, the Kings/Tulare Regional Station–East Alternative would convert about 22 acres of agricultural land in unincorporated Kings County into a transportation use. The Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the station by restricting onsite parking and encouraging transit to the station from downtown Hanford, Visalia, and Tulare, and by purchasing agricultural conservation easements from willing sellers of adjacent agricultural lands. However, it is likely that the location of the station at this site would attract at least transportation-oriented commercial development. While current zoning allows for industrial uses of some of the land adjoining the Kings/Tulare Regional Station–East Alternative, most of the area continues to be zoned for agriculture and is in agricultural use. In addition, current plans and policies of the City of Hanford call for development to the west of the city and not to the east. This is partially due to the lack of sewer conveyance facilities on the eastern edge of Hanford and the expense of extending this infrastructure out to the proposed station site. The Revised DEIR/Supplemental DEIS notes that the Kings/Tulare Regional Station–East would change the pattern and intensity of the use of the land, would be

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incompatible with adjacent land uses, and is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, developing the Kings/Tulare Regional Station—East Alternative could remove a barrier to growth through the extension of infrastructure to the station. This would allow for more development to occur around the station and along the path of the infrastructure expansion. Developing around the stations may be desirable to businesses and residences by creating a direct transportation link to areas with more business and employment opportunities. That is, people could travel from Hanford to meetings or jobs in Bakersfield or Fresno more easily and quickly. Even given the Urban Reserve and agricultural land use designations surrounding the Kings/Tulare Regional Station–East Alternative area, the potential for the Authority to purchase agricultural conservation easements around the station (easements must be purchased from willing sellers), and the Authority's vision for the Kings/Tulare Regional Station–East Alternative to act as a transit hub, the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–East Alternative is high. 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. However, the Revised DEIR/Supplemental DEIS does acknowledge the potential for undesired growth to occur.

Section 3.13.5.3 discusses that the Kings/Tulare Regional Station–West Alternative would convert about 44 acres of agricultural, residential, and industrial land uses to a transportation use. Like the Kings/Tulare Regional Station–East Alternative, the Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the Kings/Tulare Regional Station–West. However, it is likely that at least transportation-oriented commercial development would take place in the vicinity of the station, which would be incompatible with current land uses. Although the City of Hanford is directing growth on its western edge, future commercial development is envisioned closer to SR 198 than the Kings/Tulare Regional Station–West Alternative. Plans and policies for land use in the vicinity of the station site continue to be largely focused on agricultural uses. The Kings/Tulare Regional Station–West Alternative would

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change the pattern and intensity of the use of the land and would be incompatible with adjacent land uses. The presence of the station is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, the Kings/Tulare Regional Station–West Alternative consists of unincorporated land adjacent to the City of Hanford's western Planning Area Boundary, and within the Armona Community Planning Area of Kings County. The station site would be located in an area categorized in the Kings County General Plan as Urban Fringe, in an area designated as a Primary sphere of influence. The "Urban Fringe" Land Use Category is intended to represent residential, commercial, and industrial land uses immediately adjacent to Hanford. The station site land use designation within Kings County is Limited Agriculture, as is all adjacent land to the west, north, and east. Developing a station could remove a barrier to growth through the extension of infrastructure to the stations. This would allow for more development to occur around the stations and along the path of the infrastructure expansion. Developing around the stations may be desirable to businesses and residences by creating a direct transportation link to areas with more business and employment opportunities. Therefore, the Revised DEIR/Supplemental DEIS acknowledges that the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–West Alternative is high.

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Section 3.13.5.3 includes an analysis of the land use impacts of all the HST stations in the Fresno to Bakersfield segment, including the Kings/Tulare Regional Station—East Alternative and the Kings/Tulare Regional Station—West Alternative. The Authority chose to study a station in the Hanford area in keeping with the commitment made in the Statewide Program EIR/EIS to investigate alternatives that serve a potential station in the Visalia-Tulare-Hanford area as outlined in the Visalia-Tulare-Hanford Station Feasibility Study (Authority 2007).

As discussed in the Revised DEIR/Supplemental DEIS, the Kings/Tulare Regional Station–East Alternative would convert about 22 acres of agricultural land in unincorporated Kings County into a transportation use. The Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the station

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by restricting onsite parking and encouraging transit to the station from downtown Hanford, Visalia, and Tulare, and by purchasing agricultural conservation easements from willing sellers of adjacent agricultural lands. However, it is likely that the location of the station at this site would attract at least transportation-oriented commercial development. While current zoning allows for industrial uses of some of the land adjoining the Kings/Tulare Regional Station–East Alternative, most of the area continues to be zoned for agriculture and is in agricultural use. In addition, current plans and policies of the City of Hanford call for development to the west of the city and not to the east. This is partially due to the lack of sewer conveyance facilities on the eastern edge of Hanford and the expense of extending this infrastructure out to the proposed station site. The Revised DEIR/Supplemental DEIS notes that the Kings/Tulare Regional Station–East Alternative would change the pattern and intensity of the use of the land, would be incompatible with adjacent land uses, and is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, developing the Kings/Tulare Regional Station—East Alternative could remove a barrier to growth through the extension of infrastructure to the station. This would allow for more development to occur around the station and along the path of the infrastructure expansion. Developing around the stations may be desirable to business and residences by creating a direct transportation link to areas with more business and employment opportunities. That is, people could travel from Hanford to meetings or jobs in Bakersfield or Fresno more easily and quickly. Even given the Urban Reserve and agricultural land use designations surrounding the Kings/Tulare Regional Station–East Alternative area, the potential for the Authority to purchase agricultural conservation easements around the station (easements must be purchased from willing sellers), and the Authority's vision for the Kings/Tulare Regional Station–East Alternative to act as a transit hub, the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–East Alternative is high. 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. However, the Revised DEIR/Supplemental DEISdoes acknowledge the potential for undesired growth to occur.

I032-206

Section 3.13.5.3 discusses the fact that the Kings/Tulare Regional Station–West Alternative would convert about 44 acres of agricultural, residential, and industrial land uses to a transportation use. Like the Kings/Tulare Regional Station–East Alternative, the Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the Kings/Tulare Regional Station–West. However, it is likely that at least transportation-oriented commercial development would take place in the vicinity of the station, which would be incompatible with current land uses. Although the City of Hanford is directing growth on its western edge, future commercial development is envisioned closer to SR 198 than the Kings/Tulare Regional Station–West Alternative. Plans and policies for land use in the vicinity of the station site continue to be largely focused on agricultural uses. The Kings/Tulare Regional Station–West Alternative would change the pattern and intensity of the use of the land and would be incompatible with adjacent land uses. The presence of the station is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, the Kings/Tulare Regional Station–West Alternative consists of unincorporated land adjacent to the City of Hanford's western Planning Area Boundary, and within the Armona Community Planning Area of Kings County. The station site would be located in an area categorized in the Kings County General Plan as Urban Fringe, in an area designated as a Primary sphere of influence. The "Urban Fringe" Land Use Category is intended to represent residential, commercial, and industrial land uses immediately adjacent to Hanford. The station site land use designation within Kings County is Limited Agriculture, as is all adjacent land to the west, north, and east. Developing a station could remove a barrier to growth through the extension of infrastructure to the stations. This would allow for more development to occur around the stations and along the path of the infrastructure expansion. Developing around the stations may be desirable to businesses and residences by creating a direct transportation link to areas with more business and employment opportunities. Therefore, the Revised DEIR/Supplemental DEIS acknowledges that the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–West Alternative is high.

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Section 3.13.5.3 includes an analysis of the land use impacts of all the HST stations in

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

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the Fresno to Bakersfield segment, including the Kings/Tulare Regional Station—East Alternative and the Kings/Tulare Regional Station—West Alternative. The Authority chose to study a station in the Hanford area in keeping with the commitment made in the Statewide Program EIR/EIS to investigate alternatives that serve a potential station in the Visalia-Tulare-Hanford area as outlined in the Visalia-Tulare-Hanford Station Feasibility Study (Authority 2007).

As discussed in the Revised DEIR/Supplemental DEIS, the Kings/Tulare Regional Station–East Alternative would convert about 22 acres of agricultural land in unincorporated Kings County into a transportation use. The Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the station by restricting onsite parking and encouraging transit to the station from downtown Hanford, Visalia, and Tulare, and purchasing agricultural conservation easements from willing sellers of adjacent agricultural lands. However, it is likely that the location of the station at this site would attract at least transportation-oriented commercial development. While current zoning allows for industrial uses of some of the land adjoining the Kings/Tulare Regional Station–East Alternative, most of the area continues to be zoned for agriculture and is in agricultural use. In addition, current plans and policies of the City of Hanford call for development to the west of the city and not to the east. This is partially due to the lack of sewer conveyance facilities on the eastern edge of Hanford and the expense of extending this infrastructure out to the proposed station site. The Revised DEIR/Supplemental DEIS notes that the Kings/Tulare Regional Station–East would change the pattern and intensity of the use of the land, would be incompatible with adjacent land uses, and is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, developing the Kings/Tulare Regional Station—East Alternative could remove a barrier to growth through the extension of infrastructure to the station. This would allow for more development to occur around the station and along the path of the infrastructure expansion. Developing around the stations may be desirable to business and residences by creating a direct transportation link to areas with more business and employment opportunities. That is, people could travel from Hanford to meetings or jobs in Bakersfield or Fresno more easily and quickly. Even given the Urban Reserve and agricultural land use designations surrounding the

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Kings/Tulare Regional Station–East Alternative area, the potential for the Authority to purchase agricultural conservation easements around the station (easements must be purchased from willing sellers), and the Authority's vision for the Kings/Tulare Regional Station–East Alternative to act as a transit hub, the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–East Alternative is high. 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. However, the Revised DEIR/Supplemental DEIS does acknowledge the potential for undesired growth to occur.

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As discussed in Section 3.18.5.3, the Kings/Tulare Regional Station–West Alternative consists of unincorporated land adjacent to the City of Hanford's western Planning Area Boundary, and within the Armona Community Planning Area of Kings County. The station site would be located in an area categorized in the Kings County General Plan as Urban Fringe, in an area designated as a Primary sphere of influence. The "Urban Fringe" Land Use Category is intended to represent residential, commercial, and industrial land uses immediately adjacent to Hanford. The station site land use

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designation within Kings County is Limited Agriculture, as is all adjacent land to the west, north, and east. Developing a station could remove a barrier to growth through the extension of infrastructure to the stations. This would allow for more development to occur around the stations and along the path of the infrastructure expansion. Developing around the stations may be desirable to businesses and residences by creating a direct transportation link to areas with more business and employment opportunities. Therefore, the Revised DEIR/Supplemental DEIS acknowledges that the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–West Alternative is high.

I032-208

Section 3.13.5.3 includes an analysis of the land use impacts of all the HST stations in the Fresno to Bakersfield segment, including the Kings/Tulare Regional Station—East Alternative and the Kings/Tulare Regional Station—West Alternative. The Authority chose to study a station in the Hanford area in keeping with the commitment made in the Statewide Program EIR/EIS to investigate alternatives that serve a potential station in the Visalia-Tulare-Hanford area as outlined in the Visalia-Tulare-Hanford Station Feasibility Study (Authority 2007).

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Station–East Alternative would change the pattern and intensity of the use of the land, would be incompatible with adjacent land uses, and is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, developing the Kings/Tulare Regional Station—East Alternative could remove a barrier to growth through the extension of infrastructure to the station. This would allow for more development to occur around the station and along the path of the infrastructure expansion. Developing around the stations may be desirable to business and residences by creating a direct transportation link to areas with more business and employment opportunities. That is, people could travel from Hanford to meetings or jobs in Bakersfield or Fresno more easily and quickly. Even given the Urban Reserve and agricultural land use designations surrounding the Kings/Tulare Regional Station–East Alternative area, the potential for the Authority to purchase agricultural conservation easements around the station (easements must be purchased from willing sellers), and the Authority's vision for the Kings/Tulare Regional Station–East Alternative to act as a transit hub, the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–East Alternative is high. 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. However, the Revised DEIR/Supplemental DEIS does acknowledge the potential for undesired growth to occur.

Section 3.13.5.3 discusses that the Kings/Tulare Regional Station–West Alternative would convert about 44 acres of agricultural, residential, and industrial land uses to a transportation use. Like the Kings/Tulare Regional Station–East Alternative, the Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the Kings/Tulare Regional Station–West Alternative. However, it is likely that at least transportation-oriented commercial development would take place in the vicinity of the station, which would be incompatible with current land uses. Although the City of Hanford is directing growth on its western edge, future commercial development is envisioned closer to SR 198 than the Kings/Tulare Regional Station–West Alternative. Plans and policies for land use in the vicinity of the station site continue to be largely

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

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focused on agricultural uses. The Kings/Tulare Regional Station–West Alternative would change the pattern and intensity of the use of the land and would be incompatible with adjacent land uses. The presence of the station is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, the Kings/Tulare Regional Station–West Alternative consists of unincorporated land adjacent to the City of Hanford's western Planning Area Boundary, and within the Armona Community Planning Area of Kings County. The station site would be located in an area categorized in the Kings County General Plan as Urban Fringe, in an area designated as a Primary sphere of influence. The "Urban Fringe" Land Use Category is intended to represent residential, commercial, and industrial land uses immediately adjacent to Hanford. The station site land use designation within Kings County is Limited Agriculture, as is all adjacent land to the west, north, and east. Developing a station could remove a barrier to growth through the extension of infrastructure to the stations. This would allow for more development to occur around the stations and along the path of the infrastructure expansion. Developing around the stations may be desirable to businesses and residences by creating a direct transportation link to areas with more business and employment opportunities. Therefore, the Revised DEIR/Supplemental DEIS acknowledges that the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–West Alternative is high.

I032-209

The potential for future increased density and transit-oriented development at the Kings Tulare Regional Station is discussed in Section 3.13.5.3.

Section 3.13.5.3 includes an analysis of the land use impacts of all the HST stations in the Fresno to Bakersfield segment, including the Kings/Tulare Regional Station—East Alternative and the Kings/Tulare Regional Station—West Alternative. The Authority chose to study a station in the Hanford area in keeping with the commitment made in the Statewide Program EIR/EIS to investigate alternatives that serve a potential station in the Visalia-Tulare-Hanford area as outlined in the Visalia-Tulare-Hanford Station Feasibility Study (Authority 2007).

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As discussed in the Revised DEIR/Supplemental DEIS, the Kings/Tulare Regional Station–East Alternative would convert about 22 acres of agricultural land in unincorporated Kings County into a transportation use. The Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the station by restricting onsite parking and encouraging transit to the station from downtown Hanford, Visalia, and Tulare, and by purchasing agricultural conservation easements from willing sellers of adjacent agricultural lands. However, it is likely that the location of the station at this site would attract at least transportation-oriented commercial development. While current zoning allows for industrial uses of some of the land adjoining the Kings/Tulare Regional Station–East Alternative, most of the area continues to be zoned for agriculture and is in agricultural use. In addition, current plans and policies of the City of Hanford call for development to the west of the city and not to the east. This is partially due to the lack of sewer conveyance facilities on the eastern edge of Hanford and the expense of extending this infrastructure out to the proposed station site. The Revised DEIR/Supplemental DEIS notes that the Kings/Tulare Regional Station–East Alternative would change the pattern and intensity of the use of the land, would be incompatible with adjacent land uses, and is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, developing the Kings/Tulare Regional Station—East Alternative could remove a barrier to growth through the extension of infrastructure to the station. This would allow for more development to occur around the station and along the path of the infrastructure expansion. Developing around the stations may be desirable to businesses and residences by creating a direct transportation link to areas with more business and employment opportunities. That is, people could travel from Hanford to meetings or jobs in Bakersfield or Fresno more easily and quickly. Even given the Urban Reserve and agricultural land use designations surrounding the Kings/Tulare Regional Station–East Alternative area, the potential for the Authority to purchase agricultural conservation easements around the station (easements must be purchased from willing sellers), and the Authority's vision for the Kings/Tulare Regional Station–East Alternative to act as a transit hub, the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–East Alternative is high. Due to this high potential, the Authority could work with local government, the California Department of Conservation, and non-governmental agencies to purchase agricultural

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conservation easements around the station to keep the land in agricultural production to discourage direct or indirect growth around this station. However, the Revised DEIR/Supplemental DEIS does acknowledge the potential for undesired growth to occur.

Section 3.13.5.3 discusses that the Kings/Tulare Regional Station–West Alternative would convert about 44 acres of agricultural, residential, and industrial land uses to a transportation use. Like the Kings/Tulare Regional Station–East Alternative, the Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the Kings/Tulare Regional Station–West. However, it is likely that at least transportation-oriented commercial development would take place in the vicinity of the station, which would be incompatible with current land uses. Although the City of Hanford is directing growth on its western edge, future commercial development is envisioned closer to SR 198 than to the Kings/Tulare Regional Station–West Alternative. Plans and policies for land use in the vicinity of the station site continue to be largely focused on agricultural uses. The Kings/Tulare Regional Station–West Alternative would change the pattern and intensity of the use of the land and would be incompatible with adjacent land uses. The presence of the station is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, the Kings/Tulare Regional Station–West Alternative consists of unincorporated land adjacent to the City of Hanford's western Planning Area Boundary and within the Armona Community Planning Area of Kings County. The station site would be located in an area categorized in the Kings County General Plan as Urban Fringe, in an area designated as a Primary sphere of influence. The "Urban Fringe" Land Use Category is intended to represent residential, commercial, and industrial land uses immediately adjacent to Hanford. The station site land use designation within Kings County is Limited Agriculture, as is all adjacent land to the west, north, and east. Developing a station could remove a barrier to growth through the extension of infrastructure to the stations. This would allow for more development to occur around the stations and along the path of the infrastructure expansion. Developing around the stations may be desirable to businesses and residences by creating a direct transportation link to areas with more business and employment opportunities. Therefore, the Revised DEIR/Supplemental DEIS acknowledges that the potential for

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indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–West Alternative is high.

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Refer to Standard Response FB-Response-GENERAL-13.

The potential for future increased density and transit-oriented development at the Kings Tulare Regional Station is discussed in Section 3.13.5.3.

Environmental analysis of subsequent sections of the HST System that are planned to connect Bakersfield to Los Angeles is currently underway. The Central Valley sections of the HST System are an integral portion of the statewide system connecting San Francisco and the Bay Area to Los Angeles and Anaheim.

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San Joaquin Valley Blueprint principles are listed in Section 3.13.2.3, and consistency is discussed Section 3.13.2.4. Land use policy consistency is further discussed in Appendix 3.13A-1.

I032-212

Refer to Standard Response FB-Response-GENERAL-02.

Proposition 1A requires that the HST alignment follow existing transportation or utility corridors to the extent feasible. HST operations impose design requirements that do not always fit within the alignment of the existing transportation corridors, and therefore the HST cannot feasibly be built solely within those corridors. Existing corridors are not sufficiently straight nor are their curve radii long enough to support high-speed operation along their full lengths, and in many cases they cannot maintain the speeds necessary to meet the Prop. 1A travel time requirements. Additionally, safety considerations dictate the need to separate the HST from roads and conventional rail (refer to Section 2.4.2.1, Alignment Requirements). Therefore, it is not always feasible to follow the BNSF corridor, and alternate routes were considered. In the Hanford area where it is not feasible for the HST to be adjacent to the BNSF corridor, the Hanford West Bypass 1

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and Bypass 2 alternatives, which run to the west of the city of Hanford, were considered as they are feasible alternatives.

San Joaquin Valley Blueprint principles are listed in Section 3.13.2.3, and consistency is discussed Section 3.13.2.4.

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As discussed in Section 2.4.1.1, the San Joaquin Valley is projected to grow at a higher rate than any other region in California. The four counties of Fresno, Kings, Tulare, and Kern are projected to continue to grow at an average of 2.9% per year. General plan updates in each of the counties and incorporated cities in the region have occurred since 2002 in preparation for this projected growth. Fresno County would require nearly 185,500 new units and almost 23,200 acres of land for housing, Kings County would require approximately 37,000 new units and 5,000 acres of land, Tulare County would require 113,100 dwelling units and 21,300 acres of land, and Kern County would require 214,000 dwelling units and 36,600 acres of land.

Collectively, this would result in 86,100 acres of land needed just to accommodate future housing. However, this does not take into account commercial, transportation, and supporting infrastructure such as parks, water treatment, and medical facilities. With necessary supporting infrastructure, including commercial, office, transportation, parks, and schools, a typical density for an area similar to the San Joaquin Valley would result in 8 to 10 people per acre of land development. Under this scenario, the total four county growth projections would result in approximately 173,000 acres of needed development.

As discussed in Section 3.13.5.2, local jurisdictions are currently working to address what this growth means for their communities. One planning tool is the San Joaquin Valley Blueprint Process that engaged Fresno, Kings, Tulare, and Kern counties. The San Joaquin Valley Blueprint committee adopted smart-growth principles and worked with each county to identify its preferred growth scenario. Although infill development could occur without the HST to act as a catalyst, it is not likely that much transit-oriented development would be attracted to the downtown areas of Fresno and Bakersfield with the No Project Alternative. As an example, newly planned residential development proposed in the four counties would primarily be located on currently undeveloped lands

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planned for that use. The current pattern of low-density development (four to eight dwelling units per acre) would likely persist until an incentive develops to do otherwise.

The Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCSs) adopted by the regional agencies pursuant to SB 375 are expected to direct future transportation funding in a manner that will discourage sprawl and encourage more compact growth as a means to reduce greenhouse gas emissions from autos and light trucks. The RTP/SCSs will be integrated with the Regional Housing Needs Allocations that affect city and county general plan housing elements, which would be an impetus to provide new housing opportunities in a manner that encourages more compact growth patterns. However, the extent to which SB 375 will result in compact growth depends upon the extent to which cities and counties decide to reflect the RTP/SCSs in their land use decisions. This factor cannot be known at this time.

The general plans of Fresno and Bakersfield include goals and policies that support development of a HST System to achieve their economic development goals. Overall, the No Project Alternative would not be as strong a catalyst for the development envisioned in these general plans and other planning documents as would the HST alternatives.

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Section 3.13.5.3 includes an analysis of the land use impacts of all the HST stations in the Fresno to Bakersfield segment, including the Kings/Tulare Regional Station—East Alternative and the Kings/Tulare Regional Station—West Alternative. The Authority chose to study a station in the Hanford area in keeping with the commitment made in the Statewide Program EIR/EIS to investigate alternatives that serve a potential station in the Visalia-Tulare-Hanford area as outlined in the Visalia-Tulare-Hanford Station Feasibility Study (Authority 2007).

As discussed in the Revised DEIR/Supplemental DEIS, the Kings/Tulare Regional Station–East Alternative would convert about 22 acres of agricultural land in unincorporated Kings County into a transportation use. The Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the station by restricting onsite parking and encouraging transit to the station from downtown

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

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Hanford, Visalia, and Tulare, and by purchasing agricultural conservation easements from willing sellers of adjacent agricultural lands. However, it is likely that the location of the station at this site would attract at least transportation-oriented commercial development. While current zoning allows for industrial uses of some of the land adjoining the Kings/Tulare Regional Station–East Alternative, most of the area continues to be zoned for agriculture and is in agricultural use. In addition, current plans and policies of the City of Hanford call for development to the west of the city and not to the east. This is partially due to the lack of sewer conveyance facilities on the eastern edge of Hanford and the expense of extending this infrastructure out to the proposed station site. The Revised DEIR/Supplemental DEIS notes that the Kings/Tulare Regional Station–East Alternative would change the pattern and intensity of the use of the land, would be incompatible with adjacent land uses, and is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, developing the Kings/Tulare Regional Station—East Alternative could remove a barrier to growth through the extension of infrastructure to the station. This would allow for more development to occur around the station and along the path of the infrastructure expansion. Developing around the stations may be desirable to businesses and residences by creating a direct transportation link to areas with more business and employment opportunities. That is, people could travel from Hanford to meetings or jobs in Bakersfield or Fresno more easily and quickly. Even given the Urban Reserve and agricultural land use designations surrounding the Kings/Tulare Regional Station–East Alternative area, the potential for the Authority to purchase agricultural conservation easements around the station (easements must be purchased from willing sellers), and the Authority's vision for the Kings/Tulare Regional Station–East Alternative to act as a transit hub, the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–East Alternative is high. 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. However, the Revised DEIR/Supplemental DEIS does acknowledge the potential for undesired growth to occur.

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Refer to Standard Response FB-Response-GENERAL-08, FB-Response-GENERAL-16.

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The public outreach process for the Fresno to Bakersfield section of the HST has been extensive and includes public meetings and briefings where public comments have been received, participation in community events where participation has been solicited, and educational materials have been developed and distributed to encourage feedback. Public outreach prior to the circulation of the Draft Environmental Impact Statement/Report included 12 public meetings aimed at soliciting community feedback and informing impacted communities of the project status. These efforts are cited in Chapter 7 of the Revised Draft EIR/Supplemental Draft EIS. Public notification regarding the draft environmental documents took place in the following ways: A notification letter, informational brochure, and NOA were translated in English and Spanish and sent to landowners and tenants within 300 feet of all proposed alignment alternatives. The letters notified landowners and tenants that their property could become necessary for construction (within the project construction footprint) of one or more of the proposed alignment alternatives or project components being evaluated. Anyone who has requested to be notified or is in our stakeholder database was sent notification materials in English and Spanish. An e-mail communication of the notification materials was distributed to the entire stakeholder database. Public notices were placed in English and Spanish newspapers. Posters in English and Spanish were posted along the project right-of-way.

The basic route corridor for the Fresno to Bakersfield Section was defined in the 2005 Statewide Program EIR/EIS and the Record of Decision (ROD) (published by the FRA) as the BNSF corridor. Kings County was invited to participate in the environmental review process for the Statewide Program EIR/EIS. The Kings County Board of Supervisors was notified of the availability of the Draft Statewide Program EIR/EIS in 2004 and invited to comment on the document. No comments were received from the County during the 6½-month public review period for the draft document. The County Board of Supervisors was also notified of the availability of the Final Statewide Program EIR/EIS in 2005.

Since June 2007, the Authority has met with Kings County officials and staff 21 times to gain input on the County's concerns and policies and to discuss project alternatives. The Authority also responded to a letter from Kings County listing questions by various

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County government departments. The Authority has consulted with Kings County as required by federal and state regulatory requirements.

Chapter 7 of the Revised DEIR/Supplemental DEIS outlines that the Authority has been in contact with the County regarding this project many times during the CEQA/NEPA process. All notices required under CEQA and NEPA have been sent to the County in a timely manner. The Authority and FRA recognize the concerns of Kings County representatives and community members, and we wish to maintain an open dialogue about the project. The Authority again welcomes the opportunity to meet with landowners and stakeholders. In addition, project-level information has been shared at public meetings, made available at the Kings County project office, and provided through mailings, e-mail communication, outreach materials, and on the internet.

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Refer to Standard Response FB-Response-GENERAL-02.

Section 3.13.5.3 includes an analysis of the land use impacts of all the HST stations in the Fresno to Bakersfield segment, including the Kings/Tulare Regional Station—East Alternative and the Kings/Tulare Regional Station—West Alternative. The Authority chose to study a station in the Hanford area in keeping with the commitment made in the Statewide Program EIR/EIS to investigate alternatives that serve a potential station in the Visalia-Tulare-Hanford area as outlined in the Visalia-Tulare-Hanford Station Feasibility Study (Authority 2007).

As discussed in the Revised DEIR/Supplemental DEIS, the Kings/Tulare Regional Station–East Alternative would convert about 22 acres of agricultural land in unincorporated Kings County into a transportation use. The Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the station by restricting onsite parking and encouraging transit to the station from downtown Hanford, Visalia, and Tulare, and by purchasing agricultural conservation easements from willing sellers of adjacent agricultural lands. However, it is likely that the location of the station at this site would attract at least transportation-oriented commercial development. While current zoning allows for industrial uses of some of the land adjoining the Kings/Tulare Regional Station–East Alternative, most of the area continues

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to be zoned for agriculture and is in agricultural use. In addition, current plans and policies of the City of Hanford call for development to the west of the city and not to the east. This is partially due to the lack of sewer conveyance facilities on the eastern edge of Hanford and the expense of extending this infrastructure out to the proposed station site. The Revised DEIR/Supplemental DEIS notes that the Kings/Tulare Regional Station–East Alternative would change the pattern and intensity of the use of the land, would be incompatible with adjacent land uses, and is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, developing the Kings/Tulare Regional Station—East Alternative could remove a barrier to growth through the extension of infrastructure to the station. This would allow for more development to occur around the station and along the path of the infrastructure expansion. Developing around the stations may be desirable to business and residences by creating a direct transportation link to areas with more business and employment opportunities. That is, people could travel from Hanford to meetings or jobs in Bakersfield or Fresno more easily and quickly. Even given the Urban Reserve and agricultural land use designations surrounding the Kings/Tulare Regional Station–East Alternative area, the potential for the Authority to purchase agricultural conservation easements around the station (easements must be purchased from willing sellers), and the Authority's vision for the Kings/Tulare Regional Station–East Alternative to act as a transit hub, the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–East Alternative is high. 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. However, the Revised DEIR/Supplemental DEIS does acknowledge the potential for undesired growth to occur.

Section 3.13.5.3 discusses the fact that the Kings/Tulare Regional Station–West Alternative would convert about 44 acres of agricultural, residential, and industrial land uses to a transportation use. Like the Kings/Tulare Regional Station–East Alternative, the Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the Kings/Tulare Regional Station–West. However, it is likely that

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at least transportation-oriented commercial development would take place in the vicinity of the station, which would be incompatible with current land uses. Although the City of Hanford is directing growth on its western edge, future commercial development is envisioned closer to SR 198 than to the Kings/Tulare Regional Station–West Alternative. Plans and policies for land use in the vicinity of the station site continue to be largely focused on agricultural uses. The Kings/Tulare Regional Station–West would change the pattern and intensity of the use of the land and would be incompatible with adjacent land uses. The presence of the station is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, the Kings/Tulare Regional Station–West Alternative consists of unincorporated land adjacent to the City of Hanford's western Planning Area Boundary, and within the Armona Community Planning Area of Kings County. The station site would be located in an area categorized in the Kings County General Plan as Urban Fringe, in an area designated as a Primary sphere of influence. The "Urban Fringe" Land Use Category is intended to represent residential, commercial, and industrial land uses immediately adjacent to Hanford. The station site land use designation within Kings County is Limited Agriculture, as is all adjacent land to the west, north, and east. Developing a station could remove a barrier to growth through the extension of infrastructure to the stations. This would allow for more development to occur around the stations and along the path of the infrastructure expansion. Developing around the stations may be desirable to business and residences by creating a direct transportation link to areas with more business and employment opportunities. Therefore, the Revised DEIR/Supplemental DEIS acknowledges that the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–West Alternative is high.

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Section 3.13.5.3 includes an analysis of the land use impacts of all the HST stations in the Fresno to Bakersfield segment, including the Kings/Tulare Regional Station—East Alternative and the Kings/Tulare Regional Station—West Alternative. The Authority chose to study a station in the Hanford area in keeping with the commitment made in the Statewide Program EIR/EIS to investigate alternatives that serve a potential station in the Visalia-Tulare-Hanford area as outlined in the Visalia-Tulare-Hanford Station

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Feasibility Study (Authority 2007).

As discussed in the Revised DEIR/Supplemental DEIS, the Kings/Tulare Regional Station–East Alternative would convert about 22 acres of agricultural land in unincorporated Kings County into a transportation use. The Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the station by restricting onsite parking and encouraging transit to the station from downtown Hanford, Visalia, and Tulare, and by purchasing agricultural conservation easements from willing sellers of adjacent agricultural lands. However, it is likely that the location of the station at this site would attract at least transportation-oriented commercial development. While current zoning allows for industrial uses of some of the land adjoining the Kings/Tulare Regional Station–East Alternative, most of the area continues to be zoned for agriculture and is in agricultural use. In addition, current plans and policies of the City of Hanford call for development to the west of the city and not to the east. This is partially due to the lack of sewer conveyance facilities on the eastern edge of Hanford and the expense of extending this infrastructure out to the proposed station site. The Revised DEIR/Supplemental DEIS notes that the Kings/Tulare Regional Station–East would change the pattern and intensity of the use of the land, would be incompatible with adjacent land uses, and is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, developing the Kings/Tulare Regional Station—East Alternative could remove a barrier to growth through the extension of infrastructure to the station. This would allow for more development to occur around the station and along the path of the infrastructure expansion. Developing around the stations may be desirable to businesses and residences by creating a direct transportation link to areas with more business and employment opportunities. That is, people could travel from Hanford to meetings or jobs in Bakersfield or Fresno more easily and quickly. Even given the Urban Reserve and agricultural land use designations surrounding the Kings/Tulare Regional Station–East Alternative area, the potential for the Authority to purchase agricultural conservation easements around the station (easements must be purchased from willing sellers), and the Authority's vision for the Kings/Tulare Regional Station–East Alternative to act as a transit hub, the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–East Alternative is high.

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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. However, the Revised DEIR/Supplemental DEIS does acknowledge the potential for undesired growth to occur.

Section 3.13.5.3 discusses the fact that the Kings/Tulare Regional Station–West Alternative would convert about 44 acres of agricultural, residential, and industrial land uses to a transportation use. Like the Kings/Tulare Regional Station–East Alternative, the Authority would work with the City of Hanford and Kings County to discourage growth in the vicinity of the Kings/Tulare Regional Station–West Alternative. However, it is likely that at least transportation-oriented commercial development would take place in the vicinity of the station, which would be incompatible with current land uses. Although the City of Hanford is directing growth on its western edge, future commercial development is envisioned closer to SR 198 than the Kings/Tulare Regional Station–West Alternative. Plans and policies for land use in the vicinity of the station site continue to be largely focused on agricultural uses. The Kings/Tulare Regional Station–West Alternative would change the pattern and intensity of the use of the land and would be incompatible with adjacent land uses. The presence of the station is likely to result in some unplanned changes in the use of existing adjacent land.

As discussed in Section 3.18.5.3, the Kings/Tulare Regional Station–West Alternative consists of unincorporated land adjacent to the City of Hanford's western Planning Area Boundary, and within the Armona Community Planning Area of Kings County. The station site would be located in an area categorized in the Kings County General Plan as Urban Fringe, in an area designated as a Primary sphere of influence. The "Urban Fringe" Land Use Category is intended to represent residential, commercial, and industrial land uses immediately adjacent to Hanford. The station site land use designation within Kings County is Limited Agriculture, as is all adjacent land to the west, north, and east. Developing a station could remove a barrier to growth through the extension of infrastructure to the stations. This would allow for more development to occur around the stations and along the path of the infrastructure expansion. Developing around the stations may be desirable to businesses and residences by creating a direct

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transportation link to areas with more business and employment opportunities. Therefore, the Revised DEIR/Supplemental DEIS acknowledges that the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station–West Alternative is high.

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Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-02.

I032-219

Refer to Standard Response FB-Response-AG-07.

The Authority has complied with the requirements of the FPPA. The Authority and FRA have taken into account the adverse effects on farmland and selected several alternatives for analysis. The Authority and FRA did not coordinate with the USDA or the NRCS in selecting the alignments, but are not specifically required to do so (NRCS 2013).

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Refer to Standard Response FB-Response-AG-03.

Please see Chapter 3.14.3 in the Final EIR/EIS for more information on the remnant parcel analysis. The identification of remnant parcels that were too small to farm was made by right-of-way experts with experience in acquisition of agricultural lands. This analysis was conducted by Bender Rosenthal Inc. who provides experienced real estate appraisal and right of way services throughout California. The staff members who conducted the study (Bill Kouris and Nicole Cornell) both have over 10 years of experience in real estate appraisals and have knowledge of federal land acquisition practices. The number of remnant parcels and their total acreage are provided in Section 3.14.

The approach used to determine whether or not a parcel was a remnant parcel involved examination of the parcels that are split by the HST and evaluation of the remaining land on the basis of access (does the project result in restricted or no access to a parcel so

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as to make it unavailable for agricultural use?), size (does the project cut a parcel creating a portion so small it is not likely to be viable to support a stand-alone agricultural operation or large enough to be acquired by a neighboring agricultural operation?), and shape (is the remnant parcel too oddly shaped to be viable for agricultural use, i.e., angled or narrow making equipment turn around difficult?). If the parcel is identified as being a remnant parcel, that impact was added to the total agricultural lands impacted calculation total for the Revised DEIR/Supplemental DEIS. All parcels that are impacted by the HST will be reanalyzed once the right-of-way process begins, and the right-of-way agents will work with the farmers to determine whether or not a parcel is farmable, with compensation adjusted accordingly. The purpose of the remnant parcel analysis for the Revised DEIR/Supplemental DEIS was to provide the most accurate measure of agricultural acreage lost due to the HST.

In April 2013, the Authority reached an agreement with agricultural interests on mitigation of agricultural land impacts for the Merced to Fresno Section of the HST System (Authority 2013). Under that agreement, the Authority will acquire agricultural conservation easements for its impact on Important Farmland (i.e., land classified as prime farmland, farmland of statewide importance, farmland of local importance, and unique farmland) at the following ratios:

- Important Farmland converted to nonagricultural uses either by direct commitment of the land to project facilities or by the creation of remnant parcels that cannot be economically farmed will be mitigated at a ratio of 1:1.
- Where HST project facilities would create a remnant parcel of 20 acres or less in size, the acreage of that remnant parcel will be mitigated at a ratio of 1:1.
- An area 25 feet wide bordering Important Farmland converted to nonagricultural uses by project facilities (not counting remnant parcels) will be mitigated at a ratio of 0.5:1.

The right-of-way acquisition process (which cannot begin until the EIR/EIS is certified and the Fresno-Bakersfield project approved) is a property-specific negotiation between the Authority's agents and the property owner that may result in accommodations such as undercrossings that would allow an owner access to lands separated by the HST right-of-way. As a result, the EIR/EIS cannot reasonably provide a precise enumeration

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of the viability of remnant parcels for continued agricultural use. The conservative approach utilized in the Revised DEIR/Supplemental DEIS ensures that the potential impact is not underestimated and provides decision makers with sufficient information to make an informed decision.

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The NRCS-CPA-106 forms provided to the Natural Resources Conservation Service are provided in Appendix 3.14-A of the EIR/EIS. This is described in Section 3.14.3.

I032-222

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-04.

Turnaround areas for crops have not been included in the permanent agricultural land impacts, as the land would not be removed from agricultural production (note that the Farmland Mapping and Monitoring Program includes turnaround areas in its identification of agricultural lands); however, it recognized that productivity will be lost as a result of the additional turnaround areas required. During the property acquisition process, losses in the value of the remaining property will be taken into account and compensation will be provided for the loss in productivity.

In April 2013, the Authority reached an agreement with agricultural interests on mitigation of agricultural land impacts for the Merced to Fresno Section of the HST System (Authority 2013). Under that agreement, the Authority will acquire agricultural conservation easements for its impact on Important Farmland (i.e., land classified as prime farmland, farmland of statewide importance, farmland of local importance, and unique farmland) at the following ratios:

- Important Farmland converted to nonagricultural uses either by direct commitment of the land to project facilities or by the creation of remnant parcels that cannot be economically farmed will be mitigated at a ratio of 1:1.
- Where HST project facilities would create a remnant parcel of 20 acres or less in size, the acreage of that remnant parcel will be mitigated at a ratio of 1:1.
- An area 25 feet wide bordering Important Farmland converted to nonagricultural uses by project facilities (not counting remnant parcels) will be mitigated at a ratio of 0.5:1.

I032-223

Refer to Standard Response FB-Response-GENERAL-04.

I032-224

Refer to Standard Response FB-Response-AG-05.

The Authority formed an agricultural working group to assist the Authority on agricultural issues. The working group is composed of representatives from universities, government agencies, and agri-business representatives. The group completed a white paper on pesticide use impacts in 2012 (this paper is on the Authority's website). That white paper reports there would be no need for new spraying regulations around the HST, as it would be treated like any other transportation corridor.

To conduct applications of pesticides, each farm must submit an application to its respective County Agricultural Commissioner, detailing what types of pesticide they are proposing to spray. It is after receiving this information that the Agricultural Commissioner places restrictions on the farm's application of pesticides, either by ground application or aerial application. For aerial application, for example, these restrictions include, but are not limited to: setbacks from sensitive land uses, aerial spraying height restrictions, mesh size limits, and wind speed restrictions. When creating these restrictions, the Agricultural Commissioner is looking at nearby sensitive receptors (transportation corridors, houses, business, etc.), the proposed pesticides to be sprayed (different pesticides have different spraying restrictions based on the manufacturer's approved application rates), and several other factors that may influence environmental effects of pesticide application. As there are a large number of factors that influence the possible restrictions placed on application of pesticides, an absolute statement of no spraying within a certain distance is not reasonable. There are several options available to farmers so they may not have new spraying restrictions placed on them by their Agricultural Commissioner. For example, the farmer could change the pesticides they are proposing to use that have fewer restrictions; they could also plant a different variety of crops adjacent to the HST that does not require the application of pesticides with spraying restrictions.

The Authority recognizes that possible changes to current spraying practice from the

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HST may reduce the productivity of a farmer's remaining property. Those possible impacts would be taken into account by the appraiser at the time of right-of-way acquisition, and any diminution in value to a property owner's remaining parcel(s) will be estimated by the appraiser through the appraisal process. This involves appraising the remainder as it contributes to the whole property value before acquisition, then appraising the remainder in the after condition as a separate parcel as though the project was constructed, and including any estimated damages to the remainder parcels, such as, cost of re-establishing irrigation systems, replacing wells, providing buffers for aerial spraying, etc. The difference between these "before" and "after" values is called severance damages and will reflect any loss in value to the remainder parcels due to the construction in the manner proposed.

Land that may be affected by new application restrictions would still be used by the farmer for agricultural purposes, as would new turning areas at the end of crop rows. Therefore, there is no conversion of agricultural land from project impacts to current aerial spraying practices; however, it is an economic hardship in terms of reduced production for remaining parcels of a farm. As is the case with removing land planted in crops for use as equipment turning lanes, the need to provide a buffer for crop spraying will be analyzed and addressed at the appraisal stage with input from the property owners and managers, and experts in the field.

In April 2013, the Authority reached an agreement with agricultural interests on mitigation of agricultural land impacts for the Merced to Fresno Section of the HST System (Authority 2013). Under that agreement, the Authority will acquire agricultural conservation easements for its impact on Important Farmland (i.e., land classified as prime farmland, farmland of statewide importance, farmland of local importance, and unique farmland) at the following ratios:

- Important Farmland converted to nonagricultural uses either by direct commitment of the land to project facilities or by the creation of remnant parcels that cannot be economically farmed will be mitigated at a ratio of 1:1.
- Where HST project facilities would create a remnant parcel of 20 acres or less in size, the acreage of that remnant parcel will be mitigated at a ratio of 1:1.
- An area 25 feet wide bordering Important Farmland converted to nonagricultural uses by project facilities (not counting remnant parcels) will be mitigated at a ratio of 0.5:1.

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Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-04, FB-Response-GENERAL-10, FB-Response-AG-01.

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Refer to Standard Response FB-Response-GENERAL-03, FB-Response-LU-03.

The statements in the Revised DEIR/Supplemental DEIS are based on projections of the San Joaquin Valley Blueprint project under an existing conditions scenario, and are reflected in trends in agricultural conversion under the existing general plans and zoning ordinances. For example, during the period between 2008 and 2010 (corresponding with the economic downturn), the Farmland Mapping and Monitoring Program reports that 645 acres of farmland (including grazing land) was converted to rural uses that removed it from production. This does not include several thousand additional acres of agricultural land that has been approved for solar energy facilities since 2010 and also removed from production. The HST project in no way requires counties and cities to amend their general plans or approve zone changes for development of agricultural land. Those decisions remain within the authority of the counties and cities.

The Revised DEIR/Supplemental DEIS recognizes and discloses that the Kings/Tulare Regional Station would be growth-inducing (see Section 3.18).

The stations in Fresno and Bakersfield would bring thousands of travelers to these downtowns once the HST System is in operation. That will greatly increase the number of people using the downtowns, providing an economic incentive for new business and residential development there. This is supported by recent studies, as noted in Standard Response GENERAL-03.

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Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-10.

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Table 3.14-5 in the Revised DEIR/Supplemental DEIS shows that Kings County would experience a total of 839 acres of impacts to Important Farmland. Kern County is shown to be the county with the greatest amount of important farmland affected, at 995 acres.

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Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-04, , FB-Response-GENERAL-10, FB-Response-AG-01.

The HST system is not like a freeway or road. Access is limited to the stations. Routing the alignment along SR 99 would not increase access because that would not change the locations of the stations. As discussed in Standard Response GENERAL-02, SR 99 was previously considered as a potential alignment and rejected because it is not technically feasible. No comparison is required by either CEQA or NEPA between a project alternative and an alternative that has been rejected.

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Refer to Standard Response FB-Response-AG-05.

The Authority formed an agricultural working group to assist the Authority on agricultural issues. The working group is composed of representatives of universities, government agencies, and agri-business. The group completed a white paper on pesticide use impacts in 2012 (this paper is on the Authority's website). That white paper reports there would be no need for new spraying regulations around the HST as it would be treated like any other transportation corridor.

The white paper "Induced Wind Impacts" examined the potential for airflow from the train to create wind. It found that the induced wind speed would be 2.3 miles per hour at 30 feet from the train. This distance is well within the right-of-way of the system, so induced wind at the edge of the right-of-way would be very small. Note that HST trainsets are very streamlined and applicable and are not directly comparable to the wind effects of a typical freight train, even at higher speed. The typical HST trainset is sealed, with windows that cannot be opened, and no gaps between cars. If pesticide applicators apply pesticides adjacent to the HST in accordance with the existing

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regulations there should be no liability. If they fail to meet those regulations, the applicator would be liable for damages.

Statements regarding the termination of aerial application of pesticides within 0.25 mile of the HST alignment are an oversimplification of the aerial application process. To conduct aerial applications of pesticides, each farm must submit an application to its respective County Agricultural Commissioner, detailing what types of pesticide they are proposing to spray. It is after receiving this information that the Agricultural Commissioner places restrictions on the farm's application of pesticides. These restrictions include, but are not limited to: setbacks from sensitive uses, aerial spraying height restrictions, mesh size limits, and wind speed restrictions. When creating these restrictions, the Agricultural Commissioner is looking at nearby sensitive receptors (transportation corridors, houses, business, etc.), the proposed pesticides to be sprayed (different pesticides have different spraying restrictions based on the manufacturer's approved application rates), and several other factors that may influence environmental effects of pesticide application. As there are a large number of factors that influence the possible restrictions placed on aerial application of pesticides, an absolute statement of no spraying within 0.25 mile is not reasonable. There are several options available to farmers so they may not have new spraying restrictions placed on them by their Agricultural Commissioner. For example, the farmer could change the pesticides they are proposing to use that have fewer restrictions; they could also plant a different variety of crops adjacent to the HST that does not require the application of pesticides with spraying restrictions.

The Authority recognizes that possible changes to current ground or aerial spraying practice as a result of the HST may reduce the productivity of a farmer's remaining property. Those possible impacts would be taken into account by the appraiser at the time of right-of-way acquisition, and any diminution in value to a property owner's remaining parcel(s) will be estimated by the appraiser through the appraisal process. This involves appraising the remainder as it contributes to the whole property value before acquisition, then appraising the remainder in the after condition as a separate parcel as though the project was constructed, and including any estimated damages to the remainder parcels, such as, cost of re-establishing irrigation systems, replacing wells, providing buffers for aerial spraying, etc. The difference between these "before"

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and “after” values is termed as severance damages and will reflect any loss in value for the remainder parcels due to the construction in the manner proposed.

Land that may be affected by new ground or aerial application restrictions would still be used by the farmer for agricultural purposes, as would new turning areas at the end of crop rows. Therefore, there is no conversion of agricultural land from project impacts to current aerial spraying practices; however, it is an economic hardship in terms of reduced production for remaining parcels of a farm. As is the case with removing land planted in crops for use as equipment turning lanes, the need to provide a buffer for crop spraying will be analyzed and addressed at the appraisal stage with input from the property owners and managers, and experts in the field.

As a result of implementation of existing regulations on ground and aerial application of pesticides and herbicides there is no potential for the project to adversely affect human health to a greater extent than existing conditions. Further, even if changes are necessary in current ground or aerial application approaches for a particular site, such changes will not result in the conversion of agricultural land. Therefore, the project will not have an adverse effect.

In April 2013, the Authority reached an agreement with agricultural interests on mitigation of agricultural land impacts for the Merced to Fresno Section of the HST System (Authority 2013). Under that agreement, the Authority will acquire agricultural conservation easements for its impact on Important Farmland (i.e., land classified as prime farmland, farmland of statewide importance, farmland of local importance, and unique farmland) at the following ratios:

- Important Farmland converted to nonagricultural uses either by direct commitment of the land to project facilities or by the creation of remnant parcels that cannot be economically farmed will be mitigated at a ratio of 1:1.
- Where HST project facilities would create a remnant parcel of 20 acres or less in size, the acreage of that remnant parcel will be mitigated at a ratio of 1:1.
- An area 25 feet wide bordering Important Farmland converted to nonagricultural uses by project facilities (not counting remnant parcels) will be mitigated at a ratio of 0.5:1.

I032-230

Refer to Standard Response FB-Response-AG-03.

Please see Section 3.14.3 in the Final EIR/EIS for more information on the remnant parcel analysis. The numbers in Table 3.14-9 were generated using the Natural Resources Conservation Service (NRCS) form CPA-106, which was calculated in conjunction with NRCS. The identification of remnant parcels that were too small to farm was made by right-of-way experts with experience in acquisition of agricultural lands. The number of remnant parcels and their total acreage are provided in Section 3.14. The analysis used a conservative approach to determine whether or not a parcel was determined to be remnant. All remnant parcels will be reanalyzed once the right-of-way process begins, and the right-of-way agents will work with the farmers to determine whether or not a parcel is farmable.

In April 2013, the Authority reached an agreement with agricultural interests on mitigation of agricultural land impacts for the Merced to Fresno Section of the HST System (Authority 2013). Under that agreement, the Authority will acquire agricultural conservation easements for its impact on Important Farmland (i.e., land classified as prime farmland, farmland of statewide importance, farmland of local importance, and unique farmland) at the following ratios:

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- An area 25 feet wide bordering Important Farmland converted to nonagricultural uses by project facilities (not counting remnant parcels) will be mitigated at a ratio of 0.5:1.

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Refer to Standard Response FB-Response-GENERAL-11.

The statement from the Revised DEIR/Supplemental DEIS is an explanation of some of the factors that led to rejection of an alignment that remains solely within existing transportation corridors.

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Refer to Standard Response FB-Response-AG-03, FB-Response-GENERAL-01.

The activities described in the excerpted section of the Revised DEIR/Supplemental DEIS are part of the HST project, and are not mitigation measures. Therefore, they are not subject to the provisions described in the comment. Section 3.14.6 describes a number of project design features, including establishment of a parcel consolidation program to assist in the sale of remnant parcels to nearby property owners, and the Authority has committed to working with property owners during the process of acquiring right-of-way to resolve access issues, where possible. The Authority is committed to these activities as integral parts of its project. They will be implemented at the time of property acquisition in the case of the resolution of access issues with landowners, which will be in advance of final project design, and after property acquisition in the case of the consolidation program.

In April 2013, the Authority reached an agreement with agricultural interests on mitigation of agricultural land impacts for the Merced to Fresno Section of the HST System (Authority 2013). Under that agreement, the Authority will acquire agricultural conservation easements for its impact on Important Farmland (i.e., land classified as prime farmland, farmland of statewide importance, farmland of local importance, and unique farmland) at the following ratios:

- Important Farmland converted to nonagricultural uses either by direct commitment of the land to project facilities or by the creation of remnant parcels that cannot be economically farmed will be mitigated at a ratio of 1:1.
- Where HST project facilities would create a remnant parcel of 20 acres or less in size, the acreage of that remnant parcel will be mitigated at a ratio of 1:1.
- An area 25 feet wide bordering Important Farmland converted to nonagricultural uses by project facilities (not counting remnant parcels) will be mitigated at a ratio of 0.5:1.

I032-233

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-04, FB-Response-SO-01.

The situations of individual properties are not the same. Further, the project's design is

I032-233

undergoing additional refinement, so its effect on a given property cannot be known with certainty at this time. The Revised DEIR/Supplemental DEIS makes a good faith effort at disclosing impacts, however the Authority's ability to resolve all issues cannot be guaranteed. The Revised DEIR/Supplemental DEIS discloses that fact in the cited statement. This issue has been addressed in the Revised DEIR/Supplemental DEIS to the extent possible without resorting to speculation.

The Authority will pay fair market value for all properties taken, mitigating impacts to farmers through removal of farmland from production. Fair market value takes into account the value of the land, the improvements on the land, as well as the future income the land and improvements can generate. The Authority will take responsibility for identifying adjacent landowners and selling them the land, if they are willing buyers. This process is described in the project design features identified in Section 3.14.6 and will be implemented as an integral feature of the project. It is not a mitigation measure and is not subject to the provisions for mitigation measures described in the comment.

I032-234

Refer to Standard Response FB-Response-AG-05.

The Authority formed an agricultural working group to assist the Authority on agricultural issues. The working group is composed of representatives from universities, government agencies, and agri-business. The group completed a white paper on pesticide use impacts in 2012 (this paper is on the Authority's website). That white paper reports there would be no need for new spraying regulations around the HST, as it would be treated like any other transportation corridor.

The white paper "Induced Wind Impacts" examined the potential for airflow from the train to create wind. It found that the induced wind speed would be 2.3 miles per hour at 30 feet from the train, not 10 to 15 mph as claimed in the comment. These induced wind speeds are comparable to and under the meteorological data for daily average wind speed from both the Merced and Fresno airport reporting stations. In other words, the HST produces no additional wind beyond typical existing conditions. The HST right-of-way standard when at grade is 100 feet wide with the two tracks being centered and 16.5 feet apart. The distance of 30 feet falls well within the HST right-of-way.

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-234

Note that HST trainsets are very streamlined and applicable and are not directly comparable to the wind effects of a typical freight train, even at higher speed. The typical HST trainset is sealed, with windows that cannot be opened, and no gaps between cars. If pesticide applicators apply pesticides adjacent to the HST in accordance with the existing regulations there should be no liability. If they fail to meet those regulations, the applicator would be liable for damages.

Documented personal communications with an expert is a valid type of reference and is commonly used in CEQA and NEPA practice.

I032-235

The Authority formed an agricultural working group to assist the Authority on agricultural issues. The working group is composed of representatives of universities, government agencies, and agri-business. The group completed a white paper on pesticide use impacts in 2012 (this paper is on the Authority's website). That white paper reports the following.

At the present time there are numerous railways that traverse the San Joaquin Valley. Additionally, the Valley has established interstate and state freeways, highways, and local roadways which include their respective rights-of-way and are all considered "transportation corridors." Transportation corridors are recognized as a part of the overall environment of the Valley. Regulations already exist relating to pesticide use in or near transportation corridors.

A new railway represents either a new impediment (where none previously existed) to customary agricultural practices or is an augmentation to an already existing transportation corridor footprint. Parcels where the new railway is proposed to be constructed, adjacent and parallel to an established transportation corridor, create a wider footprint to an existing corridor that is already subject to the protections prescribed in current pesticide use regulations. Growers with crops next to a widened transportation corridor will be managing their pesticide applications with the same use restrictions that were previously implemented because they were near an existing corridor.

I032-235

Growers in the path of the railway where the route leaves an established transportation corridor and creates a new corridor across their farmland will be subject to the implementation of existing regulatory restrictions depending on conditions and circumstances of the type of pesticide being used. All that would be new to the grower would be the enforcement of existing regulations for conditions that did not exist before the construction of the rail line through their property.

Choices of crops or livestock to produce would be influenced more by forces outside of a high-speed train than the train itself. Similarly, the choice of what pesticide to use for any particular need should not be influenced by a high-speed train any more than already exists for any other transportation corridor in the locality. The expectation of pesticide regulators would be that any pesticide application be made in compliance with all applicable laws, regulations, and conditions.

As to the question about buffer zones, their use will only be required where such safety protocol is called for when making an application adjacent to a transportation corridor. There are no buffer zones specifically addressing passenger trains; therefore, a passenger train traveling at a high rate of speed does not create a need for a buffer zone different from those already established.

The Fresno to Bakersfield Section is 114 miles long and construction would not occur along its entire length all at once. Construction would occur throughout the year, while aerial spraying is typically concentrated during the growing season. Therefore, there will be many locations where spraying will take place where there are no project construction crews on the ground. Where construction and an adjacent landowner's plans for aerial spraying overlap, it is expected that the landowner and construction contractor can typically coordinate their schedules so both activities can be accommodated. The commenter's assumption that "there will be multiple claims" against aerial appliers is speculative.

I032-236

Both the Kings/Tulare Regional Station–East Alternative and the Kings/Tulare Regional Station–West Alternative are analyzed in detail in the Revised DEIR/Supplemental DEIS and depicted in simulations (the East Alternative is depicted on Figure 3.16-42,

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-236

and the West Alternative is depicted on Figure 3.16-55).

I032-237

Both the Kings/Tulare Regional Station–East Alternative and the Kings/Tulare Regional Station–West Alternative are analyzed in detail in the Revised DEIR/Supplemental DEIS and depicted in simulations (the East Alternative is depicted on Figure 3.16-42, and the West Alternative is depicted on Figure 3.16-55).

I032-238

This sentence was an error and has been removed in the Final EIR/EIS.

I032-239

Refer to Standard Response FB-Response-GENERAL-03.

The growth-inducement analysis in the Revised DEIR/Supplemental DEIS considered the potential for people to move from the coast to less-expensive housing in the Central Valley, including commuters. However, the future conditions necessary to identify the sites where such commuters might live—including the location of employment centers, types of employment, range of salaries, price of fuel, regional and local land use plans and regulations—are unknown. Therefore, projecting the extent and specific locations of growth resulting from relocations from the coast would be a speculative endeavor and has not been undertaken.

Some commenters assert that the shortened travel time between the San Joaquin Valley, with its relatively low housing costs, and the Bay Area and Los Angeles Basin, which both have higher salaries and higher housing costs, would result in substantial numbers of coastal residents moving to the Central Valley and commuting to work on the HST System. However, travel time alone does not determine a reasonable commute mode and commute distance. Willingness to relocate to save housing costs is a function of housing cost, the quality of available housing (including quality of schools), commute time, and cost of the daily commute. The HST System would not be a below-market-cost, subsidized commuter rail service; instead, it would provide rapid long-distance travel, priced at commercial market rates. HST fares are expected to be tied to typical

I032-239

airplane fares. The cost of the fares will discourage relocation and a daily commute to and from the Bay Area and the Los Angeles Basin.

I032-240

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-03.

The Statewide Program EIR/EIS (Authority and FRA 2005) is available on the Authority's website. The documents were available for public review at the time they were prepared in draft form. Since 2005, environmental analysis and corresponding section-specific design work have continued on portions of the HST System, including refinement of the alternative alignments and station locations identified in the 2005 Statewide Program EIR/EIS. The Final EIR/EIS for the Fresno to Bakersfield Section is not reliant on old data. To the contrary, the Final EIR/EIS for the project analyzes the environmental impacts, both adverse and beneficial, of implementing the HST System between Fresno and Bakersfield based on more-detailed project planning and engineering and current environmental information. The analysis therefore tiers from the earlier decision and analysis contained in the Program (Tier 1) EIR/EISs, but also relies on current information to provide more site-specific detail and design as well as more detailed analysis of the potential environmental impacts of the Fresno to Bakersfield Section of the HST System than was presented in the Program EIR/EISs.

I032-241

Refer to Standard Response FB-Response-GENERAL-03.

The San Joaquin Valley Blueprint is specifically mentioned in Section 1.3.1 of the EIR/EIS and discussed throughout the other chapters of Volume I regarding issues of higher-density development. The Blueprint is a voluntary guide to future regional development; its provisions are not mandatory. Therefore, the land use pattern described in the Blueprint's adopted Scenario B+ is not binding on city and county decision-makers. The Blueprint does not have a level of importance to the environmental analysis beyond any other plan or document referenced in the EIR/EIS to warrant its inclusion as an appendix to the EIR/EIS. It is readily available online at http://www.valleyblueprint.org/ or in print at the Authority's offices for those who wish to review it.

Response to Submission I032 (Aaron Fukuda, October 18, 2012) - Continued

I032-242

Refer to Standard Response FB-Response-GENERAL-03, FB-Response-GENERAL-14.

For information on new job creation and the resulting impacts on the regional economy, see Impact SO #5 – Temporary Construction Employment , and SO #13 – Employment Growth, in Section 3.12, Socioeconomics, Communities, and Environmental Justice, of the Final EIR/EIS. See also Section 5.1.2 of the Community Impact Assessment Technical Report for more detailed information about short-term and long-term job creation (Authority and FRA 2012h) .

I032-243

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-04.

The discussion referenced by the commenter is in the context of agricultural land indirectly converted for urban uses as a result of project-induced growth. The EIR/EIS conclusion is correct in that county and city general plans already anticipate the conversion of substantial amounts of agricultural land in the future to accommodate urban and suburban development.

The comment refers to the separate issue of direct conversion resulting from the installation of the HST System. As described in EIR/EIS Volume I Section 3.14, Agricultural Lands, and throughout the entire EIR/EIS, the project would have a direct effect on agricultural production through conversion of agricultural land and agricultural operations in Fresno, Kings, Tulare, and Kern counties and a resultant indirect effect on the agricultural economy. See Impact AG#4 in Volume I Section 3.14 for information on the permanent conversion of agricultural land; see Mitigation Measure AG-1 in Volume I Section 3.14 for measures to preserve the total amount of prime farmland.

I032-244

Refer to Standard Response FB-Response-GENERAL-12, FB-Response-GENERAL-13, FB-Response-LU-03.

The Kings/Tulare Regional Station (whether considering the East Alternative or the West Alternative) is not consistent with the general plans of either Kings County or the City of

I032-244

Hanford; nor is the Kings/Tulare Regional Station discussed in the San Joaquin Valley Blueprint. The site for the West Alternative is in line with urbanization trends in the Hanford area; the site for the East Alternative, by contrast, is surrounded by agricultural land. Development of this station would reinforce the importance of Hanford as a transportation hub, but would not result in higher-density development in the city's downtown. As discussed in Section 3.13, Station Planning, Land Use, and Development, of the Final EIR/EIS, either of the Kings/Tulare Regional Station sites would change the pattern and intensity of the use of the land and would be incompatible with adjacent land uses. The presence of a station at either site would likely result in unplanned changes in the use of existing adjacent land.

I032-245

Appendix A of the Community Impact Assessment Technical Report prepared for the Fresno to Bakersfield EIR/EIS (Authority and FRA 2012) includes a complete description of the methodologies used for the analysis of project-related job creation. This technical report is available for review on the Authority's website for the Fresno to Bakersfield EIR/EIS.

I032-246

Refer to Standard Response FB-Response-GENERAL-03.

The 2007 analysis by Cambridge Systematics, Inc., cited in Section 3.18, Regional Growth, of the EIR/EIS indicates that with the HST project there is a small (approximately 3%) incremental effect on population growth compared with the forecasted growth in the Central Valley (Cambridge Systematics 2007). Section 3.13, Station Planning, Land Use, and Development, of the EIR/EIS discusses the effect of the permanent conversion of land for the project, including HST-induced population growth.

I032-247

Refer to Standard Response FB-Response-GENERAL-03.

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I032-248

Refer to Standard Response FB-Response-GENERAL-03, FB-Response-LU-03.

The land use impacts of the Kings/Tulare Regional Station (whether considering the East Alternative or the West Alternative) are discussed in Section 3.13, Station Planning, Land Use and Development, of the EIR/EIS. Neither alternative station is consistent with the general plans of either Kings County or the City of Hanford; nor is the Kings/Tulare Regional Station discussed in the San Joaquin Valley Blueprint. The site of the West Alternative is in line with urbanization trends in the Hanford area; the site of the East Alternative, by contrast, is surrounded by agricultural land. Development of this station would reinforce the importance of Hanford as a transportation hub, but would not result in higher-density development in the city's downtown. As discussed in Section 3.13, Station Planning, Land Use, and Development, of the Final EIR/EIS, either of the Kings/Tulare Regional Station sites would change the pattern and intensity of the use of the land and would be incompatible with adjacent land uses. The presence of a station at either site would be likely to result in unplanned changes in the use of existing adjacent land.

Submission I033 (Aaron Fukuda, October 18, 2012)

AARON FUKUDA

7450 Mountain View Street, Hanford, California 93230
email: afukuda77@gmail.com

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). I033-1

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*** I033-2

DIER/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. I033-2

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. I033-3

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: I033-4

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. I033-5
3. The DEIR/EIS does not provide ways to avoid or reduce environmental damage when an impact is identified. I033-6
4. The DEIR/EIS does not prevent environmental damage by analyzing feasible alternatives or mitigation measures. I033-7
5. The DEIR/EIS has failed to foster interagency coordination in the review of the project. I033-8
6. The DIER/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: I033-9

1. The information provided does not provide an accurate representation of the project or the impacts, therefore misleading the decision maker and public. I033-10
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. I033-11
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. I033-12
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.

Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

DEIR/EIS COMMENTS

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

I033-13

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***.

I033-14

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.

I033-15

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 DESIGNAND REVIEW PARAMETERS

I033-16

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.

I033-17

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

I033-18

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 impactive 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 Project[1]:

"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."

I033-19

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

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I033-19 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.

I033-20 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

I033-21 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 asses 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.

I033-22 The DEIR/EIS does not provide a clear distinction of the boundaries that apply to the project.

I033-23 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 caternary system, 3) electrical power distribution system, 4) communication towers, 5) electrical buildings, and 6) access points to the alignment.

I033-24 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

I033-25 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.

I033-26 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

I033-27 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.

I033-28 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

I033-29 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 Plan[2] 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.

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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.

I033-30 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.

I033-31 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 that 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 a environmentally sensitive surrounding for both humans and nature.

California case law supports the inclusion of Amtrak service as 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

I033-32

I033-32 (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 move 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 it 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.

I033-33 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

I033-34 provide a general analysis of each mitigation measure identified. Each mitigation measure lacks

I033-35 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.

I033-36 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

I033-37 limited and confusing descriptions of mitigation measures. Most mitigation measure described

I033-38 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

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I033-38
I033-39

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 utilized 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 measure 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.

I033-40

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 measure, 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

I033-41

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 trough 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.

I033-42

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 few impacts of waterways of the State or any critical water features. The alignment along Interstate 5 would also reduce conflicts with floodplains.

I033-43

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

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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

I033-44

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.

I033-45

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 ager associated with being forced to leave behind many memories and attachments to the land and/or home[3]. 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.

I033-46

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.

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I033-47

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.

I033-48

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.

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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

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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

I033-50

(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

I033-51

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.

I033-52

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

I033-53

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.

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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 year[4] 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

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I033-54 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

I033-55 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.

I033-56 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

I033-57 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

I033-58 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

I033-58 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:

- I033-59 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).
- I033-60 Address impacts to substrate and the restoration of temporary fills around water features.
- I033-61 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).
- I033-62 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)
- I033-63 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)
- I033-64 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.
- I033-65 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.
- I033-66 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.
- I033-67 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.
- I033-68 Indirect impacts to waters of the U.S. need to be addressed and to the degree possible quantified.
- I033-69 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

I033-70 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:

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- 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 wit 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 nether 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 blow 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.

I033-82

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 France[5]. 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.

I033-83

I033-84

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 of[6]:

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

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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 a 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.

I033-85

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.

I033-86

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 instability[7].

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 Example[8]

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

I033-87

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.

I033-88

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.

I033-89

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.

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I033-89 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.

I033-90 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 landowners[9].

Section 1.0 Project Purpose and Need

15. Lack of Project Description

I033-91 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."

I033-92 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/

I033-93 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.

I033-94 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-grate 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 2011is not official and cannot be used as an authorized document. Included as Attachment 1 is a copy of the email send to Mr. Abercrombie after the May 2011 Board meeting, which was never answered.

I033-95 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.

I033-96 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

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I033-96 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.

I033-97 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

I033-98 public noticing and participation during the Alternative Analysis as implemented by the Authority did not provide sufficient public noticing under CEQA and NEPA.

I033-99

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 t develop more farm ground into housing.

I033-100

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

The DIER/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

I033-100 *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

I033-101 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.

I033-102

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

I033-103 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

I033-104 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 woul 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

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"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."

I033-105

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

I033-106

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

I033-106

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.

I033-107

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.

I033-108

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.

I033-109

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.

I033-110

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

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I033-110

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.

I033-111

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 busies 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.

I033-112

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 are 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

I033-113

I033-113

alignment so that the public and the decision makers can fully comprehend the full extent of the alternatives.

I033-114

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.

I033-115

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.

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30. Page 2.0-58 The DEIR/EIS Unrealistically Estimates Ridership

I033-116

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

I033-117

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.

I033-118

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."*

I033-119

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 transpiration 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.

I033-120

32. Page 2.0-109 Table 2-17 Missing Design Phases

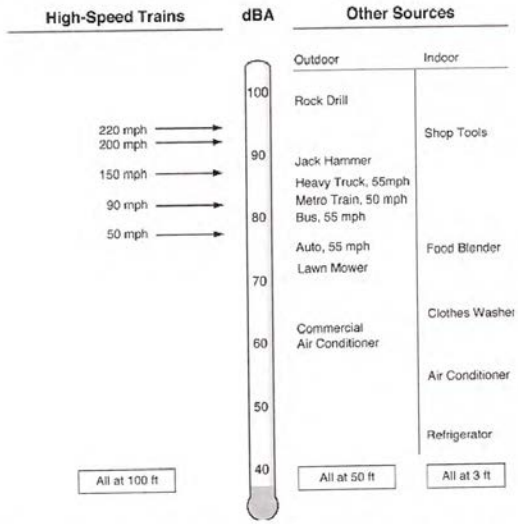
Presented in Table 2-17 is a schedule for the project, however what is missing is the design phases of this project. The DEIR/EIS explains that this project will be constructed under the Design/Build concepts, which will allow the contractor who builds the system to also design it. This process however 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

I033-121

The DEIR/EIS presents the following diagram for Figure 3.49-1



I033-122

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 where 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.

I033-123

The DEIR/EIS also provides the following findings in regards to the sound levels through Kings County:

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I033-123

"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.

I033-124

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.

I033-125

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.

I033-126

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.

I033-127

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.

I033-128

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.

I033-129

35. Page 3.4-33 DEIR/EIS Improperly Defers Analysis

The DIER/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.

I033-130

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.

I033-131

I033-132

36. Page 3.4-48 Improper Conclusion with Analysis or Data

The DEIR/EIS makes the following finding:

I033-132

"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 2001[10] 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.

I033-133

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.

I033-134

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.

I033-135

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

I033-135

therefore adding a burden to the local law enforcement which is not critical and will divert their attention away from serious crimes.

I033-136

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?

I033-137

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.

I033-138

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.

I033-139

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.

I033-140

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.

I033-141 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.

I033-142 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.

I033-143 **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.

I033-144 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

I033-145 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

I033-146 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

I033-146 tracks 45' above ground the noise will radiate outwards unimpeded and cause noise interruptions to businesses, schools and residences within Hanford.

I033-147 **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. Pernica[11]. 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.

I033-148 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 got 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 to soil consolidation and compaction. This settlement can be a significant impact of 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

I033-149 **44. Page 3.5-16 Conflicting Findings Requiring Further Review and Discussion**

The DEIR/EIS addressed electrical field impacts 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. Permica et al. Effect of Train-Inducted Vibrations on Houses - A Case Study. National Research Concil Canada. 1988

I033-149

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 sources[12]. 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 production[13]. 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 Holleran[14] 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 down[15]. 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 caternary 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 though soil. Often these currents can induce voltage on metal object including diary 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 or Cows; Results Using Shielded Neutral Isolation Transformer. Shocking News, July 2004.
[13] Peter Webb. "Are Electromagnetic Fields Negatively Impacting your Cows?" http://www.canadiandowsers.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

I033-149
I033-150

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."

I033-151

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.

I033-152

Questions that would be mandatory to answer prior to making a determination is:

I033-153
- How far should electrical current travel, which could impact underground metal facilities and metal structures that are not grounded properly?

I033-154
- 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?

I033-155
- 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?

I033-156

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.

Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-157

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 content[16]. 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.

I033-158

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 caternary 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:

I033-159

- 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.

I033-159

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-

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I033-159

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

I033-160

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.

I033-161

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

I033-161

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.

I033-162

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.

I033-163

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 studies, presented and implemented.

I033-164

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."

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I033-164

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.

I033-165

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.

I033-166

52. Page 3.6-43 Improper Basis for Calculation and Assumption

The DEIR/EIS again falsly 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."

I033-167

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.

I033-168

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.

I033-169

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.

I033-170

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."

I033-171

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.

I033-172

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.

I033-173

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.

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I033-174

57. Page 3.6-66 Failure to Address Lack of Wastewater Treatment Availability

The DIER/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.

I033-175

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.

I033-176

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 DIER/EIS should prepare a suitable drainage analysis for the public.

I033-177

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."

I033-177

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

I033-178

60. Page 3.8-1 Failure to Apply a Criteria and Design Feature Consistantly

"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.

I033-179

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)."

I033-180

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

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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 a 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

I033-181

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.

I033-182

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 year[17]. 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 Tiawan, 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 cm[18]. 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 California[19]

I033-183

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.

I033-184

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.

I033-185

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 and 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.

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I033-186

"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

I033-187

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.

I033-188

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."

I033-189

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."

I033-190

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.

I033-191

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

I033-192

impacts and damages will also be significant. The alteration of the floodplain changes the way

I033-192

in which landowners will be exposed to future flooding, and therefore it will impact the fees and potential for flood insurance.

I033-193

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.

I033-194

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

I033-195

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.

I033-196

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."

I033-197

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

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I033-197
I033-198

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

I033-199

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.

I033-200

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 recourses 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.

I033-201

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

I033-201

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.

I033-202

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.

I033-203

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.

I033-204

71. Page 3.9-28 Failure to Analyze

The DEIR/EIS acknowleges the potential for linear settlement along the alignment over time. The following statement is made:

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I033-204

"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.

I033-205

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."

I033-206

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

I033-207

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.

I033-208

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

I033-209

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 soils[20]

The DEIR/EIS should provides these power lines as a potential impact.

I033-210

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.

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I033-210 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.

I033-211 The DIER/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.

I033-212 **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.

I033-213 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.

I033-214 **78. Page 3.11-29 Failure to Address Emergency Response Protocol**

The DIER/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."

I033-215 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."

I033-216 The DEIR/EIS recognizes the impact of narrowing roadways to accommodate large farm equipment that must be moved throughout rural areas. The DIER/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.

I033-217 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

I033-218 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.

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I033-219

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.

I033-220

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.

I033-221

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.

I033-222

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 caternary system, which will include an new set of power lines that will impact flight paths. The DEIR/EIS fails to address the concern.

I033-223

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

I033-223

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.

I033-224

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.

I033-225

84. Page 3.11-43 Deferred Safety Mitigation is Inappropriate

The DIER/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.

I033-226

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.

I033-227

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

I033-228

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 changes due to their proximity to the station.

I033-229

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 highs-speed rail service in the United State[21]. 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.hsrupdates.com/news/details/Securing-security-measures-TSA-works-to-implement-standards-for-US-HSR-systems--1101. HSR Updates, January 16, 2012.

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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.

I033-231

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 marked 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.

I033-232

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

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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.

I033-234

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.

I033-235

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.

I033-236

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.

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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.

I033-238

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

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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.

I033-240

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:

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"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.

I033-242

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.

I033-243

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."

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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

I033-244

DEIR/EIS fails to analyze the increase in local services needed to accommodate impacts from the mass replacement of homes and businesses.

I033-245

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.

I033-246

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.

I033-247

98. Page 3.12-55 Incomplete Job Type Analysis

The DIER/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.

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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

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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.

I033-250

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

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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 property use the document for decision making purposes.

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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.

I033-253

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.

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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 DIER/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.

I033-255

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.

I033-256

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

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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

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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.

I033-258

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 addresses the impacts described, therefore there is an inability to determine if the significance of the impact will be addressed.

I033-259

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."

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I033-260 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.

I033-261 **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

I033-262 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.

I033-263 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

I033-264 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.

I033-265 **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]).

I033-266 Cleary 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.

I033-267 **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."

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I033-267 The DEIR/EIS provides and 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 minimum[22].

I033-268 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, ease 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.

I033-269 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.

I033-270 **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 is 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.

I033-271 **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.

I033-271 *"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.

I033-272 **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.

I033-273 **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.

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I033-273 asses them and provide a determination of significance. If significant, mitigation measures should be provided and assessed to determine their impact on significance.

I033-274

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.

I033-275

118. Page 3.13-48 Unsupported and Incorrect Conclusion Statement

The DIER/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 DIER/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.

I033-276

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)

I033-276 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.

I033-277

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.

I033-278

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 DIER/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

I033-279

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 acutal 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.

I033-280

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.

I033-281

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.

I033-282

Sweeping curves and alignments being place away from transportation corridors creates hundreds of small parcels, many of which are unfarmable and convert large swaths of acreage to non-farming uses.

I033-283

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.

I033-284

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.

I033-285

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.

I033-286

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.

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I033-287

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.

I033-288

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.

I033-289

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 ease 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.

I033-290

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.

I033-291

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.

I033-292

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.

I033-293

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 utilizes for farming (commonly called topsoil) has a makeup that is conducive to plant growth. In a sense it is a living organism that supports plan 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."

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I033-294

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.

I033-295

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 is 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.

I033-296

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 recieve its full milk production from that cow. The cow may also become startled and resless 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.

I033-297

I033-298

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.

I033-299

134. Page 3.14-45 DEIR/EIS Requires Clarification

The DIER/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

I033-300

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*

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I033-300

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.

I033-301

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.

I033-302

I033-303

Under the information provided and potential for significant impacts the DEIR/EIS fails to provide a sufficient discussion of construction impacts on Chukchansi Park.

I033-304

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

I033-305

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.

I033-306

138. Page 3.16-60 Failure to Address Impact

The DIER/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."

I033-307

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.

Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-308

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 DIER/EIS should be consistent with all information provided.

I033-309

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.

I033-310

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.

I033-311

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.

I033-312

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.

I033-312

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 a 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.

I033-313

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 trasportation 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.

I033-314

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."

Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-314

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.

I033-315

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.

I033-316

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.

I033-317

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.

I033-318

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.

I033-319

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

Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-319

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.

I033-320

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.

I033-321

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.

I033-322

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."

I033-323

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.

I033-324

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

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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."

I033-325

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

I033-326

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

I033-327

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."

I033-327

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:

I033-328

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.

I033-329

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 supports 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.

I033-330

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, by not provide analysis and data that would show the reader and decision mater when and how those benefits will be realized.

I033-331

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

Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-331
I033-332

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."

I033-333

The DIER/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.

I033-334

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.

I033-335

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.

I033-336

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.

I033-337

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.

I033-338

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.

Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-339

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.

I033-340

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

I033-341

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.

I033-342

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

I033-342

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 asses the impacts and mitigation measures associated with the HSR Project.

Please feel free to contact me if you have any questions or comments.

Sincerely,

Aaron Fukuda

Response to Submission I033 (Aaron Fukuda, October 18, 2012)

I033-1

Refer to Standard Response FB-Response-LU-02, FB-Response-GENERAL-16.

I033-2

Refer to Standard Response FB-Response-GENERAL-07.

The comments provided in this submission have been responded to in this volume of the Final EIR/EIS.

The procedural and technical requirements for NEPA and CEQA were followed during the environmental review of the Fresno to Bakersfield HST Section.

The Authority used the information in the Revised DEIR/Supplemental DEIS and input from agencies and the public to identify the Preferred Alternative. The decision included consideration of the project purpose and need and the project objectives presented in Chapter 1, Project Purpose and Need, as well as the objectives and criteria in the alternatives analysis, and the comparative potential for environmental impacts. The Preferred Alternative balances the least overall impact on the environment and local communities, cost, and constructability constraints of the project alternatives evaluated. For more detail please refer to Chapter 7, Preferred Alternative, in this Final EIR/EIS.

I033-3

Refer to Standard Response FB-Response-GENERAL-07.

I033-4

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-22.

I033-5

Refer to Standard Response FB-Response-BIO-02, FB-Response-GENERAL-01.

I033-6

Refer to Standard Response FB-Response-GENERAL-02, FB-Response-N&V-05, FB-Response-GENERAL-10, FB-Response-GENERAL-01.

I033-6

The purpose of an EIR is to analyze and document the environmental impacts of a project. The fact that a project alternative will result in environmental impacts is not a violation of the California Environmental Quality Act (CEQA).

The procedural requirements for the National Environmental Policy Act (NEPA) and CEQA were followed during the environmental review of the Fresno to Bakersfield Section of the HST System. As discussed in Section 2.3.1, HST Project-Level Alternatives Development Process, of the Final EIR/EIS, the Authority implemented an alternatives analysis process to identify the full range of reasonable alternatives for the project, as required under Title 14 California Code of Regulations (CCR) Section 15126.6 and Title 40 Code of Federal Regulations (CFR) Section 1502.15(a). This range of alternatives was analyzed in the EIR/EIS.

I033-7

Refer to Standard Response FB-Response-GENERAL-08.

The Authority and FRA consulted with cooperating agencies under NEPA and with trustee and responsible agencies under CEQA regarding the specific resource areas associated with these agencies. Interested local, state, and federal agencies were also consulted throughout the process. A full listing of the meetings can be found in Chapter 7.

I033-8

Refer to Standard Response FB-Response-GENERAL-16.

I033-9

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-21.

I033-10

Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-10.

The purpose of an EIR is to analyze and document the environmental impacts of a project. The fact that a project alternative will result in environmental impacts is not a

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-10

violation of the California Environmental Quality Act (CEQA).

The procedural requirements for the National Environmental Policy Act (NEPA) and CEQA were followed during the environmental review of the Fresno to Bakersfield Section of the HST System. As discussed in Section 2.3.1, HST Project-Level Alternatives Development Process, of the Final EIR/EIS, the Authority implemented an alternatives analysis process to identify the full range of reasonable alternatives for the project, as required under Title 14 California Code of Regulations (CCR) Section 15126.6 and Title 40 Code of Federal Regulations (CFR) Section 1502.15(a). This range of alternatives was analyzed in the EIR/EIS.

A reasonable range of alternatives adequate to provide meaningful decision making is identified in the EIR/EIS. As described in the EIR/EIS, two to three alternative alignments were identified in each of the Hanford, Corcoran, Allensworth, Wasco-Shafter, and Bakersfield areas, which represent roughly 75% of the corridor between Fresno and Bakersfield. As shown in the table below, there are 7 important environmental factors including impacts to waters of the U.S., Important Farmland, and residential housing that clearly differentiate among these alternatives. In addition, impacts to properties protected under Section 4(f) of the Department of Transportation Act differentiate among alternatives in the Hanford, Allensworth, and Bakersfield areas. Division of a local community provides differentiation among alternatives in the Hanford and Corcoran areas. Impacts to environmental justice communities differentiates alternatives in the Wasco-Shafter area. Finally, impacts to key community facilities provides another measure that differentiates among alternatives in the Bakersfield area.

I033-10

Parameter	Alternatives											
	Hanford Area		Corcoran Area			Allensworth Area		Wasco-Shafter Area		Bakersfield Area		
	BNSF	Hanford West Bypass	BNSF	Corcoran Elevated	Corcoran Bypass	BNSF	Allensworth Bypass	BNSF	Wasco-Shafter Bypass	BNSF	Bakersfield South	Bakersfield Hybrid
Permanent Impacts to Wetlands (acres)	0	1.37	9.81	9.81	3.30	92.99	25.23	0	0	0.76	0.56	0.56
Permanent Impacts to Waters of the U.S. (acres)	48.87	48.30	42.38	44.86	37.09	144.34	152.02	27.60	17.12	43.45	33.56	33.69
Important Farmland Converted to Non-agricultural Uses (acres)	1057	809	260	106	177	467	386	676	667	0	0	0
Williamson Act Land Converted to Non-agricultural Uses (acres)	600	411	249	93	92	298	276	229	247	0	0	0
Number of Receptors Severely Impacted by Noise After Mitigation	178	287	79	27	111	14	0	504	63	10	61	61
Commercial and Industrial Business Displacements	3	7	16	1	0	0	0	23	4	302	135	280
Housing Unit Displacements	62	50	52	3	31	9	0	23	18	265	272	186

I033-11

Refer to Standard Response FB-Response-GENERAL-02.

The project EIR/EIS for the Fresno to Bakersfield Section is tiered from the Statewide Program EIR/EIS for the California HST System (Authority and FRA 2005). The Statewide Program EIR/EIS considered alternatives on Interstate 5 (I-5), State Route (SR) 99, and the BNSF Railway (BNSF) corridor. The Record of Decision for the Statewide Program EIR/EIS selected the BNSF corridor as the Preferred Alternative for the Fresno to Bakersfield Section. The I-5 and SR 99 corridors were again considered during the environmental review for the Fresno to Bakersfield Section, but were eliminated from further consideration, as described in Standard Response FB-Response-GENERAL-02.

Because the Authority conducted analysis of alternative alignments that follow SR 99/the Union Pacific Railroad (UPRR) and the I-5 corridor and determined that these alternatives were not practicable, they were not carried forward in the EIR/EIS. Kings County has not provided any new information that would change these conclusions. Neither the California Environmental Quality Act (CEQA) nor the National Environmental

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I033-11

Policy Act (NEPA) requires an environmental document to analyze alternatives that are not practicable to implement.

The project EIR/EIS for the Fresno to Bakersfield Section appropriately evaluates alternative alignments within the BNSF corridor.

A reasonable range of alternatives adequate to provide meaningful decision making is identified in the EIR/EIS. As described in the EIR/EIS, two to three alternative alignments were identified in each of the Hanford, Corcoran, Allensworth, Wasco-Shafter, and Bakersfield areas, which represent roughly 75% of the corridor between Fresno and Bakersfield. As shown in the table below, there are 7 important environmental factors including impacts to waters of the U.S., Important Farmland, and residential housing that clearly differentiate among these alternatives. In addition, impacts to properties protected under Section 4(f) of the Department of Transportation Act differentiate among alternatives in the Hanford, Allensworth, and Bakersfield areas. Division of a local community provides differentiation among alternatives in the Hanford and Corcoran areas. Impacts to environmental justice communities differentiates alternatives in the Wasco-Shafter area. Finally, impacts to key community facilities provides another measure that differentiates among alternatives in the Bakersfield area.

I033-11

Parameter	Alternatives											
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	BNSF	Hanford West Bypass	BNSF	Corcoran Elevated	Corcoran Bypass	BNSF	Allensworth Bypass	BNSF	Wasco-Shafter Bypass	BNSF	Bakersfield South	Bakersfield Hybrid
Permanent Impacts to Wetlands (acres)	0	1.37	9.81	9.81	3.30	92.99	25.23	0	0	0.76	0.56	0.56
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Number of Receptors Severely Impacted by Noise After Mitigation	178	287	79	27	111	14	0	504	63	10	61	61
Commercial and Industrial Business Displacements	3	7	16	1	0	0	0	23	4	302	135	280
Housing Unit Displacements	62	50	52	3	31	9	0	23	18	265	272	186

I033-12

Refer to Standard Response FB-Response-GENERAL-08.

The Authority and FRA consulted with cooperating agencies under NEPA and with trustee and responsible agencies under CEQA regarding the specific resource areas associated with these agencies. Interested local, state, and federal agencies were also consulted throughout the process. A full listing of the meetings can be found in Chapter 7.

I033-13

Refer to Standard Response FB-Response-GENERAL-07.

Environmental documents are written to a specific and legally required standard. Fact sheets, brochures, and summaries were provided to ensure widespread understanding of the environmental documents and to increase the ease of finding pertinent information. Also, public workshops were designed to answer questions and solicit feedback on the documents and to assist the public with finding pertinent information.

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I033-14

Refer to Standard Response FB-Response-GENERAL-07.

Environmental documents are written to a specific and legally required standard. Fact sheets, brochures, and summaries were provided to ensure widespread understanding of the environmental documents and to increase the ease of finding pertinent information. Also, public workshops were designed to answer questions and solicit feedback on the documents and to assist the public with finding pertinent information.

I033-15

Refer to Standard Response FB-Response-GENERAL-07.

I033-16

Refer to Standard Response FB-Response-GENERAL-21, FB-Response-GENERAL-27.

The Authority and FRA have followed the procedural and substantive requirements of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). No factual information has been provided in this comment to indicate that the procedures and requirements of NEPA and CEQA were not followed in the environmental review process for the Fresno to Bakersfield Section of the HST System.

An EIR project description is intended to be general, not detailed (CEQA Guidelines § 15124[c]). Final design or even advanced design of infrastructure is not required in the project description (*Dry Creek Citizens Coalition v. County of Tulare* [1999] 70 Cal.App.4th 20, 36). Abundant substantial evidence in the record demonstrates that the project description in the EIR/EIS is more than adequate. The term "15% design" is an engineering term of art that refers to the level of engineering prepared on HST project elements for the EIR/EIS. The 15% design generates detailed information, like the horizontal and vertical location of track, cross sections of the infrastructure with measurements, precise station footprints with site configuration, and temporary construction staging sites and facilities. The 15% design also yields a "project footprint" overlaid on parcel maps; the project footprint shows the outside envelope of all disturbance, including both permanent infrastructure and temporary construction activity. This 15% design translated into a project description in the EIR/EIS with 100% of the

I033-16

information that is required under CEQA Guidelines Section 15124 (see *Dry Creek*, above, 70 Cal.App.4th at pp. 27-36 [upholding EIR conceptual project description as adequate when based on preliminary design]).

I033-17

Refer to Standard Response FB-Response-GENERAL-22, FB-Response-GENERAL-21, FB-Response-GENERAL-01.

Biological impacts are addressed in Section 3.7 of the EIR/EIS, facility impacts are addressed throughout Chapter 3.0, groundwater impacts are addressed in Section 3.8, utility impacts are addressed in Section 3.6, and socioeconomic impacts are addressed in Section 3.12.

I033-18

Refer to Standard Response FB-Response-BIO-03, FB-Response-HWR-03, FB-Response-PU&E-03, FB-Response-TR-02.

With respect to geological information, the Revised DEIR/Supplemental DEIS provides existing regional data from which the potential geologic hazards are identified and discussed in relation to the project. Site-specific design features, such as the specific depth of foundations at a given location, will be determined after site-specific geotechnical investigations are conducted. The Revised DEIR/Supplemental DEIS is based on the level of engineering and planning necessary to identify potential environmental impacts and to identify the range of appropriate mitigation measures.

All roads that cross the alignment were evaluated for average daily traffic, and roads that serve high volumes of traffic or are otherwise important routes were considered for overcrossings. Roads with volumes under 500 vehicles per day were considered for closure because the vehicles could use other crossings on alternative detour routes that would add 1 mile or less in out-of-direction travel or less to a trip. While this change would be an inconvenience, continuous access would be provided and the environmental impacts would be less-than-significant under CEQA and of negligible intensity under NEPA.

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I033-18

With respect to potential Impacts on flooding and floodplains, these are discussed in Chapter 3.8, Hydrology and Water Resources, of the Revised DEIR/Supplemental DEIS.

I033-19

The Authority and FRA have prepared materials in support of Checkpoint A and Checkpoint B and have received concurrences and agreement with those Checkpoints from the EPA and the U.S. Army Corps of Engineers (USACE). The Authority and FRA have also prepared materials in support of Checkpoint C. These materials include a Summary Report, Conceptual Mitigation Plan, and Watershed Evaluation Report, utilizing information provided in the Revised DEIR/Supplemental DEIS, associated technical reports, and Final EIR/EIS to provide the required information for the USACE to make a preliminary Least Environmentally Damaging Practicable Alternative (LEDPA) determination.

The cited references in the comment are in respect to and are required as part of the Section 408 requirements when a project requires USACE headquarters approval. Because the HST is expected to have “low impact, or minor modification” on federal flood control projects, the level of documentation has been coordinated with the USACE District and local sponsor. A 60% design or greater is not anticipated or required to date by these agencies. The Authority and FRA continue to consult with local sponsors and will provide the appropriate level of detail and design required to meet the local sponsor and USACE requirements to satisfy Section 408 requirements.

I033-20

Refer to Standard Response FB-Response-GENERAL-01.

The EIR/EIS provides a sufficient level of detail regarding the impacts of the proposed project to allow the Authority and other decision makers to make an informed decision on whether or not to approve the project.

I033-21

Refer to Standard Response FB-Response-GENERAL-21, FB-Response-GENERAL-01.

I033-22

Refer to Standard Response FB-Response-PU&E-01, FB-Response-GENERAL-21.

Please see Appendix 3.1-A, Parcels Within the HST Footprint, for a clear depiction of project boundaries that apply to the project. This project footprint depicts the maximum extent of potential physical disturbance that would be either temporarily or permanently affected by the project. Project engineering design drawings include plan and profile views of project facilities and are provided in Volume III of the EIR/EIS, Alignments and Other Plans.

I033-23

Refer to Standard Response FB-Response-PU&E-01, FB-Response-GENERAL-21.

Please see Appendix 3.1-A, Parcels within the HST Footprint, of the Final EIR/EIS for a clear depiction of the boundaries that apply to the project. The project footprint depicts the maximum extent of potential physical disturbance that would be either temporarily or permanently affected by the project. Appendix 3.1-A includes the project features, including but not limited to roadway modifications, over- and underpass structures, the overhead contact system and electrical power distribution system and facilties, communication towers, and access points to the alignment. Project engineering design drawings include plan and profile views of project facilities and are provided in Volume 3, Alignments and Other Plans, of the Final EIR/EIS.

The Authority and FRA have followed the procedural and substantive requirements of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). No factual information has been provided in this comment to indicate that the procedures and requirements of NEPA and CEQA were not followed in the environmental review process for the Fresno to Bakersfield Section of the HST System.

An EIR project description is intended to be general, not detailed (CEQA Guidelines § 15124[c]). Final design—or even advanced design—of infrastructure is not required in the project description (*Dry Creek Citizens Coalition v. County of Tulare* [1999] 70

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I033-23

Cal.App.4th 20, 36). Abundant substantial evidence in the record demonstrates that the project description in the EIR/EIS is more than adequate. The term "15% design" is an engineering term of art that refers to the level of engineering prepared on HST project elements for the EIR/EIS. The 15% design generates detailed information, like the horizontal and vertical location of track, cross sections of the infrastructure with measurements, precise station footprints with site configuration, and temporary construction staging sites and facilities. The 15% design also yields a "project footprint" overlaid on parcel maps; the project footprint shows the outside envelope of all disturbance, including both permanent infrastructure and temporary construction activity. This 15% design translated into a project description in the EIR/EIS with 100% of the information that is required under CEQA Guidelines Section 15124 (see *Dry Creek*, above, 70 Cal.App.4th at pp. 27-36 [upholding EIR conceptual project description as adequate when based on preliminary design]).

I033-24

Refer to Standard Response FB-Response-AG-02, FB-Response-AG-03.

Chapter 2.0 includes the description of the project and its alternatives, and not a discussion of environmental impacts.

I033-25

Refer to Standard Response FB-Response-GENERAL-12.

Chapter 2, Alternatives, of the Final EIR/EIS for the Fresno to Bakersfield Section provides a description of the project and its alternatives, but is not a discussion of environmental impacts.

The decision whether to continue Amtrak service on the San Joaquin line (using the existing BNSF Railway infrastructure) is outside the purview of the Authority. The HST project includes no plans to discontinue Amtrak service to the Hanford station or any other station or platform along the Fresno to Bakersfield Section. Refer to Standard Response FB-Response-GENERAL-12 for more detail.

I033-26

Refer to Standard Response FB-Response-GENERAL-13, FB-Response-GENERAL-12, FB-Response-GENERAL-17.

The project purpose, need, and objectives are discussed in Chapter 1, Project Purpose, Need, and Objectives, of the Final EIR/EIS. This chapter outlines the objectives for the HST System and the Fresno to Bakersfield Section. Chapter 2, Alternatives, further characterizes the critical role of the Fresno to Bakersfield Section as the link connecting the Bay Area to Los Angeles and Southern California during Phase 1 of the implementation of the HST System.

As discussed in the Revised 2012 Business Plan (Authority 2012a), the California High-Speed Rail (HSR) Program will depend on a mix of public and private investment, the latter becoming available after the fundamental economics of the program are demonstrated.

A phased approach to system development is the prudent course to build a foundation that allows for greater efficiency in the use of private investment once the initial segments of the system are in place.

This approach also recognizes current budgetary and funding realities. Among other things, the phased approach will help ensure the system's success by introducing Californians to HSR service and building ridership over time. At the same time, improvements can be made to regional systems that connect with HSR, resulting in the conventional and high-speed systems complementing each other.

The goals of Proposition 1A were used to develop the phasing strategy for the statewide HSR System and were guided by the following key principles:

- Divide the statewide high-speed rail program into a series of smaller, discrete projects that can stand alone, will provide viable revenue service, can be matched to available funding, and can be delivered through appropriate business models.
- Advance sections as soon as feasible to realize early benefits, especially employment, and to minimize the impact of inflation.
- Leverage existing rail systems and infrastructure, including connecting rail and bus

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services.

- Forge a long-term partnership with the federal government for program delivery.
- Develop partnerships with other transportation operators to identify efficiencies through leveraging state, regional, local, and capital program investments and maximizing connectivity between systems.
- Seek earliest-feasible and best-value private-sector participation and financing with appropriate risk transfer and cost containment.
- Mitigate against 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 system and generating economic benefits at each step.

The Authority applied these principles, taking into account key factors such as cost, funding scenarios, and ridership and revenue projections, to develop an implementation strategy with the following key steps:

Step 1—Early Investments, Statewide Benefits. The first construction of dedicated high-speed infrastructure for the initial operating section (IOS) begins in the Central Valley. As with all of the steps, this initial section is being developed to deliver early benefits by leveraging other systems—enabling them to operate on the new high-speed tracks, which can be done without impacts on design or the integrity of the new infrastructure. Improved passenger rail service would begin on completion of the first IOS segment by connecting the San Joaquins, ACE, Sacramento Regional Transit, and the Capitol Corridor (and potentially Caltrain). Through a new, strategic approach, there is also the opportunity for new or improved travel between Bakersfield and Sacramento, Oakland, San Jose, and San Francisco. This expanded Northern California Unified Service could begin operation as early as 2018, with the potential to provide transportation and economic benefits well before fully operational high-speed rail service is initiated.

As part of this first step, complementary investments and improvements will be made to both accelerate benefits and distribute them more widely across the state. These investments will be made using the $950 million in Proposition 1A connectivity funding, available Proposition 1A high-speed rail funds, future federal funds, and other sources, and will include the following:

- Investment in the bookends: In Northern California, the long-awaited electrification of the Caltrain corridor will begin under a collaborative program between Bay Area

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agencies and the Authority. Also, consistent with the Southern California Memorandum of Understanding (MOU), investments will be made in key rail corridors in the southern part of the state, such as upgrading the Metrolink corridor from Los Angeles to Palmdale.
- The Northern California Unified Service described above will be initiated.
- As the next step in the IOS, work to close the rail gap between Bakersfield and Palmdale through the Tehachapi Mountains will begin. Environmental clearance is possible in early 2014, and plans are being developed to move quickly to implement the improvements to close this critical gap and create the first statewide rail link between the Bay Area and the Los Angeles Basin.

Step 2—Initial High-Speed Rail Operations. Introduction of the state's (and the nation's) first fully operational high-speed rail service will begin. This service can be operated by a private entity without subsidy, will have the potential to attract private investment to expand the system from Bay to Basin, and can be completed within a decade. The service will be blended with regional/local systems. The IOS will be achieved through expansion of the first construction segment into an electrified operating high-speed rail line from Merced to Palmdale and the San Fernando Valley, accessing the populous Los Angeles Basin. Following on the work discussed above, the next priority in implementing the IOS will be closing the rail gap between Northern and Southern California by crossing the Tehachapi Mountains with new, dedicated high-speed rail infrastructure. Before completion of the IOS to the San Fernando Valley, this link will tie the north to the south at Palmdale, where Metrolink commuter rail service can then provide service and connections throughout Southern California.

Currently, the IOS is defined as extending from Merced to the San Fernando Valley, and high-speed revenue service would only start once the full IOS is built and operable. Should ridership and revenue forecasts and financial projections demonstrate that revenue service compliant with Proposition 1A could begin earlier, with a shorter IOS, appropriate reviews would occur to consider and implement earlier service, if appropriate.

Step 3—The Bay to Basin System. The dedicated high-speed rail infrastructure of the IOS will be expanded north and west to San Jose, providing HSR service between the state's major population centers in the north and south and providing the platform for the transition to statewide blended operations. At this stage, passengers will be able to take a one-seat ride between greater Los Angeles (San Fernando Station) and the San

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Francisco Transbay Transit Center using blended infrastructure in the north between San Francisco and San Jose (assuming electrification of the Caltrain corridor by 2020, as proposed by Caltrain), using dedicated high-speed rail infrastructure between San Jose and the San Fernando Station, and, in the south, connecting via Metrolink between the San Fernando Valley Station and the Los Angeles Union Station and on to other points throughout Southern California.

Step 4—The Phase 1 System. For the blended approach, the dedicated high-speed rail infrastructure of the Bay-to-Basin system will be extended from the San Fernando Valley to Los Angeles Union Station, linking to a significantly upgraded passenger rail corridor developed to maximize service between Los Angeles and Anaheim while also addressing community concerns about new infrastructure impacts in a congested urban corridor that includes a number of established communities that abut the existing right-of-way. Under a Full Build scenario, dedicated high-speed rail infrastructure would be extended from San Jose to San Francisco's Transbay Transit Center and from Los Angeles to Anaheim.

Step 5—The Phase 2 System. Phase 2 will extend the high-speed rail system to Sacramento and San Diego, representing completion of the 800-mile statewide system. Travelers will be able to travel between all of the state's major population centers on high-speed rail. Phase 2 areas will see improvements in rail service well in advance of the expansion of the high-speed rail system through the combination of early investments and blended operations, as described in this Revised Plan.

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Refer to Standard Response FB-Response-GENERAL-13, FB-Response-GENERAL-12, FB-Response-GENERAL-17.

The project purpose, need, and objectives are discussed in Chapter 1, Project Purpose, Need, and Objectives, of the Final EIR/EIS. This section outlines the objectives for the HST System and the Fresno to Bakersfield Section. Chapter 2, Alternatives, of the Final EIR/EIS further characterizes the critical role of the Fresno to Bakersfield Section as the link connecting the Bay Area to Los Angeles and Southern California during Phase 1 of the implementation of the HST System.

As discussed in the Revised 2012 Business Plan (Authority 2012a), the California High-

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Speed Rail (HSR) Program will depend on a mix of public and private investment, the latter becoming available after the fundamental economics of the program are demonstrated.

A phased approach to system development is the prudent course to build a foundation that allows for greater efficiency in the use of private investment once the initial segments of the system are in place.

This approach also recognizes current budgetary and funding realities. Among other things, the phased approach will help ensure the system's success by introducing Californians to HSR service and building ridership over time. At the same time, improvements can be made to regional systems that connect with the HSR System, resulting in the conventional and high-speed systems complementing each other.

The goals of Proposition 1A were used to develop the phasing strategy for the statewide HSR System and were guided by the following key principles:

- Divide the statewide high-speed rail program into a series of smaller, discrete projects that can stand alone, will provide viable revenue service, can be matched to available funding, and can be delivered through appropriate business models.
- Advance sections as soon as feasible to realize early benefits, especially employment, and to minimize the impact of inflation.
- Leverage existing rail systems and infrastructure, including connecting rail and bus services.
- Forge a long-term partnership with the federal government for program delivery.
- Develop partnerships with other transportation operators to identify efficiencies through leveraging state, regional, local, and capital program investments and maximizing connectivity between systems.
- Seek earliest-feasible and best-value private-sector participation and financing with appropriate risk transfer and cost containment.
- Mitigate against 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 system and generating economic benefits at each step.

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The Authority applied these principles, taking into account key factors such as cost, funding scenarios, and ridership and revenue projections, to develop an implementation strategy with the following key steps:

Step 1—Early Investments, Statewide Benefits. The first construction of dedicated high-speed infrastructure for the initial operating section (IOS) begins in the Central Valley. As with all of the steps, this initial section is being developed to deliver early benefits by leveraging other systems—enabling them to operate on the new high-speed tracks, which can be done without impacts on design or the integrity of the new infrastructure. Improved passenger rail service would begin on completion of the first IOS segment by connecting the San Joaquins, ACE, Sacramento Regional Transit, and the Capitol Corridor (and potentially Caltrain). Through a new, strategic approach, there is also the opportunity for new or improved travel between Bakersfield and Sacramento, Oakland, San Jose, and San Francisco. This expanded Northern California Unified Service could begin operation as early as 2018, with the potential to provide transportation and economic benefits well before fully operational high-speed rail service is initiated.

As part of this first step, complementary investments and improvements will be made to both accelerate benefits and distribute them more widely across the state. These investments will be made using the $950 million in Proposition 1A connectivity funding, available Proposition 1A high-speed rail funds, future federal funds, and other sources, and will include the following:

- Investment in the bookends: In Northern California, the long-awaited electrification of the Caltrain corridor will begin under a collaborative program between Bay Area agencies and the Authority. Also, consistent with the Southern California Memorandum of Understanding (MOU), investments will be made in key rail corridors in the southern part of the state, such as upgrading the Metrolink corridor from Los Angeles to Palmdale.
- The Northern California Unified Service described above will be initiated.
- As the next step in the IOS, work to close the rail gap between Bakersfield and Palmdale through the Tehachapi Mountains will begin. Environmental clearance is possible in early 2014, and plans are being developed to move quickly to implement the improvements to close this critical gap and create the first statewide rail link between the Bay Area and the Los Angeles Basin.

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Step 2—Initial High-Speed Rail Operations. Introduction of the state's (and the nation's) first fully operational high-speed rail service will begin. This service can be operated by a private entity without subsidy, will have the potential to attract private investment to expand the system from Bay to Basin, and can be completed within a decade. The service will be blended with regional/local systems. The IOS will be achieved through expansion of the first construction segment into an electrified operating high-speed rail line from Merced to Palmdale and the San Fernando Valley, accessing the populous Los Angeles Basin. Following on the work discussed above, the next priority in implementing the IOS will be closing the rail gap between Northern and Southern California by crossing the Tehachapi Mountains with new, dedicated high-speed rail infrastructure. Before completion of the IOS to the San Fernando Valley, this link will tie the north to the south at Palmdale, where Metrolink commuter rail service can then provide service and connections throughout Southern California.

Currently, the IOS is defined as extending from Merced to the San Fernando Valley, and high-speed revenue service would only start once the full IOS is built and operable. Should ridership and revenue forecasts and financial projections demonstrate that revenue service compliant with Proposition 1A could begin earlier, with a shorter IOS, appropriate reviews would occur to consider and implement earlier service, if appropriate.

Step 3—The Bay to Basin System. The dedicated high-speed rail infrastructure of the IOS will be expanded north and west to San Jose, providing HSR service between the state's major population centers in the north and south and providing the platform for the transition to statewide blended operations. At this stage, passengers will be able to take a one-seat ride between greater Los Angeles (San Fernando Station) and the San Francisco Transbay Transit Center using blended infrastructure in the north between San Francisco and San Jose (assuming electrification of the Caltrain corridor by 2020, as proposed by Caltrain), using dedicated high-speed rail infrastructure between San Jose and the San Fernando Station, and, in the south, connecting via Metrolink between the San Fernando Valley Station and the Los Angeles Union Station and on to other points throughout Southern California.

Step 4—The Phase 1 System. For the blended approach, the dedicated high-speed rail infrastructure of the Bay to Basin System will be extended from the San Fernando Valley to Los Angeles Union Station, linking to a significantly upgraded passenger rail corridor developed to maximize service between Los Angeles and Anaheim while also addressing community concerns about new infrastructure impacts in a congested urban

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corridor that includes a number of established communities that abut the existing right-of-way. Under a Full Build scenario, dedicated high-speed rail infrastructure would be extended from San Jose to San Francisco's Transbay Transit Center and from Los Angeles to Anaheim.

Step 5—The Phase 2 System. Phase 2 will extend the high-speed rail system to Sacramento and San Diego, representing completion of the 800-mile statewide system. Travelers will be able to travel between all of the state's major population centers on high-speed rail. Phase 2 areas will see improvements in rail service well in advance of the expansion of the high-speed rail system through the combination of early investments and blended operations, as described in this Revised Plan.

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Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-10, FB-Response-GENERAL-12.

In the case of Hanford, it was not feasible to follow the BNSF Railway (BNSF) corridor through the city. The BNSF corridor in the Hanford area has several curves that are too severe for an HST alignment and constructing the HST project through Hanford would have resulted in a substantial impact on residential and commercial properties in the city. For these reasons, the Preferred Alternative for the Fresno to Bakersfield Section identified in the Statewide Program EIR/EIS for the California High-Speed Rail System (Authority and FRA 2005) was selected to bypass Hanford.

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Refer to Standard Response FB-Response-GENERAL-13.

I033-30

Refer to Standard Response FB-Response-GENERAL-13, FB-Response-GENERAL-12, FB-Response-GENERAL-17.

The project purpose, need, and objectives are discussed in Chapter 1, Project Purpose, Need, and Objectives, of the Final EIR/EIS. This section outlines the objectives for the HST System and the Fresno to Bakersfield Section. Chapter 2, Alternatives, of the Final

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EIR/EIS further characterizes the critical role of the Fresno to Bakersfield Section as the link connecting the Bay Area to Los Angeles and Southern California during Phase 1 of the implementation of the HST System.

As discussed in the Revised 2012 Business Plan (Authority 2012a), the California High-Speed Rail (HSR) Program will depend on a mix of public and private investment, the latter becoming available after the fundamental economics of the program are demonstrated.

A phased approach to system development is the prudent course to build a foundation that allows for greater efficiency in the use of private investment once the initial segments of the system are in place.

This approach also recognizes current budgetary and funding realities. Among other things, the phased approach will help ensure the system's success by introducing Californians to HSR service and building ridership over time. At the same time, improvements can be made to regional systems that connect with the HSR System, resulting in the conventional and high-speed systems complementing each other.

The goals of Proposition 1A were used to develop the phasing strategy for the statewide HSR System and were guided by the following key principles:

- Divide the statewide high-speed rail program into a series of smaller, discrete projects that can stand alone, will provide viable revenue service, can be matched to available funding, and can be delivered through appropriate business models.
- Advance sections as soon as feasible to realize early benefits, especially employment, and to minimize the impact of inflation.
- Leverage existing rail systems and infrastructure, including connecting rail and bus services.
- Forge a long-term partnership with the federal government for program delivery.
- Develop partnerships with other transportation operators to identify efficiencies through leveraging state, regional, local, and capital program investments and maximizing connectivity between systems.
- Seek earliest-feasible and best-value private-sector participation and financing with

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appropriate risk transfer and cost containment.

- Mitigate against 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 system and generating economic benefits at each step.

The Authority applied these principles, taking into account key factors such as cost, funding scenarios, and ridership and revenue projections, to develop an implementation strategy with the following key steps:

Step 1—Early Investments, Statewide Benefits. The first construction of dedicated high-speed infrastructure for the initial operating section (IOS) begins in the Central Valley. As with all of the steps, this initial section is being developed to deliver early benefits by leveraging other systems—enabling them to operate on the new high-speed tracks, which can be done without impacts on design or the integrity of the new infrastructure. Improved passenger rail service would begin on completion of the first IOS segment by connecting the San Joaquins, ACE, Sacramento Regional Transit, and the Capitol Corridor (and potentially Caltrain). Through a new, strategic approach, there is also the opportunity for new or improved travel between Bakersfield and Sacramento, Oakland, San Jose, and San Francisco. This expanded Northern California Unified Service could begin operation as early as 2018, with the potential to provide transportation and economic benefits well before fully operational high-speed rail service is initiated.

As part of this first step, complementary investments and improvements will be made to both accelerate benefits and distribute them more widely across the state. These investments will be made using the $950 million in Proposition 1A connectivity funding, available Proposition 1A high-speed rail funds, future federal funds, and other sources, and will include the following:

- Investment in the bookends: In Northern California, the long-awaited electrification of the Caltrain corridor will begin under a collaborative program between Bay Area agencies and the Authority. Also, consistent with the Southern California Memorandum of Understanding (MOU), investments will be made in key rail corridors in the southern part of the state, such as upgrading the Metrolink corridor from Los Angeles to Palmdale.
- The Northern California Unified Service described above will be initiated.
- As the next step in the IOS, work to close the rail gap between Bakersfield and

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Palmdale through the Tehachapi Mountains will begin. Environmental clearance is possible in early 2014, and plans are being developed to move quickly to implement the improvements to close this critical gap and create the first statewide rail link between the Bay Area and the Los Angeles Basin.

Step 2—Initial High-Speed Rail Operations. Introduction of the state's (and the nation's) first fully operational high-speed rail service will begin. This service can be operated by a private entity without subsidy, will have the potential to attract private investment to expand the system from Bay to Basin, and can be completed within a decade. The service will be blended with regional/local systems. The IOS will be achieved through expansion of the first construction segment into an electrified operating high-speed rail line from Merced to Palmdale and the San Fernando Valley, accessing the populous Los Angeles Basin. Following on the work discussed above, the next priority in implementing the IOS will be closing the rail gap between Northern and Southern California by crossing the Tehachapi Mountains with new, dedicated high-speed rail infrastructure. Before completion of the IOS to the San Fernando Valley, this link will tie the north to the south at Palmdale, where Metrolink commuter rail service can then provide service and connections throughout Southern California.

Currently, the IOS is defined as extending from Merced to the San Fernando Valley, and high-speed revenue service would only start once the full IOS is built and operable. Should ridership and revenue forecasts and financial projections demonstrate that revenue service compliant with Proposition 1A could begin earlier, with a shorter IOS, appropriate reviews would occur to consider and implement earlier service, if appropriate.

Step 3—The Bay to Basin System. The dedicated high-speed rail infrastructure of the IOS will be expanded north and west to San Jose, providing HSR service between the state's major population centers in the north and south and providing the platform for the transition to statewide blended operations. At this stage, passengers will be able to take a one-seat ride between greater Los Angeles (San Fernando Station) and the San Francisco Transbay Transit Center using blended infrastructure in the north between San Francisco and San Jose (assuming electrification of the Caltrain corridor by 2020, as proposed by Caltrain), using dedicated high-speed rail infrastructure between San Jose and the San Fernando Station, and, in the south, connecting via Metrolink between the San Fernando Valley Station and the Los Angeles Union Station and on to other points throughout Southern California.

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Step 4—The Phase 1 System. For the blended approach, the dedicated high-speed rail infrastructure of the Bay to Basin System will be extended from the San Fernando Valley to Los Angeles Union Station, linking to a significantly upgraded passenger rail corridor developed to maximize service between Los Angeles and Anaheim while also addressing community concerns about new infrastructure impacts in a congested urban corridor that includes a number of established communities that abut the existing right-of-way. Under a Full Build scenario, dedicated high-speed rail infrastructure would be extended from San Jose to San Francisco's Transbay Transit Center and from Los Angeles to Anaheim.

Step 5—The Phase 2 System. Phase 2 will extend the high-speed rail system to Sacramento and San Diego, representing completion of the 800-mile statewide system. Travelers will be able to travel between all of the state's major population centers on high-speed rail. Phase 2 areas will see improvements in rail service well in advance of the expansion of the high-speed rail system through the combination of early investments and blended operations, as described in this Revised Plan.

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Refer to Standard Response FB-Response-GENERAL-13.

The revised analysis discussed in FB-Response-GENERAL-13 does not identify any new significant and unavoidable impacts.

I033-32

Refer to Standard Response FB-Response-GENERAL-13.

I033-33

Refer to Standard Response FB-Response-BIO-02, FB-Response-GENERAL-01.

I033-34

Refer to Standard Response FB-Response-BIO-02, FB-Response-GENERAL-01.

I033-35

Refer to Standard Response FB-Response-BIO-02, FB-Response-GENERAL-01.

I033-36

Refer to Standard Response FB-Response-BIO-02, FB-Response-GENERAL-01.

I033-37

Refer to Standard Response FB-Response-BIO-02, FB-Response-GENERAL-01.

I033-38

A Mitigation Monitoring and Enforcement Plan (MMEP) will be prepared per Section 15097 of the CEQA Guidelines that will detail who is responsible for implementing the mitigation, when it will be implemented, and how implementation will be documented. The MMEP is required to ensure that adopted project design features and mitigation measures are successfully implemented. The Authority is the lead agency for the proposed project and is responsible for implementation of the MMEP.

I033-39

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-12, FB-Response-GENERAL-17.

I033-40

Refer to Standard Response FB-Response-BIO-02, FB-Response-GENERAL-01.

I033-41

Refer to Standard Response FB-Response-GENERAL-02.

The project EIR/EIS for the Fresno to Bakersfield Section is tiered from the Statewide Program EIR/EIS for the California HST System (Authority and FRA 2005). The Statewide Program EIR/EIS considered alternatives on Interstate 5 (I-5), State Route (SR) 99, and the BNSF Railway (BNSF) corridor. The Record of Decision for the Statewide Program EIR/EIS selected the BNSF corridor as the Preferred Alternative for the Fresno to Bakersfield Section. The I-5 and SR 99 corridors were again considered during the environmental review of the Fresno to Bakersfield Section, but were eliminated from further consideration, as described in Standard Response FB-Response-GENERAL-02.

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Because the Authority conducted analysis of alternative alignments that follow SR 99/the Union Pacific Railroad (UPRR) and the I-5 corridor and determined that these alternatives were not practicable, they were not carried forward in the EIR/EIS. Kings County has not provided any new information that would change these conclusions. Neither the California Environmental Quality Act (CEQA) nor the National Environmental Policy Act (NEPA) requires an environmental document to analyze alternatives that are not practicable to implement.

The project EIR/EIS for the Fresno to Bakersfield Section appropriately evaluates alternative alignments within the BNSF corridor.

I033-42

Refer to Standard Response FB-Response-GENERAL-02.

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The project EIR/EIS for the Fresno to Bakersfield Section appropriately evaluates alternative alignments within the BNSF corridor.

I033-43

Refer to Standard Response FB-Response-GENERAL-01.

The California High-Speed Rail (HSR) Program will depend on a mix of public and private investment, the latter becoming available after the fundamental economics of the program are demonstrated. Refer to the Revised 2012 Business Plan.

A phased approach to system development is the prudent course to build a foundation that allows for greater efficiency in the use of private investment once the initial segments of the system are in place. This approach also recognizes current budgetary and funding realities. Among other things, the phased approach will help ensure the system's success by introducing Californians to HSR service and building ridership over time. At the same time, improvements can be made to regional systems that connect with HSR, resulting in the conventional and high-speed systems complementing each other.

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- Advance sections as soon as feasible to realize early benefits, especially employment, and to minimize inflation impact.
- Leverage existing rail systems and infrastructure, including connecting rail and bus services.
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- Develop partnerships with other transportation operators to identify efficiencies through leveraging state, regional, local, and capital program investments and maximizing connectivity between systems.
- Seek earliest feasible and best value private-sector participation and financing with appropriate risk transfer and cost containment.
- Mitigate against 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

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operational system and generating economic benefits at each step.

The Authority applied these principles, taking into account key factors such as cost, funding scenarios, and ridership and revenue projections, to develop an implementation strategy with the following key steps:

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- The Northern California Unified Service described above will be initiated.
- As the next step in the IOS, work to close the rail gap between Bakersfield and Palmdale through the Tehachapi Mountains will begin. Environmental clearance is possible in early 2014, and plans are being developed to move quickly to implement the improvements to close this critical gap and create the first statewide rail link between the Bay Area and the Los Angeles Basin.

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Step 2—Initial High-Speed Rail Operations. Introduction of the state's (and the nation's) first fully operational high-speed rail service will begin. This service can be operated by a private entity without subsidy, will have the potential to attract private investment to expand the system from Bay to Basin, and can be completed within a decade. The service will be blended with regional/local systems. The IOS is achieved through expansion of the first construction segment into an electrified operating high-speed rail line from Merced to Palmdale and the San Fernando Valley, accessing the populous Los Angeles Basin. Following on the work discussed above, the next priority in implementing the IOS will be closing the rail gap between Northern and Southern California by crossing the Tehachapi Mountains with new, dedicated high-speed rail infrastructure. Prior to completion of the IOS to the San Fernando Valley, this link will tie the north to the south at Palmdale, where Metrolink commuter rail service can then provide service and connections throughout Southern California.

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Step 4—The Phase 1 System. For the blended approach, the dedicated high-speed rail infrastructure of the Bay-to-Basin system will be extended from the San Fernando Valley to Los Angeles Union Station, linking to a significantly upgraded passenger rail corridor developed to maximize service between Los Angeles and Anaheim while also

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addressing community concerns about new infrastructure impacts in a congested urban corridor that includes a number of established communities that abut the existing right-of-way. Under a Full Build scenario, dedicated high-speed rail infrastructure would be extended from San Jose to San Francisco's Transbay Transit Center and from Los Angeles to Anaheim.

Step 5—The Phase 2 System. Phase 2 will extend the high-speed rail system to Sacramento and San Diego, representing completion of the 800-mile statewide system. Travelers will be able to travel among all of the state's major population centers on high-speed rail. Phase 2 areas will see improvements in rail service well in advance of the expansion of the high-speed rail system through the combination of early investments and blended operations, as described in the Revised 2012 Business Plan.

I033-44

Refer to Standard Response FB-Response-GENERAL-16.

The purpose of the Fresno to Bakersfield HST includes providing travel between major urban centers and connectivity to airports, mass transit systems, and the highway network in the south San Joaquin Valley. As discussed in Section 1 of the EIR/EIS, California's population is growing rapidly and, unless new transportation solutions are identified, traffic will only become more congested and airport delays will continue to increase.

See Volume I Section 3.12 Impact SO #5- Temporary Construction Employment, for information on the number of construction jobs created as a result of the project as well as the ability of the existing regional labor force to fill the demand for the direct construction jobs as well as the resulting indirect and induced jobs. Volume Chapter I Chapter 3.18 presents the amount of construction- and operation-related employment created by the project. Over the entire construction period, project expenditures would result in 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.

The San Joaquin Valley has greater unemployment and a lower per capita income than

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the state as a whole. The Authority has adopted a Community Benefits Policy, which requires that design-build construction contracts will be required to adhere to the National Targeted Hiring Initiative, which states a minimum of 30% of all project work hours shall be performed by National Targeted Workers and a minimum of 10% of National Targeted Workers hours shall be performed by Disadvantaged Workers. This, along with other hiring policies, will make sure that employment and business opportunities created by the project are accessible to the local community. For more information on hiring policies, see the Authority's website.

Construction- and operation-related sales tax gains are examined in section 5.4.6 of the CIA. The impacted cities and counties will have considerable additional revenues attributed to the construction and operation of the HST.

I033-45

Refer to Standard Response FB-Response-SO-01, FB-Response-SO-04, FB-Response-SO-07.

The purpose of an EIR and EIS is to evaluate environmental impacts and socioeconomic effects and to mitigate those which are identified as potentially significant.

I033-46

Refer to Standard Response FB-Response-GENERAL-16.

The purpose of an EIR and EIS is to evaluate environmental impacts and socioeconomic effects and to mitigate those which are identified as potentially significant.

I033-47

Refer to Standard Response FB-Response-GENERAL-07.

The Authority conducted extensive public outreach before the circulation of the Draft EIR/EIS. This outreach included 12 public meetings aimed at soliciting community

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feedback and informing impacted communities of the project status. The Authority and FRA recognize the concerns of Kings County representatives and community members and wish to maintain an open dialogue about the project. The Authority welcomes the opportunity to meet with landowners and stakeholders. Also, project-level information has been shared at public meetings, made available at the Kings County project office, and provided through mailings, e-mail communication, outreach materials, and on the Internet.

I033-48

Refer to Standard Response FB-Response-GENERAL-07.

The intent of the environmental review process is to solicit feedback on the content and sufficiency of the environmental analysis, assessment of impacts, and the addressing of mitigation measures. The formality in which comments are addressed is guided by NEPA/CEQA. Every effort has been made to address concerns when presented along the planning process. The right-of-way acquisition process cannot begin until a preferred alternative is selected and an associated Notice of Determination/Record of Decision is issued. However, during the months and years leading up to that point, the Authority has made right-of-way information materials available in print and online to guide impacted stakeholders through the process in advance (available at the Authority's website). Also, the Authority has made right-of-way representatives available at public meetings to answer questions.

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The environmental justice analysis adheres to the definition as stated in Executive Order 12898 and U.S. Department of Transportation Order 5610.2, which defines an environmental justice effect as a "disproportionately high and adverse effect on minority and low-income populations." This is an adverse effect that is predominately borne by a minority population and/or a low-income population or that would be appreciably more severe or greater in magnitude for the minority and/or a low-income population than the adverse effect that would be suffered by the nonminority and/or non-low-income population along the project. Section 4.3 in the Community Impact Assessment Technical Report identifies the environmental justice populations along the project. The methodologies for identifying these populations are detailed in Appendix A of the

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Community Impact Assessment Technical Report. Section 5.3 in the Community Impact Assessment Technical Report provides detailed information on the potential for substantial environmental justice effects across resources along the project. Impacts SO #17 and SO #18 in the EIR/EIS, Volume 1, Section 3.12, summarize these findings.

I033-50

Refer to Standard Response FB-Response-SO-07.

I033-51

Refer to Standard Response FB-Response-SO-01, FB-Response-SO-07.

I033-52

Refer to Standard Response FB-Response-SO-07.

The purpose of an EIR and EIS is to evaluate environmental impacts and socioeconomic effects and to mitigate those which are identified as potentially significant.

I033-53

Refer to Standard Response FB-Response-GENERAL-21, FB-Response-GENERAL-13, FB-Response-GENERAL-12, FB-Response-GENERAL-17.

The Authority and FRA have followed the procedural and substantive requirements of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). No factual information has been provided in these comments to indicate that the procedures and requirements of NEPA and CEQA were not followed in the environmental review process for the Fresno to Bakersfield Section of the HST System.

An EIR project description is intended to be general, not detailed (CEQA Guidelines § 15124[c]). Final design or even advanced design of infrastructure is not required in the project description (*Dry Creek Citizens Coalition v. County of Tulare* [1999] 70 Cal.App.4th 20, 36). Abundant substantial evidence in the record demonstrates that the project description in the EIR/EIS is more than adequate. The term "15% design" is an

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engineering term of art that refers to the level of engineering prepared on HST project elements for the EIR/EIS. The 15% design generates detailed information like the horizontal and vertical location of track, cross sections of the infrastructure with measurements, precise station footprints with site configuration, and temporary construction staging sites and facilities. The 15% design also yields a "project footprint" overlaid on parcel maps, which shows the outside envelope of all disturbance, including both permanent infrastructure and temporary construction activity. This 15% design translated into a project description in the EIR/EIS with 100% of the information that is required under CEQA Guidelines Section 15124 (see *Dry Creek*, above, 70 Cal.App.4th at pp. 27-36 [upholding EIR conceptual project description as adequate when based on preliminary design]).

The public outreach process for the Fresno to Bakersfield Section of the HST System has been extensive; this process has included hundreds of public meetings and briefings where public comments have been received, participation in community events where participation has been solicited, and the development and distribution of educational materials to encourage feedback. These efforts are discussed in Chapter 7, Public and Agency Involvement, of the Final EIR/EIS. Public notification regarding the draft environmental documents took place in the following ways: A notification letter, informational brochure, and notice of availability (NOA) were provided in English and Spanish and sent to landowners and tenants within 300 feet of all proposed alignment alternatives. The letters notified landowners and tenants that their property could become necessary for construction (within the project construction footprint) of one or more of the proposed alignment alternatives or project components being evaluated. Anyone who has requested to be notified or is in our stakeholder database was sent notification materials in English and Spanish. An e-mail communication of the notification materials was distributed to the entire stakeholder database. Public notices were placed in English- and Spanish-language newspapers. Posters in English and Spanish were posted along the project right-of-way.

Project purpose, need, and objectives are discussed in Chapter 1.0, Project Purpose, Need, and Objectives, of the Final EIR/EIS and outline the objectives for the HST System as well as the Fresno to Bakersfield Section. Chapter 2 further describes the critical role of the Fresno to Bakersfield Section as the link connecting the Bay Area to

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Los Angeles and Southern California during Phase 1 of the implementation of the HST System.

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This approach also recognizes current budgetary and funding realities. Among other things, the phased approach will help ensure the system's success by introducing Californians to HSR service and building ridership over time. At the same time, improvements can be made to regional systems that connect with the HSR System, resulting in the conventional and high-speed systems complementing each other.

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- Seek earliest-feasible and best-value private-sector participation and financing with appropriate risk transfer and cost containment.

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possible in early 2014, and plans are being developed to move quickly to implement the improvements to close this critical gap and create the first statewide rail link between the Bay Area and the Los Angeles Basin.

Step 2—Initial High-Speed Rail Operations. Introduction of the state's (and the nation's) first fully operational high-speed rail service will begin. This service can be operated by a private entity without subsidy, will have the potential to attract private investment to expand the system from Bay to Basin, and can be completed within a decade. The service will be blended with regional/local systems. The IOS will be achieved through expansion of the first construction segment into an electrified operating high-speed rail line from Merced to Palmdale and the San Fernando Valley, accessing the populous Los Angeles Basin. Following on the work discussed above, the next priority in implementing the IOS will be closing the rail gap between Northern and Southern California by crossing the Tehachapi Mountains with new, dedicated high-speed rail infrastructure. Before completion of the IOS to the San Fernando Valley, this link will tie the north to the south at Palmdale, where Metrolink commuter rail service can then provide service and connections throughout Southern California.

Currently, the IOS is defined as extending from Merced to the San Fernando Valley, and high-speed revenue service would only start once the full IOS is built and operable. Should ridership and revenue forecasts and financial projections demonstrate that revenue service compliant with Proposition 1A could begin earlier, with a shorter IOS, appropriate reviews would occur to consider and implement earlier service, if appropriate.

Step 3—The Bay to Basin System. The dedicated high-speed rail infrastructure of the IOS will be expanded north and west to San Jose, providing HSR service between the state's major population centers in the north and south and providing the platform for the transition to statewide blended operations. At this stage, passengers will be able to take a one-seat ride between greater Los Angeles (San Fernando Station) and the San Francisco Transbay Transit Center using blended infrastructure in the north between San Francisco and San Jose (assuming electrification of the Caltrain corridor by 2020, as proposed by Caltrain), using dedicated high-speed rail infrastructure between San Jose and the San Fernando Station, and, in the south, connecting via Metrolink between the San Fernando Valley Station and Los Angeles' Union Station and on to other points throughout Southern California.

Step 4—The Phase 1 System. For the blended approach, the dedicated high-speed rail

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I033-53

infrastructure of the Bay to Basin system will be extended from the San Fernando Valley to Los Angeles Union Station, linking to a significantly upgraded passenger rail corridor developed to maximize service between Los Angeles and Anaheim while also addressing community concerns about new infrastructure impacts in a congested urban corridor that includes a number of established communities that abut the existing right-of-way. Under a Full Build scenario, dedicated high-speed rail infrastructure would be extended from San Jose to San Francisco's Transbay Transit Center and from Los Angeles to Anaheim.

Step 5—The Phase 2 System. Phase 2 will extend the high-speed rail system to Sacramento and San Diego, representing completion of the 800-mile statewide system. Travelers will be able to travel between all of the state's major population centers on high-speed rail. Phase 2 areas will see improvements in rail service well in advance of the expansion of the high-speed rail system through the combination of early investments and blended operations, as described in the 2012 Revised Business Plan.

I033-54

The emissions payback schedule for criteria pollutants will be net zero during the construction period with implementation of the VERA under AQ MM#4. As the emissions and emission reductions should occur in the same year, there is no net increase and emissions are paid back in the year they occur. During operation, the criteria pollutants are anticipated to have a net decrease in emissions. For any interim years between construction and operation, there would be no emissions associated with the project and therefore no emissions need to be paid back. For GHG emissions, the benefit will be realized in at a minimum within one year of operation. Since the VERA program for criteria emissions will also result in some GHG emission reductions, some of the construction emissions will be paid back in the same year that emissions are generated.

I033-55

The Council on Environmental Quality NEPA Guidelines allow for Federal agencies to develop their own NEPA implementing guidelines. This document follows the FRA guidelines. The requirements specify that project effects be evaluated based on the criteria of context and intensity. Criteria were used to qualify impacts as having

I033-55

negligible, moderate, or substantial intensity under NEPA. Refer to Section 3.1.3 of the EIR/EIS, Methods for Evaluating Impacts under NEPA.

In the NEPA Impacts Summary section of each impact analysis in Chapter 3, a summary of the environmental consequences is presented specific to NEPA requirements,. These sections state whether the impact is beneficial or adverse, and if adverse, whether it is an impact with negligible, moderate, or substantial intensity. These sections also provide a summary of the relative context of the impact. Based on the intensity and context, these sections provide a conclusion about whether the impacts considered are significant or not under NEPA.

I033-56

The Council on Environmental Quality NEPA Guidelines allow for Federal agencies to develop their own NEPA implementing guidelines. This document follows the FRA guidelines. The requirements specify that project effects be evaluated based on the criteria of context and intensity. Criteria were used to qualify impacts as having negligible, moderate, or substantial intensity under NEPA. Refer to Section 3.1.3 of the EIR/EIS, Methods for Evaluating Impacts under NEPA.

In the NEPA Impacts Summary section of each impact analysis in Chapter 3, a summary of the environmental consequences is presented specific to NEPA requirements. These sections state whether the impact is beneficial or adverse, and if adverse, whether it is an impact with negligible, moderate, or substantial intensity. These sections also provide a summary of the relative context of the impact. Based on the intensity and context, these sections provide a conclusion about whether the impacts considered are significant or not under NEPA.

I033-57

Refer to Standard Response FB-Response-BIO-02.

The Authority and FRA are working with the EPA and the U.S. Army Corps of Engineers (USACE) to provide a separate document that integrates NEPA and the 404 permitting process (Checkpoint C). The least environmental damaging practicable alternative (LEPDA) is determined by USACE and not by the FRA. The LEDPA is determined by

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I033-57

USACE prior to its issuing a Section 404 permit; and its own record of decision (ROD). A likely LEDPA alignment has been provided in Checkpoint C and evaluated in this Revised DEIR/Supplemental DEIS in order to integrate FRA's decision-making process with USACE's decision-making process to avoid the FRA approving a project that cannot be the LEDPA from USACE's regulatory purview. The Revised DEIR/Supplemental DEIS discusses potential impacts of the HST project on water quality. Project design features and best management practices are used to reduce or eliminate adverse effects to water quality. Mitigation measures are provided for significant adverse impacts. Standard Response FB-Response-BIO-02 provides an explanation of the integration of the Section 404 compensatory mitigation plan and this environmental document's mitigation for reducing adverse effects.

I033-58

Comments were received and are responded to in writing as part of the Final EIR/EIS.

The Authority and FRA have been working with the U.S. Army Corps of Engineers (USACE) to identify the Least Environmentally Damaging Practicable Alternative (LEDPA); USACE has been a cooperating agency through the NEPA process on this project.

I033-59

The text of the Revised DEIR/Supplemental DEIS includes reference to substrate conditions found in the Wetland Study Area in Section 3.7, Biological Resources and Wetlands. The text states, “the physical and biological characteristics of the substrate within various features are largely dictated by whether the feature is manipulated or natural. Manipulated features include all jurisdictional water features except vernal pools and swales. These manipulated features contain substrates that have been altered through excavation, filling, dredging, and accretion of sediments; these substrates typically range from sandy and coarse-loamy, to fine-silty, fine-loamy, and fines (depending on location in the study area). Natural features, such as vernal pools and swales, have substrates composed of natural alkaline soils, which are harsh environments for microbes and plants, and contain low levels of organic matter. The Wetland Study Area is notably devoid of gravel or rock substrate.”

I033-59

Further discussion of substrate impacts are provided in the Checkpoint C Summary Report (Chapter 8) available on the Authority’s website.

I033-60

The impact evaluation in the Revised DEIR/Supplemental DEIS is sufficient for most lay people to comprehend. Further discussion of substrate impacts are provided in the Checkpoint C Summary Report (Chapter 8) available on the Authority’s website.

Text in the Draft EIR/EIS was revised in response to comments received from the USACE, and the Revised DEIR/Supplemental DEIS includes statements regarding the source of the fill material and provides for temporary fill free from toxic pollutants in toxic amounts, in accordance with Section 307 of the Clean Water Act (Section 3.7.5, Impact Bio #3). Furthermore, Section 3.7.7, Mitigation Measure Bio-48, provides for restoration of waters of the U.S. subject to temporary fill.

I033-61

Text in Draft EIR/EIS was revised in response to comments received from the USACE, and the Revised DEIR/Supplemental DEIS includes statements regarding the potential for contamination in fill material and the quality of the fill material to be used. The text in the Revised DEIR/Supplemental DIES states, “This fill would result in a temporary loss of jurisdictional waters; potential impacts on the physical, chemical, and biological characteristics of aquatic substrates and food webs; and a potential increase in erosion and sediment transport into adjacent aquatic areas. The origin of these fill materials has yet to be determined; however, the temporary fill would be supplied by local sources and from existing permitted quarries, to the extent practicable. Fill material would be suitable for construction purposes and free from toxic pollutants in toxic amounts, in accordance with Section 307 of the Clean Water Act.”

I033-62

Section 3.8, Hydrology and Water Quality, of the Revised DEIR/Supplemental DEIS includes statements regarding potential effects of suspended material and turbidity during construction. Furthermore, Section 3.7, Biological Resources and Wetlands, discusses potential impacts of turbidity during construction as they relate to vernal pool

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I033-62

branchiopods (Direct Impacts during Construction Period [Impact Bio #2]). Further discussion of substrate impacts are provided in the Checkpoint C Summary Report (Chapter 8) available on the Authority's website.

The text in Section 3.8 of the Revised DEIR/Supplemental DEIS, "Construction activities associated with the proposed project would involve handling, storing, hauling, excavating, and placing fill; possible pile driving; stations, parking lots, maintenance facility, aerial structure, bridge construction, and concrete track bed construction. Likely pollutants that may be contributed by the project during construction include floating material, oil and greases, sediment, settable material, suspended material, chemical constituents (e.g., fuels, solvents), and turbidity. Construction of at-grade and below-grade sections of the railroad would require excavating or leveling the ground surface, which would potentially result in the need to pump and discharge groundwater, or would expose a groundwater resource to pollutants."

I033-63

The impact evaluation in the Revised DEIR/Supplemental DEIS is sufficient for most lay members of the public to comprehend. Text in the Draft EIR/EIS was revised in response to comments received from the USACE (similar to those posed by this commenter), and the Revised DEIR/Supplemental DEIS includes statements regarding impacts on food webs and other non-special-status fauna in a number of locations.

Specifically, the Revised DEIR/Supplemental DEIS states under Direct Impacts to Special-Status Wildlife Species (Impacts Bio #2 and #6), "Direct impacts for native fauna (e.g., fish, mollusks, crustaceans, amphibians, birds, mammals, reptiles, and insects) are similar to those impacts described above for special-status wildlife species."

Under Direct Impacts during Construction Period (Impact Bio #3) and Direct Project Impacts (Impact Bio #6), the text states, "This fill would result in a temporary loss of jurisdictional waters; potential impacts on the physical, chemical, and biological characteristics of aquatic substrates and food webs; and a potential increase in erosion and sediment transport into adjacent aquatic areas." Under Direct Project Impacts (Impact Bio #7), the text states, "the contouring and placement of fill in jurisdictional

I033-63

waters would result in the permanent loss of jurisdictional waters; irreversible impacts on the physical, chemical, and biological characteristics of aquatic substrates and food webs; and a potential increase in erosion and sediment transport into adjacent aquatic areas."

Further discussion of impacts on fish, crustaceans, mollusks, and other aquatic organisms in the food web are provided in the Checkpoint C Summary Report (Chapter 8) available on the Authority's website.

I033-64

The Authority would work with local jurisdictions and other interested parties to phase the parking supply to support HST ridership demand and the demand of other uses in the vicinity of the station. The stations have not yet been designed (the illustrations in the EIR/EIS are conceptual) and will not be designed for several years. Similarly, actual ridership levels are not known at this time. As discussed in Section 2.2.3 of the Revised DEIR/Supplemental DEIS:
"Parking demand expectations are based on HST system ridership forecasts where parking availability is assumed to be unconstrained – meaning 100% of parking demand is assumed to be met. These projections provide a "high" starting point to inform discussions with cities where stations are proposed. While this EIR/EIS identifies locations for parking facilities needed to satisfy the maximum forecast demand, parking is anticipated to be developed over time in phases, while also prioritizing access to the HST system through other modes such as transit, which could lead to less parking being necessary."
The Authority does not have sufficient information to provide precise information regarding the timing, design, and funding of station parking; therefore, the phasing plan for parking structures has not yet been developed. The implementation of parking will be initiated in conjunction with the construction of the stations and the initiation of rail service, and will be phased in accord with ridership levels and demand.

I033-65

Refer to Standard Response FB-Response-GENERAL-02.

The screening criteria used in the alternatives analysis process are discussed in Section

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I033-65

2.3.1, HST Project-Level Alternatives Development Process, of the Final EIR/EIS. The elimination of the State Route (SR) 99/Union Pacific Railroad (UPRR) corridor alignments from consideration is further discussed in Section 2.3.2.2, Rural Subsection.

The Authority conducted an analysis of alternative alignments that follow SR 99/UPRR and the Interstate 5 (I-5) corridor and determined that these alternatives were not practicable. Therefore, they were not carried forward in the EIR/EIS. Kings County has not provided any new information that would change these conclusions. Neither the California Environmental Quality Act (CEQA) nor the National Environmental Policy Act (NEPA) requires an environmental document to analyze alternatives that are not practicable to implement.

I033-66

Refer to Standard Response FB-Response-GENERAL-02.

The screening criteria used in the alternatives analysis process are discussed in Section 2.3.1, HST Project-Level Alternatives Development Process, of the Final EIR/EIS. The elimination of the State Route (SR) 99/Union Pacific Railroad (UPRR) corridor alignments from consideration is further discussed in Section 2.3.2.2, Rural Subsection.

The Authority conducted an analysis of alternative alignments that follow SR 99/UPRR and the Interstate 5 (I-5) corridor and determined that these alternatives were not practicable. Therefore, they were not carried forward in the EIR/EIS. Kings County has not provided any new information that would change these conclusions. Neither the California Environmental Quality Act (CEQA) nor the National Environmental Policy Act (NEPA) requires an environmental document to analyze alternatives that are not practicable to implement.

I033-67

Most of the impacts on waterways are associated with crossings where construction will be staged in adjacent upland areas and result in placement of a bridge or viaduct structures over the waterway. Most of the impacts associated with placement of new

I033-67

structures over waters of the U.S. are considered permanent impacts and reported under Project Period Impacts. These areas are considered permanent due to the shading and loss of functions and values, although some functions and services would be maintained (water transport, water temperature regulation).

Adjacent temporary construction areas (on either side of the bridge or viaduct) are needed for construction purposes. Construction duration over these areas is anticipated to be short and not significantly different than a typical Caltrans bridge construction project in the Central Valley. Construction duration would range from approximately one year for simpler bridge designs to up to three years for lengthier, elevated viaduct structures. Construction duration could extend beyond these estimates on a case-by-case basis due to natural flows or water delivery schedules, or where waterway crossing construction is part of larger roadway grade separation design.

Temporary impacts on jurisdictional waters are subject to agency approval, which will require avoidance, minimization, and mitigation. As part of the Revised DEIR/Supplemental DEIS, Section 3.7, Biological Resources and Wetlands, temporary impacts on waterways are mitigated through implementation of Mitigation Measure Bio-48, Restore Temporary Impacts on Jurisdictional Waters, which includes revegetation and restoration to original topography. After these activities the Authority will conduct maintenance monitoring consistent with the provisions in the Comprehensive Mitigation and Monitoring Plan (Mitigation Measure BIO-62).

I033-68

In response to comments from the USACE, the text of the Final EIR/EIS discussions of indirect impacts have been revised in Section 3.7, Biological Resources and Wetlands. Indirect impacts are quantified as part of the project period and are provided in Appendix 3.7-B, Attachment 4. This table provides accurate comparisons of the quantity of direct and indirect impacts on wetlands and other waters of the U.S., by alternative.

The Revised DEIR/Supplemental DEIS describes construction (temporary) and project (permanent) direct, indirect-bisect, and indirect impacts through the use of “delta tables” because many alternative options relate to the Fresno to Bakersfield Section north-south alternatives. In consultation with the USACE and EPA, the Authority finalized the

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methodology used to calculate the GIS acreages for impacts on aquatic resource types and submitted it as part of the Checkpoint C package.

As suggested by the USACE, discussions of indirect impacts on jurisdictional waters have been removed from the construction period in the Final EIR/EIS. Section 3.7.3.4, Method for Evaluating Impacts, now states that "[t]hese indirect impacts and their combined acreages are discussed collectively under Project Impacts."

Furthermore, the construction period impacts on jurisdictional waters (Indirect [Bio #3] Impacts during Construction Period) have been revised to state "[p]roject indirect impacts on jurisdictional waters are more extensive than and tend to encompass the construction period impacts. Therefore, the construction period indirect impacts are included in the discussion of project impacts in Section 3.7.5.3, High-Speed Train Alternatives, Project Impacts, Habitats of Concern."

I033-69

Refer to Standard Response FB-Response-GENERAL-21.

Section 3.8.6, Project Design Features, describes project design features for stormwater management and treatment and best management practices (BMPs) that will be included in the construction stormwater pollution prevention plan. These design features and BMPs are also described in the Fresno to Bakersfield Section: Stormwater Quality Management Report. These features are not mitigation, but elements of the project design.

I033-70

The U.S. EPA is a cooperating agency under NEPA, and the Authority and FRA have been working closely with the agency to address their concerns.

I033-71

The Authority and FRA have been working with the U.S. Army Corps of Engineers (USACE) and U.S Environmental Protection Agency (USEPA) to identify the Least Environmentally Damaging Practicable Alternative (LEDPA). The USACE has also agreed to serve as a Cooperating Agency through the NEPA process for the proposed project.

As part of the NEPA/404/408 Integration Memorandum of Understanding (MOU) between the FRA, Authority, USACE and USEPA, the Authority and FRA prepared and submitted a Summary Report (LEDPA Alternatives Analysis), a Compensatory Mitigation Plan, and Section 408 Detailed Design Packages as required under Checkpoint C. (As background, the MOU established three checkpoints on which the signatory agencies work through the NEPA/404/408 processes. The checkpoints includes: Checkpoint A which establishes the project purpose and need, Checkpoint B which identifies the range of alternatives to be studied in the EIR/EIS, and Checkpoint C which identifies the preliminary LEDPA).

Checkpoint C requires a substantial amount of information to evaluate the project's impacts. Specifically, the Checkpoint C Summary Report looks closely at both the quantity and quality of aquatic resources and the project's associated impacts, and describes the direct, indirect, and cumulative impacts on aquatic resources. This information is presented in detail in the Watershed Evaluation Report, which relies on existing desktop information as well as a condition assessment conducted in the field.

The condition assessment used the California Rapid Assessment Methodology (CRAM) resulting in a numeric score for those aquatic resources where permission to enter was granted by a property owner. Based on the results of this work, wetland scientists extrapolated the CRAM results to all aquatic resources in the study area and assigned a relative condition (e.g., excellent, good, fair, poor). The information provided in the RDEIR/SDEIS is based on the CRAM and relative condition class extrapolation.

The Authority has prepared a number of reports related to Checkpoint C that substantiate the conditions described in the RDEIR/SDEIS and discuss at length the condition of aquatic resources in the study area. These documents are publicly available as part of the administrative record on the Authority's website and titled Summary Report, Watershed Evaluation Report, and the Evaluation of Wetland Condition Using the California Rapid Assessment Method (CRAM).

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I033-71

The Revised DEIR/Supplemental DEIS, together with the Watershed Evaluation Report and the Evaluation of Wetland Condition Using the California Rapid Assessment Method (CRAM), provide information regarding the impacts associated with the Preferred Alternative and allow for a comparative evaluation of the direct, indirect, and cumulative impacts associated with the other (non-preferred) HST alternatives. Other information provided in the Summary Report regarding impacts to other environmental or community impacts were gathered from the technical information provided in the Revised DEIR/Supplemental DEIS or from other technical report that are available on the Authority's website. From the review of this technical information, the USEPA and USACE then make their Checkpoint C Preliminary LEDPA determination.

Based on earlier concurrence by the USACE and USEPA for Checkpoint B (identification of the range of alternatives), the Authority and FRA was not required to study the I-5 or SR 99 alternatives as part of the REIR/SEIS. These alternatives were eliminated earlier as part of the Statewide Program EIR/EIS completed by the Authority and FRA in 2005. The Statewide Program EIR/EIS is available for review on the Authority website.

I033-72

Refer to Standard Response FB-Response-GENERAL-02.

As stated in Section 2.1.2, the Authority and FRA decided to reintroduce an alignment alternative west of Hanford to address substantive comments received during public and agency review, including requests from the USACE and U.S. EPA to include a Hanford West Bypass Alternative in the environmental analysis of the Draft EIR/EIS in an attempt to reduce or avoid significant environmental effects. The Authority conducted a supplemental alternatives analysis to further evaluate potential alignment alternatives west of Hanford, and on the basis of this analysis, identified two Hanford West Bypass alternatives to carry through the environmental analysis in this EIR/EIS (Authority and FRA 2011). Both of these alternatives include a potential station site.

The USACE and U.S. EPA made no such request regarding the SR 99/UPRR or I-5 alternatives. The Authority's and the FRA's Statewide Program EIR/EIS (see Section 1.5, Tiering of Program EIR/EIS Documents) selected the BNSF Railway route as the

I033-72

preferred alternative for the Central Valley HST between Fresno and Bakersfield. Therefore, the Revised DEIR/Supplemental DEIS focuses on alternative alignments along the general BNSF Railway corridor.

The procedural requirements for NEPA and CEQA were followed during the environmental review of the Fresno to Bakersfield HST Section. As discussed in Section 2.3.1 of the EIR/EIS, the Authority implemented an alternatives analysis process to identify the full range of reasonable alternatives for the project, as required under 14 CCR 15126.6 and 40 CFR 1502.15(a). This range of alternatives was analyzed in the EIR/EIS.

I033-73

Indirect impacts on jurisdictional waters are described both quantitatively and qualitatively in Section 3.7 of the Revised DEIR/Supplemental DEIS. More specifically, the discussion of of both direct and indirect impacts for the study alternatives begins on page 3.7-43 of the environmental document.

I033-74

The terms Construction Period Impacts or Project Impacts are used to categorize impacts for discussion in the document and are not meant to imply that all impacts associated with construction would be temporary and all impacts associated with the project would be permanent. Instead, the nature of the impacts (temporary versus permanent) dictates under which of these two categories the impact is discussed. As stated in Section 3.1.3, Approach to the Analysis, of the Revised DEIR/Supplemental DEIS, "[s]ome permanent impacts initially occur during construction, but because they are permanent, they are associated with the project impacts (for example, conversion of agricultural lands to transportation uses)." Therefore, permanent loss of vegetation and biological resources is addressed in Section 3.7, Biological Resources and Wetlands, under Project Impacts.

I033-75

The project would incorporate avoidance and minimization measure to maintain pre-project drainage conditions to the extent practicable (e.g., emphasizing onsite retention

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I033-75

of stormwater runoff using measures such as flow dispersion, infiltration, and evaporation, supplemented by detention, where required) and would comply with standards described in Section 3.8.6, Project Design Features.

Post-Construction Stormwater Quality Standards for the HST have been developed in collaboration with the SWRCB which are expected to be incorporated into a CWA Section 402 NPDES permit for the HST. These standards require that best management practices (BMPs) be implemented that infiltrate, harvest and re-use, and/or evapotranspire stormwater runoff. Alternatively, stormwater runoff can be captured and treated by low impact design (LID-) based flow-through treatment devices, such as biofiltration swales and strips, or conventional volume-based or flow-based stormwater treatment devices, such as basins. In areas near stream crossings, hydromodification controls would be used to ensure that post-project time of runoff concentration is equal to or greater than pre-project time of concentration. These stormwater quality standards would be implemented to provide post-construction drainage controls.

In areas with local municipal separate storm sewer systems (MS4), the Authority has the flexibility to instead comply with local MS4 requirements in lieu of the above mentioned controls. The Authority will be negotiating with owners of MS4s (primarily city and counties) that could accept stormwater runoff regarding the use of these urban storm water systems.

In the event that stormwater runoff would not be accepted by owners of the MS4s, stormwater detention basins or other low impact or conventional treatment devices would be constructed within the HST rights-of-way to provide stormwater treatment as described above. Therefore there would not be a direct connection between stormwater runoff and creeks or streams.
Based on the above effects to storm drain facilities would be less than significant.

I033-76

Potential water quality effects are discussed under Impact HWQ#2, Impact HWQ#6, and Impact HWQ#7 in Section 3.8, Hydrology and Water Resources of the Revised DEIR/Supplemental DEIS. The Authority will be implementing Best Management Practices (BMPs) at construction sites to minimize any contaminated runoff from leaving

I033-76

the site and reaching streams. Section 3.8.6 describes project design features for stormwater management and treatment. Swales, infiltration/detention basins, and other control features are included in the project design to control the quality of runoff. The Revised DEIR/Supplemental DEIS concludes that water quality impacts from the HST and HMF are less than significant (not that the HST would have no impact on water quality).

I033-77

As part of the NEPA/404/408 Integration Memorandum of Understanding (MOU) between the FRA, Authority, U.S. Army Corps of Engineers, and U.S. Environmental Protection Agency (FRA et al. 2010), the Authority conducted, as required under Checkpoint C (Authority and FRA 2013b), a rapid condition assessment of aquatic resources in the study area that identified the preliminary Least Environmentally Damaging Practicable Alternative (LEDPA) (Title 40 Code of Federal Regulations [CFR] 230.10[a]). Checkpoint C provides the lead agencies with a substantial amount of information, as required to evaluate the project impacts. Specifically, Checkpoint C looks closely at both the quantity and quality of aquatic resources and the project's associated impacts.

The condition assessment used the California Rapid Assessment Methodology (CRAM), which yields a numeric score, and was conducted on aquatic resources where permission to enter was granted. Using the results of the CRAM assessment, wetland scientists extrapolated the CRAM results to all aquatic resources in the study area and assigned a relative condition (e.g., excellent, good, fair, poor). This information is presented in detail in the Watershed Evaluation Report (WER), which relies on existing desktop information and a condition assessment conducted in the field. The information provided in the Revised DEIR/Supplemental DEIS is based on the CRAM and relative condition class extrapolation presented in the WER.

The Authority has prepared a number of reports related to Checkpoint C that substantiate the conditions described in the Revised DEIR/Supplemental DEIS and discuss at length the condition and impacts on aquatic resources in the study area. These documents are publicly available as part of the administrative record on the Authority's website; they are titled Summary Report: Watershed Evaluation Report and

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I033-77

Evaluation of Wetland Condition Using the California Rapid Assessment Method (CRAM). Together these reports provide reasoned, specific, and detailed arguments that the project will neither contribute to nor cause any significant degradation of aquatic resources using a watershed approach.

As described in Section 2.8.1, General Approach, of the EIR/EIS: "Consistent with the MOU for Achieving an Environmentally Sustainable High-Speed Train System in California (FRA et al. 2011), the Authority intends to build the project using sustainable methods that:

- Minimize the use of nonrenewable resources.
- Minimize the impacts on the natural environment.
- Protect environmental diversity.
- Emphasize using renewable resources in a sustainable manner.

Although efforts have been made to minimize the impacts on the natural environment, impacts to aquatic resources are unavoidable. The commenter's reference to 40 CFR 230.10(c) relates to the disposal of dredged or fill material into the aquatic environment. The present design does not require dredging or fill in the aquatic environment beyond the possible installation of bridge piers. However, fill material would be placed into the aquatic environment. Fill material would be excavated from local borrow sites and travel by truck from 10 to 30 miles to the site of the Preferred Alternative. Railroad ballast would be drawn from existing, permitted quarries from the Bay Area to Southern California. Ballast would be delivered by a combination of rail and trucks. All materials would be suitable for construction purposes and free from toxic pollutants in toxic amounts in accordance with Section 307 of the Clean Water Act.

I033-78

Refer to Standard Response FB-Response-AQ-04, FB-Response-AQ-01.

I033-79

Refer to Standard Response FB-Response-GENERAL-04, FB-Response-SO-01, FB-Response-AG-06.

During the property acquisition process, losses in the value of the remaining property will be taken into account and compensation will be provided for the loss in productivity. However, that process cannot begin until the EIR/EIS is approved, the Authority approves the Preferred Alternative, and the FRA issues its Record of Decision. In other words, the site-specific cost information requested by the commenter cannot be obtained until after the EIR/EIS is completed. It is not reasonable for the commenter to expect the EIR/EIS to disclose site-specific information that cannot be obtained without violating both CEQA and NEPA.

I033-80

Refer to Standard Response FB-Response-AG-06.

A detailed dairy-by-dairy analysis was conducted showing the impacts to each dairy that may be impacted by the HST. These findings were reported in Appendix 3.14-B of the Revised DEIR/Supplemental DEIS. More specific information cannot be obtained until the right of way process begins; after completion of the CEQA and NEPA process.

I033-81

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-06.

The Authority, as a design feature of the HST project, is proposing to assist businesses that are losing their wastewater land to help them obtain new land permitted to account for land lost to the HST alignment. The Authority will also assist landowners to adjust all permits that are affected by the HST. If productivity is lost due to the lack of a permit that is affected by the HST, the Authority will compensate the farmer for the lost productivity.

I033-82

The Authority evaluated high-speed trains from around the world to confirm that available train technologies could satisfy the project's performance requirements, including the Alstom AGV, Bombardier S-102, Siemens ICE-3 Velaro, and Hitachi N700.

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I033-82

The evaluation is documented in the Selected Train Technologies Technical Memorandum (2008) and the Trainset Configuration Analysis and Recommendation Technical Memorandum (2009) which are available on the Authority's website. High-speed trains in China have operated in revenue service at speeds of 220 mph and other high-speed train systems are planned to operate at 220 mph and faster as systems technology advances. Based on proven technology used elsewhere in the world, high-speed rail in California will be able to operate revenue service at speeds of 220 mph.

I033-83

The Authority evaluated high-speed trains from around the world to confirm that available train technologies could satisfy the project's performance requirements, including the Alstom AGV, Bombardier S-102, Siemens ICE-3 Velaro, and Hitachi N700. The evaluation is documented in the Selected Train Technologies Technical Memorandum (2008) and the Trainset Configuration Analysis and Recommendation Technical Memorandum (2009) which are available on the Authority's website. High-speed trains in China have operated in revenue service at speeds of 220 mph and other high-speed train systems are planned to operate at 220 mph and faster as systems technology advances. Based on proven technology used elsewhere in the world, high-speed rail in California will be able to operate revenue service at speeds of 220 mph.

To meet the objective of traveling from San Francisco to Los Angeles in 2 hours and 40 minutes, the optimum express travel time from Fresno to Bakersfield is 37 minutes. Travel times for all Fresno to Bakersfield alternatives were modeled taking into account speed changes on curves and grades, and all alternatives can achieve this optimum time.

I033-84

The Authority evaluated high-speed trains from around the world to confirm that available train technologies could satisfy the project's performance requirements, including the Alstom AGV, Bombardier S-102, Siemens ICE-3 Velaro, and Hitachi N700. The evaluation is documented in the Selected Train Technologies Technical Memorandum (2008) and the Trainset Configuration Analysis and Recommendation Technical Memorandum (2009) which are available on the Authority website. High-speed trains in China have operated in revenue service at speeds of 220 mph and other high-speed train systems are planned to operate at 220 mph and faster as systems technology advances. Based on proven technology used elsewhere in the world, high-speed rail in California will be able to operate revenue service at speeds of 220 mph.

To meet the objective of traveling from San Francisco to Los Angeles in 2 hours and 40 minutes, the optimum express travel time from Fresno to Bakersfield is 37 minutes. Travel times for all Fresno to Bakersfield alternatives were modeled taking into account speed changes on curves and grades, and all alternatives can achieve this optimum time.

I033-85

Applying loads to the soils through features such as structural foundations or earth embankments can cause a short-term increase in pore pressure. Increases in pore pressures can also occur as a result of seismic activity in the form of liquefaction. Dissipation of these pore pressures with time will cause consolidation of the soils and ground surface settlement. The extent of this settlement can be predicted using soil mechanics theory and can be mitigated, where necessary, through measures such as ground replacement, ground treatment, or stronger foundations. The allowable settlement criteria for the high-speed train (HST) are laid out in California High Speed Train Project Design Criteria Report, Chapter 10.6, and the settlement limits for HST structures are provided in TM 2.9.10, Geotechnical Design Guidelines. The final design will be completed by the design-build contractor to meet these criteria, and additional ground investigation will be carried out by the design-build contractor to more accurately locate these soil types. Soil collapse and liquefaction-induced settlements also are discussed in the Revised DEIR/Supplemental DEIS, Sections 3.9.3.2, 3.9.4.6, and 3.9.5.3.

I033-86

The generation of a wave caused by the passage of a train at high speed is a known effect for railway designers worldwide, and the Dutch and Norwegians have done additional research for railway design over soft soil sites. The commenter is quite correct that the induced vibrations can achieve a resonance when the fundamental frequency of the embankment or the track-bed stiffness lead to development of visible waves of deformation in the nearby soil. In areas of soft soil, where the Rayleigh wave velocities

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-86

could be close to that of the train, subgrade improvement consisting of either cement treatment or excavation and replacement could be required to avoid these effects. Final design would be completed by the design/build contractor.

I033-87

Refer to Standard Response FB-Response-S&S-05.

The purpose of the EIR/EIS is to describe the impacts of the project on the environment. Liability is not an environmental issue and is not appropriate for discussion in the EIR/EIS.

I033-88

Refer to Master Response < Select a standard reply >.

Damage to the fencing along the HST alignment would be immediately detected by an electronic monitoring system. However, this would not immediately shut down trains. The monitoring system would notify the operational center of the problem, and maintenance crews would be dispatched. Whether the train is slowed or stopped would depend on the location of the damage to the fencing, the location of trains, and the expected time of arrival of maintenance crews.

Damage to HST fencing by farm operators would be the responsibility of those operators. It does not appear unreasonable to expect experienced farmers to be able to turn farm equipment that is regularly and commonly used in their operations within the limits of their property. Therefore, a significant physical setback from the HST fence does not appear to be necessary.

Any diminution in value to a property owner's remaining parcel(s) will be estimated by the appraiser through the appraisal process. This involves appraising the remainder as it contributes to the whole property value before acquisition, then appraising the remainder in the after condition as a separate parcel as though the project was constructed (i.e., as bisected by the HST), and including any estimated "cost to cure" damages to the remainder, e.g., the cost of re-establishing irrigation systems, replacing wells, providing larger setbacks for equipment operation, etc. The difference between these "before" and

I033-88

"after" values is termed as severance damages and will reflect any loss in value of the remainder due to the construction in the manner proposed.

I033-89

The Authority formed an agricultural working group to assist the Authority on agricultural issues. The working group is composed of university, government agencies, and agri-business representatives. The group completed a white paper on pesticide use impacts in 2012 (this paper is on the Authority's website). That white paper reports the following.

"At the present time there are numerous railways that traverse the San Joaquin Valley. Additionally, the Valley has established interstate and state freeways, highways, and local roadways which include their respective right-of-ways and are all considered "transportation corridors." Transportation corridors are recognized as a part of the overall environment of the Valley. Regulations already exist relating to pesticide use in or near transportation corridors.

"A new railway represents either a new impediment (where none previously existed) to customary agricultural practices or is an augmentation to an already existing transportation corridor footprint. Parcels where the new railway is proposed to be constructed, adjacent and parallel to an established transportation corridor, creates a wider footprint to an existing corridor that is already subject to the protections prescribed in current pesticide use regulations. Growers adjacent to a widened transportation corridor will be managing their pesticide applications with the same use restrictions that were previously implemented due to their proximity to an existing corridor.

"Growers in the path of the railway where the route leaves an established transportation corridor and creates a new corridor across their farmland will be subject to the implementation of existing regulatory restrictions depending on conditions and circumstances of the type of pesticide being used. All that would be new to the grower would be the enforcement of existing regulations for conditions that did not exist prior to the construction of the route through their property."

The HST in operation is unlikely to result in pesticide drift that would result in liability for crop dusters. The HST trainsets are streamlined, unlike a typical freight train, and create

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-89

much less wind in passing. The Agricultural Working Group's July 2012 White Paper "Induced Wind Impacts" found that data indicates that the wind speed 30 feet from the train would be approximately 2.4 miles per hour. The distance of 30 feet falls well within the HST Right of Way. The White Paper concludes the following with regard to pesticide drift.

"As noted within the Agricultural Working Group White Paper on pesticide use, existing laws prohibit drift from pesticide applications. Current pesticide application practices include both ground and aerial applications. These methods are used successfully for application of pesticides in areas with transportation routes presently (roads, highways and railroads). Also noted within the AWG White Paper on pesticide use is that the HST Right of Way would be treated the same as other transportation routes. Thus concern regarding potential pesticide drift relates to the ability for the HST induced wind to draw [move] pesticides from an adjacent field into the Right of Way or into another adjoining field.

"There is the general practice that the application of pesticides is not performed in winds that exceed 5-10mph. The actual limiting of application is determined by factors such as pesticide label instructions, the experience of the applicator, the perceived risk of drift involved and specific application conditions and regulations. The situation of the HST moving pesticides from an adjacent field into the HST Right of Way or into an adjoining field is not reasonably foreseeable as a result of the wind speeds noted above."

I033-90

Refer to Standard Response FB-Response-S&S-01.

Authority policy is to provide roadway overpasses approximately every 2 miles, resulting in no more than 1 mile of out-of-direction travel for vehicles to cross the HST tracks. In most locations in the Fresno to Bakersfield Section, roadway overpasses would be provided more frequently, approximately every mile or less, because of the existing roadway infrastructure. Consequently, out-of-direction travel would be limited to approximately 1 mile in nearly all locations in the project area. The Revised DEIR/Supplemental DEIS, Section 3.11.6, explains that the project design would include coordination with emergency responders to incorporate roadway modifications that

I033-90

maintain existing traffic patterns and fulfill response route needs, resulting in negligible effects on response times by service providers. Although difficult to predict, it seems reasonable that local insurance rates would not increase. Section 3.11.5, Safety and Security Environmental Consequences, of the Revised DEIR/Supplemental DEIS, provides additional detail regarding emergency response time during HST operations.

Information about the South Hanford Fire Station can be found in Volume I, Section 3.12.6.4, Affected Environment. Impact SO #1 describes the potential for construction to affect important community facilities and explains that emergency vehicle access for police and fire protection services would be maintained at all times.

I033-91

Refer to Standard Response FB-Response-GENERAL-21.

Chapter 2 of the Revised DEIR/Supplemental DEIS provides a clear project description with a sufficient level of detail to allow for an analysis of the effects of the proposed project.

I033-92

The Final EIR/EIS has been revised to include the Kings/Tulare Regional Station as part of the project, and not a "potential" project component. The Authority and FRA will construct the Kings/Tulare Regional Station in the vicinity of Hanford based on ridership demand in the region. The environmental document analyzes the station options and any impacts associated with its construction/operation.

I033-93

Refer to Standard Response FB-Response-GENERAL-02.

Please refer to Section 2.3, Potential Alternatives Considered during Alternatives Screening Process, of the Final EIR/EIS for a discussion of the alternatives analysis process and findings.

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-94

Refer to Standard Response FB-Response-GENERAL-02.

The process for developing the HST project-level alternatives is summarized in Section 2.3 of the Revised DEIR/Supplemental DEIS. Section 2.3.2 identifies the Alternatives Analysis Reports that are being summarized and that form the basis for the selection of alternatives for further consideration. These reports are part of the administrative record and have been available for review on the Authority's website. As allowable under both CEQA and NEPA, in the interest of readability, these reports have not been included in their entirety in Section 2.3 or in the EIR/EIS.

The Supplemental Alternatives Analysis was considered by the Authority Board at a noticed public hearing. The commenter's failure to raise his concerns at that hearing does not invalidate the analysis. The Authority and FRA bear the responsibility for determining the range of alternatives to be examined in the EIR/EIS and have done so in accordance with the requirements of CEQA and NEPA.

I033-95

Refer to Standard Response FB-Response-GENERAL-02.

As stated in Section 2.3, Potential Alternatives Considered during Alternatives Screening Process, of the Final EIR/EIS, the alternatives analysis process evaluated design options within individual alternatives to isolate concerns, screen, and refine the overall alternative to avoid key environmental issues or improve performance. The alternatives that were not carried forward had greater direct and indirect environmental impacts, were impracticable, or failed to meet the project purpose. Additional information on alternatives preliminarily considered but not carried forward for full evaluation in the Final EIR/EIS can be found in the June 2010 Preliminary Alternatives Analysis Report for the Fresno to Bakersfield Section (Authority and FRA 2010c), the September 2010 Supplemental Alternatives Analysis Report for the Fresno to Bakersfield Section (Authority and FRA 2010a); the March 2011 Checkpoint B Summary Report for the Fresno to Bakersfield Section (Authority and FRA 2011g); the May 2011 Supplemental Alternatives Analysis Report for the Fresno to Bakersfield Section (Authority and FRA 2011d); and the December 2011 Supplemental Alternatives Analysis Report for the Fresno to Bakersfield Section (Authority and FRA 2011e).

I033-95

These documents are available on the Authority's website at: http://www.hsr.ca.gov/Programs/Environmental_Planning/index.html. Direct links to each of these sources are available in the references to Volume 5 of the Final EIR/EIS.

I033-96

Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-10.

A reasonable range of alternatives adequate to provide meaningful decision making is identified in the EIR/EIS. As described in the EIR/EIS, two to three alternative alignments were identified in each of the Hanford, Corcoran, Allensworth, Wasco-Shafter, and Bakersfield areas, which represent roughly 75% of the corridor between Fresno and Bakersfield. As shown in the table below, there are 7 important environmental factors including impacts to waters of the U.S., Important Farmland, and residential housing that clearly differentiate among these alternatives. In addition, impacts to properties protected under Section 4(f) of the Department of Transportation Act differentiate among alternatives in the Hanford, Allensworth, and Bakersfield areas. Division of a local community provides differentiation among alternatives in the Hanford and Corcoran areas. Impacts to environmental justice communities differentiates alternatives in the Wasco-Shafter area. Finally, impacts to key community facilities provides another measure that differentiates among alternatives in the Bakersfield area.

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-96

Parameter	Alternatives											
	Hanford Area		Corcoran Area			Allensworth Area		Wasco-Shafter Area		Bakersfield Area		
	BNSF	Hanford West Bypass	BNSF	Corcoran Elevated	Corcoran Bypass	BNSF	Allensworth Bypass	BNSF	Wasco-Shafter Bypass	BNSF	Bakersfield South	Bakersfield Hybrid
Permanent Impacts to Wetlands (acres)	0	1.37	9.81	9.81	3.30	92.99	25.23	0	0	0.76	0.56	0.56
Permanent Impacts to Waters of the U.S. (acres)	48.87	48.30	42.38	44.86	37.09	144.34	152.02	27.60	17.12	43.45	33.56	33.69
Important Farmland Converted to Non-agricultural Uses (acres)	1057	809	260	106	177	467	386	676	667	0	0	0
Williamson Act Land Converted to Non-agricultural Uses (acres)	600	411	249	93	92	298	276	229	247	0	0	0
Number of Receptors Severely Impacted by Noise After Mitigation	178	287	79	27	111	14	0	504	63	10	61	61
Commercial and Industrial Business Displacements	3	7	16	1	0	0	0	23	4	302	135	280
Housing Unit Displacements	62	50	52	3	31	9	0	23	18	265	272	186

I033-97

Refer to Standard Response FB-Response-GENERAL-02.

The procedural requirements for the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) were followed during the environmental review of the Fresno to Bakersfield Section of the HST System.

As discussed in Section 2.3.1, HST Project-Level Alternatives Development Process, of the Final EIR/EIS, the Authority implemented an alternatives analysis process to identify the full range of reasonable alternatives for the project, as required under Title 14 California Code of Regulations (CCR) Section 15126.6 and Title 40 Code of Federal Regulations (CFR) Section 1502.15(a). This range of alternatives was analyzed in the EIR/EIS.

Please refer to the section listed above for a discussion of the alternatives analysis process and findings.

I033-98

The Authority conducted extensive public outreach before the circulation of the Draft EIR/EIS. This outreach included 12 public meetings aimed at soliciting community feedback and informing impacted communities about the project status.

I033-99

Refer to Standard Response FB-Response-GENERAL-03.

I033-100

Refer to Standard Response FB-Response-AQ-02, FB-Response-AQ-05.

In addition, project construction emissions will be offset through a voluntary emissions reduction agreement (VERA) between the Authority and the San Joaquin Valley Air Pollution Control District, which will also help to reduce the construction related GHG emissions.

I033-101

The use of cap-and-trade revenues for the HST system would not cause an impact of environmental concern.

The use of cap-and-trade auction revenues as a funding backstop for the HST system was noted in the 2012 Business Plan. In January 2013, Governor Brown listed the HST system as a potential recipient of cap-and-trade auction revenues in his January budget proposal. Together, AB 1532 and SB 535 form the implementing statute where the California State Legislature provided direction on the process for allocating auction proceeds and the eligible uses for cap-and-trade auction proceeds. The Department of Finance is the lead agency that must develop and submit to the legislature a 3-year investment plan identifying priority programmatic investments of auction proceeds. The general categories that are authorized to receive funds include low-carbon transportation and infrastructure, strategic planning for sustainable infrastructure, energy efficiency and clean energy, natural resources. and solid waste diversion.

I033-102

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-02.

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I033-102

The procedural requirements for NEPA and CEQA were followed during the environmental review of the Fresno to Bakersfield HST Section.

As discussed in Section 2.3.1 of the EIR/EIS, the Authority implemented an alternatives analysis process to identify the full range of reasonable alternatives for the project as required under 14 CCR 15126.6 and 40 CFR 1502.15(a). This range of alternatives was analyzed in the EIR/EIS.

Please refer to the listed section for a discussion of the alternatives analysis process and findings.

I033-103

Refer to Standard Response FB-Response-GENERAL-07.

Pursuant to Public Resources Code §21092, the public outreach process for the Fresno to Bakersfield section of the HST has been extensive and includes hundreds of public meetings and briefings where public comments have been received, participation in community events where participation has been solicited, and educational materials have been developed and distributed to encourage feedback. These efforts are cited in Volume I Chapter 7. Public notification regarding the draft environmental documents took place in the following ways: A notification letter, an informational brochure, and a Notice of Availability (NOA) were prepared in English and Spanish and sent to landowners and tenants within 300 feet of all alignment alternatives. The letters notified landowners and tenants that their property may be necessary for construction (within the project construction footprint) of one or more of the alignment alternatives or project components being evaluated. Anyone who has requested to be notified or is in our stakeholder database was sent notification materials in English and Spanish. An e-mail communication of the notification materials was distributed to the entire stakeholder database. Public notices were placed in English and Spanish newspapers. Posters in English and Spanish were posted along the project right-of-way.

I033-104

Refer to Standard Response FB-Response-GENERAL-13.

I033-105

This comment suggests a CEQA rule that a lead agency must define its project based on available funding---in this case the funding available for the initial construction segment (ICS). CEQA includes no such rule, and courts cannot impose procedural or substantive requirements beyond those explicitly stated in the statute or Guidelines (Pub. Res. Code §21083.1). Such a rule would force lead agencies to redefine their projects every time funding changes, a result in direct conflict with the "rule of reason" that governs EIRs (Laurel Heights Improvement Assn. v. UC Regents (1988) 47 Ca1.3d 376, 406-407).

The Authority has no control over Amtrak service. However, as stated in Section 2.8, the ICS will be available for immediate use for improved and faster service on the San Joaquin intercity line before HST service begins on the initial operating system in 2022, thus providing for independent utility consistent with ARRA. Air quality and noise and vibration effects associated with potential Amtrak use of the ICS have been added in this Final EIR/EIS.

I033-106

As stated in Section 2.1.2, Fresno to Bakersfield Section EIR/EIS Background, of the Final EIR/EIS, the Authority and FRA decided to reintroduce an alignment alternative west of Hanford to address substantive comments received during public and agency review, including requests from the U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (EPA) to include a Hanford West Bypass Alternative in the environmental analysis of the Draft EIR/EIS in an attempt to reduce or avoid significant environmental effects. The Authority conducted a supplemental alternatives analysis to further evaluate potential alignment alternatives west of Hanford, and on the basis of this analysis identified two Hanford West Bypass Alternatives to carry through the environmental analysis in this EIR/EIS (Authority and FRA 2011e). Both of these alternatives include a potential station site.

The USACE and EPA made no such request regarding the State Route (SR) 99/Union Pacific Railroad (UPRR) or Interstate 5 (I-5) alternatives. The Authority and the FRA's Statewide Program EIR/EIS selected the BNSF Railway (BNSF) route as the Preferred Alternative for the HST System between Fresno and Bakersfield (Authority and FRA

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-106

2005); see also Section 1.5, Tiering of Program EIR/EIS Documents. Therefore, the Final EIR/EIS focuses on alternative alignments along the general BNSF corridor.

The procedural requirements for the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) were followed during the environmental review of the Fresno to Bakersfield Section of the HST System. As discussed in Section 2.3.1, HST Project-Level Alternatives Development Process, of the Final EIR/EIS, the Authority implemented an alternatives analysis process to identify the full range of reasonable alternatives for the project, as required under Title 14 California Code of Regulations (CCR) Section 15126.6 and Title 40 Code of Federal Regulations (CFR) Section 1502.15(a). This range of alternatives was analyzed in the EIR/EIS.

I033-107

Refer to Standard Response FB-Response-GENERAL-02.

As stated in Section 2.1.2, the Authority and FRA decided to reintroduce an alignment alternative west of Hanford to address substantive comments received during public and agency review, including requests from the USACE and USEPA to include a Hanford West Bypass Alternative in the environmental analysis of the Draft EIR/EIS in an attempt to reduce or avoid significant environmental effects. The Authority conducted a supplemental alternatives analysis to further evaluate potential alignment alternatives west of Hanford and on the basis of this analysis, identified two Hanford West Bypass alternatives to carry through the environmental analysis in this EIR/EIS (Authority and FRA 2011). Both of these alternatives include a potential station site.

The USACE and USEPA made no such request regarding the SR 99/UPRR or I-5 alternatives. The Authority's and the FRA's Statewide Program EIR/EIS (see Section 1.5, Tiering of Program EIR/EIS Documents) selected the BNSF Railway route as the preferred alternative for the Central Valley HST between Fresno and Bakersfield. Therefore, the Revised Draft EIR/Supplemental Draft EIR/EIS focuses on alternative alignments along the general BNSF Railway corridor.

The procedural requirements for NEPA and CEQA were followed during the environmental review of the Fresno to Bakersfield HST Section. As discussed in Section

I033-107

2.3.1 of the EIR/EIS, the Authority implemented an alternatives analysis process to identify the full range of reasonable alternatives for the project as required under 14 CCR 15126.6 and 40 CFR 1502.15(a). This range of alternatives was analyzed in the EIR/EIS.

I033-108

The Final EIR has been revised to include language stating that in most locations in the Fresno to Bakersfield Section, roadway overpasses would be provided more frequently, approximately every mile or less, because of the existing roadway infrastructure. Consequently, out-of-direction travel would be limited to approximately 1 mile in nearly all locations in the project area.

I033-109

Refer to Standard Response FB-Response-PU&E-01.

I033-110

Refer to Standard Response FB-Response-GENERAL-02.

I033-111

Refer to Standard Response FB-Response-GENERAL-12.

I033-112

Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-10.

In the case of Hanford, it was not feasible to follow the BNSF Railway (BNSF) corridor through the city. The BNSF corridor in the Hanford area has several curves that are too severe for an HST alignment, and constructing the HST project through Hanford would have resulted in a substantial impact to residential and commercial properties in the city. For those reasons, the Preferred Alternative for the Fresno to Bakersfield Section in the Statewide Program EIR/EIS for the California High-Speed Rail System (Authority and FRA 2005) was selected to bypass Hanford.

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I033-113

Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-10.

In the case of Hanford, it was not feasible to follow the BNSF Railway through the city. The BNSF Railway in the Hanford area has several curves too severe for an HST and constructing the HST through Hanford would have resulted in a substantial impact to residential and commercial properties in the city. That is why the preferred alignment for the Fresno to Bakersfield Section was selected to bypass Hanford in the Statewide Program EIR/EIS for the California High-Speed Rail System.

I033-114

Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-10.

In the case of Hanford, it was not feasible to follow the BNSF Railway (BNSF) corridor through the city. The BNSF corridor in the Hanford area has several curves that are too severe for an HST alignment, and constructing the HST project through Hanford would have resulted in a substantial impact to residential and commercial properties in the city. For those reasons, the Preferred Alternative for the Fresno to Bakersfield Section in the Statewide Program EIR/EIS for the California High-Speed Rail System (Authority and FRA 2005) was selected to bypass Hanford.

I033-115

Refer to Standard Response FB-Response-HWR-02.

Stormwater will be infiltrated at the low points of the wildlife crossings to meet storm drainage standing water limitations.

The design of this structure has been clarified in Chapter 2, Project Description. A small berm (or lip) would be located at the entrance of the wildlife structure to prevent water from entering during small storm events. Swales would be directed around this lip. The structure would fill with water during the 100-year event and act as a hydraulic conveyance point through the embankment. This has been clarified in the Final EIS/EIR.

I033-116

Refer to Standard Response FB-Response-GENERAL-24.

I033-117

A considerable degree of study has been conducted to model HST ridership levels, including the potential shift in modes of travel. While all forecasts have an inherent level of uncertainty, the ridership forecasts described in the EIR/EIS appropriately support the feasibility of the project and present a valid approach to determine the reasonable range of potential impacts.

The forecasts of HST ridership used in the EIR/EIS were developed from 2005 to 2008 by Cambridge Systematics, a national leader in transportation economics and modeling with extensive current experience in transportation issues throughout California. Before modeling changes in modes of travel that could result from implementation of the HST, a detailed picture of current and future trip-making in California was developed. The volume of present travel among cities and rural regions was estimated from highway traffic counts, federal data on air trips, existing and new surveys of origins and destinations of trips, Caltrans data, and many other sources. The cost and speed of travel by air, car, and train, including getting to stations and airports and parking at destinations, were developed. Growth in traffic was projected from state forecasts of population, employment, and household income growth and from the known relationships of these factors with travel volumes.

An extensive U.S. and international body of research and experience exists on why people pick cars, planes, transit, or other ways to travel for a specific trip. To develop the forecast model, over 4,000 existing surveys of California inter-regional travelers were combined with 2,700 new surveys collected in 2005 specifically to determine their sensitivity to cost, speed, and convenience. Cambridge Systematics developed a detailed 4,667-zone model for the entire state to forecast travel between regions. The economic and household characteristics were forecast for each zone in the year 2030 based on data and forecasts from state, regional, and local government agencies. A detailed description of system capacity, speeds, service levels, cost, and traffic congestion for the highway and local transit networks was developed for 2030 from the fiscally constrained long-range transportation plans of each regional planning agency. Finally, future air and intercity conventional rail service reflecting current service levels

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I033-117

and planned investments were incorporated. The high-speed train line and stations were added using fares, travel times between stations, and time between trains provided by the Authority. A peer review panel of local, national, and international travel model and high-speed train experts reviewed and commented on the modeling assumptions, methodologies, and results during each stage of model development.

I033-118

The Authority is considering two sites for the Kings/Tulare Regional Station: the West alternative and East alternative sites. The Authority's criteria and environmental impacts will be considered in the selection of a potential station for the Kings/Tulare Regional Station. The Kings/Tulare Regional Station sites were chosen due to the location between the Visalia and Hanford population centers that the station is intended to serve, and the station would act as a regional station for Kings and Tulare counties.

I033-119

The Authority is considering two sites for the Kings/Tulare Regional Station: the West alternative and East alternative sites. The Authority's criteria and environmental impacts will be considered in the selection of a potential station for the Kings/Tulare Regional Station. The Kings/Tulare Regional Station sites were chosen due to the location between the Visalia and Hanford population centers that the station is intended to serve, and the station would act as a regional station for Kings and Tulare counties.

I033-120

Table 2-17 provides the approximate schedule for construction. Final design of the project will be completed by the design-build contractor following contract award and issuance of the Notice to Proceed for each construction package.

I033-121

The purpose of this Figure is to convey the idea of perception of a sound level, not the impact of a sound level. It is very difficult to convey how loud something is without comparing the noise level to other sources to which people can relate. Typically the given outdoor noise sources listed are often perceived at a distance of 50 feet, and the indoor sources are experienced at a distance of 3 feet. The point is not the distance, but

I033-121

the perceived noise level that people generally experience next to sources with which they are familiar at distances that are typical so they have a reference that is common to them.

I033-122

If the noise levels of the HST on the left side of the graph were reduced to a distance of 50 feet, all of the noise levels would increase by about 3 decibels.

I033-123

Ambient noise measurements conducted on the northern/northeastern portion of the Hanford East alignment are located far enough away from the existing BNSF railroad and SR 43 that these two noise sources contribute less to the overall ambient noise level than homes located very close to the two noise sources. Homes located near the Hanford East alignment would expect to have very similar ambient noise levels due to this already far distance.
The ambient noise measurements conducted at noise-sensitive receivers located near the southern portion of the Hanford East alignment are located near SR 43 and the existing BNSF railroad. Therefore, the ambient noise levels that were obtained at noise-sensitive receivers on the southeast end of Hanford would be similar to homes located near the Hanford East alignment since SR 43 is a dominant noise source.

I033-124

Refer to Standard Response FB-Response-N&V-03, FB-Response-N&V-05.

I033-125

The FRA and FTA guidelines are used for this project. All vibration analyses were conducted through their recommendation and according to their standards.
Vibration measurement locations for determining existing vibration levels due to railroad operations needed to be meet certain criteria in order for measurements to be conducted. Measurements needed to be conducted near residences that were currently located near the existing BNSF rail line as well as the proposed HSR alignment. This allows for the collection of existing vibration data at homes located at homes currently experiencing vibration from existing railroad operations, and who could potentially be

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-125

impacted by future HSR operations.

In addition to the 9 sites, the Noise group worked with the project geologists to come up with 18 locations where transfer mobility testing could be conducted. This testing is used to determine the characteristics of vibration transmission through the soil on a frequency basis. This data is used for modeling future operational vibration levels from the HST train sets in locations where existing data could not be collected. These 18 sites were chosen in order to measures at sites that were representative of the types of soils in each area of the alignment.

I033-126

Refer to Standard Response FB-Response-N&V-03.

The FRA and FTA guidelines are used for this project. All vibration analyses were conducted through their recommendation and according to their standards.
Vibration measurement locations needed to be meet certain criteria in order for measurements to be conducted. Measurements needed to be conducted near residences that were currently located near the existing BNSF rail line as well as the proposed HSR alignment.
The Noise group worked with expert geologists and ATS Consulting to come up with the 18 transfer mobility testing sites that were representative of the types of soils in each area of the alignment. The locations of the transfer mobility sites are listed in Table 6-43 in the Fresno to Bakersfield HST Technical Report. During the measurements, vibration data were collected at nineteen 1/3 octave bands from 5 Hz up to 315 Hz from several accelerometers simultaneously. Once the field data were collected, then the data were processed by calculating the line source transfer mobility (LSTM) for each 1/3 octave band. The LSTM calculation consists of a line integration of the point source transfer mobilities at each accelerometer position. The LSTM values were then added to the force density values for the Pendolino system at each 1/3 octave band. The results produce the projected vibration level in VdB for the HST trainset at a given distance for each 1/3 octave band. The vibration levels at each measurement site corrected for velocity (220 mph), and plotted relative to distance from the source, are presented in Figure 6-1 in the Fresno to Bakersfield HST Technical Report.

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Ground-borne vibrations are a known effect from the design and operation of high-speed rail projects worldwide. The magnitude of the effect is highly dependent on the proximity of the receiver to the source and on soil conditions through which the vibrations must travel. Given that detailed work to investigate ground conditions will be carried out by the design/build contractor, it is not until this information is known that the magnitude of these effects can be calculated and suitable mitigation measures designed. Should the Authority choose the BNSF (east of Hanford) alternative, the HST would be on a viaduct that would be expanded to form the Kings/Tulare Regional Station. This structure is likely to have very different vibration behavior than operating the project at-grade. This is partly because the substantial mass of structure between the source of vibration and the ground will make it very difficult for “relatively low mass” trains to excite the structure at frequencies that are conducive to ground transmission, but also because there will be a higher proportion of trains slowing to a stop than will be seen on sections of the alignment between stops. This will further inhibit the generation of resonances in the structure from higher-speed trains.

Guidelines published by the FRA and Federal Transit Administration govern the evaluation of noise and vibration effects for this project. All vibration analyses were conducted consistent with this guidance, including the identification of specific locations for performing measurements. These measurements were conducted near residences that were located near the existing BNSF rail line as well as the proposed HSR alignment. The Authority's consultant team, which included noise and vibration experts and geologists, worked together to identify 18 transfer mobility testing sites that were representative of the types of soils in each area of the alignment.

I033-128

Refer to Standard Response FB-Response-N&V-03.

The FRA and Federal Transit Administration guidelines are used for this project. All vibration analyses were conducted through their recommendation and according to their standards.
Vibration measurement locations needed to meet certain criteria in order for measurements to be conducted. Measurements needed to be conducted near

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residences that were currently located near the existing BNSF rail line as well as the proposed HSR alignment.
The Noise group worked with expert geologists and ATS Consulting to come up with the 18 transfer mobility testing sites that were representative of the types of soils in each area of the alignment. The locations of the transfer mobility sites are listed in Table 6-43 in the Fresno to Bakersfield HST Technical Report. During the measurements, vibration data were collected at nineteen 1/3 octave bands from 5 Hz up to 315 Hz from several accelerometers simultaneously. Once the field data were collected, then the data were processed by calculating the line source transfer mobility (LSTM) for each 1/3 octave band. The LSTM calculation consists of a line integration of the point source transfer mobilities at each accelerometer position. The LSTM values were then added to the force density values for the Pendolino system at each 1/3 octave band. The results produce the projected vibration level in VdB for the HST trainset at a given distance for each 1/3 octave band. The vibration levels at each measurement site corrected for velocity (220 mph), and plotted relative to distance from the source, are presented in Figure 6-1 in the Fresno to Bakersfield HST Technical Report.

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Refer to Standard Response FB-Response-GENERAL-21, FB-Response-N&V-03, FB-Response-N&V-05.

As the California Supreme Court has directed, “An EIR … need not analyze a ‘worst case scenario’ and ‘need not identify and analyze all possible resources that might serve the Project should the anticipated resources fail to materialize.” (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 453. Nevertheless, the Authority and FRA took a conservative approach. Chapter 5, "Noise and Vibration Prediction Methodology" of the Noise and Vibration Technical Report describes how the noise modeling was developed based on the following example HSR systems: TGV, Eurostar, ICE, and Shinkansen to conservatively predict noise from operations of an HST and then tested for accuracy (Authority & FRA July 2012).

I033-130

Refer to Standard Response FB-Response-N&V-05, FB-Response-GENERAL-21.

I033-131

Refer to Standard Response FB-Response-GENERAL-21, FB-Response-N&V-03, FB-Response-N&V-05.

I033-132

Refer to Standard Response FB-Response-N&V-01.

The thresholds and criteria for noise impacts on animals are included in Table 3.4-5 in Section 3.4, Noise and Vibration, of the Final EIR/EIS. This table includes a sound exposure level (SEL) threshold of 100 A-weighted decibels (dBA). The average SEL for an HST pass-by at the fence is expected to be about 98 dB, which is just below the threshold. Given that this project is federally funded, it is subject to the noise standards adopted by the FRA, which include the 100-dBA SEL metric for startle and annoyance effects from a single pass-by.

The Schomer and Associates (April 2001) study provides a discussion of airport noise annoyance in areas where people reside and questions the DoD and FAA aircraft noise impact criterions. The study does not provide a discussion of rail noise impacts or criticize FRA methodologies.

I033-133

Refer to Standard Response FB-Response-N&V-03.

I033-134

Refer to Standard Response FB-Response-N&V-03.

The frequency of noise was taken into account in the noise model. The noise metric "Ldn" is a cumulative noise metric that takes noise events for an entire 24-hour period into account.

I033-135

Under Section 8.4.8 Mitigation of Construction Noise: “If complaints arise, the contractor shall initiate a construction noise monitoring plan to ensure the construction noise levels

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at the nearest noise-sensitive land uses are within the limits of the noise ordinance."

Mitigation measures will include the following:

Contractor shall establish a phone line into which the public can register noise complaints corresponding to construction activities associated with the HST project. The contractor will log all complaints received from the public.

I033-136

Construction noise monitoring will be initiated if noise complaints from project construction activities arise at any noise sensitive areas in the vicinity of the project. At that time, noise level measurements will be conducted during construction activities at the nearest property line of the complainant. These results will be compared to the FTA Construction Noise Assessment Criteria listed in Table 3.4-1. The noise measurement will be recorded on a Field Measurement Data Sheet. Data will include the nature of the complaint, the location of the complaint, construction activities causing the complaint and recorded noise levels. If the measured construction noise levels exceed the criteria in Table 3.4-1, then the recorded noise levels will be compared to the Federal Highway Administration (FHWA) construction equipment reference noise level data contained in the FHWA Roadway Construction Noise Model (RCNM) to assess whether each piece of construction equipment is operating at the reference noise levels as predicted by the environmental documentation. If the construction equipment is found to exceed the allowable noise levels, then the contractor will ensure that the construction equipment on site meets the levels listed in Table 8-2 "Noise Level of Typical Construction Equipment at 50 feet (dBA Lmax)". If construction noise levels are still exceeded at the nearest property line of the complainant, the noise mitigation measures will implemented. Noise measurements will then be conducted long enough to show that any required noise mitigation measures reduce the construction related noise levels to within the applicable noise standards.

I033-137

If a complaint is reported, noise measurements will be conducted in the vicinity of the complaint location to document the construction noise levels and other noise sources in the area that are not related to construction activities. If equipment is found to exceed

I033-137

the allowable noise levels, then noise monitoring will continue and noise mitigation measures will be implemented as required. Noise measurements will then be conducted long enough to show that any required noise mitigation measures reduce the construction related noise levels to within the applicable noise standards.

I033-138

The Authority has the full responsibility for implementation of the mitigation measures. The HST project financing includes funding for the cost of property acquisition and relocation of all displaced residents, as well as all other costs associated with fulfilling the mitigation measures.

I033-139

Refer to Standard Response FB-Response-N&V-05.

I033-140

Refer to Standard Response FB-Response-N&V-05.

The economic feasibility of sound barrier is based on the Caltrans noise analysis protocol for new highway construction (refer to Noise and Vibration Studies in the Caltrans Standard Environmental Reference at http://www.dot.ca.gov/hq/env/noise/). Based on that protocol, a 2009 allowance of $45,000 was provided per benefited receptor. A benefited receptor is a dwelling unit that is predicted to receive a noise reduction of at least 5 dBA from the proposed noise abatement measure. A receptor can be a benefited receptor even if it is not subject to
a noise impact from the project. The value of $45,000 was based on the published Caltrans annual Construction Price Index (CPI) for 2009 when the EIR/EIS was initiated.

The calculated economic feasibility of noise mitigation has been added to Appendix 3.4 of the Final EIR/EIS.

I033-141

Refer to Standard Response FB-Response-N&V-05.

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I033-142

Refer to Standard Response FB-Response-N&V-05.

There are over 1,470 severely impacted receptors without mitigation for the Bakersfield Hybrid alignment, and there are less than 300 severely impacted receptors without mitigation for the Hanford West alignments.
For the West Hanford Alternative 1 alignment, there would be approximately 232 severely impacted receivers and they are not eligible for sound walls due to economic unfeasibility. For the Bakersfield Hybrid alignment, Barrier 1 would benefit 224 severely impacted receivers. These receivers meet the criteria for a sound wall.
The reason why West Hanford Alternative 1 does not have a sound barrier is because the receivers are spread over a greater distance and the cost per benefitted receiver is greater than $45,000.

The economic feasibility of sound barriers is based on California High-Speed Train Project Noise and Vibration Mitigation Guidelines. A benefited receptor is a dwelling unit that is predicted to receive a noise reduction of at least 5 dBA from the proposed noise abatement measure. A receptor can be a benefited receptor even if it is not subject to a noise impact from the project. .

I033-143

Wells/tanks/pipelines currently located adjacent to the existing BNSF tracks are subject to vibration levels substantially higher than the vibration levels that would be generated by HST operations. If the wells/tanks/pipelines are not currently experiencing any of these problems under existing conditions, they would not be expected to experience these problems with the addition of HST operations. According the Federal Rail Administration Transit (FTA, 2006) Noise and Vibration Impact Assessment Table 12-3, buildings extremely susceptible to vibration damage would show signs of damage at a peak particle velocity (PPV) of 0.12 in/sec., which is approximately equal to 90 VdB. Using the fall-off rate for vibration levels due to distance, a PPV level of 0.12 in/sec. would occur at a distance of about 11 feet from the HST centerline. The HST property line is 50 feet from the centerline, and at this distance, the vibration level is expected to be a PPV of 0.012 in/sec. This level is one-tenth the PPV level listed for buildings extremely susceptible to vibration damage set by the FTA. Given that all existing fragile

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underground wells, tanks, or pipelines would be more than 50 feet from the HST centerline, it is highly unlikely that the vibration level at those structures would cause any damage.

I033-144

Refer to Standard Response FB-Response-N&V-05.

To clarify, CEQA requires mitigation for those impacts that are potentially significant. For impacts for which there is substantial evidence showing that the impact would be less than significant, then mitigation measures are not required. Consistent with CEQA, the Authority and FRA apply mitigation measures to reduce the significance of potential impacts to a less than significant level and do not apply mitigation measures for impacts determined to be less than significant.

I033-145

Refer to Standard Response FB-Response-N&V-03.

The impact of noise from the HST is not dependent upon whether the train noise is audible, but how much the noise from the HST increases the overall level in the area. This increase is dependent upon what the existing ambient noise level is in the area. As for noise attenuation from the HST system, this is addressed in Section A1.1.2.1, “Divergence” of the Noise and Vibration Technical Report. Taking all factors into consideration, the noise from the HST system during operation was modeled at a rate of about 4.5 dB for every doubling of distance from the ROW centerline. At what point the train noise is no longer audible is directly dependent upon what the ambient noise level is in a given area. If the noise level from the HST is 10 to 20 below the existing ambient noise level in that area, then the noise from the HST would be harder to hear than if the HST noise were equal to the existing ambient noise level.

I033-146

Refer to Standard Response FB-Response-N&V-05.

The height of the rails was taken into account when calculating the noise and

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determining the impacts to noise sensitive land uses. HST noise levels calculated from rails elevated on structures was calculated separately from noise levels generated where the rails are on the ground. Noise from trains on elevated structures will emanate further than will noise from trains on the ground. The noise levels from the BNSF Railroad through Hanford can be audible several miles outside of town primarily due to the low frequency component coming from the diesel engines. Since the HST will be electrically powered, low frequency noise from diesel engines will not be a component.

I033-147

The May 1988, “Effect of Train Induced Vibrations on Houses – A Case Study”, is based on measurements adjacent to the Canadian National Railways (CN) main line near the city of Kamloops, British Columbia. The CN railway hauls heavy freight trains pulled by diesel engines, which produce significantly more vibration than does the train sets proposed for the HST project. The vibration contour distances found in the EIR/EIS are specific to the force density of the train set modeled, and the transfer mobility of the soil composition along the proposed HST alignments. The latter values are based on transfer mobility tests that were conducted specifically for this project and are consistent with FRA and FTA methodologies. Vibration contour distances can be found in Table 3.4-13 of the HST EIR/EIS.

I033-148

According to a USGS study, “Ground Water Atlas of the United States,” the primary cause of land subsidence in the Sacramento and the San Joaquin Valleys has been the compaction of fine-grained sediments (predominantly clay) in the aquifer system following severe, long-term withdrawal of ground water in excess of recharge. The amount of such subsidence in an area is related to the amount of withdrawal and the percentage of the withdrawal zone composed of clay beds. Compaction occurs when the hydraulic head in the confined parts of the aquifer system is lowered, thus reducing the hydraulic head in the clay beds, which, in turn, reduces the pore pressure in the clay. The weight of overlying sediments compacts the clay and squeezes water out of the clay until equilibrium is reached with the pore pressure in the clay. Compaction is directly related the amount of water in the aquifer and is not expected to be influenced by the vibrations produced by HST operations.

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Refer to Standard Response FB-Response-AG-06.

People and businesses in California use electric power and radio frequency (RF) communications for many purposes and services, in homes, businesses, farms, and factories. The intensive use of electric power and RF communications in California and all developed countries has ensured that the potential health effects of electromagnetic fields and resulting currents and voltages on people and animals have been thoroughly studied. As a result, the levels at which electromagnetic fields (EMFs) and RF fields can cause health or behavior effects are well established. Broadly used international standards were created based on intensive investigation to ensure that:

· * EMF and RF fields and resulting stray currents and voltages are measured and controlled.

· * Fields do not disturb or injure people or animals.

(1) EMFs: Regarding EMFs, as noted in the Draft EIR/EIS, the 2008 McGill University study of cows in pens noted no significant health or behavior effects on the cows or milk production from exposure to EMF levels typical of a full-load 735-kilovolt (kV) utility power transmission line (McGill University 2008). The test levels were a magnetic field of 330 milligauss (mG) and a 60-hertz (Hz) electric field of 10 kilovolts per meter (kV/m). The researchers measured melatonin levels, prolactin levels, milk production, milk fat content, dry-matter intake by cows, and reproductive outcomes. Although a few statistically significant changes in these factors were found, none of the changes were outside the normal range for cows. The study concluded that the EMF exposure did not harm the cows or reduce milk productivity. Since 735-kV utility power transmission lines run up and down the state of California, cattle and people near those lines are exposed to these levels on a continuing basis. Consistent with the McGill University study, epidemiological evidence does not indicate that cattle or people near existing 735-kV utility power transmission lines are generally or broadly affected by the fields.

California HST traction power 60-Hz current will flow in the overhead contact system (OCS) and in the running rails to provide power to the trains. The traction power system

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is called a 2x25 kV system, because it uses 25-kV voltage for the trains and uses two nearby cables with opposite phase of the 25 kV to distribute the power down the tracks. The currents in this HST 2x25 kV system create EMFs and static electric fields near the tracks. However, the HST levels will be lower than the fields typical of a 735-kV utility power transmission line because the separation between the HST OCS cables is less, cable-to-cable voltage levels and cable current levels are less, and the HST cables are closer to the ground so that they are closer to the reducing effect of the fields in the ground, all compared with the 735-kV utility power cables.

The Authority's Technical Memorandum 300.07, EIR/EIS Assessment of CHST Alignment EMF Footprint, shows that at the closest fence line to the HST tracks, the expected magnetic field is 60 mG, less than one-fifth the level from a transmission line (Authority 2012d). Because cattle cannot be inside the fence line and people can only be inside the fence line at passenger stations, the possible California HST EMF exposure is:

· * Low compared with 735-kV utility power transmission lines.

· * And therefore below the level at which the McGill study showed no effect on cows and milk production.

Similarly, the electric field from the HST 25-kV 60-Hz OCS would be low compared with the exposure from a 735-kV utility power transmission line.

(2) Stray Voltage and Currents: Stray voltages occur when there is a voltage or potential difference between the neutral conductor on an electrical system and the ground (earth). Stray currents occur when the earth conducts some of the current of a power system. Stray voltages and currents exist whenever a power system has more than one connection to the earth, so they are a general condition in homes, factories, farms, and anywhere electric power is used. As a result, engineers and power systems have well-established procedures and standards to provide protection against the effects of stray voltages and currents.

Stray voltages and currents can cause shocks, as described in the Revised

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DEIR/Supplemental DEIS under Impact EMF/EMI #8 - Potential for Nuisance Shocks.

The California HST traction power and rail designs recognize the need to control stray voltages and currents to avoid shocks. The bonding and grounding of HST equipment will fulfill the requirements of EN 50122-1:2011, Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 1: Protective provisions against electric shock, Section 9.2.2. This standard was established specifically to protect people near traction power systems like the one for the HST project. International Electrotechnical Commission (IEC) standard TS 60479-1:2007, Effects of current on human beings and livestock – Part 1: General aspects, is a related document that provides specific guidance for protecting livestock.

For the HST System, the running rails will be periodically connected to earth all along the track, and the rails will carry a significant amount of train propulsion current, called return current. This return current will create a stray voltage along the rails, which also will be connected to the earth due to the periodic grounding.

The project will calculate the maximum stray voltages and will provide all necessary protections against shock from stray voltage, such as grounding procedures for metal fences, buildings, buried pipes, and aboveground irrigation pipes that run parallel to the track.

The California HST project will avoid disturbing or injuring cattle or other animals or people near the HST track by:

· * Using the broad knowledge of currents and fields from existing electric railways in the U.S. and around the world.

· * Learning from experience in preventing adverse effects.

· * Performing the California HST Program actions to apply necessary protections along the HST track.

(3) Rebuttals: The paper by Hillman et al. referenced in the comment describes the

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negative effects of poorly designed or failed power systems on cows and the techniques to correct the problem (Hillman et al. 2004). The Hillman paper cites the McGill University 2008 research, which the HST project has also used. The Hillman et al. paper is consistent with the planned HST design provisions to protect people and animals.

The paper by Webb referenced in the comment (Webb n.d.) is a web page from the Canadian Society of Dowsers, whose website says "... dowsing is a tool to increase spirituality." As such, dowsing and the Webb paper do not apply to analysis or investigation of electromagnetic field effects.

Other statements correctly note that stray voltage would be a normal part of the California HST System, as it is of electric railways around the world. The Draft EIR/EIS notes the analysis, investigation, international standards, research, and mitigations that the project will apply to protect people and cattle. The application of these analyses, investigations, and standards will address this concern.

(4) Conclusion: The electromagnetic effects of electric railways are well understood from broad worldwide experience. The California HST project is using the conventional practices and appropriate analysis tools to ensure that all necessary protections and provisions will be used for the HST System. For these reasons, EMF effects on livestock would have negligible intensity under the National Environmental Policy Act (NEPA), and the impact would be less than significant under the California Environmental Quality Act (CEQA).

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Refer to Standard Response FB-Response-GENERAL-07.

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Stray voltages occur when there is a voltage or potential difference between the neutral conductor on an electrical system and the ground (earth). Stray currents occur when the earth conducts some of the current of a power system. Stray voltages and currents exist whenever a power system has more than one connection to the earth, so they are a general condition in homes, factories, farms, and anywhere electric power is used. As a result, engineers and power systems have well-established procedures and standards

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to provide protection against effects of stray voltages and currents.

Regarding corrosion effects of stray current, this is a significant concern for electrified transit systems which use DC power. The one-way current flow of DC power causes a continuing removal of metal from buried pipelines under some conditions. By comparison, AC power systems, such as the California HST and utility power systems around the world, do not cause continuing removal of metal, since the direction of current switches back and forth in each power cycle, 60 times per second.

The techniques which control stray voltages and currents to prevent against shocks are described in the Revised DEIR/Supplemental DEIS under Impact EMF/EMI #8 - Potential for Nuisance Shocks. These same provisions further reduced the possibility of corrosion of pipes or other buried metal structures.

Section 3.5, Electromagnetic Fields and Electromagnetic Interference, Impact EMF/EMI #7, page 3.5-17, of the Revised DEIR/Supplemental DEIS evaluates corrosion impacts on pipelines, cables, and adjoining rail in detail.

The analysis states that if adjacent pipelines and other linear metallic structures belonging to neighbors of the HST are not sufficiently grounded through the direct contact with earth, the project would include additional grounding of pipelines and other linear metallic objects adjacent to the HST, 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.

The California HST traction power and rail designs recognize the need to control stray voltages and currents to avoid shocks. The bonding and grounding of HST equipment will fulfill the requirements of EN 50122-1:2011, Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 1: Protective provisions against electric shock, Section 9.2.2. This standard was established specifically to protect people near traction power systems like the one for the HST.

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For the California HST, the running rails will be periodically connected to earth all along the track, and the rails will carry a significant amount of train propulsion current, called return current. This return current will create a stray voltage along the rails, which also will be connected to the earth due to the periodic grounding,

The project will calculate the maximum stray voltages, and will provide all necessary protections against shock from stray voltage (such as grounding procedures for metal fences, buildings, buried pipes, aboveground irrigation pipes, etc., which run parallel to the track).

The California HST project will avoid damaging buried structures through corrosion and avoid disturbing or injuring cattle or other animals or people near the HST track by:

* Using the broad knowledge of currents and fields from existing electric railways in the U.S. and around the world.
* Learning from the experience in preventing adverse effects.
* Performing the HST project actions to apply necessary protections along the HST track.

A Mitigation Monitoring and Enforcement Plan (MMEP) is required to ensure that adopted project design features and mitigation measures are successfully implemented. The Authority is the lead agency for the proposed project and is responsible for implementation of the MMEP. The MMEP will be active through all phases of the project, including design, construction, and operation. The project will be developed in phases and may include permits required for implementation of project components. There are mitigation measures that must be continuously implemented throughout the development and operation of the HST project. The MMEP identifies those mitigation measures required by the Authority to mitigate or avoid significant adverse impacts associated with the implementation of the proposed project, identifies the entity responsible for the monitoring and timing of the implementation, identifies the project phase each measure applies to, and verifies completion. The MMEP is also an aid to implementing the measures, monitoring their effectiveness, and preparing documentation. As individual mitigation measures are completed, the compliance

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monitor will sign and date the MMEP, indicating that the required mitigation measure has been completed for the subject period. The compliance monitor will also note the documentation (title of the monitoring report) that was submitted for each mitigation measure.

I033-152

Section 3.5, Electromagnetic Fields and Electromagnetic Interference, page 3.5-18, discusses impacts of ground currents on corrosion of underground pipelines and cables. As evaluated in the Revised DEIR/Supplemental DEIS, AC ground currents have a much lower propensity to cause corrosion in parallel conductors than the direct current used by rail transit lines, such as the Bay Area Rapid Transit or the Los Angeles County Metropolitan Transportation Authority. Nonetheless, the stray AC currents might cause corrosion by galvanic action. If adjacent pipelines and other linear metallic structures are not sufficiently grounded through direct contact with earth, the project would separately ground 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 possibility for corrosion from ground currents would be avoided by installing supplemental grounding or insulating sections in continuous metallic objects in accordance with standard HST designs.

The California HST project is implementing an Electromagnetic Compatibility Program Plan (EMCPP) during project planning, construction, and operation to achieve and ensure electromagnetic compatibility (EMC) with neighboring systems and equipment, including radio communications. The EMCPP's purpose is to ensure that the HST system, including its trains, traction power system, and communications systems, do not interfere with neighbors or with HST equipment.

As one of the EMCPP activities, the project will calculate the maximum stray voltages, and will provide all necessary protections against shock from stray voltage (such as grounding procedures for metal fences, buildings, buried pipes, aboveground irrigation pipes) that run parallel to the track.

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The California HST project is implementing an Electromagnetic Compatibility Program Plan (EMCPP) during project planning, construction, and operation to achieve and ensure electromagnetic compatibility (EMC) with neighboring systems and equipment, including radio communications. The EMCPP's purpose is to ensure that the California HST project, including its trains, traction power system, and communications systems, do not interfere with neighbors or with California HST equipment.

As one of the EMCPP activities, the Authority would positively locate metal pipelines and infrastructure within the potential impact area before construction. This would be done by probing, potholing, using electronic detection, reviewing as-built designs, or other means. The Authority is actively assimilating information on existing and planned utilities. The designs presented in the Revised DEIR/Supplemental DEIS are preliminary (15%-30% complete). The Authority will coordinate with utility owners to refine this information, identifying and evaluating all known facilities within the footprint during future design phases.

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The project will calculate the maximum stray voltages, and will provide all necessary protections against shock from stray voltage (such as grounding procedures for metal fences, buildings, buried pipes, and aboveground irrigation pipes) that run parallel to the track.

The Authority is implementing an Electromagnetic Compatibility Program Plan (EMCPP) during project planning, construction, and operation to achieve and ensure electromagnetic compatibility (EMC) with neighboring systems and equipment, including radio communications. The EMCPP's purpose is to ensure that the California HST project, including its trains, traction power system, and communications systems, do not interfere with neighbors or with HST equipment.

As one of the EMCPP activities, the Authority would positively locate metal pipelines and infrastructure within the potential impact area before construction. As noted in Section 3.5, Electromagnetic Fields and Electromagnetic Interference, page 3.5-13, installation of standard corrosion protection will eliminate risk of substantial corrosion.

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Section 3.5, Electromagnetic Fields and Electromagnetic Interference, page 3.5-11, states that standard HST design provisions would avoid the potential for corrosion of underground pipelines and cables. Page 3.5-13 of the Revised DEIR/Supplemental DEIS further states that if adjacent pipelines and other linear metallic structures are not sufficiently grounded through the direct contact with earth, the project would separately ground 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 possibility for corrosion from ground currents would be avoided by installing supplemental grounding or insulating sections in continuous metallic objects in accordance with standard HST designs.

A Mitigation Monitoring and Enforcement Plan (MMEP) is required to ensure that adopted project design features and mitigation measures are successfully implemented. The Authority is the lead agency for the proposed project and is responsible for implementation of the MMEP. The MMEP will be active through all phases of the project, including design, construction, and operation. The project will be developed in phases and may include permits required for implementation of project components. There are mitigation measures that must be continuously implemented throughout the development and operation of the HST project. The MMEP identifies those mitigation measures required by the Authority to mitigate or avoid significant adverse impacts associated with the implementation of the proposed project, identifies the entity responsible for the monitoring and timing of the implementation, identifies the project phase each measure applies to, and verifies completion. The MMRP is also an aid to implementing the measures, monitoring their effectiveness, and preparing documentation. As individual mitigation measures are completed, the compliance monitor will sign and date the MMEP, indicating that the required mitigation measure has been completed for the subject period. The compliance monitor will also note the documentation (title of the monitoring report) that was submitted for each mitigation measure.

The MMEP would provide the resource to investigate a potential corrosion problem after high-speed rail service begins.

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Refer to Standard Response FB-Response-GENERAL-01.

A Mitigation Monitoring and Enforcement Plan (MMEP) is required to ensure that adopted project design features and mitigation measures are successfully implemented. The Authority is the lead agency for the proposed project and is responsible for implementation of the MMEP.

The MMEP will be active throughout all phases of the project, including design, construction, and operation. The project will be developed in phases and may include permits required for implementation of project components. There are mitigation measures that must be continuously implemented throughout the development and operation of the HST project.

The MMEP identifies those mitigation measures required by the Authority to mitigate or avoid significant adverse impacts associated with the implementation of the proposed project, identifies the entity responsible for the monitoring and timing of the implementation, identifies the project phase each measure applies to, and verifies completion. The MMEP will help ensure that the measures are implemented, their effectiveness monitored, and documentation provided. As individual mitigation measures are completed, the compliance monitor will sign and date the MMEP, indicating that the required mitigation measure has been completed for the subject period. The compliance monitor will also note the documentation (title of the monitoring report) that was submitted for each mitigation measure.

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The commenter cites a doctoral thesis by Somasekaran. However, the author of the footnoted paper is incorrectly given as Muthechellia. The thesis reports adverse effects on samples cultivated for 12 days in:

* An electric field reported as 211 kV/m and 442 kV/m. These are extremely high electric field levels, and can only be found very near a the wire of a high-voltage line, high in the air. It is not credible that the author cultivated plants in this electric field level.

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* A magnetic field in a "laboratory condition" in a field reported as 956 mG, no frequency stated. The author does not describe the laboratory condition. Without specific information, the validity of comparing a laboratory condition to an outdoor cultivated condition cannot be used for assessment.

In any event, the California HST will expose adjacent crops to much lower electric field and magnetic field levels than the fields described in this paper. CHST TM 300.07, EIR/EIS Assessment of CHST Alignment EMF Footprint, shows that at the closest fence line to the California HST tracks, the expected magnetic field is 60 mG, less than one-fifth the typical level measured on the ground under a typical utility transmission line. Since agriculture can only be practiced outside the HST exclusion fence line, the electric field from the HST 25 kV 60 Hz OCS will be much lower (less than one-fifth the level) lower when compared to the exposure beneath a typical utility power transmission line. Hence, the conditions and results postulated in the thesis cited by the commenter would not be consistent with those near the HST alignment. Lower levels such as those caused by the HST are closer to the natural environment than the levels caused by a typical power transmission line, and therefore should be of less concern to an agricultural neighbor of the HST.

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The first cited paper by Bindokas (1981:2[4]:315-28) refers to the threshold of effects on honeybees as above 4.1 kV/m. This level is similar to the maximum permissible exposure (MPE) limit for 60-Hz static electric field of 5 kV/m provided by IEEE Std C95.6, IEEE Standard for Safety Levels with Respect to Human Exposure 10 to Electromagnetic Fields, 0–3 kHz. Below that level, Bindokas reports no adverse effects. The static electric field level that will be experienced by animals or people outside the California HST fence line is much lower than the 4.1 kV/m level cited by Bindokas, even for hives built at the fence line.

The discussion at http://www.emfs.info/The+Science/Agriculture/bees/ exemplifies the most commonly held fact-based science regarding effects. Specifically, bees can be affected if the hive is under (or very close to) a power line and if they receive microshocks. This is eliminated by moving away from very close or immediate contact

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with the source, often a high-voltage power line, or by screening the hive. In contrast, the effects of linear projects, such as power lines, provide a substantial area that is largely undisturbed and preferred by bees, specifically unmoved power line rights-of-way, as discussed in *Biological Conservation* (124 [2005] 133–148 by N. Russell, H. Ikerd, S. Droege). Other than that effect, there does not seem to be evidence that EMFs or power lines adversely affect bees. In http://nocapx2020.info/wp-content/uploads/2010/02/attachment5.pdf, there appear to be no reports by beekeepers that hives and honeybee colonies are actually affected by proximity to power lines and the associated magnetic fields. That research suggests that effects to bees are documented only at electric field intensities above 4.0 kV/m (Greenberg et al.1981), and are likely caused by microshocks experienced by the honeybees when landing on electrically conducting surfaces. No effects have been reported for airborne honeybees in extremely low-frequency electric fields as high as 300 kV/m.

Potential effects of low-frequency electric and magnetic fields on living organisms have been investigated, but the findings have been equivocal (NRC 1997; Pagnac et al. 1998), and there is a lack of consistent evidence supporting outcomes that are adverse.

The 60-Hz fields primarily associated with HST and evaluated in the Revised DEIR/Supplemental DEIS do not have effects of note when not in direct contact or extremely close to a source. This a condition that would not be posed by the physical layout of the California HST System or attendant power lines serving the proposed project.

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The first cited paper by Bindokas (1981:2[4]:315-28), refers to the threshold of effects on honeybees as above 4.1 kV/m. This level is similar to the maximum permissible exposure (MPE) limit for 60-Hz static electric field of 5 kV/m provided by IEEE Std C95.6, IEEE Standard for Safety Levels with Respect to Human Exposure 10 to Electromagnetic Fields, 0–3 kHz. Below that level, Bindokas reports no adverse effects.The static electric field level that will be experienced by animals or people outside the California HST fence line is much lower than the 4.1 kV/m level cited by Bindokas, even for hives built at the fence line.

I033-159

The discussion at http://www.emfs.info/The+Science/Agriculture/bees/ exemplifies the most commonly held fact-based science regarding effects. Specifically, bees can be affected if the hive is under (or very close to) a power line and if they receive microshocks. This is eliminated by moving away from very close or immediate contact with the source, often a high-voltage power line, or by screening the hive. In contrast, the effects of linear projects, such as power lines, provide a substantial area that is largely undisturbed and preferred by bees, specifically unmoved power line rights-of-way, as discussed in *Biological Conservation* (124 [2005] 133–148 by N. Russell, H. Ikerd, S. Droege). Other than that effect, there does not seem to be evidence of EMFs or power lines adversely affecting bees. In http://nocapx2020.info/wp-content/uploads/2010/02/attachment5.pdf, there appear to be no reports by beekeepers that hives and honeybee colonies are actually affected by proximity to power lines and the associated magnetic fields. That research suggests that effects to bees are documented only at electric field intensities above 4.0 kV/m (Greenberg et al. 1981), and are likely caused by microshocks experienced by the honeybees when landing on electrically conducting surfaces. No effects have been reported for airborne honeybees in extremely low-frequency electric fields as high as 300 kV/m.

Potential effects of low-frequency electric and magnetic fields on living organisms have been investigated, but the findings have been equivocal (NRC 1997; Pagnac et al. 1998), and there is a lack of consistent evidence supporting outcomes that are adverse.

The 60-Hz fields primarily associated with HST and evaluated in the Revised DEIR/Supplemental DEIS do not have effects of note when not in direct contact or extremely close to a source. This a condition that would not be posed by the physical layout of the California HST System or attendant power lines serving the proposed project.

I033-160

The potential impacts of the HST System on electricity generation and transmission includes the entire state of California (and western states that produce energy that is exported to California) because the HST System would obtain electricity from multiple connection points throughout the statewide grid. Prorating the electricity requirements

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for any one segment of the HST System based on statewide demand is a reasonable approximation due to the operational requirements of HST across multiple project sections and the power for those sections being provided by the statewide (and multi-state) electrical grid. The HST System is expected to require less than 1% of the state's future electricity consumption. The Fresno to Bakersfield Section of the HST is estimated to require 78 megawatts (MW) of peak demand, which is within existing reserves. The HST project would not require the construction of a separate power source and would not impact power reliability.

Appendix 3.6-C of the Revised Draft EIR/Supplemental Draft EIS discusses the methodology for estimating electricity demand.

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Refer to Standard Response FB-Response-PU&E-02.

The potential impacts of the HST System on electricity generation and transmission includes the entire state of California (and western states that produce energy that is exported to California) because the HST System would obtain electricity from multiple connection points throughout the statewide grid. Prorating the electricity requirements for any one segment of the HST System based on statewide demand is a reasonable approximation due to the operational requirements of HST across multiple project sections and the power for those sections being provided by the statewide (and multi-state) electrical grid. The HST System is expected to require less than 1% of the state's future electricity consumption. The Fresno to Bakersfield Section of the HST is estimated to require 78 megawatts (MW) of peak demand, which is within existing reserves. The HST project would not require the construction of a separate power source and would not impact power reliability. The power will be cyclic when the demand is required to power the train.

Appendix 3.6-C of the Revised DEIR/Supplemental DEIS discusses the methodology for estimating electricity demand. In the 2008 Bay Area to Central Valley Program EIR/EIS (Authority and FRA 2008), the statewide energy impacts of the proposed HSR project were analyzed using a methodology from the 2005 Statewide Program EIR/EIS (Authority and FRA 2005). The 2012 energy impact analysis reflects a refinement to the

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analysis presented in those documents. The 2012 analysis utilizes updated conversion factors, ridership forecasts, train sets and vehicle miles traveled, among other parameters. Please refer to Appendix 3.6-C and cited references and assumptions for detailed information on various parameters, along with their values used in the two analyses.

I033-162

Southern California Edison's proposed Mascot Electrical Substation project was approved by the CPUC in the 2nd quarter of 2011. While the analysis of project-level effects in Section 3.6 Public Utilities and Energy evaluates anticipated effects to existing public utility facilities and services, the proposed Mascot substation was not implemented at the time of the Draft EIR/EIS analysis. Based on a review by HST planning engineers, the proposed Mascot substation would not be directly affected; however, the route of power lines connected to the proposed facility may need to be altered.

The Draft EIR/EIS at page 3.6-14 refers to Appendix G of the CEQA Guidelines, which states that a significant impact on utilities and service systems would occur if the project results in a conflict with a fixed facility such as an electrical substation. No such impact would result. However, the project team has and will continue to actively coordinate with utility providers during all the design phases of the project to identify, describe, and evaluate the HST's potential impact on existing electrical infrastructure. Where the project would require modification of any electrical substation or electrical transmission, power, or distribution line, such modifications would be conducted in compliance with the California Public Utilities Commission's General Order 131-D. The Authority will assist utility providers in applying for a permit from the CPUC under CPUC General Order 131-D, including the need for any additional environmental review necessary for transmission line relocation or extension, or other new or modified facilities, and any localized increase in electrical loads identified as part of the more detailed design.

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People and businesses in California use electric power and radio frequency communications for many purposes and services in homes, businesses, farms, and factories. The intensive use of electric power and

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radio frequency communications in California and all developed countries has ensured that the potential interference effects of electromagnetic fields and resulting currents and voltages on equipment have been thoroughly studied. As a result, the levels at which electromagnetic fields (EMFs) and radio frequency (RF) fields can cause impacts on other systems are well-established. Broadly used international standards were created based on intensive investigation to ensure that:

* EMF and RF fields and resulting stray currents and voltages are measured and controlled.
* Fields do not disturb or disrupt systems and equipment of passengers or neighbors.

The California HST alternative track alignments pass near many wireless systems used by neighbor residents, businesses, public safety services, and governments.

The Authority is implementing an Electromagnetic Compatibility Program Plan (EMCPP) during project planning, construction, and operation to achieve and ensure electromagnetic compatibility (EMC) with neighboring systems and equipment, including radio communications. The EMCPP's purpose is to ensure that the HST System, including its trains, traction power system, and communications systems, does not interfere with neighbors or with HST equipment.

During the planning stage through the 30% system design, the Authority will perform EMC/electromagnetic interference (EMI) safety analyses to identify existing radio systems at nearby uses, will specify and design systems to prevent EMI with identified neighboring uses, will require compliance with international standards limiting emissions to protect neighboring uses, and will incorporate these design requirements into bid specifications used to procure radio and all other HST systems, including trains, traction power systems, and communication systems. The implementation stage will include 100% system design and will include final engineering design, monitoring, testing, and evaluation of system performance.

Section 3.5 Electromagnetic Fields and Electromagnetic Interference, of the EIR/EIS primarily considers EMFs at the 60-hertz (Hz) power frequency and at RFs produced intentionally by communications or unintentionally by electric discharges. EMI is avoided

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from intentionally produced communications and from other energy sources primarily through the Authority's commitment to adhere to its EMCPP. The EMCPP's commitment is to control EMI from all sources to levels compliant with broadly used international standards. The focus of the EMF/EMI analysis is on sensitive or susceptible RF equipment.

The HST project would use radio systems for automatic train control, data transfer and communications. California HST radio systems would transmit radio signals from antennas located at stations and the heavy maintenance facility (HMF) along the track alignment and on locomotives and train cars. The HST System may acquire two dedicated frequency blocks in the 900 megahertz (MHz) frequency range presently used by cellular telephones for use by automatic train control systems or may use other licensed, exclusive-use frequencies. If used, this spectrum would be dedicated for HST use, and EMI with other users would not be expected. Communications systems at stations may operate at Wi-Fi frequencies to connect to stationary trains; channels would be selected to avoid EMI with other users, including Wi-Fi systems at use at nearby schools (Authority 2011c, 2011f).

Most radio systems procured for HST use are expected to be commercial off-the-shelf systems (COTS) conforming to Federal Communications Commission (FCC) regulations at Title 47 Code of Federal Regulations Part 15, which contains emissions requirements designed to ensure EMC among users and systems. The Authority will require all non-COTS systems procured for HST use to be certified as being in conformity with FCC regulations for Part 15, Sub-part B, Class A devices. HST radio systems will also meet emissions and immunity requirements (which are contained in the European Committee for Electrotechnical Standardization [CENELEC] EN 50121-4 Standard for railway signaling and telecommunications operations) and will be designed to provide electromagnetic compatibility with other radio users (CENELEC 2006).

All HST radio systems will fully comply with applicable FCC regulations, whose purpose is to ensure that authorized radio systems can operate without disturbance from all other authorized systems.

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Access to utilities within the HST right-of-way would be limited to maintenance. Underground wet utilities, such as water, sewer, storm drains, gas, and petroleum lines, are conveyed inside a pipeline material with a service life typically of 50 years or more. Utilities that remained in the HST right-of-way would be placed in a casing pipe that is strong enough to carry the HST System facilities. This casing pipe is large enough to accommodate equipment for remote monitoring of the condition of the carrier pipe. If the utility conveyance pipeline were in need of repair or replacement, the casing pipe would stay in place so that HST operations could continue. It is anticipated that service infrastructure upgrades or replacements within the casing pipe would not be susceptible to day-to-day or emergency repair, but would still be accessible for repair. It is common practice that utility districts coordinate and schedule in advance of any field visits to their facilities with the owner of the property within which their facilities lie. Prior to construction in areas where utility service interruptions are unavoidable, the contractor would notify through a combination of communication media (e.g., by phone, email, mail, newspaper notices, or other means) landowners within that jurisdiction and the affected service providers of the planned outage. The notification would specify the estimated duration of the planned outage and would be published no fewer than 7 days prior to the outage. Construction would be coordinated to avoid interruptions of utility service to hospitals and other critical users. Construction contractor special provisions would require that the full operation and functioning of the existing sewer collection system be maintained and undisrupted. Refer to Section 3.6, Public Utilities and Energy, pages 3.6-45 and 3.6-46 of the Revised DEIR/Supplemental DEIS.

I033-165

Refer to Standard Response FB-Response-AG-04, FB-Response-HWR-01, FB-Response-PU&E-03.

Existing irrigation lines crossing HST right-of-way would either be relocated or protected-in-place. Irrigation lines crossing HST right-of-way will be encased in steel casings capable of protecting the irrigation line contained within it, and the length of the casing will be extended sufficiently beyond the HST right-of-way so that future access to the casings can be made without impacting the HST right-of-way. All related appurtenances to irrigation lines and their casings will be placed outside HST right-of-way, so that any maintenance of the water lines can be performed without the need to access HST right-

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of-way. Due to the purpose and design of the casing protecting irrigation lines and other infrastructure crossings, the potential for unanticipated disruptions and associated liabilities described by the commenter would not be expected to occur.

I033-166

The potential impacts of the HST System on electricity generation and transmission includes the entire state of California (and western states that produce energy that is exported to California) because the HST System would obtain electricity from multiple connection points throughout the statewide grid. Prorating the electricity requirements for any one segment of the HST System based on statewide demand is a reasonable approximation due to the operational requirements of HST across multiple project sections and the power for those sections being provided by the statewide (and multi-state) electrical grid. The HST System is expected to require less than 1% of the state's future electricity consumption. The Fresno to Bakersfield Section of the HST is estimated to require 78 megawatts (MW) of peak demand, which is within existing reserves. The HST project would not require the construction of a separate power source and would not impact power reliability.

Appendix 3.6-C of the Revised Draft EIR/Supplemental Draft EIS discusses the methodology for estimating electricity demand.

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The potential impacts of the HST System on electricity generation and transmission includes the entire state of California (and western states that produce energy that is exported to California) because the HST System would obtain electricity from multiple connection points throughout the statewide grid. Prorating the electricity requirements for any one segment of the HST System based on statewide demand is a reasonable approximation due to the operational requirements of HST across multiple project sections and the power for those sections being provided by the statewide (and multi-state) electrical grid. The HST System is expected to require less than 1% of the state's future electricity consumption. The Fresno to Bakersfield Section of the HST is estimated to require 78 megawatts (MW) of peak demand, which is within existing reserves. The HST project would not require the construction of a separate power source and would not impact power reliability.

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Appendix 3.6-C of the Revised Draft EIR/Supplemental Draft EIS discusses the methodology for estimating electricity demand.

I033-168

Refer to Standard Response FB-Response-PU&E-01.

The Revised Draft EIR/Supplemental Draft EIS includes text and figures describing transmission lines upgrades, connections and their locations, and they are anticipated to be within the project footprint. The potential impacts on biological resources and other resource areas has been considered in the appropriate chapters of the RDEIR/SDEIS. The commenter has not identified any impacts from the upgrades or possible new transmission lines that have not been considered and mitigated in the RDEIR/SDEIS.

In addition, the project team has been coordinating, and will continue to actively coordinate, with PG&E and SCE during the early design phases of the project to identify, describe, and evaluate the HST's potential impact on existing electrical and gas infrastructure. As appropriate and commensurate to the early stage of engineering design, modifications have been made to the Revised Draft EIR/Supplemental Draft EIS to reflect the comments provided (see Section 3.6.2 Laws, Regulations, and Orders). As the design progresses and PG&E provides additional site-specific details, additional review of environmental impacts will by considered, and if necessary, additional CEQA and NEPA documentation will be completed. Where the project would require modification of any electrical facilities or power distribution line, such modifications would be conducted in coordination with the affected utility. For this section, PG&E [*AND SCE?]*would need to apply for permits under California Public Utilities Commission General Order 131-D, including its requirements for CEQA review and compliance and permitting. The Authority will assist utility providers in applying for a permit from the CPUC under CPUC General Order 131-D, including the need for any additional environmental review necessary for transmission line relocation or extension, or other new or modified facilities, and any localized increase in electrical loads identified as part of the more detailed design.

I033-169

Refer to Standard Response FB-Response-PU&E-03.

The proposed project would protect or reroute potentially affected existing public utility infrastructure in the Ponderosa community including any natural gas line located under Ponderosa Street. The Authority's construction contractor will coordinate schedules for utility relocations and protection-in-place with the utility owner to ensure the project would minimize or eliminate the potential for disruption of service to affected users and the community.

Available information on the presence of high risk utilities, such as natural gas transmission lines and large natural gas distribution lines, was collected for the utility analysis in the EIR/EIS. This information was used to compare the number of high risk utilities that each alternative alignment would intersect, including the natural gas distribution line in the Ponderosa area. This provided a measure of comparison among alternatives on important utility relocation impacts caused by the project. The objective of this approach was to provide the reader with an understanding of the relative magnitude of relocations for high risk utilities that would be required for each alternative. Because of the length of the project, an analysis is not provided of the specific relocation plans required for each individual utility. The designs presented in the EIR/EIS are based on preliminary engineering. Therefore, exact utility relocations would be identified as the design further develops.

Relocation of utility services would not result in a significant impact. The Authority would work with utility owners during final engineering design and construction of the project to relocate utilities or protect them in place. Where existing underground utilities such as gas, petroleum, and water pipelines cross the HST alignment, the utilities would be placed in a protective casing so that future maintenance could be accomplished outside of the HST right-of-way. The project construction contractor would coordinate schedules for utility relocations and protection-in-place with the utility owner to ensure the project would not result in prolonged disruption of services.

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Refer to Standard Response FB-Response-AG-04, FB-Response-HWR-01.

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The Authority would work with irrigation districts and landowners to protect irrigation systems. Canals may be bridged or placed in pipelines beneath the HST right-of-way. Irrigation pipelines crossing the alignment would be relocated or placed in protective casing so that future maintenance of the line could be accomplished outside of the HST right-of-way.

Project impacts to irrigation systems including water wells, resulting replacement infrastructure providing equal utility, and/or potential ramifications will be addressed during the appraisal process with consultation from experts in the hydraulic engineering and agriculture management fields. The timing of any restorative work or reconfigurations will be addressed at the acquisition stage and documented in the right-of-way contract (provisions regarding the timing of irrigation pipes would be addressed at this time to correlate with periods of decreased water demand). The Authority is also working with local districts and municipalities to minimize service disruptions to water distribution systems. The Authority will fairly compensate land owners for loss or disruptions to their operations during the right-of-way acquisition process, including the severing of irrigation systems or water supply lines. The intention is to allow time for upgrades and relocations to occur before construction to minimize irrigation disruptions due to construction and operation of the HST.

I033-171

Refer to Standard Response FB-Response-AG-04, FB-Response-HWR-01.

The Authority would work with irrigation districts and landowners to protect irrigation systems. Canals may be bridged or placed in pipelines beneath the HST right-of-way. Irrigation pipelines crossing the alignment would be relocated or placed in protective casing so that future maintenance of the line could be accomplished outside of the HST right-of-way. Project impacts to irrigation systems including water wells, resulting replacement infrastructure providing equal utility, and/or potential ramifications will be addressed during the appraisal process with consultation from experts in the hydraulic engineering and agriculture management fields. The timing of any restorative work or reconfigurations will be addressed at the acquisition stage and documented in the right-of-way contract (provisions regarding the timing of irrigation pipes would be addressed

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at this time to correlate with periods of decreased water demand). The Authority is also working with local districts and municipalities to minimize service disruptions to water distribution systems. The Authority will fairly compensate land owners for loss or disruptions to their operations during the right-of-way acquisition process, including the severing of irrigation systems or water supply lines. The intention is to allow time for upgrades and relocations to occur before construction to minimize irrigation disruptions due to construction and operation of the HST.

I033-172

Refer to Standard Response FB-Response-AG-04.

The Authority would work with irrigation districts and landowners to protect irrigation systems. Canals may be bridged or placed in pipelines beneath the HST right-of-way. Irrigation pipelines crossing the alignment would be relocated or placed in protective casing so that future maintenance of the line could be accomplished outside of the HST right-of-way. Project impacts to irrigation systems including water wells, resulting replacement infrastructure providing equal utility, and/or potential ramifications will be addressed during the appraisal process with consultation from experts in the hydraulic engineering and agriculture management fields. The timing of any restorative work or reconfigurations will be addressed at the acquisition stage and documented in the right-of-way contract (provisions regarding the timing of irrigation pipes would be addressed at this time to correlate with periods of decreased water demand). The Authority is also working with local districts and municipalities to minimize service disruptions to water distribution systems. The Authority will fairly compensate land owners for loss or disruptions to their operations during the right-of-way acquisition process, including the severing of irrigation systems or water supply lines. The intention is to allow time for upgrades and relocations to occur before construction to minimize irrigation disruptions due to construction and operation of the HST.

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The text of the EIR/EIS has been revised to reflect the correct reference in Section 3.6 Public Utilities and Energy:

"In addition, local water-use efficiency goals mandated statewide under SB x7-7, the

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Water Conservation Act, would partially offset the additional water demand expected from the HST station operation."

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Refer to Standard Response FB-Response-PU&E-03.

Should the Kings/Tulare Regional Station-East Alternative be built, the Authority would extend the existing City of Hanford wastewater sewed trunk line on the east side of Hanford to the station site. The Authority would compensate the city for this infrastructure extension. An analysis of impacts of the extension of the city's wastewater trunk is provided in the Final EIR/EIS in Section 3.6 Public Utilities and Energy.

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The designs presented in the Revised Draft EIR/Supplemental Draft EIS are based on preliminary engineering. The hydrology analysis for the I-710 Corridor project was performed based on a higher level of engineering design.

During final HST design, an evaluation of each receiving stormwater system's capacity to accommodate project runoff would be conducted. As necessary, onsite stormwater management measures, such as detention or selected upgrades to the receiving system, would be included in the design to provide adequate capacity. Project stormwater pipelines and ditches would be sized to convey runoff from the 25-year storm in rural areas and the 50-year storm in urban areas. Measures such as onsite retention, infiltration basins, and detention ponds would be used to maintain offsite stormwater discharge in compliance with the General Construction Stormwater Permit issued by the State Water Resources Control Board (SWRCB). The Authority is processing an individual stormwater permit for the discharge of stormwater from the new HST facilities, similar to the individual permit that Caltrans holds. The Authority is actively working with SWRCB to develop the post construction design guidelines that the Authority's contractor will be required to use for treatment of stormwater quality and volumes. The post construction design standards are addressed in Section 5, "Post Construction Stormwater Treatment Controls," of the Post Construction Stormwater Quality Standard Technical Memorandum (Authority April 2013). The standards provide sizing for the 85th percentile 24-hour storm to protect water quality and the landscape

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from hydromodification, which is of particular concern in regions with earth lined canals. Section 3.8 includes estimated amount of impervious area, the water quality design volume, and infiltration basin size based on water quality requirements for BMP design for the Kings/Tulare Regional Stations, HMF sites, and bridges or aerial structures at major river and creek crossings. However, siting of specific stormwater facilities would be accomplished during detailed design.

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Refer to Standard Response FB-Response-GENERAL-01.

This comment suggests that the Revised DEIR/Supplemental DEIS has inappropriately deferred the identification of measures necessary to mitigate significant effects that may result from construction of the Fresno to Bakersfield Section. The Revised DEIR/Supplemental DEIS does not defer mitigation, but rather provides an extensive set of mitigation measures using performance standards included in project approval decisions made in the future by the Authority and the FRA, and to be further reviewed, refined, and applied as design progresses and permits are obtained from other agencies. Under CEQA, where the design details of the project have not been fully developed and the development of specific mitigation will rely upon information not yet available, an EIR may take a phased approach to the development of specific mitigation, provided that it has analyzed the impact and made a significance determination, commits to mitigation in the form of a mitigation measure for the significant effect, and specifies "performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way" (14 CCR 15126.4(a)(1)(b)). The same is true under NEPA. The EIS must discuss mitigation "in sufficient detail to ensure that environmental consequences have been fairly evaluated," but it is not necessary to formulate and adopt a complete mitigation plan (Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 352 [1989]).

The mitigation measures identified in the Revised DEIR/Supplemental DEIS meet these requirements. During preparation of the impact sections, technical staff identified those impacts that would potentially exceed a level of significance. The Revised DEIR/Supplemental DEIS identifies mitigation measures that will avoid, reduce, or otherwise mitigate each such potentially significant impact. Feasible mitigation is

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expected to be adopted to address each significant effect that was identified in the Revised DEIR/Supplemental DEIS. As mentioned above, the Revised DEIR/Supplemental DEIS identifies impacts that could not be reduced below the level of significance as significant and unavoidable.

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The potential impacts of the HST System on electricity generation and transmission includes the entire state of California (and western states that produce energy that is exported to California) because the HST System would obtain electricity from multiple connection points throughout the statewide grid. Prorating the electricity requirements for any one segment of the HST System based on statewide demand is a reasonable approximation due to the operational requirements of HST across multiple project sections and the power for those sections being provided by the statewide (and multi-state) electrical grid. The HST System is expected to require less than 1% of the state's future electricity consumption. The Fresno to Bakersfield Section of the HST is estimated to require 78 megawatts (MW) of peak demand, which is within existing reserves. The HST project would not require the construction of a separate power source and would not impact power reliability.

Appendix 3.6-C of the Revised Draft EIR/Supplemental Draft EIS discusses the methodology for estimating electricity demand.

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Refer to Standard Response FB-Response-GENERAL-02.

Although hydrological impacts would differ if the BNSF Alternative followed the existing transportation corridor in Kings County (e.g., at the Kings River crossing at Laton), this option was eliminated from the initial alternatives because of engineering constraints associated with turning curves through the city of Hanford.

I033-179

Refer to Standard Response FB-Response-GENERAL-03.

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Water demand under the cumulative scenario, which includes the HST project and other past, present, and reasonably foreseeable future projects, is qualitatively described in Section 3.19.4.2, High-Speed Train Alternatives Contributions, Hydrology and Water Resources (under Short- and Long-Term Project Effects, Water Use). As described therein, future water demand, including groundwater use, in the Tulare Lake Basin has been modeled by the Department of Water Resources (DWR) based on possible baseline scenarios.

As described in FB-Response-GENERAL-03, the analysis undertaken by the Authority and FRA show that the HST System has the potential to induce some growth and intensify growth near stations. Both population and employment in Fresno, Kings, Tulare, and Kern counties are projected to grow at a higher average annual rate than California as a whole, and are described in detail in Section 3.18. The growth inducement analysis in Section 3.18 of the EIR/EIS shows that in counties analyzed within the study area (Fresno, Kings, Tulare, and Kern), the HST alternatives are projected to induce somewhat more population growth (about 3% more total population) and create additional future employment opportunities (about 4% more total jobs) than would occur under the No Project Alternative (refer to Table 3.18-18 in the EIR/EIS).

Therefore, the HST project would cause water demand for operation and urban demand associated with the 2% to 3% population increase anticipated as a result of the HST project (compared to the No Project projections). On the other hand, the HST project would reduce demand for irrigation water within the project footprint, partially offsetting project operation water use and water use associated with population increase.

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As described in Section 3.18, Regional Growth, the HST would result in a small amount of induced population and employment growth statewide, with the largest growth effects anticipated to occur in Merced and Madera counties, followed by the remainder of the Central Valley. The HST's induced growth in Fresno, Kings, Tulare, and Kern counties is estimated to be 2% to 3%, depending on the county.

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As described in FB-Response-GENERAL-03, Relocation and Long Range Commuting, the growth-inducement analysis in the Revised DEIR/Supplemental DEIS considered the potential for people to move from the coast to less expensive housing in the Central Valley, including commuters. However, travel time alone does not determine a reasonable commute mode and commute distance. Willingness to relocate in order to save housing costs is a function of housing cost, the quality of available housing (including quality of schools), commute time, and cost of the daily commute.

The HST will not be a below-market cost, subsidized commuter rail service, but instead would provide rapid long-distance travel, priced at commercial market rates. HST fares are expected to be tied to typical airplane fares.

Projected water demand under future conditions and water demand associated with HST's induced growth are discussed in Section 3.19.4.2, High-Speed Train Alternatives Contributions, Hydrology and Water Resources (under Short- and Long-Term Project Effects, Water Use). Projections of future water demand in the Tulare Lake Basin have been analyzed by the Department of Water Resources (DWR). Overall, estimates by DWR show a range of possible future trends in water demand in the Tulare Lake Basin, which vary depending upon several factors, including how climate change is factored into the model. The majority of the scenarios predict a decrease in future water demand. Water demand from the HST's operation and induced growth would be partially offset by a reduction in water demand from irrigated lands.

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The HST-related induced growth in Fresno, Kings, Tulare and Kern counties is estimated to be 2% to 3%, depending on the county. Projections of future water demand in the Tulare Lake Basin have been analyzed by the California Department of Water Resources (DWR). Overall, estimates by DWR show a range of possible future trends in water demand in the Tulare Lake Basin, which vary depending upon several factors, including how climate change is factored into the model. The majority of the scenarios predict a decrease in future water demand. Water demand from HST-induced growth would be partially offset by a reduction in water demand from irrigated lands.

Induced growth is analyzed in Section 3.18, Regional Growth. Projected water demand

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under future conditions and water demand associated with the HST's induced growth are also discussed in Section 3.19, Cumulative Impacts. Also, note that current and projected future water supplies used to meet local urban demand (and the relative contribution of groundwater and surface water) are analyzed by municipal supply districts in Urban Water Management Plans.

I033-182

Estimates of existing regional groundwater demand and groundwater extraction for local municipal supply are provided in Table 3.8-16 of Section 3.8, Hydrology and Water Resources. Existing regional groundwater demand is large (greater than 4 million acre feet/yr) and changes due to project operations and HST induced growth would be small compared to regional groundwater use. The HST project would also reduce demand for irrigation water within the project footprint, offsetting project operation water use and water use associated with population increase. Therefore the project would not contribute to subsidence.

The Revised DEIR/Supplemental DEIS evaluates whether the project is located on a geologic unit or soil that is unstable, or that would become unstable, as a result of the project. One of the considerations is subsidence from groundwater or petroleum withdrawal. The Revised DEIR/Supplemental DEIS (see Section 3.9.4.4, Geologic Hazards) states that substantial subsidence has occurred in the San Joaquin Valley, primarily due to groundwater extraction; however, the areas with greatest land subsidence are in the western portion of the San Joaquin Valley where subsidence of more than 28 feet was recorded between 1926 and 1970. In the area of the HST alternatives, including the north-south alignments, wyes, stations, and HMF, subsidence has been far less dramatic than on the western side of the valley, where subsidence was measured at less than 1 foot between 1926 and 1970 (Faunt 2009; Galloway and Riley 1999). Over the last several decades, the use of pipelines and aqueducts for surface water deliveries from other parts of California has reduced dependence on groundwater for agricultural use, and land subsidence has slowed or reversed in some areas of the San Joaquin Valley. During drought conditions, however, increased reliance on groundwater may result in increased subsidence rates.

Construction and operation of the Fresno to Bakersfield Section would not change subsidence rates compared to existing conditions. The project does not include features

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(e.g., major new sources of groundwater extraction) that would contribute to subsidence. As described in Section 3.8, the project would cause land to be removed from agricultural production. Some of these lands are irrigated with groundwater, and therefore localized groundwater withdrawals would likely be reduced.

The project will be designed so that geotechnical constraints (e.g., subsidence from groundwater withdrawal, soil settlement from new earth loads, etc.) do not result in premature degradation of the alignment such that speeds are reduced or operation and maintenance costs are unacceptably high. Prerequisite geotechnical and geologic evaluations, design features, and management measures to reduce or eliminate risk from poor or unexpected geologic conditions or from long-term effects of the project on geology are described in the EIR/EIS.

I033-183

Estimates of existing regional groundwater demand and groundwater extraction for local municipal supply are provided in Table 3.8-16 of Section 3.8, Hydrology and Water Resources. Existing regional groundwater demand is large (greater than 4 million acre-feet/year) and changes due to project operations and HST induced growth would be small compared to regional groundwater use. The HST project would also reduce demand for irrigation water within the project footprint, offsetting project operation water use and water use associated with population increase. Therefore the project would not contribute to subsidence.

The Revised DEIR/Supplemental DEIS evaluates whether the project is located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project. One of the considerations is subsidence from groundwater or petroleum withdrawal. The Revised DEIR/Supplemental DEIS (refer to Section 3.9.4.4, Geologic Hazards) states that substantial subsidence has occurred in the San Joaquin Valley, primarily due to groundwater extraction; however, the areas with greatest land subsidence are in the western portion of the San Joaquin Valley, where subsidence of more than 28 feet was recorded between 1926 and 1970. In the area of the HST alternatives, including the north-south alignments, wyes, stations, and HMF, subsidence has been far less dramatic than on the western side of the valley, with subsidence measured at less than 1 foot between 1926 and 1970 (Faunt 2009; Galloway and Riley 1999). Over the last several decades, the use of pipelines and aqueducts for surface

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water deliveries from other parts of California has reduced dependence on groundwater for agricultural use, and land subsidence has slowed or reversed in some areas of the San Joaquin Valley. During drought conditions, however, increased reliance on groundwater may result in increased subsidence rates.

Construction and operation of the Fresno to Bakersfield Section would not change subsidence rates compared to existing conditions. The project does not include features (e.g., major new sources of groundwater extraction) that would contribute to subsidence. As described in Section 3.8, the project would cause land to be removed from agricultural production. Some of these lands are irrigated with groundwater, and therefore localized groundwater withdrawals would likely be reduced.

The project will be designed so that geotechnical constraints (e.g., subsidence from groundwater withdrawal, soil settlement from new earth loads, etc.) do not result in premature degradation of the alignment such that speeds are reduced or operation and maintenance (O&M) costs are unacceptably high. Prerequisite geotechnical and geologic evaluations, design features, and management measures to reduce or eliminate risk from poor or unexpected geologic conditions or from long-term effects of the project on geology are described in the EIR/EIS.

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No septic systems are proposed as part of the project. Should the Kings/Tulare Regional Station-East Alternative be built, the Authority would pay for the extension of the existing sewer trunk line on the east side of Hanford to the station site. The Authority would compensate the City for this infrastructure extension. The Final EIR/EIS includes the potential impacts of extending the sewer trunk line in Section 3.6 Public Utilities and Energy. Wastewater from the stations represents 1% or less of the excess capacities of the treatment facilities serving Fresno, Hanford, and Bakersfield. Capacities of wastewater treatment systems are also described in Section 3.6.

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The impact of septic systems was not been analyzed in the Revised Draft EIR/Supplemental Draft EIS because no septic systems are proposed as part of the project. Should the Kings/Tulare Regional Station-East Alternative be built, the Authority

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would pay for the extension of the existing sewer trunk line on the east side of Hanford to the station site. The Authority would compensate the City for this infrastructure extension. The Final EIR/EIS includes the potential impacts of extending the sewer trunk line in Section 3.6 Public Utilities and Energy.

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Refer to Standard Response FB-Response-SO-01.

See EIR/EIS Volume I Section 3.12, Impact SO #9, for information on why 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 if there are not sufficient comparable vacant homes in the Ponderosa area. For more information on the property acquisition and compensation process see EIR/EIS Volume II Technical Appendix 3.12-A.

All communities that participate in the Federal Flood Insurance Program are expected to restrict construction in the 100-year floodplain. It is too speculative to assume that the County will allow individuals to relocate into the floodplain.

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Refer to Standard Response FB-Response-SO-01.

According to the Revised DEIR/Supplemental DEIS, Section 3.12, Socioeconomics, Communities, and Environmental Justice, there is enough vacant housing nearby to compensate for HST housing displacement, and therefore no new housing construction would be required. All communities that participate in the Federal Flood Insurance Program are expected to restrict construction in the 100-year floodplain. It is too speculative to assume that the county will allow individuals to relocate into the floodplain.

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Refer to Standard Response FB-Response-HWR-03.

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Impact HWQ#8, Permanent Impacts on Floodplains, discusses the project impacts on floodplains. In areas with concentrated flow, such as rivers and streams, openings in the embankment (e.g., bridges and culverts) would allow the same volume of water to pass along the same flow path. In overland areas with shallow flooding, water is ponded without concentrated flow, and openings in the embankment (e.g., culverts) would continue to allow floodwaters to pass in the down-gradient direction. These areas drain slowly as a result of the flat topography and shallowly sloped land gradient, and water has minimal energy. These conditions are similar to existing conditions. Openings within the HST embankment would be sized to allow conveyance without increasing the water surface elevation in the 100-year floodplain by more than 1 foot, or as required by state or local agencies. This is described throughout this impact section and further described in Section 3.8.6, Project Design Features, under Project Design Features for Flood Protection. The 1-foot increase in base flood elevation (associated with the 100-year flood) was chosen as the significance criteria to be consistent with FEMA guidelines.

I033-189

Refer to Standard Response FB-Response-GENERAL-21, FB-Response-HWR-03.

Impact HWQ#8, Permanent Impacts on Floodplains, discusses the project impacts on floodplains. This section includes a description of all of the river and creek crossings and a description of potential floodplain impacts at each of these crossings. Appendix 3.8-B describes the results of the hydraulic modeling at river and creek crossings. In areas with concentrated flow, such as rivers and streams, openings in the embankment (e.g., bridges and culverts) would allow the same volume of water to pass along the same flow path. In overland areas with shallow flooding, water is ponded without concentrated flow, and openings in the embankment (e.g., culverts) would continue to allow floodwaters to pass in the down-gradient direction. These areas drain slowly as a result of the flat topography and shallowly sloped land gradient, and water has minimal energy. These conditions are similar to existing conditions. Openings within the HST embankment would be sized to allow conveyance without increasing the water surface elevation in the 100-year floodplain by more than 1 foot, or as required by state or local agencies. This is described throughout this impact section and further described in Section 3.8.6, Project Design Features, under Project Design Features for Flood Protection. The 1-foot

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increase in base flood elevation (associated with the 100-year flood) was chosen as the significance criteria to be consistent with FEMA guidelines.

I033-190

Refer to Standard Response FB-Response-GENERAL-21, FB-Response-HWR-03.

Impact HWQ#8, Permanent Impacts on Floodplains, discusses the project impacts on floodplains. This section includes a description of all of the river and creek crossings and a description of potential floodplain impacts at each of these crossings. Appendix 3.8-B describes the results of the hydraulic modeling at river and creek crossings. In areas with concentrated flow, such as rivers and streams, openings in the embankment (e.g., bridges and culverts) would allow the same volume of water to pass along the same flow path. In overland areas with shallow flooding, water is ponded without concentrated flow, and openings in the embankment (e.g., culverts) would continue to allow floodwaters to pass in the down-gradient direction. These areas drain slowly as a result of the flat topography and shallowly sloped land gradient, and water has minimal energy. These conditions are similar to existing conditions. (In other words, the project will not create a new "levee" along the valley floor.) Openings within the HST embankment would be sized to allow conveyance without increasing the water surface elevation in the 100-year floodplain by more than 1 foot, or as required by state or local agencies. This is described throughout this impact section and further described in Section 3.8.6, Project Design Features, under Project Design Features for Flood Protection. The 1-foot increase in base flood elevation (associated with the 100-year flood) was chosen as the significance criteria to be consistent with FEMA guidelines.

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Refer to Standard Response FB-Response-HWR-02.

Impact HWQ#8, Permanent Impacts on Floodplains, discusses the project impacts on floodplains. This section includes a description of all of the river and creek crossings and a description of potential floodplain impacts at each of these crossings. Appendix 3.8-B describes the results of the hydraulic modeling at river and creek crossings. In areas with concentrated flow, such as rivers and streams, openings in the embankment (e.g., bridges and culverts) would allow the same volume of water to pass along the same flow

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path. In overland areas with shallow flooding, water is ponded without concentrated flow, and openings in the embankment (e.g., culverts) would continue to allow floodwaters to pass in the down-gradient direction. These areas drain slowly as a result of the flat topography and shallowly sloped land gradient, and water has minimal energy. These conditions are similar to existing conditions. Openings within the HST embankment would be sized to allow conveyance without increasing the water surface elevation in the 100-year floodplain by more than 1 foot, or as required by state or local agencies. This is described throughout this impact section and further described in Section 3.8.6, Project Design Features, under Project Design Features for Flood Protection. The 1-foot increase in base flood elevation (associated with the 100-year flood) was chosen as the significance criteria to be consistent with FEMA guidelines.

I033-192

Refer to Standard Response FB-Response-HWR-02, FB-Response-SO-01.

HWQ#8 of Section 3.8, Hydrology and Water Resources, discusses the potential for HST embankments to act as an obstacle to the shallow overland flow if sufficient culverts or cross drainage were not provided. However, the project would incorporate adequately sized culverts to avoid diverting or redirecting overland flood flows in such a manner that would increase the water surface elevation in the 100-year floodplain by more than 1 foot, or as required by state or local agencies. Culverts would be sized in accordance with hydraulic modeling. Appendix 3.8-B describes the results of the hydraulic modeling at river and creek crossings.

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Impact HWQ#8, Permanent Impacts on Floodplains, discusses the project impacts on floodplains. This section includes a description of all of the river and creek crossings and a description of potential floodplain impacts at each of these crossings. Appendix 3.8-B describes the results of the hydraulic modeling at river and creek crossings. In areas with concentrated flow, such as rivers and streams, openings in the embankment (e.g., bridges and culverts) would allow the same volume of water to pass along the same flow path. In overland areas with shallow flooding, water is ponded without concentrated flow, and openings in the embankment (e.g., culverts) would continue to allow floodwaters to pass in the down-gradient direction. These areas drain slowly as a result of the flat

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

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topography and shallowly sloped land gradient, and water has minimal energy. These conditions are similar to existing conditions. Openings within the HST embankment would be sized to allow conveyance without increasing the water surface elevation in the 100-year floodplain by more than 1 foot, or as required by state or local agencies. This is described throughout this impact section and further described in Section 3.8.6, Project Design Features, under Project Design Features for Flood Protection. The 1-foot increase in base flood elevation (associated with the 100-year flood) was chosen as the significance criteria to be consistent with FEMA guidelines.

I033-194

Refer to Standard Response FB-Response-HWR-01, FB-Response-SO-01.

Utility conflicts for canals are discussed in Section 3.6, Public Utilities and Energy, under Impact PU&E#11 – Potential Conflicts with Water Facilities. The Authority would work with irrigation districts to protect canal systems with the intent that service disruptions would be minimized to the extent possible in both the flood and irrigation seasons. Culverts would be installed when the canal system is dry, or if construction was needed during periods of water conveyance, water would be routed around active work areas by cofferdams, pipes, or other temporary conveyance systems. Some canals would need to be relocated; the new facility would be operational prior to disconnecting the original facility to help alleviate potential service interruptions.

I033-195

Refer to Standard Response FB-Response-HWR-01, FB-Response-SO-01.

Utility conflicts for canals are discussed in Section 3.6, Public Utilities and Energy, under Impact PU&E#11 – Potential Conflicts with Water Facilities. The Authority would work with irrigation districts to protect canal systems with the intent that service disruptions would be minimized to the extent possible in both the flood and irrigation seasons. Culverts would be installed when the canal system is dry, or if construction was needed during periods of water conveyance, water would be routed around active work areas by cofferdams, pipes, or other temporary conveyance systems. Some canals would need to be relocated; the new facility would be operational prior to disconnecting the original facility to help alleviate potential service interruptions.

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Refer to Standard Response FB-Response-HWR-01, FB-Response-SO-01.

Utility conflicts for distribution canals are discussed in Section 3.6, Public Utilities and Energy, under Impact PU&E#11 – Potential Conflicts with Water Facilities. The Authority would work with irrigation districts to protect canal systems with the intent that service disruptions would be minimized to the extent possible in both the flood and irrigation seasons and so that there would be no need to fallow fields due to construction impacts on distribution facilities. Culverts would be installed when the canal system is dry, or if construction was needed during periods of water conveyance, water would be routed around active work areas by cofferdams, pipes, other temporary conveyance systems. Some district canals would need to be relocated; the new canal would be operational prior to disconnecting the original facility to minimize potential service interruptions.

On-farm utility conflicts for local canals are discussed in Section 3.14, Agricultural Lands. Appendix 3.12-A describes the expected process for right-of-way acquisition and the rights of property owners under the Uniform Relocation Assistance Program. As part of this process, Authority right-of-way agents would work with each affected property owner to address issues of concern during the appraisal process. The required property appraisal would identify affected utilities, and the agents would attempt to resolve conflicts. For example, the acquisition agreements could require that the contractor relocate the affected utilities before construction, maintain service during construction, or time the disruption to avoid active periods (e.g., construction would occur during the winter idle period for annual crops). In some cases, the agents may not be able to resolve the conflict. When construction activities cannot avoid a utility, the agent would negotiate a fair compensation for loss of agricultural production.

I033-197

As discussed in Section 3.8.5.3 under Impact HWR#6, Permanent Impacts on Surface Water Quality, appropriate laws and regulations pertaining to the use of herbicides and safety standards for employees and the public, as governed by the U.S. Environmental Protection Agency, the California Department of Pesticide Regulation, and local jurisdictions, will be followed. Applications will adhere to label directions for application

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rates and methods, storage, transportation, mixing, and container disposal. Contracted applicators will be appropriately licensed by the state. HST staff will coordinate with the County Agricultural Commissioners, and required licenses and permits shall be obtained prior to herbicide application.

The use of herbicides and pesticides will be applied in a manner that minimizes the adverse impacts on the environment. Precautions that will be taken will include the following: (1) Herbicide spraying will be implemented consistent with Pest Control Recommendations prepared by a licensed Pest Control Advisor. (2) Applicators will follow herbicide label requirements and refer to other best management practices (BMPs) regarding mandatory measures to protect sensitive resources and employee and public health during herbicide application. (3) Herbicide applicators will work under the direction of a person with a Qualified Applicator License or Qualified Applicator Certificate. (4) Storage, loading and mixing of herbicides will be set back from any aquatic feature or special-status species or their habitat or sensitive natural communities. (5) Application will not occur when weather parameters exceed label specifications for example, when wind exceeds specified speed, or when precipitation (rain) occurs or is forecasted with specified period to prevent sediment and herbicides from entering the water via surface runoff. In addition, Bio-MM#4, Prepare and Implement a Weed Control Plan, discusses how herbicide applications will be restricted in Environmentally Sensitive Areas.

Herbicides and pesticides can degrade through physical, biological and chemical processes such as photolysis, aerobic metabolism, anaerobic metabolism, and hydrolysis. (Chemical half-lives for most herbicides are on the order of days to weeks.) HST track runoff from the design storm (85th percentile 24-hour storm event) would be treated using BMPs designed to reduce the discharge of pollutants to the maximum extent practicable (MEP). The project would emphasizing onsite retention of stormwater runoff using measures such as flow dispersion, infiltration, and evaporation, supplemented by detention, where required, and would comply with standards described in Section 3.8.6, Project Design Features. Because of measures used to control how herbicides and pesticides are applied and because of stormwater treatment design measures, impacts from pesticide and herbicide applications would be less than significant.

I033-198

Potential pollutants and water quality effects are discussed under Impact HWR#6. Runoff from the HST facilities will be permitted by the State Water Resources Control Board (SWRCB) under a National Pollutant Discharge Elimination System (NPDES) permit (Authority 2013c). The pollutants of concern in runoff from HST facilities would be similar to those in runoff from other statewide transportation facilities, and they are expected to include nutrients, metals, sediments, herbicides, and oils and grease. Fugitive dust from the surrounding agricultural areas might contribute additional minor amounts of pollutants, such as suspended solids, pesticides and herbicides. Runoff from HST tracks would by hydrologically isolated from the runoff from surrounding land uses. HST track runoff from the design storm (85th percentile 24-hour storm event) would be treated using best management practices (BMPs) designed to reduce the discharge of pollutants to the maximum extent practicable (MEP). The design volume or flow of stormwater runoff would be infiltrated, reused, and/or evapotranspirated using BMPs such as biofiltration strips/swales, infiltration devices, or other soil and landscape-based BMPs. If these measures are not possible, the excess volume will be treated by low-impact development (LID)-based flow-through treatment devices such as compost-amended biofiltration swales. If LID-based flow-through treatment devices are not feasible, the excess volume would be treated through conventional volume-based or flow-based stormwater treatment devices, such as extended detention basins or wet basins. These BMPs would discharge to the local stormwater drainage system (MS4), or creek. For small events, it is not anticipated that drainage would be transported very far from where it is generated because local soils have a high infiltration capacity. For large events such as the 100-year event, flood flows would likely overwhelm treatment measures designed for the 85th percentile 24-hour storm event, however during these large events the amount of water would dilute chemical concentrations to negligible levels. Required engineering studies, including hydrology studies used to size the BMPs for stormwater treatment, will be conducted as part of the engineering design.

I033-199

The California Geological Survey (CGS) estimates that only about 6% of the total aggregate resources available have been developed in the areas studied. The areas studied by the CGS include 31 regions of the state that range from Shasta County in the north to San Diego County in the south, indicating that statewide only 6% of potentially

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available aggregate resources have been developed.

Aggregate resources for the proposed HST Fresno to Bakersfield Section could be obtained from five of the areas studied by the CGS. These include the Fresno (greater Fresno-Clovis metropolitan area), north Tulare County (Visalia/Tulare Area), south Tulare County (Portersville area), Bakersfield (Oildale to Tehachapi), and Palmdale. Within these five areas, as of 2006, there were 379 million tons of permitted aggregate resources, not including the south Tulare County area, which was not reported because the information is proprietary. Of this permitted material, the proposed HST segment would require about 2.3 million tons, representing 0.6% (2.3 million tons/379 million tons permitted) of the currently permitted aggregate resources in these five areas. The project would not rely on any one area for all its material. The text in the Revised DEIR/Supplemental DEIS, Section 3.9.1, has been updated to reflect this information.

I033-200

Aggregate resources for the proposed Fresno to Bakersfield Section could be obtained from five of the areas studied by the CGS. These include Fresno (greater Fresno-Clovis metropolitan area), north Tulare County (Visalia/Tulare Area), south Tulare County (Portersville area), Bakersfield (Oildale to Tehachapi), and Palmdale. Within these five areas, as of 2006, there were 379 million tons of permitted aggregate resources, not including the south Tulare County area, which was not reported because the information is proprietary (CGS 2006, Map Sheet 52). Of these permitted resources, the proposed HST section would require about 2.3 million tons, representing 0.6% of the currently permitted aggregate resources in these five areas. The project would not rely on any one area for all its material, and no new permitted areas would be needed.The text in the Revised DEIR/Supplemental DEIS, Section 3.9.1, has been updated to reflect this information.

I033-201

Permitted aggregate resources in the study area were identified and discussed based on information presented by the California Geological Survey (CGS 2006). Aggregate resources for the proposed HST Fresno to Bakersfield Section could be obtained from five of the areas studied by the CGS. These include the Fresno (greater Fresno-Clovis metropolitan area), north Tulare County (Visalia/Tulare Area), south Tulare County

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(Portersville area), Bakersfield (Oildale to Tehachapi), and Palmdale. Within these five areas, as of 2006, there were 379 million tons of permitted aggregate resources, not including the south Tulare County area, which was not reported because the information is proprietary.

The proposed HST segment would require about 2.3 million tons, representing 0.6% of the currently permitted aggregate resources in the region. Permitted aggregate resources in the region would provide sufficient aggregate material for the project without harmfully depleting available sources. The text of the Revised DEIR/Supplemental DEIS, Section 3.9.1, has been updated to provide greater detail.

I033-202

Areas of difficult excavation along the project alignments are not expected to be pervasive because of the predominantly uncemented Quaternary sediments in the San Joaquin Valley, although some localized areas may occur. In areas that have been used for agricultural purposes, the hardpan has often been removed or tilled to improve the drainage characteristics of the soil. Past land use, as well as infrastructure development in the study area, should limit the locations where hardpan and cemented zones pose a potential problem for excavations.

The Revised DEIR/Supplemental DEIS provides existing regional data from which the potential geologic hazards are identified and discussed in relation to the project. Site-specific design features, such as the specific location of areas of difficult excavation, will be determined after site-specific geotechnical investigations are conducted. The Revised DEIR/Supplemental DEIS is based on the level of engineering and planning necessary to identify potential environmental impacts and to identify the range of appropriate mitigation measures. Additional geotechnical investigations that are referred to in the Revised DEIR/Supplemental DEIS would be for the purpose of finalizing the designs and planning for construction, but are not necessary to disclose to the public and decision makers the potential for encountering areas of difficult excavation.

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I033-203

As described in the Revised DEIR/Supplemental DEIS, soils along all of the alternatives and at the HMFs generally have moderate-to-high corrosivity to uncoated steel, as well as concrete in some locations. Soils with moderate-to-high corrosive potential for steel and concrete are common throughout the Central Valley. The effects can be mitigated through the use of standard engineering design practices.

As described on the Revised DEIR/Supplemental DEIS, the project design reduces the risk from corrosive soils through soil improvement or by removal of the upper 5 feet of soils that exhibit high-corrosivity characteristics, and by replacement of the excavated soils with soils that do not exhibit these characteristics in areas where there would be buried, uncoated steel. Active and passive corrosion protection systems could also protect embedded and exposed steel structures from corrosion. As necessary, final designs would include epoxy-coated steel or corrosion-resistant steel or concrete materials to avoid long-term corrosion issues.

I033-204

The potential effects of soils settlement and the engineering remedies are discussed in the EIR/EIS under Impact GSS #7. The document describes that a number of locations along the project footprint would require new earth fills in areas that are potentially underlain by settlement-prone (loose or soft) soils. These specific locations would be identified during preconstruction and construction investigations, and engineered solutions would be implemented for site-specific conditions. Settlement is typically a slow process, which with periodic maintenance, can quickly be remedied by reballasting, where required, to maintain a safe track profile. The HST project design incorporates ground improvements and foundations that are resistant to settlement and would meet building code requirements. Additional fill material from other sources would be imported as necessary.

Hydrocompaction is the subsidence of shallow soils and sediments as a result of adding water to the land surface. Soils in the project area may be subject to this phenomenon. When the Central Valley Project (CVP) was being designed, little was known about this type of subsidence. Studies conducted in the 1950's prior to construction of the CVP, lead to an understanding that reaches of the CVP may be subject to hydrocompaction. Construction of the CVP incorporated prewetting of susceptible soils prior to

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construction, thus compacting the susceptible soils before constructing on them. As described above, the HST project will incorporate site-specific engineering solutions during final design to account for local geologic conditions discovered during site-specific geotechnical studies.

I033-205

The reputed tunnel system in the Chinatown area of Fresno was addressed as a potential cultural resource in the Revised DEIR/Supplemental DEIS, page 3.17-39. The discussion concluded that based on a Fresno-sanctioned study, no evidence of a tunnel system exists. The Chinatown Historic Resource Survey encompassed the blocks bounded by Mariposa, Inyo, E, and G streets (City of Fresno Planning and Development Department 2006). The survey was undertaken to develop an accurate inventory of the existing historic resources for management purposes, because the area has been "particularly impacted by demolition and redevelopment projects" (City of Fresno Planning and Development Department 2006:2). Research for the project was extensive; however, the investigation produced "no evidence…to substantiate the existence of tunnels" in Fresno's Chinatown (City of Fresno Planning and Development Department 2006:58)" (see Revised DEIR/Supplemental DEIS, page 3.17-39). If during construction or geotechnical activities any potential historical resources are identified, including subsurface resources such as tunnels or voids, the implementation of Mitigation Measure CUL-1, Comply with the Stipulations Regarding the Treatment of Archaeological Resources in the Section 106 Programmatic Agreement, and Mitigation Measure CUL-3, Halt Work in the Event of an Archaeological Discovery, will reduce this impact to a less-than-significant level.

I033-206

Wells/tanks/pipelines currently adjacent to the existing BNSF tracks are subject to vibration levels substantially higher than the vibration levels that would be generated by HST operations. If the wells/tanks/pipelines are not currently experiencing any of these problems under existing conditions, they would not be expected to experience these problems with the addition of HST operations.

Blasting of hardpan or cemented soils is not expected to be required. The Revised DEIR/Supplemental DEIS text in Sections 3.9.4.7 and 3.9.5.3 (Impact GSS # 4) has

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-206

been modified to remove the references to blasting. Areas of difficult excavation along the project alignments are not expected to be pervasive because of the predominantly uncemented Quaternary sediments in the San Joaquin Valley, although some localized areas may occur. In areas that have been used for agricultural purposes, the hardpan has often been removed or tilled to improve the drainage characteristics of the soil. Past land use, as well as infrastructure development in the study area, should limit the locations where hardpan and cemented zones pose a potential problem for excavations.

I033-207

As stated in the title of Figure 3.11-4, this figure depicts the safety and security of *existing conditions* in the Hanford area (emphasis added) and therefore does not misrepresent the project.

Kings County Fire Station #4 on Houston Avenue would not be eliminated nor relocated by the HST project. The overpass structure would not limit access to the station and would not restrict the movement of fire trucks.

I033-208

The referenced fire station is identified in the EIR/EIS, Volume I, Section 3.12.6.4, Affected Environment, and is not identified as requiring relocation. Final engineering refinements will avoid impacts on the fire station and provide proper access. Some facilities within the existing parcel immediately adjacent to the HST may be relocated within the existing parcel on which the station is located, if required. As Fire Station #4 would not be relocated, an analysis of its ability to meet response time standards and requirements or an analysis of its effect on homeowner fire insurance rates, is not warranted.

I033-209

The section referenced by the commenter states that fall hazards (such as industrial facilities with tall structures like silos and distillation columns) could pose threats to operation of the proposed project in the event of a disaster at those facilities. This would not exclude PG&E or other transmission lines along the proposed HST alignment

I033-209

alternatives. This same section references Section 3.6. High-risk facilities in and near the construction footprint are discussed in Section 3.6, Public Utilities and Energy. Please refer to Impact PU&E #5 – Conflicts with Existing Utilities in Section 3.6.5.3, where the Revised DEIR/Supplemental DEIS describes that, pursuant to utility agreements negotiated between the Authority and the utility owners, the Authority would work with utility owners during final engineering design and construction of the project to relocate utilities or protect them in place. Where overhead transmission lines cross the HST alignment, the Authority and the utility owner may determine that it is best to place the line underground. In this case, the transmission line would be placed in a conduit. These actions would address the potential for power lines to fall on the HST alignments. Therefore, there would not be the potential for a PG&E tower to fall on the HST alignment, as suggested by the commenter. Additionally, Impact S&S #12 – Hazards to the HST from Nearby Facilities, addresses safety hazards from nearby tall facilities.

I033-210

Refer to Standard Response FB-Response-S&S-04.

Emergency response as addressed in the Revised DEIR/Supplemental DEIS considers the potential need for ambulance and paramedic services during project construction and HST operation. The potential for increased reliance on such services is addressed in Mitigation Measure S&S-1: Monitor response of local fire, rescue, and emergency service providers to incidents at stations and the HMF; this measure requires the Authority to fund a fair share of the cost of service.

I033-211

Refer to Standard Response FB-Response-S&S-04.

The Revised DEIR/Supplemental DEIS addresses the potential for additional emergency response requirements in Impact S&S #1: "Safety of construction workers and the public could be compromised during construction, potentially resulting in accidental injuries and deaths. Standard implementation of a construction health and safety plan during construction would reduce risks to human health during construction; therefore, effects would have negligible intensity under NEPA, and impacts would be less than significant under CEQA for all alignment and HMF alternatives." Mitigation Measure S&S-1 will be

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-211

employed such that the Authority will provide a fair share of the cost of service based monitoring local fire, rescue, and emergency service providers responses to incidents at the stations and HMF before and after construction.

I033-212

The potential for crime around construction sites is addressed in Section 3.11.5.3, Impact S&S #3, which describes security measures that would be undertaken during project construction. Quantification of the increase in crime would be speculative, and thus not appropriate. Should crime around construction sites increase, Mitigation Measure S&S-1 will be implemented. In this instance, the Authority would work with local law enforcement providers and provide funding (i.e., a fair share of the cost of service) based on the monitoring of service calls in responding to incidents at construction sites.

I033-213

Refer to Standard Response FB-Response-S&S-04.

The potential for crime around construction sites is addressed in Section 3.11.5.3, Impact S&S #3, which describes security measures that would be undertaken during project construction. Quantification of the increase in crime would be speculative, and thus not appropriate. Should crime around construction sites increase, Mitigation Measure S&S-1 will be implemented. In this instance, the Authority would work with local law enforcement providers and provide funding (i.e., a fair share of the cost of service) based on the monitoring of service calls in responding to incidents at construction sites.

I033-214

Please see Impact S&S #10 for information related to the impact on local law enforcement and emergency response teams in the event of a system alert and shutdown. This occurrence is expected to be rare based on incorporation of specific project design features (see EIR/EIS, Section 3.11.6, and Appendix 2-D) that will minimize the potential for train accidents.

I033-215

As described under Impact S&S #10, 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). Preliminary discussions with local emergency response agencies (Kings County Fire/Sheriff, Hanford City Fire/Police) have begun. Emergency response plans, training, and drills/exercises will be developed prior to the start of HST operations.

I033-216

Operation of farm equipment on public roadways will be subject to California Motor Vehicle Code regulations. All road overcrossings would be designed in accordance with Caltrans or county standards, whichever apply. These standards address the safety concerns expressed by the commenter. Road overcrossing designs will be subject to review and approval by the agency having jurisdiction (Caltrans or a county) according to its public safety requirements.

I033-217

All road overcrossings would be designed in accordance with California Department of Transportation (Caltrans), county, or city standards, whichever apply. These standards address the safety concerns expressed by the commenter. Road overcrossing designs will be subject to review and approval by the agency having jurisdiction (Caltrans, county, or city) according to its public safety requirements. The design standards that apply to these roadway modifications are:

Caltrans, *Highway Design Manual* (2012). http://www.dot.ca.gov/hq/oppd/hdm/hdmtoc.htm (Caltrans 2012a).

American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Streets*. 6th ed. (2011) (AASHTO 2011).

City of Fresno Public Works Department, *Standard Specifications* (2013), http://www.fresno.gov/NR/rdonlyres/41DD948F-8BC7-4943-9CE2-190480D8D728/0/011113FINALCityStandardSpecificationsSections132.pdf (City of

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-217

Fresno PWD 2013).

City of Fresno Public Works Department, *Standard Drawings* (2011), http://www.fresno.gov/NR/rdonlyres/ABA25F91-D0E8-4337-8CF7-8F9B20977250/0/STDDrawings.pdf (City of Fresno PWD 2011).

Fresno County Department of Public Works and Planning, Development Services Division, *Fresno County Ordinance Code Title 15, Ordinance 11-005*. Building and Construction (2011), http://www.co.fresno.ca.us/ViewDocument.aspx?id=4210 (Fresno County DPW 2011).

Kings County Public Works, *Improvement Standards*(Hanford, CA: Kings County Public Works, May 6, 2003), http://www.countyofkings.com/planning/PW%20STANDARD%205-6-03.pdf (Kings County Public Works 2003).

Tulare County, *Improvement Standards*, 3 vols. (Visalia, CA: County of Tulare, revised December 10, 1991), http://www.tularecounty.ca.gov/rma/index.cfm/documents-and-forms/public-works-documents/engineering-documents/county-standards/ (Tulare County 1991).

City of Shafter, *Subdivision and Engineering Design Manual* (Shafter, CA: City of Shafter Engineering & Public Works, 2005) http://www.shafter.com/index.aspx?NID=56 (City of Shafter 2005).

Kern County, "Development Standards: Division One, Standards for Streets" (May 21, 2010). http://esps.kerndsa.com/images/engineering/pdfs/DIVISION_01(ONE).pdf (Kern County 2010).

City of Bakersfield Public Works Department, *Subdivision and Engineering Design Manual: Division Five, Streets* (July 13, 2012). http://www.bakersfieldcity.us/cityservices/pubwrks/designman/pdf/Streets.pdf (City of Bakersfield PWD 2012).

I033-218

The Revised DEIR/Supplemental DEIS does approach emergency preparedness as if an incident will occur and mitigation is in place, as referenced in the quote provided by the commenter, which states, “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….” Preliminary discussions with local emergency response agencies (Kings County Fire/Sheriff, Hanford City Fire/Police) have begun. Emergency response plans, training, and drills/exercises will be developed before the implementation of operations. Project Design Features in Section 3.11.6 address specific components of and methodologies for development of such a plan.

I033-219

Refer to Standard Response FB-Response-S&S-04.

Emergency medical response would be handled by emergency response personnel and equipment, including paramedics, fire safety personnel, ambulances, dispatched through normal processes following notification by the HST Operations Control Center. The Revised DEIR/Supplemental DEIS addresses emergency response in Section 3.11.5, and in Mitigation Measure SS-1 in Section 3.11.7.

I033-220

Refer to Standard Response FB-Response-S&S-03, FB-Response-S&S-04, FB-Response-S&S-05.

The referenced discussion focuses on impacts related to increased development, economic activity, and new passengers associated with stations. This is in addition to the primary focus of Section 3.11, which analyzes a variety of impacts that could affect emergency responders. Mitigation Measure S&S-1 states that the Authority will provide a fair share of the cost of service based on monitoring of local fire, rescue, and emergency service providers to incidents at the stations and HMF before and after construction.

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-221

As described in Section 3.11.1, the HST system would be fully access-controlled with intrusion monitoring systems. This means that the HST infrastructure (e.g., mainline tracks and maintenance and storage facilities) would be designed to prevent access by unauthorized vehicles, including large equipment, people, animals, and objects in response to site-specific hazard analysis. The system would also include appropriate barriers (fences and walls). Fencing and intrusion protection systems will be periodically inspected and remotely monitored where required by risk-based hazard analysis applied on a site-specific basis.

I033-222

The Revised DEIR/Supplemental DEIS addresses crop dusting in Section 3.14.5, Impact AG #11 – Effects on Aerial Spraying. The analysis on page 3.14-6 acknowledges that the height of vertical HST structures, such as poles, radio communication towers, and elevated guideways, could interfere with aerial spraying of agricultural lands adjacent to the alignment. However, no restrictions currently exist on the distances an aircraft must maintain from utility lines or towers (Gage 2010). In addition, agricultural aircraft currently fly in areas where utility lines of varying heights, such as telephone poles and electrical transmission towers, exist in or near the sprayed fields. Therefore, changes in spraying patterns are not anticipated to create an additional hazard to crop-dusting activities.

I033-223

Refer to Standard Response FB-Response-S&S-05.

The Revised DEIR/Supplemental DEIS is not obliged to identify and analyze every type of criminal activity that could potentially occur on the HST, although “theft and violence” seem to encompass the bulleted examples mentioned by the commenter. Mitigation is not provided because these issues are addressed by the Project Design Features identified in Section 3.11.6. These features include preparing threat and vulnerability assessments during the engineering design and construction phases, which would establish provisions for the deterrence and detection of, as well as the response to, criminal and terrorist acts for rail facilities and system operations. In addition to the system features cited by the commenter, additional provisions the Authority would implement include developing and implementing security procedures and staff training,

I033-223

as well as the use of closed-circuit television monitoring.

I033-224

Refer to Standard Response FB-Response-S&S-05.

I033-225

Refer to Standard Response FB-Response-GENERAL-08, FB-Response-TR-02.

The commenter is directed to paragraph 2 of the referenced mitigation measure, which makes it clear that the mitigation measure is not deferred:

“*Prior to operation of the stations for HST service* [emphasis added], the Authority will enter into an agreement with the public service providers of fire, police, and emergency services to fund the Authority’s fair share of services above the average baseline service demand level for the station and HMF service areas (as established during the monitoring period). The fair share will be based on projected passenger use for the first year of operations, with a growth factor for the first 5 years of operation. This cost-sharing agreement will include provisions for ongoing monitoring and future negotiated amendments as the stations are expanded or passenger use increases. Such amendments will be made on a regular basis for the first 5 years of station operation, as will be provided in the agreement. To make sure that services are made available, impact fees will not constitute the sole funding mechanism, although impact fees may be used to fund capital improvements or fixtures (i.e., police substation, additional fire vehicle, onsite defibrillators) necessary to service delivery.”

I033-226

As described in the beginning of Section 3.11.3, safety issues addressed in the Revised DEIR/Supplemental DEIS include future rail system operations, such as train travel; vehicle, bicycle, and pedestrian access at stations; emergency response by fire, law enforcement, and emergency services to fire and seismic events; or other emergency situations. For security, the analysis evaluates impacts associated with the incidence of crime against people and property, including acts of terrorism.

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-226

Applicable design standards for safety and security that would be used for the project are provided in Appendix 2-D, and are summarized in Section 3.11.6, Mitigation Measure S&S-1: Monitor response of local fire, rescue, and emergency service providers to incidents at stations and the HMF and provide a fair share of cost of service. As discussed under Mitigation Measure S&S-1, before the initiation of HST service, the Authority will enter into an agreement with local fire, police, and emergency services to fund the Authority's fair share of services above average baseline service levels, with a growth factor for the first 5 years of operation. In addition, the Authority will monitor all HST-related service calls. After the first 5 years, the agency agreements will be modified, as needed, taking into account earlier service needs and other factors identified as part of the mitigation measure.

I033-227

The California High-Speed Rail Authority will continue to coordinate with the County of Kings during right-of-way acquisition and final design to agree upon the required location and level of roadway improvements for Houston Avenue associated with the HST project (an overcrossing of the BNSF Alternative is proposed). Property access mitigation measures are identified under Section 3.2.7 of the Revised DEIR/Supplemental DEIS. Mitigation Measure TR-1 states that if a proposed road closure or realignment restricts current access to a property, the project would provide alternative access via connections to existing roadways. If adjacent road access is not available, then feasible new road connections would be provided. The referenced fire station is identified in Volume I, Section 3.12.6.4, Affected Environment, and is not identified as requiring relocation. The associated heliport is discussed in Volume I, Section 3.11.5.3, Impact S&S #11, and the HST was found to have no impacts on the operation of the heliport. Final engineering refinements would avoid impacts on the fire station and provide proper access. Some facilities within the existing parcel immediately adjacent to the HST may be relocated within the existing parcel on which the station is located, if required.

I033-228

As Fire Station #4 would not be relocated, an analysis of impacts of its relocation is not warranted.

I033-229

Refer to Standard Response FB-Response-S&S-05.

As described in FB-Response-S&S-05, security screening at HST stations would be subject to the regulatory requirements of the Transportation Security Administration (TSA) and would respond to a Threat/Vulnerability Assessment prepared by the Authority. TSA requirements specific to high-speed rail operations have not been determined at this time and may change as TSA policies evolve. The Authority is engaging TSA to better understand its policies and participate in the development of the regulatory requirements, but at this time a discussion of TSA policies in the EIR/EIS will not establish the significance of potential security problems.

I033-230

Refer to Standard Response FB-Response-SO-07.

The Environmental Justice (EJ) Guidance is a supplement to the Authority's Title VI Program. The Authority vetted the proposed EJ policy and guidance with the Federal Railroad Administration (FRA). The Authority has subsequently received FRA comment to include the Department of Transportation order, which has been incorporated in the EJ Guidance document. The adoption of the EJ Policy formalized the Authority's long-standing efforts to address EJ matters in a comprehensive manner. The Authority and FRA have undertaken substantial outreach to EJ communities.

The EJ analysis adheres to the definition given by Executive Order 12898 and U.S. Department of Transportation Order 5610.2, which defines an environmental justice effect as a "disproportionately high and adverse effect on minority and low-income populations." This is an adverse effect that is predominately borne by a minority population and/or a low-income population or that would be appreciably more severe or greater in magnitude for the minority and/or a low-income population than the adverse effect that would be suffered by the nonminority and/or non-low-income population along the project. Section 4.3 in the Community Impact Assessment Technical Report identifies the environmental justice populations along the project. The methodologies for identifying these populations are detailed in Appendix A of the Community Impact Assessment Technical Report. Section 5.3 in the Community Impact Assessment

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I033-230

Technical Report provides detailed information on the potential for substantial environmental justice effects across resources along the project. Impacts SO #17 and SO #18 (Volume 1 of the EIR/EIS, Section 3.12) summarize these findings.

I033-231

Refer to Standard Response FB-Response-SO-01.

Please see Appendix A of the Community Impact Assessment Technical Report for a complete description of the methodologies used for property displacement analysis. See Section 5.2.2 in the Draft Relocation Impacts Report for detailed information on the estimated number of relocated residences and available vacant properties. The analysis of potential suitable replacement real estate (residential and commercial-industrial) available for sale or rent in the study region was conducted in 2010. Real estate market conditions are constantly changing along with overall economic conditions in the region, so the report can only identify the likely availability of suitable replacement housing.

I033-232

Refer to Standard Response FB-Response-GENERAL-01.

Please see Appendix A of the Community Impact Assessment Technical Report for a complete description of the methodologies used for property displacement analysis. See Sections 4.2 and 5.2.2 in the Draft Relocation Impacts Report for detailed information on the methodology used in estimating the number of relocated residences and available vacant properties. To be conservative in this analysis and avoid underestimating displacements, residences and businesses located on acquired parcels, including those only temporarily impacted, were counted as permanent displacements. This was done because it is not possible at this stage of the project to predict the outcome of the parcel-by-parcel property acquisition phase. These conservative displacement numbers were then used in all community division, fiscal revenue, and physical deterioration analysis, and therefore do not underestimate the potential impacts.

I033-233

Refer to Standard Response FB-Response-SO-01.

I033-233

For more information on the property acquisition and compensation process, see the Revised DEIR/Supplemental DEIS, Volume II, Appendix 3.12-A. See Section 4.2 of the Draft Relocation Impacts Report for detailed information about the methodology for estimating the number of residences relocated and for an explanation about how special considerations for those relocated will ultimately be determined on a case-by-case basis during the land acquisition and real estate appraisal portion of the project.

I033-234

Refer to Standard Response FB-Response-SO-01, FB-Response-SO-05.

To determine the potential likelihood of any adverse effects on school district funding, areas with large numbers of residential displacement were examined to determine if relocation outside of current school district boundaries would be necessary. 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.

As discussed in the property section in the EIR/EIS, Section 3.12, Impact SO #9, there is suitable vacant residential property within the current vicinity of all residential displacements. Therefore, very little effect is expected to occur on school district funding as a result of project operation.

The details of this analysis and complete results by school district can be found in the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report*. Further discussion about impacts on public school district funding and bus transportation routes can be found in Appendix 3.12-B, Effects on School District Funding and Transportation Bus Routes.

The analysis of potential suitable replacement real estate (residential and commercial-industrial) available for sale or rent in the study region was conducted in 2010. Real estate market conditions are constantly changing along with overall economic conditions

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in the region, so the report can only identify the likely availability of suitable replacement housing.

I033-235

Refer to Standard Response FB-Response-SO-05.

To determine the potential likelihood of any adverse effects on school district funding, areas with large numbers of residential displacement were examined to determine if relocation outside of current school district boundaries would be necessary. 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. As discussed in the property section in the EIR/EIS, Section 3.12, Impact SO #9, there is suitable vacant residential property within the current vicinity of all residential displacements. Therefore, very little effect is expected to occur on school district funding as a result of project operation.

The details of this analysis and complete results by school district can be found in the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report*. Further discussion about impacts on public school district funding and bus transportation routes can be found in Appendix 3.12-B, Effects on School District Funding and Transportation Bus Routes.

I033-236

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-01.

The Authority, as required under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. sec. 4601 et seq.), will provide land owners with just compensation as determined in the appraisal process, including the value of any displaced residences and loss of farmland. Age of permanent plantings (such as walnut tree orchards) is an element of comparison and will be considered and analyzed in the appraisal process. Future production is an inherent element of the

I033-236

appraised value.

For more information on how the acquisition process works, see "Your Property, Your High-Speed Rail Project" pamphlet on the California High-Speed Rail Authority's website.

I033-237

Refer to Standard Response FB-Response-AG-01, FB-Response-AG-02, FB-Response-AG-03, FB-Response-AG-07, FB-Response-GENERAL-04, FB-Response-SO-01.

The EIR/EIS is not misleading; it analyzed the direct impacts to agricultural land in Section 3.14. Additionally, the estimated effect to agricultural production is analyzed and presented in Appendix C of the Community Impact Assessment Technical Report. In brief, this analysis examined potential losses in revenue resulting from: (a) the loss of agricultural production on agricultural land acquired in the project right-of-way and (b) potential yield losses occurring up to 500 feet away from the project as a result of factors such as dust reducing growth of crops, wind effects resulting in reduced pollination benefits, difficulties and limitations imposed in applying pesticides near the project, etc.

I033-238

The EIR/EIS provides a complete description of the potential for the project to disrupt or divide established communities, including Ponderosa, in Section 3.12.

As detailed in Section 3.12 Impact SO#6, in the Ponderosa Road community, potentially up to half of the existing ranch-style homes could be displaced by the BNSF Alternative. In this location, residents enjoy a unique blend of amenities and 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 report, including rehabilitation of existing housing or relocation of disrupted residential area to newly constructed housing elsewhere in the vicinity. 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.

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-239

Refer to Standard Response FB-Response-SO-01.

See Volume I of the EIR/EIS, Section 3.12, Impact SO #9, for information on why 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 if there is not sufficient comparable vacant homes in the Ponderosa area. For more information on the property acquisition and compensation process, see Volume II, Appendix 3.12-A.

I033-240

Refer to Standard Response FB-Response-GENERAL-03.

I033-241

Refer to Standard Response FB-Response-SO-05.

The analysis in Section 5.4.2 of the Community Impact Assessment Technical Report states that the BNSF Alternative would have potential impacts on the Kit Carson Union Elementary School District. The alternative would result in 23 residential relocations. In the worst-case scenario in which all these residents relocate out of the school district, there would be 12 affected students out of 448 students enrolled in the district. Of these residential relocations, seven residential units would be from the Ponderosa area. The average household size in Ponderosa is 3.39, 26% of which are children under 18 years old. Therefore, about six children from Ponderosa would potentially no longer be enrolled in the school district.

See Volume I of the EIR/EIS, Section 3.12, Impact SO #9, for information on why 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 if there is not sufficient comparable vacant homes in the Ponderosa area. For more information on the property acquisition and compensation process, see Volume II, Appendix 3.12-A.

I033-242

Refer to Standard Response FB-Response-GENERAL-21, FB-Response-SO-01.

The Project right-of-way includes areas set aside for construction activities and staging, but ultimately the contractor will choose the sites. If additional right-of-way is required, the property owner will be compensated with fair market value for the use of their property.

I033-243

Refer to Standard Response FB-Response-SO-05.

For information on the HST operation-related property and sales tax revenue effects, see Volume I of the EIR/EIS, Section 3.12, Impacts SO #3, SO #4, and SO #12.

I033-244

Refer to Standard Response FB-Response-S&S-03, FB-Response-S&S-04, FB-Response-SO-05, FB-Response-SO-03.

Construction- and operation-related sales tax gains are examined in section 5.4.6 of the CIA. The impacted cities and counties will have considerable additional revenues attributed to the construction and operation of the HST. Please see Table 2-17 Approximate Construction Schedule in Chapter 2 of the EIR/EIS for the timing of when these sales tax gains would occur.

The employment created through project construction would employ workers in the regional labor force and has the potential to attract small numbers of workers to the region as a result of employment opportunities. The increase in population from in-migrating construction workers would not affect the ability of local jurisdictions to provide government and public services because the number expected is small.

The Authority has committed to maintain a permit bureau to help businesses (including confined-animal operations) overcome the regulatory disruptions caused by the project.

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I033-245

Refer to Standard Response FB-Response-SO-05.

The Authority will be hiring the construction management staff to oversee operations. For information on the HST operation-related property and sales tax revenue effects, see Volume I of the EIR/EIS, Section 3.12, Impacts SO #3, SO #4, and SO #12.

I033-246

Refer to Standard Response FB-Response-SO-03, FB-Response-SO-01.

The analysis of potential job loss due to residential and business displacement and relocation was performed by alternative and the results are presented in Volume I of the EIR/EIS, Section 3.12 (Impacts SO #9, SO #10, and SO #11). It is unforeseeable where each displaced business owner would relocate. However, a gap analysis of available properties was performed for the displaced residents and relocated businesses, and the results showed that there are suitable replacement locations in the surrounding areas. See the Draft Relocation Impacts Report for the complete analysis.

I033-247

Refer to Standard Response FB-Response-GENERAL-18.

I033-248

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-SO-01.

Please refer to Mitigation Measure SO-3: Implement measures to reduce impacts associated with the relocation of important facilities. These measures will apply to all schools, churches, city and county property, as well as other important facilities such as the Fresno Rescue Mission. The Authority will consult with these respective parties before land acquisition to assess potential opportunities to reconfigure land use and buildings and/or relocate affected facilities, as necessary, to minimize the disruption of facility activities and services, and also to ensure relocation that allows the community currently served to continue to access these services. This mitigation measure will be effective in minimizing the impacts of the project by completing new facilities before necessary relocations, and by involving affected facilities in the process of identifying

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new locations for their operations. The Authority, as required under the Uniform Act and CRAA, bears the cost of compensation for displaced public infrastructure.

The impacts of implementing the mitigation measures are described in section 3.12.11.

I033-249

Refer to Standard Response FB-Response-SO-01.

Please see Appendix A of the Community Impact Assessment Technical Report for a complete description of the methodologies used for property displacement analysis. See Section 5.2.2 in the Draft Relocation Impacts Report for detailed information on the estimated residences relocated and vacant properties available. The analysis of potential suitable replacement real estate (residential and commercial-industrial) available for sale or rent in the study region was conducted in 2010. Real estate market conditions are constantly changing along with overall economic conditions in the region, so the report can only identify the likely availability of suitable replacement housing.

I033-250

Refer to Standard Response FB-Response-SO-01.

Please see Appendix A of the Community Impact Assessment Technical Report for a complete description of the methodologies used for property displacement analysis. See Section 5.2.2 in the Draft Relocation Impacts Report for detailed information on the estimated residences relocated and vacant properties available. The analysis of potential suitable replacement real estate (residential and commercial-industrial) available for sale or rent in the study region was conducted in 2010. Real estate market conditions are constantly changing along with overall economic conditions in the region, so the report can only identify the likely availability of suitable replacement housing.

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Refer to Standard Response FB-Response-GENERAL-01, FB-Response-SO-01.

See the EIR/EIS, Volume I, Section 3.12, Impact SO #9, for information on why it may

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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 if there is not sufficient comparable vacant homes in the Ponderosa area. For more information on the property acquisition and compensation process, see Volume II, Appendix 3.12-A.

I033-252

Refer to Standard Response FB-Response-SO-01, FB-Response-SO-03.

The property acquisition and compensation plan includes provisions to ensure relocated businesses remain fully operational at their new location, and contains the potential for renovating existing structures to fit the needs of the business.

I033-253

Refer to Standard Response FB-Response-GENERAL-04.

For a detailed analysis of the effects of the HST project on agricultural production, see Appendix C of the Community Impact Assessment Technical Report.

I033-254

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-SO-01.

I033-255

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-SO-01.

Please see Appendix A of the Community Impact Assessment Technical Report for a complete description of the methodologies used for property displacement analysis. See Section 5.2.2 in the Draft Relocation Impacts Report for detailed information on the estimated residences relocated and vacant properties available. The analysis of potential suitable replacement real estate (residential and commercial-industrial) available for sale or rent in the study region was conducted in 2010. Real estate market conditions are constantly changing along with overall economic conditions in the region, so the report can only identify the likely availability of suitable replacement housing.

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Although the exact timeline for the start of property acquisition is undetermined at this time, property owners will receive at least 90 days notice if their property is affected. For more information on the property acquisition and compensation process, see Volume II, Appendix 3.12-A.

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Refer to Standard Response FB-Response-GENERAL-01.

I033-257

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-N&V-05.

I033-258

Refer to Standard Response FB-Response-GENERAL-01.

Please refer to Mitigation Measure SO-3: Implement measures to reduce impacts associated with the relocation of important facilities. These measures will apply to all schools, churches, city and county property, as well as other important facilities. The Authority will consult with these respective parties before land acquisition to assess potential opportunities to reconfigure land use and buildings and/or relocate affected facilities, as necessary, to minimize the disruption of facility activities and services, and also to ensure relocation that allows the community currently served to continue to access these services. This mitigation measure will be effective in minimizing the impacts of the project by completing new facilities before necessary relocations, and by involving affected facilities in the process of identifying new locations for their operations. The Authority, as required under the Uniform Act and CRAA, bears the cost of compensation for displaced public infrastructure.

I033-259

Refer to Standard Response FB-Response-AG-02, FB-Response-GENERAL-01.

Mitigation Measure SO-3 does not address access issues to parcels that may be stranded as a result of the HST. The Authority will consider access issues on a case-by-case basis during right-of-way acquisition. If it is cost effective and does not threaten the

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

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integrity of the HST, the Authority may provide access under the train route. If it is not determined to be cost effective, the landlocked portion will be addressed in the appraisal process. The Authority may consider acquiring an access easement on the neighboring parcel under eminent domain. The Authority may acquire the landlocked portion and auction off that excess land.

I033-260

Refer to Standard Response FB-Response-LU-03.

The initial alternatives for the Fresno rural subsection originated from a variety of sources. Initial alternatives were developed in response to input from local, state, and federal agency officials and stakeholders during the scoping process. A number of initial alternatives were driven by the possible locations for a Kings/Tulare Regional Station to serve the Visalia-Tulare-Hanford area. The HST alignment in Fresno County follows the BNSF tracks where feasible, only diverging from that corridor to reach the Kings/Tulare Regional Station–East Alternative and Kings/Tulare Regional Station–West Alternative. The Hanford West Bypass, the preferred alignment identified in the Statewide Program EIR/EIS, was included as part of the analysis. The Hanford East Bypass was included in the analysis as it would have fewer impacts on aquatic resources, special-status species habitat, and agricultural land than the Hanford West Bypass.

As discussed in Section 3.13.5.3, in the area of Fresno County where the HST alignment diverges from adjacency with the BNSF tracks, the HST would not be compatible with the adjacent agricultural land uses, and it would not be consistent with plans and policies designed to protect agricultural lands in Fresno County.

Because the HST project is a state project, consistency with local plans and policies is not required by law.

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As stated in Section 1.2.1, the purpose of the statewide HST System is to provide a reliable high-speed electrified train system that links the major metropolitan areas of the state, and that delivers predictable and consistent travel times. A further objective is to provide an interface with commercial airports, mass transit, and the highway network

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and relieve capacity constraints of the existing transportation system as increases in intercity travel demand in California occur, in a manner sensitive to and protective of California's unique natural resources (Authority and FRA 2005).

Additionally, as stated in Section 1.2.3, the approximately 114-mile-long Fresno to Bakersfield Section is an essential component of the statewide HST System. As part of the Central Valley section of the HST System, the Fresno to Bakersfield Section would provide Fresno, Visalia, Tulare, Hanford, and Bakersfield access to a new transportation mode and contribute to increased mobility throughout California. Population growth and the increasing interconnectedness of the south San Joaquin Valley's economies are creating a surge in travel along SR 99, the transportation corridor connecting the south San Joaquin Valley with the rest of California. Overall, intercity travel in California is forecast to increase by more than 58% between 2010 and 2035, from 610 million trips to about 965 million trips. More than 50% of the intercity travel market between the state's major metropolitan regions is expected to have a destination within the Bay Area to the central part of the San Joaquin Valley. Therefore, the HST project would provide an additional mode of transportation for San Joaquin Valley residents both within the Central Valley and to areas outside of the Central Valley served by the HST project.

Prop 1A provides funding for intercity connections for transit agencies. However, funding is not necessarily a guarantee that these programs will be implemented.

I033-262

Refer to Standard Response FB-Response-GENERAL-12.

At full build out, the HST would operate separately from state-supported Amtrak service. The decision whether to continue Amtrak service on the San Joaquin line (using existing BNSF infrastructure) is outside the purview of the Authority. The HST project includes no plans to discontinue Amtrak service to the Hanford station or any other station/platform along the Fresno to Bakersfield Section corridor.

As described in Section 3.2.5.3 of the EIR/EIS, it is anticipated that the Amtrak San Joaquin rail service would be adjusted to function as a feeder service to the HST System. Where the San Joaquin stops at more stations, it is anticipated that connecting

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service would be provided to maintain accessibility at or better than current service levels to Bakersfield, and as a feeder service, the San Joaquin line would be important in its support of new riders. The initial operating section (IOS) will include the Merced to Fresno and Fresno to Bakersfield sections of the HST System. As noted in the Revised 2012 Business Plan, HST passenger operations will begin with the completion of the IOS connections to the Los Angeles Basin. Amtrak provides service to the San Joaquin Valley from both the Bay Area and Los Angeles Basin. Amtrak's San Joaquin line can provide passenger rail service to any of several Central Valley termini of the HST System while the other IOS is under construction.

As discussed above, once the HST is in operation, Amtrak is likely to remain as a feeder service, both providing access to HST stations and train service between San Joaquin Valley cities that do not have HST stations. As discussed in Section 2.2.4.B of the Final EIR/EIS, the King/Tulare Regional station is part of the project, and shuttle service to downtown Hanford is expected to be a part of station operations. As a result, downtown Hanford will continue to be readily accessible to train riders – whether arriving on the Amtrak line, or from the HST station. With regard to the Corcoran Amtrak Station, relocation of the facility would be completed prior to demolition of the existing structure, and no disruption to Amtrak service would occur. The Amtrak facility in Wasco would also be relocated prior to demolition of the existing structure, if necessary.

I033-263

The Revised DEIR/Supplemental DEIS includes a discussion of the Kings County General Plan (Kings County Community Development Agency [1993, 1997] 2010) in Section 3.13.2.3. As stated in Section 3.13.2.3, the HST System would achieve all these objectives by reducing regional dependence on the automobile. The HST project is an undertaking of the HST Authority and FRA in their capacities as state and federal agencies. As such, it is not required to be consistent with local plans.

I033-264

The Revised DEIR/Supplemental DEIS includes a discussion of the Kings County General Plan (Kings County Community Development Agency [1993, 1997] 2010) in Section 3.13.2.3. As stated in Section 3.13.2.3, the HST System would achieve all these objectives by reducing regional dependence on the automobile. The HST project is an

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undertaking of the HST Authority and FRA in their capacities as state and federal agencies. As such, it is not required to be consistent with local plans.

I033-265

The Revised DEIR/Supplemental DEIS includes a discussion of the consistency with regional and local plans in Section 3.13.2.3. The HST project is an undertaking of the HST Authority and FRA in their capacities as state and federal agencies. As such, it is not required to be consistent with local plans nor is the Authority required to provide mitigation for any inconsistencies.

I033-266

The Revised DEIR/Supplemental DEIS includes a discussion of the consistency with regional and local plans in Section 3.13.2.3. The HST project is an undertaking of the HST Authority and FRA in their capacities as state and federal agencies. As such, it is not required to be consistent with local plans, nor is the Authority required to provide mitigation for any inconsistencies.

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The Land Use Element of the Kings County General Plan (Kings County Community Development Agency [1993, 1997] 2010) designates the general distribution, location and intensity of land uses throughout the unincorporated territory of the county, and establishes land use policies to guide and direct future land use decisions and development. The Kings County Zoning Ordinance consists of a zoning plan designating certain districts and regulations controlling the uses of land, the density of population, the uses and locations of structures, the height and bulk of structures, the open spaces about structures, the appearance of certain uses and structures, the areas and dimensions of sites, and regulations requiring the provision of off-street parking and off-street loading facilities.

The Kings County General Plan (Kings County Community Development Agency [1993, 1997] 2010) includes General Plan land use designations, while zoning designations are controlled by the Kings County Zoning Map. Designations for land under the Kings County General Plan and Zoning Ordinance may differ. The Kings/Tulare Regional

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I033-267

Station—East Alternative is designated as Limited Agriculture in the General Plan, and zoned as Light Industrial by the Kings County Zoning Ordinance.

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The Kings/Tulare Regional Station—East Alternative is designated as Light Industrial by the Kings County Zoning Ordinance and would be consistent with the zoning on the parcel it would be located on.

I033-269

The Revised DEIR/Supplemental DEIS includes a discussion of the consistency with regional and local plans in Section 3.13.2.3. Because the HST project is a state project, consistency with local plans and policies is not required by law.

I033-270

As stated in FB-Response-GENERAL-01, Tiering and Level of Detail in Analysis and Mitigation, under CEQA, where the design details of the project have not been fully developed and the development of specific mitigation will rely upon information not yet available, an EIR may take a phased approach to the development of specific mitigation provided it has analyzed the impact and made a significance determination, commits to mitigation in the form of a mitigation measure for the significant effect, and specifies "performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way" (14 CCR 15126.4(a)(1)(b)). The same is true under NEPA. The EIS must discuss mitigation “in sufficient detail to ensure that environmental consequences have been fairly evaluated,” but it is not necessary to formulate and adopt a complete mitigation plan (Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 352 [1989]).

The mitigation measures identified in the Revised DEIR/Supplemental DEIS meet these requirements. During preparation of the impact sections, technical staff identified those impacts that would potentially exceed a level of significance. The Revised DEIR/Supplemental DEIS identifies mitigation measures that will avoid, reduce, or otherwise mitigate each such potentially significant impact. Feasible mitigation is expected to be adopted to address each significant effect that was identified in the

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Revised DEIR/Supplemental DEIS.

It will be stated in the description and contract of a temporary construction easement that the Authority’s contractor will repair any damage and restore the property to its previous existing condition, including replanting, re-establishing irrigation systems, replacing wells, etc. Otherwise, the Authority’s contractors are responsible for any damage caused outside of the acquired right of way and will compensate the affected land owner.

I033-271

Refer to Standard Response FB-Response-AG-03.

Section 3.14.3 5 of the Revised DEIR/Supplemental DEIS includes analysis from the direct permanent conversion of Important Farmlands to non-agricultural use. The acreage for the project footprint for each alternative was quantified and identified as being permanently converted to HST use. 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 quantity of the non-economic remnant parcels was then added to the footprint quantity to identify total Important Farmland directly and permanently converted to non-agricultural use for each alternative. The farmland conversion reported in this document reflects a 15% design level. As the design develops, this assessment will continue to be updated for the current property acquisition requirements.

For land uses other than agricultural land uses (commercial, residential, etc.), the analysis included a tally of full and partial acquisitions of parcels required for the HST project. Parcels were identified using aerial photographs, conceptual engineering plans, profiles, and right-of-way data showing potential parcel acquisitions. Potential full and partial acquisitions were tabulated for the project alternatives. The availability of suitable replacement housing and business locations was also examined. In the case of full acquisition, all residences and businesses on the parcel are assumed displaced and relocated. Many parcels would be partially acquired, and acquisition of the structures located on the parcel would not be necessary. However, this does not mean there would

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be no adverse impacts on these properties. 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.

As discussed in FB-Response-SO-01: Acquisitions, Displacements, and Relocations, the Authority has adjusted alternatives during conceptual design to avoid or minimize impacts, including property acquisitions, to the extent possible. This alternative refinement process will continue throughout final design.

I033-272

Refer to Standard Response FB-Response-AG-02, FB-Response-AG-03, FB-Response-AG-04.

As stated in Section 3.13.5.3, the project would require acquisition of land that is not currently in transportation uses; however, the HST tracks and supporting facilities would not inhibit continuation of existing uses on adjacent lands. Adjacent agricultural land could continue to be farmed. While the HST would be initially disruptive to existing agricultural operations, adjacent land would remain in agricultural production in the long term because of the high value of land for agriculture in the south San Joaquin Valley, the predominance of the agricultural industry in the region, and the extensive agricultural infrastructure that is in place.

All of the alternative alignments are located near or go through rural, residential, and urban areas, resulting in residential, commercial, and industrial displacements. In a number of cases, the presence of the HST will disrupt community cohesion or result in community division. These displacement and community impacts are discussed in Section 3.12, Socioeconomics, Communities, and Environmental Justice, section 3.12.8. Although impacts will occur to communities and affect some residents, it will not be disruptive enough to force a change in land use patterns. Both the BNSF Railway and UPRR cross through the south San Joaquin Valley and have not prevented recent

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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 HST stations in downtown Fresno and Bakersfield could stimulate residential and commercial development on adjacent land that is consistent with current uses and land use plans and policies. In the area surrounding the Kings/Tulare Regional Station, both of the Kings/Tulare Regional Station alternatives could indirectly result in development of supporting uses, such as restaurants and rental car agencies, on adjacent lands to serve the traveling public. While these changes to adjacent lands would be incompatible with their current land uses and designations, the Revised DEIR/Supplemental DEIS does acknowledge the potential for land use changes to occur.

I033-273

Refer to Standard Response FB-Response-TR-03.

This comment suggests that the Revised DEIR/Supplemental DEIS has inappropriately deferred the identification of measures necessary to mitigate significant effects that may result from construction of the Fresno to Bakersfield Section, specifically the Kings/Tulare Regional Station. The Revised DEIR/Supplemental DEIS does not defer mitigation, but rather provides an extensive set of mitigation measures, using performance standards included in project approval decisions made in the future by the Authority and the FRA, and to be further reviewed, refined, and applied as design progresses and permits are obtained from other agencies. Under CEQA, where the design details of the project have not been fully developed and the development of specific mitigation will rely upon information not yet available, an EIR may take a phased approach to the development of specific mitigation, provided that it has analyzed the impact and made a significance determination, commits to mitigation in the form of a mitigation measure for the significant effect, and specifies "performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way" (14 CCR 15126.4(a)(1)(b)). The same is true under NEPA. The EIS must discuss mitigation “in sufficient detail to ensure that environmental consequences have been fairly evaluated,” but it is not necessary to formulate and adopt a complete mitigation plan (Robertson v. Methow Valley Citizens Council, 490

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U.S. 332, 352 [(1989]).

The Kings/Tulare Regional Station is no longer considered a "potential" station. The Final EIR/EIS has been revised to reflect that the Authority and FRA will construct a Kings/Tulare Regional Station in the vicinity of Hanford as part of the project. Construction timing would be based on ridership demand in the region, and would occur during Phase 2 of the statewide project, sometime after 2020.

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Refer to Standard Response FB-Response-TR-03.

The Authority would work with local jurisdictions and other interested parties to phase the parking supply to support HST ridership demand and the demand of other uses in the vicinity of the station. The stations have not yet been designed (the illustrations in the EIR/EIS are conceptual) and will not be designed for several years. Similarly, actual ridership levels are not known at this time. As discussed in Section 2.2.3 of the Revised DEIR/Supplemental DEIS: “Parking demand expectations are based on HST system ridership forecasts where parking availability is assumed to be unconstrained – meaning 100% of parking demand is assumed to be met. These projections provide a 'high' starting point to inform discussions with cities where stations are proposed. While this EIR/EIS identifies locations for parking facilities needed to satisfy the maximum forecast demand, parking is anticipated to be developed over time in phases, while also prioritizing access to the HST system through other modes such as transit, which could lead to less parking being necessary."

The Authority does not have sufficient information to provide precise information regarding the timing, design and funding of station parking; therefore, the phasing plan for parking structures has not yet been developed. The implementation of parking will be initiated in conjunction with the construction of the stations and the initiation of rail service, and will be phased in accord with ridership levels and demand.

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The EIR/EIS does not make a false comparison because all transportation corridors generate noise and have the potential to disturb nearby residents. Trains passing

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through the existing at-grade crossings between roadways and freight/Amtrak railroad tracks currently are required to blow their horns as a warning to oncoming traffic and pedestrians, which is often very disruptive to the nearby residents. Unlike freight trains, the HST requirements for a grade-separated track mean no horn noise would be generated. The HST would generate noise, and as discussed in Section 3.4, without mitigation, noise effects for many sensitive receivers along the HST alternatives would have substantial intensity under NEPA and the impact would be significant under CEQA. These effects would be decreased to a less-than-significant level at most locations with the implementation of the proposed mitigation measures (N&V-MM#1-Construction Noise Mitigation Measures and N&V-MM#2-Construction Vibration Mitigation Measures).

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 from rapid onset trains would occur at 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.

Being located close to the HST, especially near a station, would provide residents with improved mobility throughout the region and businesses could benefit from increased revenues from project construction and operation spending; see Section 5.4.6 of the Community Impact Assessment Technical Report.

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All materials referenced in the Revised DEIR/Supplemental DEIS are available to the public. This report is located on the California High-Speed Rail Authority’s website.

I033-277

Local land use plans are created by cities and counties with authority over the type and amount of land uses that can be developed in their areas. Therefore, the Authority has no authority over land use decisions in the station areas. As discussed in Section 3.13.5.3, urban stations in Fresno and Bakersfield would encourage higher-intensity development in the surrounding areas, an indirect effect of the stations that would be

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consistent with existing urban development and expectations for the types of uses that can be supported in an urban environment. The Fresno HST station would be located in an area where the City of Fresno is updating plans to address the potential for infill development and increased densities associated with the HST station. The City of Bakersfield has adopted redevelopment plans for the HST station area in Bakersfield. Therefore, development of the stations in these areas would be consistent with the cities' plans and policies encouraging downtown revitalization.

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The Authority would work with local jurisdictions and other interested parties to phase the parking supply to support HST ridership demand and the demand of other uses in the vicinity of the station. The stations have not yet been designed (the illustrations in the EIR/EIS are conceptual) and will not be designed for several years. Similarly, actual ridership levels are not known at this time. As discussed in Section 2.2.3 of the Revised DEIR/Supplemental DEIS: "Parking demand expectations are based on HST system ridership forecasts where parking availability is assumed to be unconstrained – meaning 100% of parking demand is assumed to be met. These projections provide a 'high' starting point to inform discussions with cities where stations are proposed. While this EIR/EIS identifies locations for parking facilities needed to satisfy the maximum forecast demand, parking is anticipated to be developed over time in phases, while also prioritizing access to the HST System through other modes such of transit, which could lead to less parking being necessary."

The Authority does not have sufficient information to provide precise information regarding the timing, design and funding of station parking; therefore, the phasing plan for parking structures has not yet been developed. The implementation of parking will be initiated in conjunction with the construction of the stations and the initiation of rail service and will be phased in accord with ridership levels and demand.

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Refer to Standard Response FB-Response-GENERAL-02.

As discussed in Master Response FB-02, Proposition 1A does not mandate that the HST remain solely within existing transportation corridors. Doing so would make

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impossible the San Francisco to Los Angeles travel time mandated under the Proposition. The "sweeping curves" of the alternative alignments are there for a purpose: they allow operation at the high speeds necessary to meet the travel time limit.

Master Response FB-02 explains the practical reasons why remaining solely in the existing corridors is impossible if the HST is to comply with Proposition 1A. Given that the HST Project alternatives are designed to provide a high-speed right of way, and the existing transportation corridors cannot feasibly do so, there is no requirement to compare the impacts of the project to those of the existing transportation corridors. The No-Project Alternative correctly describes a future without an HST.

In any case, the commenter's suggestion that locating outside a transportation corridor doubles the impacts of locating within a transportation corridor is flawed. It ignores the potential loss of agricultural land necessitated by widening the existing corridor to accommodate the safe separation distance between HST and the existing rail line, the associated impacts on communities, biological resources, and waters of the United States of a widened corridor, and the necessity of grade separations at each road crossing along the entire distance of the HST alignment that would require elevating portions of the HST track.

The HST project is being undertaken by a state agency (the Authority) and a federal agency (the FRA). The project must conform to the policies and objectives of the statutes and regulations under which the Authority and FRA operate. For example, the Authority must balance the objectives stated in Proposition 1A in pursuing development of an HST system for California. However, the HST project is not required to be fully consistent with the regional San Joaquin Blueprint. The HST was considered during preparation of the Blueprint and would advance the following Blueprint smart growth principles:

- Provide a variety of transportation choices [The HST provides another transportation mode offering convenient and fast inter-regional travel]
- Strengthen and direct development towards existing communities [The HST stations in Fresno and Bakersfield would provide a market incentive for growth in their downtowns.]
- Enhance the economic vitality of the region [The HST would provide convenient and

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fast connections across the region and beyond, encouraging more business, as discussed in the EIR/EIS.]

I033-280

Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-10.

In the case of Hanford, it was not feasible to follow the BNSF Railway through the city. The BNSF Railway in the Hanford area has several curves too severe for an HST, and constructing the HST through Hanford would have resulted in a substantial impact to residential and commercial properties in the city. That is why the preferred alignment for the Fresno to Bakersfield Section was selected to bypass Hanford in the 2005 Record of Decision adopted based on the analysis of alternatives in the Statewide Program EIR/EIS for the California High-Speed Rail System.

I033-281

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-02.

The Final EIR/EIS discloses these inconsistencies in Section 3.13, Local Growth, Station Planning, and Land Use. The HST project is being undertaken by a state agency (the Authority) and a federal agency (the FRA). The project must conform to the policies and objectives of the statutes and regulations under which the Authority and FRA operate. For example, the Authority must balance the objectives stated in Proposition 1A in pursuing development of an HST system for California. However, the HST project is not subject to the general plan policies or zoning regulations adopted by local governments.

I033-282

Refer to Standard Response FB-Response-AG-03, FB-Response-GENERAL-02.

The Revised DEIR/Supplemental DEIS recognizes that small, uneconomic parcels will be created. These uneconomic parcels were included in the permanent agricultural land

I033-282

takes, as they are too small to be farmed economically.

The reasons for locating portions of the alignments outside of existing transportation corridors are described in Standard Response FB-02.

I033-283

Refer to Standard Response FB-Response-GENERAL-04.

Existing land uses and city/county land use regulations around the Kings/Tulare Regional Station alternatives are discussed in Section 3.13. Section 3.18 discloses the potential for these alternative station sites to induce growth. The eastern alternative, in particular, is identified as growth-inducing because its site adjoins lands planned for agricultural use. The western alternative would also be growth-inducing, however the impact would be somewhat less in that it is between Hanford and Armona in an area expected to grow (albeit at a lower intensity). As described in Section 3.14.7 of the Revised DEIR/Supplemental DEIS, Mitigation Measure AG #1 commits the Authority to funding the acquisition from willing sellers of permanent conservation easements on farmlands in Kings County. This will be implemented through the existing California Farmlands Conservancy Program. Guidelines for the award of funding for specific conservation easements will prioritize areas near the station, as well as areas suitable for urban separators, to help reduce further conversion of agricultural land around the eastern station alternative. However, this is an unavoidable impact.

The HST project is being undertaken by a state agency (the Authority) and a federal agency (the FRA). The project must conform to the policies and objectives of the statutes and regulations under which the Authority and FRA operate. For example, the Authority must balance the objectives stated in Proposition 1A in pursuing development of an HST system for California. However, the HST project is not subject to the general plan policies or zoning regulations adopted by local governments.

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Refer to Standard Response FB-Response-GENERAL-07, FB-Response-GENERAL-16.

The Authority and FRA are not subject to local plans, policies, and ordinances.

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Therefore, failure to conform to local plans, policies, and regulations is not an environmental impact. No mitigation is required.

Section 3.13 describes local plans, policies, and ordinances related to land use, including agriculture. Section 3.18 describes the project's potential for inducing growth, including growth that would be inconsistent with local plans.

I033-285

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-03.

The identification of remnant parcels that were too small to farm was made by right-of-way experts with experience in acquisition of agricultural lands. The number of remnant parcels and their total acreage are provided in Section 3.14. The analysis used a conservative approach to determine whether or not a parcel would be a remnant. All remnant parcels will be reanalyzed once the right-of-way process begins, and the right-of-way agents will work with the farmers to determine whether or not a parcel is farmable. Please refer to Section 3.14.3 in the Final EIR/EIS for more information on the remnant parcel analysis.

In April 2013, the Authority reached an agreement with agricultural interests on mitigation of agricultural land impacts for the Merced to Fresno Section of the HST System (Authority 2013). Under that agreement, the Authority will acquire agricultural conservation easements for its impact on Important Farmland (i.e., land classified as prime farmland, farmland of statewide importance, farmland of local importance, and unique farmland) at the following ratios:

- Important Farmland converted to nonagricultural uses either by direct commitment of the land to project facilities or by the creation of remnant parcels that cannot be economically farmed will be mitigated at a ratio of 1:1.
- Where HST project facilities would create a remnant parcel of 20 acres or less in size, the acreage of that remnant parcel will be mitigated at a ratio of 1:1.
- An area 25 feet wide bordering Important Farmland converted to nonagricultural uses by project facilities (not counting remnant parcels) will be mitigated at a ratio of 0.5:1.

I033-286

Refer to Standard Response FB-Response-AG-04, FB-Response-AG-05, FB-Response-AG-06.

The Agricultural Working Group (AWG) was established in July 2011 to assist the Authority with an independent advisory group that could address the issues being raised by the agricultural community. The representatives of this group are specialists and experts in their specific fields of agriculture. They include representatives of universities, governmental agencies, county agricultural commissions and agri-business. A series of white papers was produced by this group and they were presented to the High-Speed Rail Authority Board. The subjects of the white papers are: bees and pollination, induced winds, dairy impacts, movement of agricultural equipment, irrigation, and pesticide use. The information contained in the white papers produced by the working group is included in the Final EIR/EIS in FB-Response-AG-04, Severance – Farm Impacts; FB-Response-AG-05, Pesticide Spraying/Dust/Pollination; and FB-Response-AG-06, Confined Animal Facilities. The final white papers are currently provided on the Authority's website.

I033-287

Refer to Standard Response FB-Response-GENERAL-04, FB-Response-SO-01, FB-Response-AG-01.

The acreage totals are used to assess the impacts of the whole project, and are not to be associated with an individual farm, but with the project as a whole. These values were drawn from the California High Speed Train - Project Level Environmental Methodology Guidelines developed by the Authority and FRA in September 2010 (Authority and FRA 2010).

While some farms may be profitable on sites smaller than 10 acres that is actually rare. As disclosed in Section 3.14, the average farm size in the affected counties ranges from several hundred to over 1,000 acres.

I033-288

Refer to Standard Response FB-Response-GENERAL-04.

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-288

The Authority disagrees that the statement misrepresents the situation or misleads the reader. The statement is describing how the farms were originally organized in a simple square pattern for effective and efficient farming. Over time those patterns have been disrupted due to other transportation infrastructure introduced in the area.

The geographical orientation of the San Joaquin Valley is not directly north-south. From its northernmost point, going south, the valley trends toward the southeast. As a result, although many agricultural parcels orient along the north-south-east-west grid pattern established by early surveys, the transportation system generally follows the northwest to southeast orientation of the Valley.

I033-289

Refer to Standard Response FB-Response-GENERAL-03, FB-Response-GENERAL-04.

This is not misleading. The assumption that the HST will reduce the impacts of agricultural conversion is in addition to other measures that are currently being undertaken to prevent the conversion, such as SB 375. Growth around the stations in both downtown Fresno and Bakersfield would not have any impacts on agricultural lands, as the stations are in developed urban areas. In regards to the Hanford Station, the Revised DEIR/Supplemental DEIS states that some agricultural land would be lost, and acknowledges the growth-inducing impact of that station (see Section 3.18). Mitigation Measure AG #1 has been adopted to reduce the impact of the conversion of agricultural land by the HST project by funding the acquisition of permanent conservation easements.

I033-290

Refer to Standard Response FB-Response-GENERAL-03, FB-Response-GENERAL-04, FB-Response-AG-01.

The Authority disagrees that the statement should be removed. Many HST stations will be located in urbanized areas and will provide opportunities for additional growth in those communities. Fresno and Bakersfield will benefit from this growth opportunity, as evidenced in Section 3.18, Regional Growth. As discussed in FB-Response-GENERAL-03, development of the Kings/Tulare Regional Station would reinforce the importance of

I033-290

Hanford as a transportation hub, but would not result in higher-density development in the city's downtown due to the station's location outside the city center. There is a high likelihood that indirect effects on land use in the area surrounding the Kings/Tulare Regional Station would occur, as discussed in Section 3.18, Regional Growth. Depending on the growth objectives of Hanford and the surrounding communities, the Authority is open to working with local governments, the California Department of Conservation, and non-governmental agencies to purchase agricultural conservation easements around the station to keep the land in agricultural production and discourage growth, consistent with Mitigation Measure Ag-MM#1.

I033-291

Refer to Standard Response FB-Response-AG-05, FB-Response-AG-06.

The Agricultural Working Group was established in July 2011 to assist the Authority as an independent advisory group that could address the issues being raised by the agricultural community. The representatives of this group are specialists and experts in their specific fields of agriculture. They include representatives of universities, governmental agencies, county agricultural commissions and agri-business. A series of white papers were produced by this group, including papers on bee pollination and on dairy impacts, which were presented to the High-Speed Rail Authority Board in July 2012.

The information contained in the white papers produced by the Working Group substantiates the conclusions made in the EIR/EIS. It is also included in the Final EIR/EIS in FB-Response-AG-05, Pesticide Spraying/Dust/Pollination and FB-Response-AG-06, Confined Animal Facilities. The final white papers are currently provided on the Authority's website.

I033-292

Refer to Standard Response FB-Response-SO-01.

Impact AG #1 addresses temporary use of agricultural land. It acknowledges that some agricultural land outside of the permanent right-of-way would be used for construction. Specific acreage estimates are provided for each alternative, and project design

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-292

requires that the land be restored to as close to its pre-construction condition as possible. Any losses experienced by farmers due to the lands used for temporary construction staging areas will be compensated by the Authority during the right-of-way property acquisition process. During that process, losses in the value of the remaining property will be taken into account and the owner will be compensated for the loss in productivity. Fair market value takes into account the value of the land, the improvements on the land, as well as the future income the land and improvements can generate.

It will be stated in the description and contract for a temporary construction easement that the Authority's contractor will repair any damage and restore the property to its previous existing condition, including replanting, re-establishing irrigation systems, replacing wells, etc. Otherwise, the Authority's contractors are responsible for any damage caused outside of the acquired right-of-way and will compensate the affected land owner. If it is found that the land is not able to be restored to its previous existing condition, then the land owner will be compensated for the losses accordingly.

I033-293

Mining operations are regulated by the Surface Mining and Reclamation Act (SMARA), which requires preparation and city/county approval of a reclamation plan for implementation at such future time as when the mining operation is terminated. There is no such requirement for the HST project, and the Authority and FRA are not undertaking any operations that are subject to SMARA.

The Authority, as a design feature of the HST Project, is committed to returning these lands to as close to their pre-construction condition as possible. Once the land is no longer required for construction activities, the Authority will return the land to the same condition it was before construction began. The project will employ standard methods under the required Stormwater Pollution Prevention Program to avoid spilling chemicals used in construction on the ground and, if unexpected spillages do occur, to clean them

I033-293

promptly. No contamination will remain when the construction is completed. These requirements will be included in the contracts for the design-builder and monitored by the Authority to ensure that they are implemented.

To preserve the top soil some of the requirements may include: replanting, re-establishing irrigation systems, replacing wells, etc. Methods to prevent the current top soil from becoming "dead soil" may include: stockpiling the topsoil off site during the construction phase and reapplying it after construction, amending the soil after construction to restore nutrients, or importing new top soil after construction. Otherwise, the Authority's contractors are responsible for any damage caused outside of the acquired right of way and will compensate the affected land owner. If it is found that the land is not able to be restored to its previous existing condition, then the land owner will be compensated for the losses accordingly. Restoration of sites to prior condition would only consist of a recommendation for scarification of the top 12 inches, recompaction to 85% maximum relative density, and surface stabilization for dust mitigation (hydroseeding or other) prior to transitioning a temporary use site to the owner. This restoration of staging or other temporary use areas is incorporated as part of the project, as described in Section 2.8.

I033-294

This has been clarified in the Final EIR/EIS. Please see Section 3.14.5 of the Final EIR/EIS for a correction about the number of confined animal facilities within 100 feet of the alignment.

I033-295

Refer to Standard Response FB-Response-AG-06, FB-Response-N&V-01.

The Authority formed an agricultural working group to assist the Authority on agricultural issues. The working group is composed of representatives of universities, government agencies, and agri-business. The group completed a white paper on dairy impacts in 2012 (this paper is on the Authority's website). That white paper reports the following. The conclusion in the white paper establishes that while current research suggests minimal impact beyond 100 feet, this is not conclusive and consideration should be given to studies of cattle responses to the HST for conditions where cattle operations

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-295

are within 350 feet (90db). Additional research on this topic will be undertaken as a project design feature during the HST testing phase, as described in Section 3.14.6.

The construction noise impact analysis was based on evaluating the noise expected to be generated by typical construction equipment and construction methods in comparison to existing noise levels. As mentioned above, the existing noise levels were determined throughout the corridor by direct field noise measurements. Although overall construction is expected to take several years, this is a linear project and construction will proceed along the alignment such that construction at any particular location will be completed in a much shorter time. At-grade construction will proceed at a faster rate than at locations where a grade separation, such as an overpass, is being installed. During construction, the Authority and its design/build contractor will consider local noise sensitivities consistent with local ordinances and employ best management practices to minimize excess noise impacts during construction.

During the right-of-way valuation process, any loss in value of the remainder property would include lost revenue and would take into consideration factors such as added cost of operation and/or reduced productivity of the remaining land.

I033-296

A description of the sources of sound can be found in Chapter 5 of the Noise Technical Report. The sources of noise include (1) propulsion or machinery noise, (2) mechanical noise resulting from wheel/rail interactions and/or guideway vibrations, and (3) aerodynamic noise resulting from airflow moving past the train.

I033-297

Refer to Standard Response FB-Response-AG-06, FB-Response-N&V-01, FB-Response-N&V-03.

The Authority formed an agricultural working group to assist the Authority on agricultural issues. The working group is composed of representatives from universities, government agencies, and agri-business. The group completed a white paper on dairy impacts in 2012 (this paper is on the Authority's website). The conclusion in the white paper establishes that while current research suggests minimal impact beyond 100 feet,

I033-297

this is not conclusive and consideration should be given to studies of cattle responses to the HST for conditions where cattle operations are within 350 feet (90db).

Many studies on domestic animals suggest that some species appear to adjust to some forms of sound disturbance. Conclusions from research conducted to date provide only rough estimates of threshold levels for observed animal disturbance. Cows on dairies are constantly exposed to a variety of noises from farm equipment, farm machinery, and work activities that may have habituated them to noises above the presumed threshold for response.

The commenter has not provided substantiation for the supposition that the introduction of new cows would change the conclusions of prior research.

I033-298

Refer to Standard Response FB-Response-GENERAL-03, FB-Response-GENERAL-04.

The assumption that the HST will reduce the impacts of agricultural conversion in the Central Valley was based on the background materials prepared for the selected San Joaquin Valley Blueprint Scenario B+. The San Joaquin Valley Blueprint was prepared and adopted in 2009 as a coordinated effort by the Council of Governments in the San Joaquin Valley.

The extent to which subdivision developments have occurred and will continue to occur in the San Joaquin Valley depends on land use planning decisions made by the Valley's cities and counties. Kings and Kern Counties have expressed in their comments on the Revised DEIR/Supplemental DEIS a commitment to the preservation of farmland through well-considered conservation policies in their general plans. In addition to the factors described in Standard Response FB-03, this could help reduce the suburban sprawl that has characterized the Valley in the past if the counties hold to those policies.

I033-299

Overpass footprints are included in the impact considerations. The study area for analysis was discussed in Section 3.1.3. As stated, the footprint includes "the project components include the proposed HST right-of-way and associated facilities such as

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-299

traction-power substations and switching and paralleling stations, as well as the shifts in roadway rights-of-way associated with those facilities—including overcrossings and interchanges—that would be modified or shifted to accommodate the HST project."

I033-300

As stated in the comment, some activities involved with the construction of a grade separation at H Street and Tulare Street will occur within 100 feet of the stadium. In terms of construction period impacts to Chukchansi Park as a public recreational facility, the indirect impacts would include noise, dust, and visual changes, which could indirectly affect the stadium and its 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 mitigation measures for Impact PK #1 – Common Aesthetics and Visual Quality Impacts, will be implemented at Chukchansi Park. Mitigation Measures AVR-MM#1a and AVR-MM#1b will be implemented as outlined in Section 3.16, Aesthetics and Visual Resources, of the Final EIR/EIS. No mitigation measures are required for the less-than-significant impacts for the use of the stadium as a park and recreation resource.

I033-301

Refer to Standard Response FB-Response-TR-01.

As discussed in Section 3.2, Transportation, the construction of the HST stations, platforms, and track alignment would require temporary construction easements (TCEs). The TCEs may require the temporary closure of parking areas, roadway travel lanes, pedestrian facilities, bicycle lanes, and paths. Any closure or removal of parking areas, roadways, pedestrian facilities, bicycle lanes, or paths during construction would be temporary, and every attempt would be made to minimize their removal or shorten the length of time that these facilities are inoperable. On completion of construction, all parking areas, roadway lanes, pedestrian facilities, and bicycle lanes would be restored.

The Authority and FRA have considered avoidance and minimization measures consistent with the Statewide and Bay Area to Central Valley Program EIR/EIS commitments (Authority and FRA 2005, 2008; Authority 2010a, 2012d). During project

I033-301

design and construction, the Authority and FRA would implement measures to reduce any associated construction-related impacts. For example, project design features #8, Construction Transportation Plan, and #9, Construction during Special Events, as described in Section 3.2.6, Project Design Features, would be implemented. The latter measure would provide a mechanism to prevent roadway construction activities from reducing roadway capacity during major athletic events or other special events that attract a substantial number of visitors. Mechanisms would include the presence of police officers directing traffic, special-event parking, use of within-the-curb parking, or shoulder lanes for through-traffic, traffic cones, and so on. Through such mechanisms, roadway capacity would be maintained.

I033-302

The Authority and FRA have considered avoidance and minimization measures consistent with the Statewide and Bay Area to Central Valley Program EIR/EIS commitments (Authority and FRA 2005, 2008; Authority 2010a, 2012d). During project design and construction, the Authority and FRA would implement measures to reduce any associated construction-related impacts. For example, project design features #8, Construction Transportation Plan, and #9, Construction during Special Events, as described in Section 3.2.6, Project Design Features, would be implemented. The latter measure would provide a mechanism to prevent roadway construction activities from reducing roadway capacity during major athletic events or other special events that attract a substantial number of visitors. Mechanisms would include the presence of police officers directing traffic, special-event parking, use of within-the-curb parking, shoulder lanes for through-traffic, traffic cones, and so on. Through such mechanisms, roadway capacity would be maintained. Implementation of the project design features with the proposed project would ensure less-than-significant traffic and parking impacts on the use of Chukchansi Park.

I033-303

Some activities involved with the construction of a grade separation at H Street and Tulare Street would occur within 100 feet of the stadium. In terms of construction period impacts to Chukchansi Park as a public recreational facility, 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

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-303

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 mitigation measures for Impact PK #1 – Common Aesthetics and Visual Quality Impacts, will be implemented at Chukchansi Park. Mitigation Measures AVR-MM#1a and AVR-MM#1b will be implemented as outlined in Section 3.16, Aesthetics and Visual Resources, of the Final EIR/EIS.

Air Quality Mitigation Measures A&Q-MM#1 through A&Q-MM#6 and Noise and Vibration Mitigation Measures N&V-MM#1 and N&V-MM#2 would also be implemented during construction. However, these measures would not be implemented because of the impacts resulting from the use of the stadium as a park and recreation resource, but rather because of the impacts determined in Sections 3.3, Air Quality and Global Climate Change, and 3.4, Noise and Vibration, of the Final EIR/EIS.

The Authority and FRA have considered avoidance and minimization measures consistent with the Statewide and Bay Area to Central Valley Program EIR/EIS commitments (Authority and FRA 2005, [2008] 2012). During project design and construction, the Authority and FRA would implement measures to reduce any associated construction-related impacts. For example, project design features #8, Construction Transportation Plan, and #9, Construction during Special Events, as described in Section 3.2.6, Project Design Features, would be implemented. The latter measure would provide a mechanism to prevent roadway construction activities from reducing roadway capacity during major athletic events or other special events that attract a substantial number of visitors. Mechanisms include the presence of police officers directing traffic, special-event parking, use of within-the-curb parking or shoulder lanes for through-traffic, traffic cones, and so on. Through such mechanisms, roadway capacity would be maintained.

I033-304

As discussed in Section 3.7, Biological Resources and Wetlands, the Pixley National Wildlife Refuge (NWR) is near the HST alternatives (i.e., the BNSF Alternative and the Allensworth Bypass Alternative [1,000 feet west of Pixley NWR]), but the HST alternatives do not overlap any portion of the Pixley NWR. The construction of the HST alternatives would not result in direct impacts on special-status habitats or species.

I033-304

Because of the considerable distance from the Pixley NWR to the alternatives and the existing barriers formed by State Route 43 and the BNSF Railway right-of-way, no indirect impacts on the Pixley NWR are expected to occur.

I033-305

Refer to Standard Response FB-Response-AVR-03, FB-Response-GENERAL-01.

As stated in Standard Response FB-Response-GENERAL-01, some comments suggest that the RDEIR/SDEIS has inappropriately deferred the identification of measures necessary to mitigate significant effects that may result from construction of the Fresno to Bakersfield Section. The RDEIR/SDEIS does not defer mitigation, but rather provides an extensive set of mitigation measures using performance standards included in project approval decisions made in the future by the Authority and the FRA, and to be further reviewed, refined, and applied as design progresses and permits are obtained from other agencies. Under CEQA, where the design details of the project have not been fully developed and the development of specific mitigation will rely upon information not yet available, an EIR may take a phased approach to the development of specific mitigation, provided that it has analyzed the impact and made a significance determination, commits to mitigation in the form of a mitigation measure for the significant effect, and specifies "performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way" (14 CCR 15126.4(a)(1)(b)). The same is true under NEPA. The EIS must discuss mitigation “in sufficient detail to ensure that environmental consequences have been fairly evaluated,” but it is not necessary to formulate and adopt a complete mitigation plan (Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 352 [1989]).
The mitigation measures identified in the RDEIR/SDEIS meet these requirements.

I033-306

Refer to Standard Response FB-Response-AVR-03.

Mitigation Measures AVR-MM#2f and #2g both call for application of graffiti-resistant coatings to facilitate removal, and commit to repair within a reasonable period of time.

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I033-306

In addition, Table 3.16-2 in Section 3.16, Aesthetics and Visual Resources, of the Revised DEIR/Supplemental DEIS has been revised to address graffiti and blight. Also, mitigation measures for construction have been revised to state: “Any graffiti or visual defacement of temporary fencing and walls will be painted over or removed within 5 business days after notification.” Mitigation measures for operations have been revised to state: “Any graffiti or visual defacement or damage of fencing and walls will be painted over or repaired within 5 business days after notification. In addition, a process for notification of local law enforcement will be implemented.”

I033-307

The Authority would maintain all HST facilities, including the right-of-way and fence and provide appropriate weed and pest control. Maintenance activities are described in Section 2.6, Operations and Service Plan, of the Revised DEIR/Supplemental DEIS. The Authority would not be responsible for maintaining lands outside of the project footprint.

Table 3.16-2 in Section 3.16, Aesthetics and Visual Resources, of the Revised DEIR/Supplemental DEIS has been revised to address graffiti and blight. Also, mitigation measures for construction have been revised to state: “Any graffiti or visual defacement of temporary fencing and walls will be painted over or removed within 5 business days.” Mitigation measures for operations have been revised to state: “Any graffiti or visual defacement or damage of fencing and walls will be painted over or repaired within a reasonable time after notification. In addition, a process for notification of local law enforcement will be implemented.”

I033-308

The sentence in Table 3.16-2 has been revised in Volume I of the Final EIR/EIS as follows: "The height from ground level to the top of rail would typically be a minimum of 4.5 feet, but could be as much as 12 feet, depending on topography."

I033-309

Table 3.16-2 in Section 3.16, Aesthetics and Visual Resources, of the Revised DEIR/Supplemental DEIS identifies chain-link fencing as a component of at-grade guideways. As stated in Table 3.16-2, such fencing will not block views, but may detract from the quality of views. However in the analysis of project impacts from particular viewpoints, individual project features are not all singled out in the discussion. Rather, the totality of visible project features in that location/situation, including fencing, was analyzed. For example, as stated in the Revised DEIR/Supplemental DEIS analysis of potential impacts on residents in Rosedale (Section 3.16.5.3): "For single-story residences adjacent to the HST in (this) segment, the effects of the elevated guideway would be exacerbated by views of right-of-way fencing, cleared land under guideways, and support columns. . . ."

Where fencing and other project features could cause significant impacts to adjacent sensitive viewers, as in the example cited, the intent of Mitigation Measure AVR-MM#2c, which addresses at-grade and elevated segments, is to provide screening to help reduce those impacts to acceptable levels by enhancing intactness and vividness. This screening would include trees, which are often particularly effective in elevated segments, but could also include other plant material, if appropriate, in at-grade segments.

I033-310

Power traction facilities are described in Table 3.16-2 in Section 3.16, Aesthetics and Visual Resources, and Mitigation Measure AVR-MM#2h, Screen Traction Power Distribution Stations and HMF. Overpass structures are discussed repeatedly in various sections of the impact assessment, particularly in the section titled "San Joaquin Valley Rural/Agricultural landscape Unit" in Section 3.16.5.3 and on Figure 3.16-38 (KVP 4), which depicts a representative simulation of a project overcrossing. Mitigation Measure AVR-MM#2f, Landscape Treatments along the HST Project Overcrossings … provides mitigation measures to address possible impacts from these structures.

Table 3.16-2 includes a description of radio communication towers under Traction Power Distribution Stations (TPSSs) and these were assumed to be present in the analysis of impacts from TPSSs. In addition, the words ‘radio communication towers’ is hereby added to Mitigation Measure AVR-MM#2h in order to make that fact explicit.

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I033-310

The discussion in Section 3.16.5.3 of the RDEIR/SDEIS under Project Impacts acknowledges that TPSSs, alignment fencing, and many other features that are enumerated, could have adverse visual effects on high-sensitivity viewers. Mitigation Measure AVR-MM#2h addresses these potential impacts of TPSSs in detail.

I033-311

The visual assessment reflects an analysis of all proposed project features, including all those listed in the comment as described in Table 3.16-2, even though not every associated feature is described in each impact discussion. Radio towers were inadvertently omitted from Table 3.16-2. This was an error, and "radio communication towers" was added to the title of Mitigation Measure AVR-MM-#2h for the Final EIR/EIS. The precise locations of such towers is not yet known. However, wherever they are ultimately sited, this measure will be applied.
Table 3.16-2 includes a description of radio communication towers under Traction Power Distribution Stations (TPSSs) and these were assumed to be present in the analysis of impacts from TPSSs. In addition, the words ‘radio communication towers’ is hereby added to Mitigation Measure AVR-MM#2h in order to make that fact explicit.

The discussion on p. 3.16-66 acknowledges that TPSSs, alignment fencing, and many other features that are enumerated there, could have adverse visual effects on high-sensitivity viewers. Mitigation Measure AVR-MM#2h addresses the potential impacts of TPSSs (including communication towers) in detail.

I033-312

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-14, FB-Response-LU-01.

Travel time alone does not determine a reasonable commute mode and commute distance. Willingness to relocate to save housing costs is a function of housing cost, the quality of available housing (including the quality of the schools), the availability of amenities, commute time, and the cost of the daily commute, among many other factors. Although housing costs are currently low in the San Joaquin Valley as a result of the

I033-312

recession, as shown by the commenter's own information, housing costs in the San Francisco and Los Angeles urban areas have also suffered significant reductions. The current market value of homes is not a determinative factor in the potential for growth-inducement, particularly because the HST project will not be in operation for over a decade.

The HST System will not be a below-market-cost, subsidized commuter rail service, but instead would provide rapid long-distance travel, priced at commercial market rates. HST System fares are expected to be tied to typical airplane fares. The cost of the fare will discourage relocation and a daily commute to and from the Bay Area and the Los Angeles Basin.

Section 3.18.3, Methods for Evaluating Impacts, of the Revised DEIR/Supplemental DEIS describes the regional modeling process undertaken to forecast growth in the 11 counties in the core Bay Area to Central Valley study area and five other multi-county regions in the state, including Fresno, Kings, Tulare, and Kern counties. The analysis was conducted by updating the population and employment estimates that were originally developed for the growth analysis in the Bay Area to Central Valley Program EIR/EIS (Authority and FRA 2008; Authority 2010a, 2012d) and by evaluating the impacts on regional growth that the HST project would create. Using updated information, economists estimated short-term/temporary employment generated by project construction using a regional input-output modeling system; long-term job creation resulting from project operation was estimated by Cambridge Systematics (Cambridge Systematics 2010).

I033-313

Refer to Standard Response FB-Response-GENERAL-03, FB-Response-GENERAL-23.

The growth-inducement analysis in the Revised DEIR/Supplemental DEIS considered the potential for people to move from the coast to less-expensive housing in the Central Valley, including commuters. The HST project is unlike a highway or other road project that typically opens new areas to development. The key differences are that the HST project has a limited number of stations, whereas new freeways may have access points as close 1 mile apart and that the HST System will include a direct charge for

Response to Submission I033 (Aaron Fukuda, October 18, 2012) - Continued

I033-313

passengers, whereas road access has no direct cost. Therefore, the commenter's comparison of the growth-inducement produced by a new highway versus that resulting from the HST project is misplaced.

Separately, the future conditions necessary to identify the sites where such commuters might live—including the locations of employment centers, types of employment, range of salaries, price of fuel, regional and local land use plans and regulations—are unknown. Therefore, projecting the extent and specific locations of growth resulting from relocations from the coast would be a speculative endeavor and has not been undertaken.

Travel time alone does not determine a reasonable commute mode and commute distance. Willingness to relocate to save housing costs is a function of housing cost, the quality of available housing (including the quality of the schools), commute time, and cost of the daily commute.

I033-314

Refer to Standard Response FB-Response-GENERAL-14.

The analysis of growth impacts involves modeling, using reasonable assumptions of future trends to develop reasonable projections. Growth projections were made at a countywide level. HST construction- and operation-related employment impacts were estimated using the Regional Input-Output Modeling System (RIMS) II multiplier model for the Fresno, Kings, Tulare, and Kern county region. The analysis of population and employment growth updated the population and employment estimates that were originally developed for the growth analysis in the Bay Area to Central Valley Program EIR/EIS (Authority and FRA 2008). For information on new job creation and the resulting impacts to the regional economy, see Impacts SO #5 and SO #13 in Section 3.12, Socioeconomics, Communities, and Environmental Justice, of the EIR/EIS. See also Section 5.1.2, Project Job Creation, of the Community Impact Assessment Technical Report (Authority and FRA 2012h) for more detailed information on short-term and long-term job creation.

The discussion on page 3.18-19 referenced by the commenter is an overview of the

I033-314

analysis presented on subsequent pages. The analysis used to reach the conclusions presented there is detailed in the section titled "Project Impacts" (on page 3.18-29), including the analysis of employment and induced population growth.

I033-315

Refer to Standard Response FB-Response-GENERAL-18.

The projected construction jobs are somewhat similar in nature to roadway and bridge construction jobs that are common in California and do not present "specialized needs," so there is no reason why most of the anticipated construction jobs cannot be met by local workers.The San Joaquin Valley has greater unemployment and a lower per capita income than the state as a whole. The Authority has adopted a Community Benefits Policy, which requires that design-build construction contracts will be required to adhere to the National Targeted Hiring Initiative, which states that a minimum of 30% of all project work hours shall be performed by National Targeted Workers and a minimum of 10% of National Targeted Worker hours shall be performed by Disadvantaged Workers. This policy, along with other hiring policies, will ensure that the employment and business opportunities created by the project are accessible to the local community. For more information on hiring policies, see the Authority's website.

I033-316

Refer to Standard Response FB-Response-GENERAL-03, FB-Response-GENERAL-14.

The population of the San Joaquin Valley is projected to increase by 66.8% between 2009 and 2035, almost twice the population increase projected for California over the same time period. Within the Fresno to Bakersfield four-county study area, this increase would be approximately 73%. An analysis by Cambridge Systematics, Inc., indicates that with the HST project, there is a small (approximately 3%) incremental effect compared with forecasted growth in the Central Valley.
*(*Source: Cambridge Systematics Inc. 2003. *Economic Growth Effects of the System Alternatives for the Program Environmental Impact Report/Environmental Impact Statement. Final Report. Prepared for California High-Speed Rail Authority with Economic Development Research Group. July 2003.)*

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Section 3.18.3, Methods for Evaluating Impacts, of the Revised DEIR/Supplemental DEIS describes the regional modeling process undertaken to forecast growth in the 11 counties in the core Bay Area to Central Valley study area and five other multi-county regions in the state, including Fresno, Kings, Tulare, and Kern counties. The analysis was conducted by updating the population and employment estimates that were originally developed for the growth analysis in the Bay Area to Central Valley Program EIR/EIS (Authority and FRA 2008) and by evaluating the impacts on regional growth that the HST project would create. Using updated information, economists estimated short-term/temporary employment generated by project construction using a regional input-output modeling system; long-term job creation resulting from project operation was estimated by Cambridge Systematics (Cambridge Systematics 2010a).

For information on new job creation and the resulting impacts on the regional economy, see Impacts SO #5 and SO #13 in Volume I Section 3.12, Socioeconomics, Communities, and Environmental Justice, of the EIR/EIS. See also Section 5.1.2 of the Community Impact Assessment Technical Report (Authority and FRA 2012h) for more detailed information and a discussion of the methodologies used to analyze short-term and long-term job creation.

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Refer to Standard Response FB-Response-GENERAL-03.

Travel time alone does not determine a reasonable commute mode and commute distance. Willingness to relocate to save housing costs is a function of housing cost, the quality of available housing (including the quality of the schools), commute time, and cost of the daily commute.

The HST System will not be a below-market-cost, subsidized commuter rail service; instead, it would provide rapid long-distance travel, priced at commercial market rates. HST System fares are expected to be tied to typical airplane fares. The cost of the fares will discourage relocation and a daily commute to and from the Bay Area and the Los Angeles Basin. Commuter rail ticket prices, in comparison, are considerably lower than the projected ticket prices for the HST System, even for trips across their service areas. For example, in early 2013 a one-way ticket from Sacramento to San Francisco on the Capitol Corridor was $31.00, from Camarillo to Los Angeles Union Station on Metrolink was $12.00, and from Fremont to Richmond on BART was $4.90.

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Refer to Standard Response FB-Response-GENERAL-03.

The growth-inducement analysis in the Final EIR/EIS considered the potential for people to move from the coast to less-expensive housing in the Central Valley, including commuters. The consideration requested by the commenter is already a part of the analytical model used in the growth-inducement analysis. However, the future conditions necessary to identify the sites where such commuters might live—including the locations of employment centers, types of employment, range of salaries, price of fuel, regional and local land use plans and regulations—are unknown. Therefore, projecting the extent and specific locations of growth resulting from relocations from the coast would be a speculative endeavor and has not been undertaken.

I033-319

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-03.

The commenter's assertion is incorrect. The planning grants available from the Authority include a requirement to incorporate the specific principles enumerated in the Authority's 2010 *Urban Design Guidelines* and the separate Station Area Development Policies. These documents establish detailed performance standards for the resultant station area plans. These specific requirements will ensure that the station area plans include the provisions anticipated in the EIR/EIS.

I033-320

Refer to Standard Response FB-Response-GENERAL-03.

The Transit Oriented Development Design Proposals for Fresno Final Report (UC Berkeley 2010) analyzed the potential effect of an HST station in Downtown Fresno. The report identified a number of vacant and underutilized parcels (i.e., surface parking lots) adjacent to the Union Pacific Railroad (UPRR) corridor that are available for infill

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development in the downtown area and how the existing wide streets in the downtown area provide opportunities for widened sidewalks, streetscapes, and bicycle lanes.

The comment's concern over possible opposition to planning activities in Downtown Fresno is premature and speculative. Common solutions exist to avoid conflict over historic or cultural districts. For example, adaptive reuse of historic structures is a well-established approach to minimizing historic impacts and is encouraged under the Secretary of Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings*. The context-sensitive solutions approach set out in the Authority's 2010 *Urban Design Guidelines* (which will be integrated into the planning process pursuant to the planning grant provided to the city) specifically requires community values and physical context to be considered during the planning process.

I033-321

Refer to Standard Response FB-Response-GENERAL-03.

The commenter is correct that the City of Bakersfield has not accepted any station planning grant funding and therefore would not necessarily consider the Authority's *Urban Design Guidelines* or its other principles of good planning. However, Bakersfield already has existing general plan policies that promote infill development downtown, has undertaken extensive past redevelopment activities to help revitalize its downtown, and is considering stronger general plan policies that would promote mixed uses near the HST stations (i.e., the Metropolitan Bakersfield General Plan update's 2009 draft Existing Conditions, Opportunities and Constraints Report). Although not binding on the city, the San Joaquin Valley Blueprint generally encourages higher-density development near the stations of the proposed HST System. The “sustainable communities strategy” or “alternative planning strategy” now being prepared by the Kern Council of Governments pursuant to Senate Bill (SB) 375 (2008) is expected to include policies and transportation funding incentives that will encourage compact development patterns to meet the region’s greenhouse gas (GHG) reduction targets for automobiles and light trucks (5% by 2020, 10% by 2035). Therefore, the project is not only consistent with existing local plans in Bakersfield, but would actually help create a market and help local government harness this market for intensified development near the HST station, in

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furtherance of those plans, to accommodate the needs of HST riders.

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Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-04.

In Ag-MM #1 the Authority has entered into an agreement with the California Department of Conservation to fund a program that will acquire agricultural easements on land of similar quality and size as that land that is acquired by the HST (Authority and Department of Conservation 2013). “The California Department of Conservation regards this means of mitigation to be a common measure to a common and appropriate means of mitigating the loss of prime farmland” (Masonite Corporation versus County of Mendocino 2013).

Due to the 4 county region having approximately 3,748,000 acres of Important Farmland and the HST needing place an estimated 3,102 acres of land in conservation easements (0.08% of the regions total), there should be more than enough Important Farmland for the California Department of Conservation to acquire agricultural easements.

I033-323

Refer to Standard Response FB-Response-TR-03.

The Authority would work with local jurisdictions and other interested parties to phase the parking supply to support HST ridership demand and the demand for other uses in the vicinity of the station. The stations have not yet been designed (the illustrations in the EIR/EIS are conceptual) and will not be designed for several years. Similarly, actual ridership levels are not known at this time. As discussed in Section 2.2.3 of the Revised DEIR/Supplemental DEIS, parking demand expectations are based on HST system ridership forecasts where parking availability is assumed to be unconstrained—meaning 100% of parking demand is assumed to be met. These projections provide a “high” starting point to inform discussions with cities where stations are proposed. Although this EIR/EIS identifies locations for parking facilities needed to satisfy the maximum forecast demand, parking is anticipated to be developed over time in phases, while also prioritizing access to the HST System through other modes such as transit, which could lead to less parking being necessary.

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The Authority does not have sufficient information to provide precise information regarding the timing, design, and funding of station parking; therefore, the phasing plan for parking structures has not yet been developed. The construction of parking facilities will occur in conjunction with the construction of the stations and the initiation of rail service and will be phased in accord with ridership levels and demand.

As described in FB-Response-GENERAL-06 (Relationship of the Authority's Business Plan to the Analysis in the EIR/EIS) for stations, forecast annual ridership and peak-period ridership play a role in determining the size of some station components, such as those required for public access and egress, including parking. The 2035 full-system, high-ridership forecast formed the basis for the conceptual service plan, which in turn influenced the station designs so that station facilities would be sufficient to accommodate the anticipated future use of the HST System, which is expected to build over time. The Revised 2012 Business Plan for the California HST System similarly anticipates that future growth of the system will be phased over time (Authority 2012a).

In the Revised DEIR/Supplemental DEIS, the 2035 full system high ridership forecast was used to estimate the maximum potential station parking demand and to allow for an analysis of where and how parking demand might be accommodated near the HST stations.

The analysis of high forecasts for parking in the Revised DEIR/Supplemental DEIS provides flexibility over time to reduce the amount of station parking based on more-refined demand projections and transit-oriented development (TOD) around station areas. Land use development around the HST stations is assumed in the Revised DEIR/Supplemental DEIS to occur over time. The amount of nearby development as well as the future availability of local transit connections, both of which tend to decrease parking demand, will influence the future need for parking. Although the HST System would be a catalyst for such development, its timing would be dictated by land use decisions by the cities of Fresno and Bakersfield and market conditions. Demand for parking facilities would also depend on how HST ridership grows over time.

The Authority and FRA would therefore retain the flexibility to make decisions about

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what parking facilities to construct initially and how additional parking might be phased or adjusted depending on how the HST System ridership increases over time. For example, it is possible that some parking facilities might be constructed at the 2020 project opening, only to be replaced in whole or in part or augmented later with development or other parking facilities (see Section 2.5.3).

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The HST project is independently funded. There is no intent to shift funding that would otherwise support transportation projects identified as funded in the Regional Transportation Plans that were used as the basis for the cumulative impact analysis. Both CEQA and NEPA require an EIR/EIS to analyze the proposed project, regardless of whether it is fully funded. The Authority and FRA are therefore carrying out their responsibilities under CEQA and NEPA in analyzing the Fresno to Bakersfield Section.

The transportation projects analyzed in the cumulative scenario and shown in Appendix 3.19-B of the Revised DEIR/Supplemental DEIS have already been funded in part or completely and as such are considered fiscally constrained. As described in Standard Response GENERAL-14 (e.g., Cost; Funding; Impacts on Cities, Counties, Communities, Farmland, Agriculture, Natural Environment, Wildlife and Habitat, Air Quality, Business, Land Access, and Residential), the HST project is being financed through a combination of federal and state funds, including the federal High-Speed Intercity Passenger Rail Program and California Proposition 1A's Safe, Reliable High-Speed Passenger Train Bond Act adopted by state voters in November 2008. To date, California has $6.33 billion to invest in the development of its HST System, including approximately $3.5 billion in federal grant funds obligated through Cooperative Agreements. It is too speculative to determine how future federal and state transportation funds would be allocated between projects, beyond the funding already described in published transportation planning documents, and represented in the fiscally constrained cumulative transportation project list in the Revised DEIR/Supplemental DEIS.

The HST System's benefit to intercity highways, described in the Section 3.19 of the Revised DEIR/Supplemental DEIS, is further explained in Standard Response GENERAL-14 (e.g., Cost; Funding; Impacts on Cities, Counties, Communities,

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Farmland, Agriculture, Natural Environment, Wildlife and Habitat, Air Quality, Business, Land Access, and Residential), as follows: California's population is growing rapidly and, unless new transportation solutions are identified, traffic will only become more congested and airport delays will continue to increase. The proposed 220-mph HST System would provide lower passenger costs than air travel for the same city-to-city markets and service competitive with automobile travel. It would increase mobility while reducing air pollution, decreasing dependence on fossil fuels, protecting the environment by reducing GHG emissions, and promoting sustainable development in the areas near the stations, in comparison to existing trends. By moving people more quickly and at lower cost than today, the HST System would boost California's productivity and also enhance the economy. Although future transportation funds may be allocated to the HST instead of to future transportation improvements (including yet unplanned improvements), the HST would have many beneficial state-wide transportation-related outcomes, in addition to other beneficial outcomes described above.

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The commenter's assertion that exceedances of air quality standards for anything greater than 1 hour will result in future fines being levied does not reflect current regulations regarding the penalties assessed for exceedances of ambient air quality standards. Under the Clean Air Act (CAA), penalty fees are levied for areas that are in non-attainment of the ozone ambient air quality standard. This penalty fee is not based on a specific number of exceedances; instead; the fee is based on the attainment designation of the area. In other words, the penalty fees do not matter if there are multiple exceedances; rather, it matters that there were any exceedances. Exceedances of the ozone standards are based on regional emissions from a wide range of emission sources. These exceedances cannot be attributable to a single source of emissions such as construction projects. Thus, the emissions from construction of the project would not be the sole contributor to or source of any particular ozone exceedances.

Because the San Joaquin Valley Air Basin is in non-attainment of the ozone standard, Section 185 of the CAA applies. The mandatory fee for non-attainment established by the CAA requires collection of fees equivalent to $5,000 (1990 dollars) per ton of NOx or VOC emitted by stationary sources. However, under Section 172e of the CAA, the

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district may propose alternative means of collecting these fees if it can demonstrate that an equivalent amount is collected. Vehicle registration fees are assessed on vehicles registered in the San Joaquin Air Basin as part of the SJVAPCD's alternative fee collection pursuant to Section 185 of the CAA (SJVAPCD Rule 3170). Because mobile sources are a major source of NOx and VOC in this air basin, it was determined that this source should have incentives placed on it to decrease the emissions associated with it. This approach is allowed under the Public Safety Code and Vehicle Code of California. Furthermore, Assembly Bill 2522 (Arambula 2008) authorized additional vehicle registration fees to be collected in the San Joaquin Air Basin of up to $36 through 2024 only if the area has been reclassified by EPA from severe to extreme by the end of the 2012–2013 fiscal year. Any additional fees imposed on motor vehicles would require amendments to the state law. To the extent that the vehicle fees assessed by Assembly Bill 2522 are insufficient to cover the shortfall in the mandatory fee established under the CAA, the district would cover the remaining shortfall in a second round of fee collection from major sources of air pollution, per air district Rule 3170. Therefore, no additional fees would be assessed to individuals through vehicle registration fees. The fees would not be required once the air basin achieves attainment of the NAAQS, which is projected to occur in the future with current and proposed regulations to reduce emissions. The fees collected are used to implement emission reductions in the air basin and to reduce the vehicle miles traveled, with at least a portion of the fees focused on public health and communities disproportionately impacted by the emissions. Therefore, there will be no additional fines to individuals of the public associated with construction of the project.

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Refer to Standard Response FB-Response-GENERAL-13, FB-Response-AQ-03.

Travel to stations and travel as a result of road closures was assessed as part of the traffic analysis in Section 3.2, Transportation. Overall, the HST project is anticipated to result in a net reduction in vehicle miles traveled (VMT) at full build-out.

The use of the HST track for Amtrak is speculative for the reasons set out in Standard Response FB-13. However, although non-electrified passenger train operation on the HST tracks in the Fresno to Bakersfield Section is not part of this project and therefore

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not part of the environmental review for this project, an analysis of the potential impacts of such operations is provided in Standard Response GENERAL-13 for information purposes.

Standard Response GENERAL-13 makes certain assumptions about the number of trains that might run along the HST tracks if Amtrak were to use them for expanded service. However, these are assumptions for study purposes only and do not represent an actual proposed level of service. The San Joaquin Joint Powers Authority (JPA), formally established March 22, 2013, is taking over administration of the Amtrak service on the San Joaquin line from Caltrans. The JPA has not made any commitment to operate San Joaquin service on the HST tracks.

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Detailed traffic counts can be found in the Transportation Technical Report for the Fresno to Bakersfield Section (available at the Authority's website). Footnotes will be added to the air quality analysis to indicate the source of the vehicle miles traveled (VMT) information used in the emissions analysis. As indicated in these analyses, at full build-out, the project will have a net decrease in VMT and the air emissions associated with vehicles. This means that the air quality in the San Joaquin Air Basin may improve due to reduced vehicles miles traveled in the San Joaquin Air Basin. This reduction may be counteracted due to additional growth in VMT associated with population growth in the San Joaquin Air Basin.

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Refer to Standard Response FB-Response-GENERAL-12, FB-Response-GENERAL-13.

At full build-out, the HST project would operate separately from state-supported Amtrak service. The decision about whether to continue Amtrak service on the San Joaquin line (using existing BNSF infrastructure) is outside the purview of the Authority. The HST project does not have any plans to discontinue Amtrak service to Hanford, Wasco, Corcoran, or any other station or platform along the Fresno to Bakersfield Section corridor.

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Refer to Standard Response FB-Response-GENERAL-03.

Table 3.18-2 in Section 3.18.4, Affected Environment, lists the study area's city and county population estimates for the years 2010 through 2035. These estimates anticipate that all four counties will grow at a higher average annual rate than the state of California. The projected population and employment growth for Fresno, Kings, Tulare, and Kern counties reflects the effects of the No Project Alternative. Even if the HST System were not built, populations are projected to increase in Fresno, Kings, Tulare, and Kern counties by over 59%, 75%, 80%, and 81%, respectively, between 2010 and 2035. Employment is projected to increase by approximately 35%, 12%, 25%, and 20%, respectively. Therefore, the growth shown in Table 3.18-2 will occur absent the HST project.

Even with the recent economic downturn, this region is projected to grow substantially in the future. The Department of Finance's (DOF's) P-3 Report of January 13, 2013, projects the populations of Fresno, Kings, Tulare, and Kern counties to grow by approximately 50%, 54%, 67%, and 92%, respectively, between 2010 and 2040 (the P-3 Report does not include a 2035 projection) (DOF 2013).

As stated in Section 3.18.5, Environmental Consequences, the HST alternatives would raise the projected population and employment growth in the area by about 3% beyond the level of growth anticipated under the No Project Alternative. Under current city and county general plans in the region, communities in the region have adequate space to accommodate planned growth by 2035 and HST-induced growth within their current spheres of influence. Analysis of population increase prepared for the HST project shows that population and employment growth would be consistent with and support current and anticipated future regional growth management plans and programs, which encourage infill development, which concentrates growth in urban areas, and provides transit options and connections for regional residents and workers.

One of the purposes of constructing the HST project is to provide transportation for the growth that will occur in the Central Valley by 2035. As stated in Section 3.2.5.3, High-Speed Train Alternatives, at a regional level HST service would reduce regional vehicle miles traveled (VMT) by providing motorists an alternative to reliance on existing

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interregional and intercity freeways and highways.

As stated in Section 3.3.6.3, High-Speed Train Alternatives, motor vehicle emissions would decrease in the region as a result of the project. However, these reductions would be partially offset by operational emissions associated with the train itself (the HST System would be powered by electricity from the regional power grid), by station operations, and by heavy maintenance facility (HMF)/maintenance-of-way facility (MOWF) operations. The regional VMT for the HST alternatives would decrease by about 10% (if the price of the HST ticket is based on 50% of the cost of airfare) and by about 7% (if the ticket price is 83% of airfare) compared with the No Project Alternative (2035) and about 10% to 7% (if the ticket price is based on 50% and 83%, respectively, of the cost of airfare) compared with Existing Conditions. These reductions would result in lower pollutant emissions. Therefore, according to the National Environmental Policy Act (NEPA), and under California Environmental Quality Act (CEQA) guidelines, there would be a beneficial impact on air quality from the operation of regional on-road vehicles for the HST alternatives.

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The commenter's assertion that exceedances of air quality standards for anything greater than 1 hour will result in future fines being levied does not reflect current regulations regarding the penalties assessed for exceedances of ambient air quality standards. Under the Clean Air Act (CAA), penalty fees are levied for areas that are in non-attainment of the ozone ambient air quality standard. This penalty fee is not based on a specific number of exceedances; instead; the fee is based on the attainment designation of the area. In other words, the penalty fees do not matter if there are multiple exceedances; rather, it matters that there were any exceedances. Exceedances of the ozone standards are based on regional emissions from a wide range of emission sources. These exceedances cannot be attributable to a single source of emissions such as construction projects. Thus, the emissions from construction of the project would not be the sole contributor to or source of any particular ozone exceedances.

Because the San Joaquin Valley Air Basin is in non-attainment of the ozone standard, Section 185 of the CAA applies. The mandatory fee for non-attainment established by the CAA requires collection of fees equivalent to $5,000 (1990 dollars) per ton of NOx or

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VOC emitted by stationary sources. However, under Section 172e of the CAA, the district may propose alternative means of collecting these fees if it can demonstrate that an equivalent amount is collected. Vehicle registration fees are assessed on vehicles registered in the San Joaquin Air Basin as part of the SJVAPCD's alternative fee collection pursuant to Section 185 of the CAA (SJVAPCD Rule 3170). Because mobile sources are a major source of NOx and VOC in this air basin, it was determined that this source should have incentives placed on it to decrease the emissions associated with it. This approach is allowed under the Public Safety Code and Vehicle Code of California. Furthermore, Assembly Bill 2522 (Arambula 2008) authorized additional vehicle registration fees to be collected in the San Joaquin Air Basin of up to $36 through 2024 only if the area has been reclassified by EPA from severe to extreme by the end of the 2012–2013 fiscal year. Any additional fees imposed on motor vehicles would require amendments to the state law. To the extent that the vehicle fees assessed by Assembly Bill 2522 are insufficient to cover the shortfall in the mandatory fee established under the CAA, the district would cover the remaining shortfall in a second round of fee collection from major sources of air pollution, per air district Rule 3170. Therefore, no additional fees would be assessed to individuals through vehicle registration fees. The fees would not be required once the air basin achieves attainment of the NAAQS, which is projected to occur in the future with current and proposed regulations to reduce emissions. The fees collected are used to implement emission reductions in the air basin and to reduce the vehicle miles traveled, with at least a portion of the fees focused on public health and communities disproportionately impacted by the emissions. Therefore, there will be no additional fines to individuals of the public associated with construction of the project.

The emissions payback schedule for criteria pollutants will be net zero during the construction period with implementation of the VERA under AQ MM#4. Because the emissions and emission reductions should occur in the same year, there is no net increase, and emissions are paid back in the year they occur. During operation, the criteria pollutants are anticipated to have a net decrease in emissions. For any interim years between construction and operation, there would be no emissions associated with the project and therefore no emissions need to be paid back. For greenhouse gas (GHG) emissions, the benefit will be realized at a minimum of within 1 year of operation. Because the VERA program for criteria emissions will also result in some

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GHG emission reductions, some of the construction emissions will be paid back in the same year that emissions are generated.

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Refer to Standard Response FB-Response-N&V-03.

The HSR project will not generate noise levels of 95+ dB at the "edge of the existing limits of the BNSF sound."

Section 3.4, Noise and Vibration, of the Revised DEIR/Supplemental DEIS identifies significant noise impacts associated with the HST alignment through Kings County, which, as noted by the commenter, are primarily due to the location of the alignment as it extends through areas that are not adjacent to existing transportation corridors. See also Technical Appendix 3.4-A, Noise and Vibration. The noise impact methodology includes consideration of cumulative noise, as discussed in Standard Response FB-34.

As described in Standard Response GENERAL-02 (Alternatives), Limitations of Existing Corridors and Amtrak Upgrade, Proposition 1A (2008) calls for the HST alignment to follow existing transportation or utility corridors to the extent feasible. However, due to HST engineering and operational needs, it cannot feasibly be built solely within the existing transportation corridors. In compliance with the objective of using existing corridors where feasible, in making decisions regarding HST alignments and station locations, the Authority and the FRA have gone to great lengths to maximize the feasible use of existing transportation corridors and to minimize impacts on both agricultural lands and communities.

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Refer to Standard Response FB-Response-GENERAL-02, FB-Response-GENERAL-10.

In the case of Hanford, it was not feasible to follow the BNSF Railway through the city. The BNSF Railway in the Hanford area has several curves too severe for an HST project and constructing the HST through Hanford would have resulted in a substantial impact to residential and commercial properties in the city. That is the reason why the 2005 Record of Decision (ROD) adopted a preferred alignment for the Fresno to Bakersfield Section that bypasses Hanford. This decision was based on the 2005 Statewide Program EIR/EIS for the California High-Speed Rail System.

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Section 3.6, Public Utilities and Energy, page 3.6-42 discusses energy consumption in million Btu (MMBtu) or billion Btu and gigawatt-hours (GWH). Within a paragraph, the numerical values have been expressed consistently in one or both of the units so that a fair comparison can be drawn.

I033-334

Refer to Standard Response FB-Response-PU&E-02.

California ISO (CAISO) is the electrical grid operator for the bulk of California's power grid. CAISO maintains statistics on the supply of power through the grid. One of parameters that CAISO records is the number of emergency notices that have had to be made because demand is approaching operational reserves of power. There are three stages of emergency notification depending on the level of operational reserves available to the statewide grid:

Stage 1 emergency - operational reserves forecast to fall below 6% to 7%
Stage 2 emergency - operational reserves forecast to be less than 5%
Stage 3 emergency - operational reserves forecast to be less than 3%

From 2008 through 2012, CAISO issued no emergency alerts. The last emergency aleart was a Stage 1 alert in 2007 (refer to CAISO grid history at http://www.caiso.com/Documents/Alert_WarningandEmergenciesRecord.pdf).

California’s electricity grid would power the proposed project. The High Speed Train (HST) project is expected to require less than 1% of the state’s future electricity consumption. The Revised Draft EIR/Supplemental Draft EIS states that the Authority would purchase up to 100% clean, renewable electricity to provide power for HST operations. One of the Authority’s policy goals is to use up to 100% renewable energy sources for the HST that would result in a total estimated reduction in fossil-fuel energy resources for the HST System of up to 12.7 million barrels of oil annually by 2030

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(Navigant Consulting 2008). The Fresno to Bakersfield Section of the HST is estimated to require 78 megawatts (MW) of peak demand, which is within existing and projected future reserves.

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Refer to Standard Response FB-Response-PU&E-02.

The energy consumption estimate for constructing the Fresno to Bakersfield Section is 7,010.2 billion Btu for the BNSF Alternative. Construction of the various other alternatives would range from approximately 713.7 billion Btu (10.2%) less than the BNSF Alternative to 289.2 billion Btu (4.2%) greater than the BNSF Alternative (see page 3.6-72 in Section 3.6, Public Utilities and Energy, of the Revised DEIR/Supplemental DEIS). Where necessary, project design and phasing of construction activities would be coordinated with service providers to minimize or avoid interruptions, including for upgrades of existing power lines to connect the HST System to existing PG&E substations (see Section 3.6.6, Project Design Features).

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Refer to Standard Response FB-Response-GENERAL-03.

Cumulative impacts to water resources (groundwater and surface water) are evaluated in Chapter 3.19, Cumulative Impacts, under "Hydrology and Water Resources," subheading "Water Use."

Chapter 3.6, Public Utilities and Energy, describes the Water Conservation Act of 2009, which requires urban water users in the state to achieve a 20% reduction in per capita water use by December 31, 2020. These measures would partially offset the additional water demand expected from induced regional growth.

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The average water use per person was overstated in the EIR/EIS and has been corrected in the Final EIR/EIS. The average domestic water use in Kern, Kings, and Fresno Counties is currently about 0.2 to 0.3 acre-feet per year per person. This results

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in an increase in demand of between 20,000 and 30,000 acre-feet per year, which is much less than 1% of the groundwater used in the San Joaquin Valley.

Much of the area identified for future growth on local general plans is currently agricultural. As the population increases in the future, agricultural land is expected to be converted to urban uses. Some of the increase in water use due to induced urban growth will be offset by the decrease in water use from agriculture as agricultural land is converted. Also, local water-use efficiency goals have been mandated statewide under SB x7-7, the Water Conservation Act of 2009 (20% reduction by 2020). These mandated goals may further decrease average domestic water use regionally over current usage.

I033-338

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-02, FB-Response-GENERAL-20, FB-Response-GENERAL-21.

The project EIR/EIS for the Fresno to Bakersfield Section is tiered from the Statewide Program EIR/EIS for the California HST System (Authority and FRA 2005). The Statewide Program EIR/EIS considered alternatives on I-5 and State Route (SR) 99 as well as on the BNSF corridor. The Record of Decision for the Statewide Program EIR/EIS selected the BNSF corridor as the preferred alignment for the Fresno to Bakersfield Section. The I-5 and SR 99 corridors were again considered during the environmental review of the Fresno to Bakersfield Section and were eliminated for further consideration, as described in Standard Response GENERAL-02.

As the Authority conducted analysis of alternative alignments that follow SR 99/UPRR and the I-5 corridor and determined that these alternatives were not practicable, they were not carried forward in the EIR/EIS. Kings County has not provided any new information that would change these conclusions. Neither CEQA nor NEPA require the environmental document to analyze alternatives that are not practicable to implement.

The two alignments in Kings County—the BNSF Alternative (east of Hanford) and the Hanford West Bypass 1 and 2 alternatives—have differing impacts on agriculture. The EIR/EIS has examined a reasonable range of alternatives, given the constraints of

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design speed and other engineering factors. An EIR/EIS is not required to examine every possible alternative.

The project EIR/EIS for the Fresno to Bakersfield Section appropriately evaluates alternative alignments within the BNSF corridor.

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Refer to Standard Response FB-Response-SO-01.

Impact AG #1 addresses temporary use of agricultural land. It acknowledges that some agricultural land outside of the permanent right-of-way would be used for construction. Specific acreage estimates are provided for each alternative, and project design requires that the land be restored to as close to its pre-construction condition as possible. Any losses experienced by farmers due to the lands used for temporary construction staging areas will be compensated by the Authority during the right-of-way property acquisition process. Right of Way agents will work with farmers and landowners to mitigate the impacts any financial impacts created by the land acquisition process; this includes any impacts that negatively affect the farmer or landowners ability to secure financing. During that process, losses in the value of the remaining property will be taken into account and the owner will be compensated for the loss in productivity. Fair market value takes into account the value of the land, the improvements on the land, as well as the future income the land and improvements can generate.

I033-340

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-06.

The Authority recognizes the importance of the dairies in Kings County and that, due to the construction of the HST, dairy farmers may have to reduce herd sizes to meet their permitting obligations. Losses experienced by dairies as a result of decreased herd sizes will be taken into account during the property acquisition phase and farmers will be compensated for any losses experienced.

I033-341

Refer to Standard Response FB-Response-GENERAL-01, FB-Response-GENERAL-21, FB-Response-GENERAL-22.

All elements of the proposed project are defined in Chapter 2 of the Revised DEIR/Supplemental DEIS, including alignment alternatives, station alternatives, and heavy maintenance facility (HMF) alternative sites. The Authority disagrees with assertions that the EIR/EIS fails to identify all potential impacts or legitimate mitigation measures. All significance determinations are clearly and succinctly stated at the end of every resource topic in Chapter 3, based on the analysis in the relevant Section of Chapter 3. The Authority will use the information in the Revised DEIR/Supplemental DEIS and input from the agencies and public to identify the Preferred Alternative. The Authority's decision will include consideration of the project purpose and need and the project objectives presented in Chapter 1, Project Purpose and Need, as well as the objectives and criteria in the alternatives analysis, and the comparative potential for environmental impacts. The Preferred Alternative would have the least overall impact on the environment and local communities, the lowest cost, and the fewest constructability constraints of the project alternatives evaluated. Additional information is provided in response to the commenter's elaboration of the assertions made in this conclusory comment, above.

I033-342

Refer to Standard Response FB-Response-GENERAL-07.

Both CEQA and NEPA require that comments submitted on the Draft EIR/EIS be responded to. Comments received on the Draft EIR/EIS have been responded to in Volume IV of this Final EIR/EIS. Comments received on the Revised DEIR/Supplemental DEIS have been responded to in Volume V of this Final EIR/EIS.

Neither CEQA nor NEPA require that a Draft EIR/EIS be modified in response to a comment made during the public review period. However, where the Authority and FRA have felt it necessary to revise the text of the Revised DEIR/Supplemental DEIS in response to a comment, that has been done.

Attachment to Submission I033 (Aaron Fukuda, October 18, 2012) - Fukuda_Letter_10182012_Original_2_Attachments_A-C.pdf

ATTACHMENT A

Aaron Fukuda
7450 Mountain View Street, Hanford, CA 93230

October 4,
~~August 4~~, 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

Attachment to Submission I033 (Aaron Fukuda, October 18, 2012) - Fukuda_Letter_10182012_Original_2_Attachments_A-C.pdf - Continued

ATTACHMENT B

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
1325 J STREET
SACRAMENTO CA 95814-2922

REPLY TO ATTENTION OF

October 12, 2011

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 to be made to meet our needs. The comments also include a review of the document for completeness with the 404(b)(1) guidelines.

940-1

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.

940-2

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

-2-

940-2

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.

940-3

DEIR/S Comments

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 230.60, 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 effected waters should be included *(40 CFR 230.21)*

5. Impacts to non special-status species need to addressed *(fish, crustaceans, mollusks, and other organisms in the food web 40 CFR 230.31) (other wildlife 40 CFR 230.32)*

940-4

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.

940-5

7. The document should specifically reference the screening criteria used in the elimination of alternatives.

940-6

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?

940-7

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.

-3-

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.

940-9

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 3.7-3.7-82*

13. Inundated non-wetland waters should be included as a water of the United States in Table S-4

14. Table S-4 should have a row for temporary impacts to Waters of the US

940-11

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, 85% (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-MM#6 and Bio-MM#43, pg 3.7-141)*. 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

-4-

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 impacts, this would allow for successful restoration of temporary impacts upon completion of construction activities.

940-13

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.

940-14

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.

19. Impacts to waters o 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/track 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.

940-15

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".

940-16

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 Bakersfield section which states that the HMF requires either 150 acres *(pgs 2-14 and 2-79)* 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.

940-17

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 that the West Chowchilla alternative. Please explain how the East Chowchilla

Attachment to Submission I033 (Aaron Fukuda, October 18, 2012) - Fukuda_Letter_10182012_Original_2_Attachments_A-C.pdf - Continued

Submission 940 (Michael S. Jewell, United States Army Corps of Engineers, October 13, 2011) - Continued

940-17 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/S. 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 J 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 Valenstein, Federal Railroad Adminstration, 1200 New Jersey Avenue SE- Mail Stop 20, Washington, D.C. 20590-0001
Ms. Connell 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

Attachment to Submission I033 (Aaron Fukuda, October 18, 2012) - Fukuda_Letter_10182012_Original_2_Attachments_A-C.pdf - Continued

ATTACHMENT C

Submission 774 (Enrique Manzanilla, United States Enivronmental Protection Agency Region IX, October 13, 2011)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

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 408 requirements. The process is outlined in an agreement document entitled *National Environmental Policy Act/Clean Water Act Section 404/408 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 train 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 Connell Dunning, the lead reviewer for this project at 415-947-4161 or dunning.connell@epa.gov.

Sincerely,

Enrique Manzanilla, Director
Communities and Ecosystems Division

2

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Submission 774 (Enrique Manzanilla, United States Enivronmental 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

774-1

Cc via email:
Roelof 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. Leady, U.S. Army Corps of Engineers
Colonel Torrey 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
Michelle Banonis, U.S. Bureau of Reclamation
Ken Alex, Governor's Office of Planning and Research
Heather Fargo, Strategic Growth Council
Matt Rodriguez, California EPA
Kurt Karperos, California Air Resources Board
Seyed Sadredin, San Joaquin Valley Air Pollution Control District
Traci Stevens, Business Transportation and Housing
Garth Fernandez, California Department of Transportation
Diana Dooley, 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 Orme, State Water Resources Control Board
Mayor William Spriggs, City of Merced
Mayor Ashley Swearengin, City of Fresno
Mark Scott, City of Fresno
Mayor Dan Chin, City of Hanford
Mayor Harvey Hall, City of Bakersfield

3

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

1. 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/Land 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 1502.16).

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.

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Attachment to Submission I033 (Aaron Fukuda, October 18, 2012) - Fukuda_Letter_10182012_Original_2_Attachments_A-C.pdf - Continued

Submission 774 (Enrique Manzanilla, United States Enivronmental 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.

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2.1Alternatives 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."

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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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- 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 60-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.

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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(d) 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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774-5 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 discharges 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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774-6 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 155, 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 (SJVAPCD) 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 (PM2.5) 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, NOx, PM10, and PM2.5 for the entire construction duration" (Fresno to Bakerfield 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 PM2.5 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.3.3-71 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 (3005 hp single engine) to result in 91% NOx emissions reductions (compared with a pre-1973 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 PM2.5 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 hauling.
- 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 #8 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) 230-5831.

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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.

5.1 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.

5.2 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/DOT/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.

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 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 stations 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.

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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.

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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 browfield 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.

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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/Portals/0/Security_pdfs/APTA_SS-SIS-RP-007-10_CPTED.pdf.

Recommendation:

- Commit to implementing Crime Prevention Through Environmental Design principles for stations in Section 3.11, Safety and Security, of the FEISs.

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 VQ-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.

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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.

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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.

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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.

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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)[1] 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.

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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

[1] A copy of the Memorandum of Understanding Environmental Justice and Executive Order 12898 is available on-line at: http://epa.gov/environmentaljustice/resources/publications/interagency/ej-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 DEISs, 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).

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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 Tianguis 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.

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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.

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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 Athlone, Minturn, 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.

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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 2005). 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 may 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.

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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 promotes 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.cahighspeedrail.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.cahighspeedrail.ca.gov/pr_stationareaplanning.aspx).
  - CHSRA publication, *Urban Design Guidelines* (March 2011), developed to assist cities and communities with station area visioning (http://www.cahighspeedrail.ca.govAurban_design_guidelines.aspx).
  - CHSRA publication, *Station Area Development Guidelines* (February 2011), developed to establish principles for promoting sustainable development (http://www.cahighspeedrail.ca.gov/highspeedtrain_stationdev_policies.aspx).

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  - CHSRA Board 100% Renewable Energy goal (September 2008) (http://www.cahighspeedrail.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 HMF, 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 Alissa Kendall http://www.sciencedirect.com/science/article/pii/S1361920911000484.

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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 tire-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/renewableenergyland/mapping_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 manufactures 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-MM#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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Submission 774 (Enrique Manzanilla, United States Enivronmental Protection Agency Region IX, October 13, 2011) - Continued

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14. ELECTROMAGNETIC FIELDS AND ELECTROMAGNETIC INTERFERENCE

Section 3.5 of both DEISs asses 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 FEIS, "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.

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Submission I034 (Atsuyuki Fukuda, October 18, 2012)

CALIFORNIA High-Speed Rail Authority

RECEIVED 10/22/12

Comment Card
Tarjeta de Commentarios

Fresno to Bakersfield High-Speed Train Section
Revised Draft Environmental Impact Report/ Supplemental Draft Environmental Impact Statement (Revised Draft EIR/Supplemental Draft EIS)

La Sección de Fresno a Bakersfield del Tren de Alta Velocidad
Proyecto Revisado de Informe de Impacto Ambiental/ Declaración de Impacto Ambiental Proyecto Suplementario (Proyecto Revisado EIR/Proyecto Suplementario EIS)

Please submit your completed comment card at the end of the meeting, or mail to:
Por favor entregue su tarjeta completada al final de la reunión, o enviela por correo a la siguiente dirección:
Fresno to Bakersfield Revised Draft EIR/Supplemental Draft EIS Comment, 770 L Street, Suite 800, Sacramento, CA 95814

The comment period is from July 20 to September 20, 2012. Comments must be received electronically, or postmarked, on or before September 20, 2012.
El periodo de comentario es del 20 de Julio al 20 de Septiembre del 2012. Los comentarios tienen que ser recibidos electrónicamente, o matasellados, el o antes del 20 de Septiembre del 2012.

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E-mail Address/Correo Electrónico:
(Use additional pages if needed/Usar paginas adicionales si es necesario)

MR. DAN RICHARDS, CHAIR
CALIFORNIA HIGH SPEED RAIL AUTHORITY:

I034-1 MY CONCERN IS WITH WHO IS RESPONSIBLE FOR EMERGENCY SITUATIONS. THIS I CANNOT FIND ADDRESSED IN THE DRAFT EIR/EIS.
1. THE COST/PAYMENT OF RESPONSE.
2. SPECIAL EQUIPMENT NEEDED
3. EXTRA TRAINING (SPECIAL) NEEDED

I034-2 THIS DRAFT EIR/EIS SEEMS TO BE FLAWED IN MANY ASPECTS AND TO ALLOW THIS PROJECT TO MOVE FOWARD WOULD GREATLY HAVE A NEGATIVE EFFECT ON OUR ENVIRONMENT, OUR COMMUNITY, OUR LOCAL ECONOMY, AND OUR LIVELIHOODS. PLEASE TAKE THE COMMENTS SENT IN CRITICAL. THANK YOU
Atsuyuki Fukuda

Fresno to Bakersfield Section CALIFORNIA High-Speed Rail Authority
18 OCT 2012 PM 1 L

Fresno to Bakersfield Revised Draft EIR/Supplemental Draft EIS Comment
770 L Street, Suite 800
Sacramento, CA 95814

Response to Submission I034 (Atsuyuki Fukuda, October 18, 2012)

I034-1

As indicated in Section 3.11.6 of the EIR/EIS, fire/life safety programs (FLSPs) will be developed by the Authority to implement the requirements set forth in the Federal Rail Safety Act. FLSPs address the safety of passengers and employees during emergency response. The FLSPs would address the needs of disabled persons. An FLSP is coordinated with local emergency response organizations to provide them with an understanding of the rail system, facilities, and operations, and to obtain their input for modifications to emergency response operations and facilities, such as evacuation routes.

As stated in Mitigation Measure S&S-1 in Section 3.11.7, the Authority will monitor the response of local fire, rescue, and emergency service providers to incidents at stations and the HMF and provide a fair share of cost of service.

I034-2

The proposed project could create adverse community impacts, socioeconomic impacts, and environmental impacts as discussed in the Revised DEIR/Supplemental DEIS. These effects vary greatly depending on the alternatives selected. The proposed project would also provide benefits such as reductions in greenhouse gas emissions and creation of jobs associated with construction and operation.

The Authority used the information in the Revised DEIR/Supplemental DEIS and input from agencies and the public to identify the Preferred Alternative. The decision included consideration of the project purpose and need and the project objectives presented in Chapter 1, Project Purpose and Need, as well as the objectives and criteria in the alternatives analysis, and the comparative potential for environmental impacts.

The Revised DEIR/Supplemental DEIS provides documentary evidence that the Authority and FRA are fulfilling their duties to comply with CEQA, NEPA, and EO 12989. Project alternatives were identified, the impacts of which were evaluated at an equal level of detail and fully disclosed, and input was sought and received from the public including groups identified as minority, low income or disadvantaged. No evidence has been presented contradicting the Authority's obligation to comply with CEQA and FRA's obligations to comply with NEPA and EO 12989.

Submission I035 (Fukuda and Others, October 18, 2012)

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: **Comments Filed on the Draft Environmental Impact Report / Environmental Impact Statement for the Fresno to Bakersfield Section of the California High Speed Rail Project**

Dear Chairman Dan Richard and the Authority Board:

On September 22, 2012 a group of landowners, farm owners, home owners and concern citizens gathered in Hanford, California to discuss the California High Speed Rail Project. The details and analysis provided in the Draft Environmental Impact Report / Environmental Impact Statement (EIR/EIS) for the Fresno to Bakersfield section of the California High Speed Rail Project (Project) were discussed between attendees and the comments listed in this letter document the concerns and comments concerning the EIR/EIS and the Project.

General Comments:

I035-1

1. What happens if the Authority continues with the project and completes what they believe is the proper amount of mitigation, and in the future landowners discover some long-term impacts that were not realized during the initial DEIR/EIS phase? Where will landowners go to seek compensation or help after the right-of-way and mitigation phases are complete? This is critical given that the Authority only has progressed to 15% design phase and will discover other impacts during the remainder of the design phases. Example: The Authority has failed to meet with any landowners concerning infrastructure that is located underground. As the Authority determines more infrastructure they must replace, the cost of the project will escalate. At the current time the Authority does not have

I035-1

enough money to complete the full project and it is speculative how much their funding will take them in the Fresno to Bakersfield section. As the project progress and the costs escalate, the ability to achieve the full construction of the Fresno to Bakersfield section is suspect. If they Authority cannot complete the project as described in the DEIR/EIS, what is the impact of a partially constructed project? When and what is the impact of not following through with mitigation measure?

I035-2

2. The DIER/EIS does not indicate when mitigation measures will be implemented. Does the implementation of the mitigation measures happen while construction is underway or after. Given the lack of funds, when will mitigation measures be implemented? If all mitigation measures are not implemented as a part of the initial construction, they may not be realized in the future. There is no discussion in the DEIR/EIS of the feasibility, implementation or assessment of mitigation measure when each mitigation measure is discussed. CEQA requires the EIR portion of this document to adopt mitigation measures, however a discussion of their implementation and timeline should be included for the public and decision maker to appropriately determine the validity and ability of a mitigation measure to properly address an impact.

I035-3

3. Need to seek an escrow account to address concerns not accounted for in the DEIR/EIS. There will be significant missteps and overlooked impacts, and the Authority will need a substantial fund to ensure they have the money to cover those impacts. Members present believe that the State of California should establish a safety fund for landowners in the event that future damages are discovered during or after construction of the Project.

I035-4

4. Unforeseen circumstances during construction or long-term operation of the train should be addressed.

I035-5

5. The Project and its alignment creates numerous stranded parcels or small remainder parcels that are not conducive to farming. How does the DEIR/EIS address parcels that can no longer be access and are restricted by the alignment? Also, some of the remainder parcels will not be able to be farmed and the DEIR/EIS does not address how they will address the environmental concerns from unfarmed, unimproved and abandoned parcels. There is no recognition or mitigation measure for abandoned parcels. If these parcels are left unattended they will have a potential to introduce pests and noxious weeds to adjacent parcels.

Submission I035 (Fukuda and Others, October 18, 2012) - Continued

3.2 Transportation

I035-6
6. Either the East or West alignments will impact suppliers which will have to drive further to get to locations. There will be increased costs and wear and tear on equipment. The cost of this will be hard to determine given they don't know exactly how far they will have to drive around.

I035-7
7. During construction there will be a significant amount of large equipment and trucks that will add an unusually large amount of wear and tear on County and limited City streets and roads. Who will pay for the increased operation and maintenance of the roadways due to this increased wear and tear? Increased costs to local jurisdictions will only dilute the ability of local forces to meet already significant issues.

I035-8
8. On the East and West alignment what provisions will be in place to keep overpasses clean and maintained? The DEIR/EIS does not address the weed and pest abatement within these transportation zones. The presence of a large mounded structure with weeds can become an environmental concern if they harbor noxious pests and weeds. Also aesthetically the dozens of overpass structures will introduce a visual blemish if they are not properly operated and maintained. The DEIR/EIS does not address the ability to operate and maintain the overpass structures.

I035-9
9. How will large trucks be able to navigate around overpasses and the rail alignment? Many of these trucks carry heavy loads and have a significantly large turning radius.

I035-10
10. With increased traffic in the area around commercial areas how will the Authority address access to properties?

I035-11
11. While the overpass structures are being built, where will the traffic go while they are under construction? Some traffic can be routed along the existing road given the new road alignments are around the exiting road. Other overpass structures will be located in alignment with existing roads and traffic must be routed around, again impacts the adjacent farm ground.

I035-12
12. Has the Authority investigated the safety of the overpass structures that are placed out of alignment with existing roadways? Traffic will have to veer around the existing alignment as if there is a bypass.

I035-13
13. Alignment forces equipment not rated for highway and road travel onto regulated roads. What impact will this have on oversized

I035-13
equipment hauling and also manure waste hauling? Will the farm traffic that currently stays off of specific roadways for hazard reason be forced to meet new and high restrictions. The Alignment forces more farm equipment on to Highway 43,which will require farm equipment to be modified to meet transportation of material on highway standards.

3.3 Air Quality

I035-14
14. The analysis should be based on a $12 billion investment not on a full build. If the Authority completes the IOS and then cannot complete the rest, what is the air quality impact? If the Authority never gets HSR service up and running what is the air quality impact? Given that this is a project level analysis the document cannot and should not rely upon a full build or the Programmatic analysis.

I035-15
15. Valley Fever should be investigated during construction and while under operation. Will the Authority pay for increased cases of Valley Fever it there is an increase during construction due to the significant earthmoving activities that will take place?

I035-16
16. Green House Gas emissions indicate that it would be compensated for within 6 months. Where is the study or analysis that proves this statement?

3.4 Noise and Vibration

I035-17
17. The DEIR/EIS has not investigated the vibration impacts on schools. There are no studies present to show that there are no impacts just a statement. CEQA and NEPA require the Authority to present a justified argument or analysis that would support the findings stated in the document.

I035-18
18. Will the vibration cause enough ground shaking to knock off nuts from the trees prior to harvest. Certain crops can allow nuts to fall on the ground; however crops such as pistachios cannot fall on the ground. If the train causes ground vibrations large enough to knock immature or mature nuts to the ground there will be an impact to adjacent landowners. The DEIR/EIS should provide an analysis of the highest vibration impact associated with the HSR Project along with the potential to artificially knock nuts, fruit or any crop off of adjacent farm ground.

Submission I035 (Fukuda and Others, October 18, 2012) - Continued

I035-19 19. What are impacts of vibration on deepwells and septic tanks? Will casings and septic tanks crack? This pertains to construction vibration and long-term track vibrations. The cracking of septic tanks and cracking of deepwater wells can lead to further groundwater contamination.

I035-20 20. What are the impacts of vibration on deep aquifer compaction? Will there be any long term compaction of soils around the tracks?

I035-21 21. What are the noise and vibration impacts of Amtrak versus HSR? If Amtrak will be utilized on the system, then an analysis of this sound and vibration source should be analyzed.

I035-22 22. What are the cumulative impacts of noise and vibration given chance that HSR amplify together with the freight rail system where they are in close proximity?

3.6 Public Utilities and Energy

I035-23 23. In the Ponderosa community the utilities are located under the alignment. What will the Authority do to move those utilities?

I035-24 24. The DEIR/EIS did not identify the new Mascot Station located along Grangeville Boulevard and 7 1/2 Avenue. This is a new $25 million power station to distribute power along the eastern edge of Hanford. The DEIR/EIS should provide recognition of the facility and the potential impacts.

I035-25 25. The DEIR/EIS does not address the Kingsnet wireless internet towers and the communication between different schools. Kit Carson has a wireless internet system that communicates with schools in Kings County. The alignment will be located at approximately the same height of the Kit Carson tower that communicates with the rest of the network. The DEIR/EIS should provide recognition of the internet facility and any impacts.

I035-26 26. How will the system accommodate the surge of power demand or will the demand be constant? Can the electrical system in the Central Valley accommodate the capacity of power and the fashion in which it consumes the power? Will the Authority be responsible for any power requirement beyond what is currently required? If there is excess power in the grid currently, it will significantly curtail any future project due to the need for more power. What is the impact of adding a new power requirement to the grid? With this impact future projects that require power?

Land Use

I035-27 24. As property is taken and parcels are divided will this cause a change in zoning? How will remnant parcels and odd shape parcels be zoned both by the County of Kings and potential impacts to Williamson act under State Law? If a commercial property is diminished in size, will it still be zoned commercial? The change in zoning can impact the future use of the property and the value. The DEIR/EIS does not address the future zoning of small remnant pieces of property created by the Project.

3.8 Hydrology

I035-28 25. The movement of Last Chance Ditch by 13th Avenue is not located on a section or road therefore leaving a stranded parcel that is approximately 50-100 feet in width along the canal. This land will become stranded by the alignment. State and County law restricts projects from creating stranded parcels. How does the DEIR/EIS plan to handle stranded parcels?

I035-29 26. Consolidated Irrigation District has a 2 month window for construction. Has the Authority addressed concerns over timing? On a larger scale the DEIR/EIS does not apply any time analysis associated with construction or mitigation. Timing can determine the level of success or failure of a mitigation measure. In the case of hydrology if a feature associated with irrigation is removed or impacted during summer months the crop production of the area may be impacted. Also if an irrigation feature is moved during the winter months they flood potential increases for the area. The DEIR/EIS should include a timeline for each impact and mitigation measure to ensure the public and the decision make can appropriately assess an impact and the feasibility of a mitigation measure.

I035-30 27. If a well was put in 1927 what is the depreciated value when they take the well? The DEIR/EIS fails to address the destruction and relocation of groundwater deepwells. Landowners have been verbally told different stories. Some have been told it will be a part of the right-of-way acquisition process, while others have been told that the contractors working on the project will replace the wells and the DEIR/EIS does not discuss the topic altogether. The DEIR/EIS

Submission I035 (Fukuda and Others, October 18, 2012) - Continued

I035-31 should also analyze how the area will abandon old wells. Abandoned well present one of the largest sources of groundwater contamination unless they are properly abandoned. However, the DEIR/EIS fails to acknowledge or discuss the abandonment of groundwater wells.

I035-32 28. What will happen if you drill a new well and cannot find water? This pertains to the scenario where landowners must acquire their own new wells through the land acquisition process. Example: If a landowner is paid for a well that is 200' deep and then moves the well a few hundred feed and after drilling 200' cannot find suitable groundwater. Given unknowns of groundwater a farmer cannot guaranteed that an old well can be established within the parcel. The DEIR/EIS does not contemplate or address the high variability in groundwater depths.

I035-33 29. The DEIR/EIS does not address the relocation of wells under local guidelines and restrictions.

I035-34 30. How will the mitigation work for diminished service with different wells? If you reconstruct a well and the capacity falls off who mitigates for the difference? For example if your existing well pulls approximately 500 gallons per minute and when you drill your new well it drops to 300 gallons per minute.

I035-35 31. They indicated that sleeves will be provided for pipelines under the HSR alignment. Is the pipe going to be across the complete R/W? Will the landowner be given complete access to the pipeline?

I035-36 32. Who holds the liability for the pipelines crossing the HSR line?

I035-37 33. If there is a major failure in a pipeline under the railroad alignment and the track is washed out, who will be responsible for the repair and the liability?

I035-38 34. What are the specification and requirement for placing any utility under the alignment?

3.9 Soils and Geology

I035-39 35. Has the project accounted for compaction of soils under the track? Can the HSR service handle compaction and settlement?

I035-40 36. Compaction over temporary equipment storage will require the Authority to return the land back to its original state. Where is the plan to show how the land is going to be reestablished back to the original state? The DEIR/EIS should create a reclamation plan for any property that will be taken during construction and returned to landowners at a later date.

Safety

I035-41 37. Impeding access to parcels will cause an increase in the Insurance Services Office (ISO) level and therefore increase the cost of insurance to landowners.

I035-42 38. Relocation and impacts to the County fire station on Houston Avenue may also cause significant ISO rating changes. The DEIR/EIS does not account for this.

I035-43 39. There is no diesel train impact from derailment. The Amtrak train is not linked. There is no study.

3.14 Agricultural

I035-44 40. The Farmland Consolidation Program is not well described. The public cannot determine from the information provided if this is a feasible or logical program. The DEIR/EIS should explain who will implement it, how the program will function, how will the transactions work and how will the cost of the land be established.

I035-45 41. The creation of small parcels seems to be acknowledged but not dealt with appropriately. The small parcels will be offered to adjacent landowners, however what mechanism will ensure a viable program of offering to neighboring landowners? Will adjacent landowners be forced to purchase these parcels? There can often be difficult and costly to incorporate small parcels into larger parcels due to the cost to bring water to the land. How will the sale accommodate for these forces and other normal market forces. What happens it that small parcels are typically utilized for rural housing and the Kings County is trying to reduce this activity. How will the price be set for the purchase of the land. If the land is offered, but a landowner will not pay that amount the Authority will have to lower the price to incentivize the sale. This however is not allowed for public agencies due to the inability to offer land at a reduce price therefore violating gift of public fund laws.

I035-46 42. When the alignment passes through Kings County it creates odd shaped parcels. there are often inefficiencies in odd shaped parcels. The DEIR/EIs does not investigate or analyze the odd shape of parcels.

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I035-47

43. The DEIR/EIS indicates that the use of land for temporary uses will have a negligible impact. The DEIR/EIS does not clearly define what is a "temporary" impact. Also the use of land for any time period will be a significant impact if associated with dairy offset ground. During the temporary usage of the land the dairy feed supply will be reduced along with the inability to spread dairy wastewater on the field. Therefore the dairy will have to reduce its milk production given a diary is permitted for a certain number of cows per acre of land available for dairy wastewater discharge.

I035-48

44. The DEIR/EIS offers what seems to be a mitigation measure to assign an Authority representative to act as a single point of contact to assist the confined animal facility during the process to obtain amended permits and regulatory process. This singular statement offers not detail or description of the duties of the individual, or any means to determine if this individual will have the authority or knowledge to successfully help the landowner. The DEIR/EIS offers a mitigation measure without any detail to determine its feasibility. Dairy operators now currently use their own representatives which include engineers and lawyers and the process can still upwards of 2-3 years and $150,000+. The DEIR/EIS makes not clarification that the process or program established by the Authority will provide any significant benefit.

I035-49

45. In Section 3.14.4.1 the DEIR/EIS explains that dairy or confined animal facilities that are closed due to the project can be used for farming after they are closed, therefore there is no significant impact to farmland. The DEIR/EIS provides no evidence, analysis or reclamation plan that would indicate that the land can and will be used for farmland after it is closed, therefore the DEIR/EIS cannot draw that conclusion. Often the land that is used for dairy operations will require a significant amount of reclamation to return to farm ground uses. Nothing in the DEIR/EIS would indicate that the land will be successfully return to farm ground.

I035-50

46. The DEIR/EIS draws conclusions from a study done by the FRA on freight trains that indicate that there will be no impacts from wind. The DEIR/EIS indicates that studies will be conducted after the high-speed train is in operation. Under CEQA and NEPA the DEIR/EIS is charged with attempting to analyze and anticipate impacts and to not defer analysis to a later date.

I035-51

47. Section 3.14-44 indicates that the DEIR/EIS is based upon 15% plans and as the design develops the assessment and quantities will

I035-51

continue to be updated. The potential exists that as the project proceeds the impacts to farmland and the quantities could increase significantly. At what threshold will the DEIR/EIS conclusion changes because as the project changes the impacts and the quantities of farmland impacts change.

The landowners that developed the question discussed above were able to generally discuss the DEIR/EIS, however given the limited time allowed by the Authority to review the documents were unable formulate a complete and accurate analysis. The members that gathered would like to impress upon the Authority that without a full and complete public analysis of the DEIR/EIS the principles and foundation of CEQA and NEPA have been violated. Therefore, we ask you accept the above comments and concerns under the advisement that future comments may be forthcoming.

I035-52

Attendees would also like to notice the Authority that the questions above are significant and require the Authority to answer the questions, provide further analysis and corrections within the DEIR/EIS and release the document for another public review (180 days is recommended) prior to finalization of the document.

Sincerely,

Attendees:

Submission I035 (Fukuda and Others, October 18, 2012) - Continued

Signature	Printed Name
Mike Monteiro	Mike Monteiro
Alan Scott	Alan Scott
Helen Vierra Sullivan	Helen Vierra Sullivan
Ross C Browning 9/9	Ross C Browning
Phyllis Browning	Phyllis Browning
Karen J. Stout	Karen J. Stout
Carol Walters	Carol Walters
Shelli Andranigian	Shelli Andranigian
	Aaron Fukuda
Millard Downing	Millard Downing
	Michael LaSalle

Jerry Fagundes	Jerry Fagundes
Mary Jane Fagundes	Mary Jane Fagundes
Maureen Fukuda	Maureen Fukuda
	Todd Fukuda
	Aiko Fukuda
	Dina Fukuda

Response to Submission I035 (Fukuda and Others, October 18, 2012)

I035-1

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-04.

In the event that landowners believe that they have discovered unforeseen project-related impacts after right-of-way acquisition and mitigation, they may seek compensation from the Authority.

An EIR project description is intended to be general, not detailed (CEQA Guidelines § 15124[c]). Final design or even advanced design of infrastructure is not required in the project description (Dry Creek Citizens Coalition v. County of Tulare [1999] 70 Cal.App.4th 20, 36). The question is whether the project description narrowed the scope of environmental review, or prevented full understanding of the project and its consequences (Ibid.).

Abundant substantial evidence in the record demonstrates the project description was more than adequate for the environmental analysis of the project. The term "15% design" is an engineering term of art that refers to the level of engineering prepared on HST project elements for the EIR. The 15% design generates detailed information, like the horizontal and vertical locations of track, cross sections of the infrastructure with measurements, precise station footprints with site configurations, and temporary construction staging sites and facilities. The 15% design also yields a "project footprint" overlaid on parcel maps, which shows the outside envelope of all disturbance, including both permanent infrastructure and temporary construction activity. This 15% design translated into a project description in the EIR with 100% of the information that is required under CEQA Guidelines Section 1512447 (see Dry Creek, supra, 70 Cal.App.4th at pp. 27-36 [upholding EIR conceptual project description as inadequate when based on preliminary design]).

A higher level of design is not necessary because 15% design provides enough information for a conservative environmental analysis. A higher level of design provides refinement, but does not yield more information needed for adequate CEQA review. For example, if a lead agency knows the location, size, and basic design of a building, it has enough information for environmental review. The details about whether the water system will use PVC or copper pipe or whether the windows will be vinyl or wood are not necessary for assessing the impacts of building construction. Further, it is common

I035-1

practice with larger transportation infrastructure projects to prepare environmental analysis before completion of the final design.

Impacts to irrigation systems, resulting curative work, and/or potential ramifications will be addressed during the appraisal process, with consultation from experts in the fields of hydraulic engineering and agricultural management. The timing of any restorative work or reconfigurations will be addressed at the acquisition stage and documented in the right-of-way contract.

The impacts of project construction are described in Chapter 3 of the EIR/EIS. These impacts would be the same whether the project was completed or not.

The Authority will implement all mitigation measures through its contracts with the design-build contractor and will monitor construction to ensure that the mitigation measures are carried out.

I035-2

Refer to Standard Response FB-Response-GENERAL-01.

All mitigation for property impacts (e.g., relocation assistance, compensation or remedy of property impacts) will take place during right-of-way acquisition, which must occur before construction. Many other mitigation measures (e.g., compensatory mitigation for biological impacts) must also be implemented before initiation of construction.

Where findings have been made relative to significant impacts in accordance with Section 15091(1)(a) of the CEQA Guidelines, Section 15097 of the Guidelines requires the Authority to prepare and implement a Mitigation Monitoring and Enforcement Plan in conjunction with project approval. This plan is implemented to ensure that the mitigation measures identified in the EIR are implemented. The Authority may delegate reporting or monitoring responsibilities to another public agency or to a private entity that accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.

Response to Submission I035 (Fukuda and Others, October 18, 2012) - Continued

I035-3

The EIR/EIS identifies project impacts and mitigation measures. The Authority does not plan to establish an escrow account to address unidentified, future potential impacts.

I035-4

Addressing unforeseen circumstances would be purely speculative and inappropriate for an EIR/EIS.

I035-5

Refer to Standard Response FB-Response-AG-03.

The Authority has committed to implement a Farmland Consolidation Program as part of the HST project design features (see Section 3.14.6), to sell remnant parcels to neighboring landowners for consolidation with adjacent farmland properties. In addition, on request, the program will assist the owners of remnant parcels in selling those remnants to adjacent landowners. (Authority, Resolution 12-20 and attachments, May 3, 2012.) The program will also assist landowners in obtaining lot line adjustments where appropriate to incorporate remnant parcels into a larger parcel that is consistent with size requirements under the local government's general plan. The program will operate for no less than 5 years after construction of the Fresno to Bakersfield Section is completed. This will reduce the number of remainder parcels that are removed from agricultural use.

In April 2013, the Authority reached an agreement with agricultural interests on mitigation of agricultural land impacts for the Merced to Fresno Section of the HST System (Authority 2013). Under that agreement, the Authority will acquire agricultural conservation easements for its impact on Important Farmland (i.e., land classified as prime farmland, farmland of statewide importance, farmland of local importance, and unique farmland) at the following ratios:

- Important Farmland converted to nonagricultural uses either by direct commitment of the land to project facilities or by the creation of remnant parcels that cannot be economically farmed will be mitigated at a ratio of 1:1.
- Where HST project facilities would create a remnant parcel of 20 acres or less in size, the acreage of that remnant parcel will be mitigated at a ratio of 1:1.

I035-5

- An area 25 feet wide bordering Important Farmland converted to nonagricultural uses by project facilities (not counting remnant parcels) will be mitigated at a ratio of 0.5:1.

The Authority would maintain all HST facilities, including the right-of-way and fence, and provide appropriate weed and pest control. Maintenance activities are described in Chapter 2, Section 2.6, Operations and Service Plan of the Revised DEIR/Supplemental DEIS. Section 2.2.8, Maintenance Facilities, describes the different maintenance facilities and activities that would be in place to ensure continued maintenance of the tracks, right-of-way, and train sets. The Authority would not be responsible for maintaining lands outside of the project footprint. That would remain the responsibility of adjoining property owners.

I035-6

Refer to Standard Response FB-Response-TR-02.

I035-7

Refer to Standard Response FB-Response-TR-01.

I035-8

Refer to Standard Response FB-Response-AVR-03.

Maintenance of highways is the responsibility of Caltrans, and for local roads the appropriate jurisdiction (County or City) within their respective rights-of-way. The Authority would maintain all HST facilities, including the right-of-way and fence, and provide appropriate weed and pest control. Maintenance activities are described in Chapter 2, Section 2.6, Operations and Service Plan of the Revised DEIR/Supplemental DEIS. The Authority would not be responsible for maintaining lands outside of the project footprint.

Section 3.16 Aesthetics and Visual Resources, Table 3.16-2 of the Revised DEIR/Supplemental DEIS has been revised to address graffiti and blight. In addition, mitigation measures for operations have been revised to state: “Any graffiti or visual defacement or damage of fencing and walls will be painted over or repaired within 5

Response to Submission I035 (Fukuda and Others, October 18, 2012) - Continued

I035-8

business days after notification. In addition, a process for notification of local law enforcement will be implemented."

Mitigation Measure AVR-MM#2f addresses numerous measures to be implemented to keep overpasses attractive and maintained. As stated in that measure, landscaping will be continuously maintained, and irrigation installed if needed. Invasive plant species will not be planted.

I035-9

Refer to Standard Response FB-Response-S&S-01.

New facilities constructed for the project must meet design standards that include passage of trucks.

I035-10

Refer to Standard Response FB-Response-TR-02, FB-Response-AG-02.

I035-11

Refer to Standard Response FB-Response-TR-01.

I035-12

Refer to Standard Response FB-Response-S&S-01.

I035-13

HSR policy is to provide roadway overpasses approximately every 2 miles, resulting in no more than 1 mile of out-of-direction travel for vehicles to cross the HST tracks. In most locations in the Fresno to Bakersfield Section, roadway overpasses would be provided more frequently, approximately every mile or less, because of the existing roadway infrastructure. Consequently, out-of-direction travel would be limited to approximately 1 mile in nearly all locations in the project area. Section 3.11.6 of the Revised DEIR/Supplemental DEIS explains that the project design would include coordination with emergency responders to incorporate roadway modifications that maintain existing traffic patterns and fulfill response route needs, resulting in negligible

I035-13

effects on response times by service providers. Section 3.11.5, Safety and Security Environmental Consequences, of the Revised DEIR/Supplemental DEIS provides additional detail regarding emergency response time during HST operations.

I035-14

This comment assumes a rule that a lead agency must define its project based on available funding. CEQA includes no such rule, and courts cannot impose procedural or substantive requirements beyond those explicitly stated in the statute or guidelines (Pub. Res. Code §21083.1). Such a rule would force lead agencies to re-define their projects every time funding changes, a result in direct conflict with the "rule of reason" that governs EIRs (Laurel Heights Improvement Assn. v. UC Regents (1988) 47 Ca1.3d 376, 406-407).

Please see the Revised DEIR/Supplemental DEIS, Volume 1, Section 3.3, Air Quality and Global Climate Change, for a discussion of air quality impacts versus the no-build impacts. If the Authority only completes the Initial Construction Segment, there will be no operational air impacts associated with the track unless alternative uses of the track occurs such as the use of Amtrak trains. The air quality impacts associated with the use of Amtrak trains on the Initial Construction Segment is discussed in FB Master Response 13.

The construction emissions associated with the Initial Construction Segment are handled by AQ-MM#4 and will offset the criteria pollutants in the year that emissions occur. The mitigation measure AQ-MM#4: Offset Project Construction Emissions through an SJVAPCD VERA provides that the Authority and SJVAPCD will enter into a contractual agreement to mitigate by offsetting to net zero the project's actual emissions by providing funds for the district's Emission Reduction Incentive Program. These funds will be provided at the beginning of the construction phase. Therefore, mitigation/offsets shall occur in the year of impact or as otherwise permitted by 40 CFR Part 93 Section 93.163. There will be no long-term delay in achieving the net zero emission reductions through the construction offset agreement.

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I035-14

The greenhouse gas (GHG) emissions associated with the Initial Construction Segment construction will not be offset by the reduction in operation if the project does not become fully operational. However, the mitigation measure AQ-MM#4, will partially reduce GHG emissions along with some of the criteria emissions. Therefore, some of the GHG emissions will be offset even if the full project does not become operational.

I035-15

Refer to Standard Response FB-Response-AQ-01.

Although valley fever fungi are commonly found in the soil in the Central Valley and can be stirred into the air by anything that disrupts the soil, the potential for the operational HST to generate dust through induced air flow is low. Therefore, the impacts from valley fever during operations will be less than significant. In addition, the dust minimization measures listed in Section 3.3.8 of the Final EIR/EIS will further reduce fugitive dust emissions to a less-than-significant impact. Valley fever spores would be released when the soil is disturbed; however, due to the minimization measures, fugitive dust disturbance during construction will be minimal. Therefore, impacts from valley fever spores would be less than significant.
Because the dust disturbance would be minimal with proposed mitigation measures, current hospital and health care centers would not be burdened with an increase in valley fever patients.

I035-16

The greenhouse gas (GHG) payback analysis is provided in Table 7.9-9, 7.9-10, and 7.10-5 of the Air Quality Technical Report (Authority and FRA 2012f). The analysis in these tables shows that in less than 6 months of HST operations, the GHG emissions during construction will be offset by the reduction in GHG emissions during operations.

I035-17

Section 6.3 of the *Fresno to Bakersfield Section: Noise and Vibration Technical Report* (Authority and FRA 2012)

I035-17

describes how transfer mobility testing was conducted at 18 locations in order to calculate the fall-off rate for vibration levels. These fall-off rates were then used to calculate the distances to the vibration level contours for different types of land use. Table 6-44 of the *Fresno to Bakersfield Section: Noise and Vibration Technical Report* lists the distances to the vibration level contours. The data included in Tables 6-45 through 6-51 show no impacts to any schools along any of the project alignments or alternatives.

I035-18

Although the vibration levels generated by the train may be perceptible near trees, the vibration levels are not expected to be at a high enough intensity level to cause nuts to fall from trees. Additionally, nut trees will not be impacted from vibration from HST alignments that are not along the BNSF ROW as the HST will not be in a close enough proximity to the nut trees. The increase of the number of travel times along the HST corridor will not increase the vibration levels high enough to shake nuts off of trees outside the HST ROW. Please refer to Section 6.3 of the Fresno to Bakersfield Noise and Vibration HST Technical Report as to how vibration levels were calculated and distances to vibration level contours.

I035-19

Wells currently located adjacent to the existing BNSF tracks are subject to vibration levels substantially higher than the vibration levels that would be generated by HST operations. If the wells are not currently experiencing any of these problems under existing conditions, they would not be expected to experience these problems with the addition of HST operations. Additionally, vibration levels from the HST alignments that are not along the BNSF ROW are not expected to generate high enough vibration levels to effect deep wells and septic tanks. This is because vibration levels outside the HST ROW not expected to be of a high enough intensity to cause any damage. Furthermore, increases in the number of travel times along the Fresno to Bakersfield Corridor will not increase the vibration intensity levels high enough to damage deep wheels or septic tanks outside the HST ROW. Please refer to Section 6.3 of the Fresno to Bakersfield Noise and Vibration HST Technical Report as to how vibration levels were calculated and distances to vibration level contours.

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I035-20

Deep aquifers currently located adjacent to the existing BNSF tracks are subject to vibration levels substantially higher than the vibration levels that would be generated by HST operations. If the wells are not currently experiencing any of these problems under existing conditions, they would not be expected to experience these problems with the addition of HST operations. Well depths in the Central Valley aquifer system are determined by the depth of permeable aquifer material and by the quality of the ground water. In general, wells are usually less than 500 feet deep in the Sacramento Valley but are as deep as 3,500 feet in the San Joaquin Valley. The greater depth of wells is a result of the low permeability of the sands in the unconfined aquifer in the western and southern San Joaquin Valley and of highly mineralized water and water high in selenium in the upper parts of the aquifer system in the western San Joaquin Valley. At a depth of 500 feet, the vibration levels due to high-speed train operations are projected to be less than 57 VdB. Vibration levels this low are adequate for high-power optical microscopes (1000X), to be used for inspection and lithography equipment to 3-micron line widths. There are not expected to be any impacts on the Central Valley aquifer system from vibration associated with the operation of the HST System.

According to a USGS study, "Ground Water Atlas of the United States," the primary cause of land subsidence in the Sacramento and the San Joaquin Valleys has been the compaction of fine-grained sediments (predominantly clay) in the aquifer system following severe, long-term withdrawal of ground water in excess of recharge. The amount of such subsidence in an area is related to the amount of withdrawal and the percentage of the withdrawal zone composed of clay beds. Compaction occurs when the hydraulic head in the confined parts of the aquifer system is lowered, thus reducing the hydraulic head in the clay beds, which, in turn, reduces the pore pressure in the clay. The weight of overlying sediments compacts the clay and squeezes water out of the clay until equilibrium is reached with the pore pressure in the clay. Compaction is directly related to the amount of water within the aquifer and is not expected to be influenced by the vibrations produced by HST operations.

I035-21

Refer to Standard Response FB-Response-GENERAL-13.

I035-22

The cumulative impacts of vibration from the freight and HSR trains will be negligible. The cumulative impacts of noise are taken into account in the noise model.

The noise and vibration analysis for the HST Project provided in Section 3.4, Noise and Vibration, includes the existing freight rail system in the calculation of the existing ambient noise environment (existing condition). Therefore, the addition of the HST Project to the existing freight rail noise and vibration levels has been analyzed. For the noise analysis, impacts and mitigation measures were identified. For the vibration analysis, the vibration level generated by the HST would be substantially lower than the vibration levels generated by the existing freight trains; the impacts would be negligible and no mitigation is required. As described in Section 3.19, Cumulative Impacts, there would not be cumulative vibration impacts from implementation of the HST Project and the other cumulative projects.

I035-23

Refer to Standard Response FB-Response-PU&E-03, FB-Response-HWR-01.

The proposed project would protect or reroute potentially affected existing public utility infrastructure in the Ponderosa community. The Authority's construction contractor will coordinate schedules for utility relocations and protection-in-place with the utility owner to ensure the project would minimize or eliminate the potential for disruption of service to affected users and the community.

I035-24

Southern California Edison's proposed Mascot Electrical Substation project was approved by the CPUC in the 2nd quarter of 2011. While the analysis of project-level effects in Section 3.6 Public Utilities and Energy evaluates anticipated effects to existing public utility facilities and services, the proposed Mascot substation was not implemented at the time of the Draft EIR/EIS analysis. Based on a review by HST planning engineers, the proposed Mascot substation would not be directly affected; however, the route of power lines connected to the proposed facility may need to be altered. Because the Mascot substation would not be impacted by project alternatives, it was not included in the Revised DEIR/Supplemental DEIS.

Response to Submission I035 (Fukuda and Others, October 18, 2012) - Continued

I035-24

The Draft EIR/EIS at page 3.6-14 refers to Appendix G of the CEQA Guidelines, which states that a significant impact on utilities and service systems would occur if the project results in a conflict with a fixed facility such as an electrical substation. No such impact would result. However, the project team has and will continue to actively coordinate with utility providers during all the design phases of the project to identify, describe, and evaluate the HST's potential impact on existing electrical infrastructure. Where the project would require modification of any electrical substation or electrical transmission, power, or distribution line, such modifications would be conducted in compliance with the California Public Utilities Commission's General Order 131-D, including any necessary additional environmental review. The Authority will assist utility providers in applying for a permit from the CPUC under CPUC General Order 131-D, including the need for any additional environmental review necessary for transmission line relocation or extension, or other new or modified facilities, and any localized increase in electrical loads identified as part of the more detailed design.

I035-25

The various alternative track alignments pass near wireless systems in use. Federal Communications Commission (FCC) spectrum frequency allocations allow wireless fidelity systems to operate in their frequency blocks at 2.4, 3.6, and 4.9/5.0 gigahertz (GHz), each divided into channels to allow multiple systems to operate without interfering with one another. Wireless networks operate at relatively low power levels and have limited ranges. Therefore, electromagnetic interference (EMI) with distant uses is generally not a concern.

The California HST System would use radio systems for automatic train control, data transfer, and communications, raising the concern that HST operations would result in EMI with the radio systems at use at nearby schools. HST radio systems would transmit radio signals from antennas located at stations and heavy maintenance facilities (HMFs) along the track alignment and on locomotives and train cars. The Authority plans to acquire two dedicated frequency blocks, each with a width of 4 megahertz (MHz), for use by automatic train control systems. These blocks would be at frequencies below 925 MHz because frequencies higher than 925 MHz will not function on a high-speed train. These blocks would be dedicated for California HST use, and EMI with other users

I035-25

would not be expected. Communications systems at stations may operate at Wi-Fi frequencies to connect to stationary trains; channels would be selected to avoid EMI with other users, including Wi-Fi systems at use at nearby schools (Authority 2011c, 2011f).

The Authority will implement an Electromagnetic Compatibility Program Plan (EMCPP) during project planning and operation to provide electromagnetic compatibility with neighboring radio systems. During the planning stage through the 30% system design, the Authority will perform electromagnetic compatibility (EMC)/EMI safety analyses, which will include identification of existing radio systems at nearby uses, design of systems to prevent EMI with identified neighboring uses, and incorporation of these design requirements into the bid specifications used to procure radio systems. The implementation stage will include 100% system design and will include final engineering design, monitoring, and evaluation of system performance. Section 3.5, Electromagnetic Fields and Electromagnetic Interference, of the EIR/EIS primarily considers electromagnetic fields (EMFs) at the 60-hertz (Hz) power frequency and at radio frequencies (RFs) produced intentionally by communications or unintentionally by electric discharges. EMI is avoided with intentionally produced communications primarily through the Authority's commitment to adhere to its EMCPP. Given the commitment to eliminate EMI with a broad range of RF equipment according to the EMCPP, the focus of the EMF/EMI analysis is on the most sensitive or susceptible RF equipment.

I035-26

Refer to Standard Response FB-Response-PU&E-02.

Section 3.6, Public Utilities and Energy, of the Revised DEIR/Supplemental DEIS states that the area studied to determine the potential impacts of the HST System on electricity generation and transmission includes the entire state of California (and western states that produce energy that is exported to California) because the HST System would obtain electricity from the statewide grid. The HST System is expected to require less than 1% of the state's future electricity consumption. The Revised DEIR/Supplemental DEIS provides information about the multi-state electrical grid serving California and the HST System energy demand in Section 3.6, Public Utilities and Energy (Table 3.6-18). The HST project would set a priority on the use of renewable energy sources and not

Response to Submission I035 (Fukuda and Others, October 18, 2012) - Continued

I035-26

require the construction of a separate power source, although it would include the addition and upgrade of power lines to a series of substations positioned along the HST corridor. Please refer to the summary of electricity requirements in Section 2.2.6, Traction Power Distribution, in Chapter 2, Alternatives. Section 3.6.5 C, High-speed Train Alternatives, discusses how the energy demand would be met.

I035-27

Refer to Standard Response FB-Response-AG-03, FB-Response-LU-02.

The HST project will not change existing zoning. The HST project would convert only the amount of land required for a transportation-related use for the alignment and other components of the HST System. The land use conversion would not extend beyond the construction footprint, which is generally no more than 120 feet in width where at-grade and 60 feet in width where elevated. The use of the land adjacent to the HST alignment is not expected to change except in the station areas where the station can act as an economic catalyst for transit-oriented development and in agricultural areas where agricultural uses would be displaced and parcel severance may remove from production some land that is currently in agricultural use.

It is possible that remainder parcels could be consolidated; however, remnant parcels and odd-shaped parcels that cannot be used for farming may be acquired by the Authority. As stated in Section 3.14.5: “A partial acquisition of land protected by Williamson Act or FSZ contract could constrain the potential continued use of that land for farming because (1) the remaining land acreage might be too small to meet the minimum requirements under these programs and (2) the resulting increase in property taxes on the land might affect the financial feasibility of continued farming. Zoning for land on either side of the permanent footprint is under the jurisdiction of local agencies and would not be changed by action of the Authority. Therefore, it will be up to the governing jurisdiction as to whether a remnant commercial parcel remains zoned as commercial."

In April 2013, the Authority reached an agreement with agricultural interests on mitigation of agricultural land impacts for the Merced to Fresno Section of the HST System (Authority 2013). Under that agreement, the Authority will acquire agricultural

I035-27

conservation easements for its impact on Important Farmland (i.e., land classified as prime farmland, farmland of statewide importance, farmland of local importance, and unique farmland) at the following ratios:

- Important Farmland converted to nonagricultural uses either by direct commitment of the land to project facilities or by the creation of remnant parcels that cannot be economically farmed will be mitigated at a ratio of 1:1.
- Where HST project facilities would create a remnant parcel of 20 acres or less in size, the acreage of that remnant parcel will be mitigated at a ratio of 1:1.
- An area 25 feet wide bordering Important Farmland converted to nonagricultural uses by project facilities (not counting remnant parcels) will be mitigated at a ratio of 0.5:1.

I035-28

Refer to Standard Response FB-Response-AG-02, FB-Response-AG-03, FB-Response-LU-02.

I035-29

Refer to Standard Response FB-Response-AG-04.

A Mitigation Monitoring and Enforcement Plan (MMEP) is required to ensure that adopted mitigation measures are successfully implemented. The Authority is the lead state agency for the proposed project and is responsible for implementation of the MMEP in accordance with CEQA.

The MMEP will be active through all phases of the project, including design, construction, and operation. The project will be developed in phases and may include permits required for implementation of project components. There are mitigation measures that must be continuously implemented throughout the development and operation of the proposed project. The MMEP identifies those mitigation measures required by the Authority to mitigate or avoid significant adverse impacts associated with the implementation of the proposed project, entity responsible for monitoring, timing of implementation, phase the measure applies to, timing of implementation, and completion verification. The MMEP will help ensure that the measures are implemented,

Response to Submission I035 (Fukuda and Others, October 18, 2012) - Continued

I035-29

their effectiveness monitored, and documentation provided.

Section 3.6.6, Project Design Features, states, in part: "[w]here necessary, project design and phasing of construction activities would be coordinated with service providers to minimize or avoid interruptions." The Authority or its contractors will take into account the limited period during which construction may occur without disrupting the District's operations and deliveries. This will occur during property acquisition, furtherance of project design, and prior to actual construction.

The Authority is currently working with irrigation districts to develop agreements for the modification of their irrigation facilities where necessary for project construction. It is expected that irrigation districts will want to manage the design and construction of relocated segments of irrigation canals and the Authority will pay for the work. As implied by this comment, irrigation districts conduct major maintenance and repair of their canals and other irrigation facilities during winter months when the canals are not used for delivery of irrigation water. Connection of relocated segments of canals to the existing irrigation system would be done during those winter months. Districts would not typically close canals and then relocate them. Instead, the relocated segments would be constructed, and once that construction was completed, the new canal segment would be connected into the rest of the canal system and the abandoned segment would be filled in. Therefore, a relocated canal would only be closed for a few days during the winter months. As a result, relocation of canals would not impact spring, summer, and fall water deliveries, and would not disrupt the localized use of irrigation canals as storm drains.

I035-30

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-04.

I035-31

Chapter 3.8, Hydrology and Water Resources, indicates that the removal/abandonment of wells would be done in accordance with local regulations. DWR has developed well standards to protect groundwater quality. California Well Standards, Water wells, Monitoring wells, Cathodic protection wells, Bulletins 74-81 and 74-90 (DWR 1991) provides minimum standards for the construction, alteration, maintenance, or destruction

I035-31

of wells to prevent pollution of groundwater. The standards apply to all water well drillers in California and the local agencies that enforce them. Items addressed by DWR well standards include: setback of wells from pollution sources; casing materials; annular seal dimensions and materials; surface features—pads, locks, covers, backflow preventers, vaults; well development; disinfection; repair; and destruction.

Local governments, counties, cities, and some water districts are responsible for enforcing standards that are either equal to or more stringent than DWR's well standards. These agencies usually require permits for well construction. They also conduct inspections to make sure the wells are constructed properly. Applicable county ordinances and local regulations include: Fresno Municipal Code (Chapter 6, Article 4, Wells); Kings County Code of Ordinances (Chapter 14A, Water Wells); Tulare County Code (Part IV, Chapter 13, Wells); Kern County Code of Ordinances (Chapter 14.08, Article III, Well Standards); and Bakersfield Municipal Code (Title 8, Chapter 8.70, Regulation of Wells and Water Systems).

I035-32

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-04.

The regional aquifer has a water surface elevation of about 50 to 250 feet below ground surface near the alignment alternatives (see Table 3.8-13 of the EIR/EIS) and typically is unconfined at that depth. Underlying the unconfined layer is a regionally confined aquifer that is generally 400 to 450 feet below ground surface. Typical well depths in the groundwater subbasins crossed by the HST are between 100 and 2,000 feet below ground surface (see Table 3.8-8 of the EIR/EIS) and wells extract water from either unconfined or confined layers.

The Authority will fairly compensate land owners during the right-of-way acquisition process for destruction and replacement of agricultural and household domestic wells. The Authority will work with individuals on a case-by-case basis to provide equal utility for replacement wells. Although an identical well at a new location may not have the same capacity as the abandoned well, the Authority would not create only identical replacement wells, but instead would ensure equal utility such that the new well would have the same capacity as the previous well (e.g., the new well could be deeper, wider

Response to Submission I035 (Fukuda and Others, October 18, 2012) - Continued

I035-32

in diameter, or screened at a different location then the pervious well, if required for equal utility). The design of the resulting replacement infrastructure will be addressed during the appraisal process with consultation from experts in the hydraulic engineering and agriculture management fields. Factors that will be taken into consideration include well location, depth and screen elevation. The timing of any restorative work or reconfigurations will be addressed at the acquisition stage and documented in the right-of-way contract.

Depending on the rate and volume of pumping, water levels in neighboring wells could be affected by relocated wells. However, where agricultural wells would need to be relocated, it is anticipated that they will be relocated in the same vicinity as the original well and pump at the same rate and depth as it would have prior to being relocated. Hydraulic studies would be done to determine the location of new wells such that new wells minimize secondary effects to other wells in the vicinity. No new wells in addition to the wells installed to replace wells impacted by the HST project are anticipated beyond those discussed in Chapter 3.8.

I035-33

DWR has developed well standards to protect groundwater quality. California Well Standards, Water wells, Monitoring wells, Cathodic protection wells, Bulletins 74-81 and 74-90 (DWR 1991) provides minimum standards for the construction, alteration, maintenance, or destruction of wells to prevent pollution of groundwater. The standards apply to all water well drillers in California and the local agencies that enforce them. Items addressed by DWR well standards include: setback of wells from pollution sources; casing materials; annular seal dimensions and materials; surface features—pads, locks, covers, backflow preventers, vaults; well development; disinfection; repair; and destruction.

Local governments, counties, cities, and some water districts are responsible for enforcing standards that are either equal to or more stringent than DWR's well standards. These agencies usually require permits for well construction. They also conduct inspections to make sure the wells are constructed properly. Applicable county ordinances and local regulations include: Fresno Municipal Code (Chapter 6, Article 4, Wells); Kings County Code of Ordinances (Chapter 14A, Water Wells); Tulare County

I035-33

Code (Part IV, Chapter 13, Wells); Kern County Code of Ordinances (Chapter 14.08, Article III, Well Standards); and Bakersfield Municipal Code (Title 8, Chapter 8.70, Regulation of Wells and Water Systems).

Chapter 3.8, Hydrology and Water Resources, indicates that the removal/abandonment of wells would be done in accordance with local regulations and Section 3.8.2.3 lists these regional and local regulations.

I035-34

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-04.

The Authority will fairly compensate land owners during the right-of-way acquisition process for destruction and replacement of agricultural and household domestic wells. The Authority will work with individuals on a case-by-case basis to provide equal utility for replacement wells. Although an identical well at a new location may not have the same capacity as the abandoned well, the Authority would not create only identical replacement wells, but instead would ensure equal utility such that the new well would have the same capacity as the previous well (e.g., the new well could be deeper, wider in diameter, or screened at a different location then the pervious well, if required for equal utility). For example, if the existing well produced 500 gallons per minute, the new well would produce 500 gallons per minute even if the new well would need to be drilled deeper or be screened at a different location. The design of the resulting replacement infrastructure will be addressed during the appraisal process with consultation from experts in the hydraulic engineering and agriculture management fields. Factors that will be taken into consideration include well location, depth and screen elevation. The timing of any restorative work or reconfigurations will be addressed at the acquisition stage and documented in the right-of-way contract.

I035-35

Refer to Standard Response FB-Response-PU&E-03.

Yes, the pipeline will be encased across the entire HST right-of-way. Landowners will not be given access to HST right-of-way. Access to pipelines will be from either side of the HST right-of-way.

Response to Submission I035 (Fukuda and Others, October 18, 2012) - Continued

I035-36

Refer to Standard Response FB-Response-PU&E-03.

The owner will be responsible for maintaining the pipeline.

I035-37

Refer to Standard Response FB-Response-PU&E-03.

The owner will be responsible for maintaining the pipeline. The utility crossings and encasements will be designed such that a failure in the pipeline will not result in the HST tracks being washed out.

I035-38

Refer to Standard Response FB-Response-PU&E-03.

Utilities within the permanent project footprint would be either relocated outside the restricted access areas of the HST right-of-way, or they would be modified (e.g., encased in a pipe sturdy enough to withstand the weight of HST System elements) to avoid the conflict. Specifications will vary depending on the circumstances. Specifications will be developed in cooperation with the affected landowner or entity before installation of the utility under the alignment and will specified in the MOU between the authority and the utility owner.

I035-39

California High-Speed Train Project Technical Memorandum 2.9.10 discusses the design differential settlement requirements, in Section 6.3.4, for structures for various load cases. Additionally, embankment and at-grade portions of track require settlement analyses in accordance with FHWA manuals. Technical Memorandum 2.9.10 addresses settlement criteria for these sections of track as well.

As discussed under Impact GSS #2, Soil Settlement at Structures or along Trackway During Construction, soils along the alignments are generally competent (medium-dense, stiff, or better). Localized deposits of soft or loose soils could occur at various locations, particularly at water crossings where soft or loose soils appear to be more

I035-39

prevalent. Geotechnical explorations to be undertaken prior to final design and prior to construction would identify the specific locations with the potential for settlement. At locations where subsurface conditions may not be capable of supporting the additional loading induced by additional fill, engineering design features that address soft deposits of silty or clay soils would be incorporated. These design features include techniques, such as preloading, to accelerate settlement or adding wick drains if applicable.

I035-40

Restoration of sites to prior condition would only consist of a recommendation for scarification of the top 12 inches, recompaction to 85% maximum relative density, and surface stabilization for dust mitigation (hydroseeding or other) prior to transitioning a temporary use site to the owner. This restoration of staging or other temporary use areas is incorporated as part of the project, as described in Section 2.8.

I035-41

This comment hypothesizes a situation where the project impedes emergency access to improvements on a property to such an extent that it would impact the insurance rating for that property. The Authority will consider access issues on a case by case basis. If it is cost-effective and does not threaten the integrity of the HST, the Authority may provide access under the train route. If it is not determined to be cost-effective, the landlocked portion will be addressed in the appraisal process. The Authority may consider acquiring an access easement on the neighboring parcel under eminent domain or the Authority may acquire the landlocked parcel and sell that parcel at auction.

Any diminution in value to a property owner's remaining parcel(s) will be estimated by the appraiser through the appraisal process. This involves appraising the remainder as it contributes to the whole property value before acquisition, then appraising the remainder in the after condition as a separate parcel as though the project was constructed (i.e., as bisected by the HST), and including any estimated "cost to cure" damages to the remainder, e.g., cost of re-establishing irrigation systems, replacing wells, increased insurace cost, etc. The difference between these "before" and "after" values is termed as severance damages and will reflect any loss in value the remainder due to the construction in the manner proposed.

Response to Submission I035 (Fukuda and Others, October 18, 2012) - Continued

I035-42

The project would not result in the relocation of the county fire station on Houston Avenue. Alternative alignments would not directly take any of the fire station property. As described in Section 3.11, project facilities would not impinge on the flight path of helicopters using the fire station heliport. None of the public roads in the vicinity of the fire station would be closed by the project; therefore, the project would not impact access to and from the fire station.

I035-43

The first section of the California HST System requires a section of over 100 miles of high-speed track to test the high-speed trains. The Central Valley is the best location for this initial phase. However, even if the HST project were not to be fully funded, American Recovery and Reinvestment Act (ARRA) funding must be used towards a project that has operational benefits or can demonstrate "independent utility" as that term is defined in FRA's High-Speed Intercity Passenger Rail (HSIPR) Interim Program Guidance (74 FR 29900, 29905 [June 23, 2009]). The Central Valley sections could accommodate nonelectrified passenger trains (e.g., Amtrak San Joaquin service) from the north and at the existing stations in Merced and Madera via a crossover trackway with the BNSF railroad (at Avenue 17 near Madera) to Bakersfield in the south, even if no other portion of the HST system is constructed.

Independent utility under ARRA could be achieved by allowing nonelectrified passenger trains to use these sections. The HST track would be vastly superior to existing passenger train track in the same corridor, thus allowing much faster and smoother service than currently exists. Such interim service is undefined at present, but could range from the existing Amtrak San Joaquin service (although improved because of the improved track) to modern diesel multiple-unit trains capable of speeds and comfort significantly better than the existing Amtrak San Joaquin service. The Fresno to Bakersfield Section could also have utility as a test track for the eventual expansion of the HST system. High-speed testing is crucial to the safe and efficient operation of the system. The relatively straight alignment would allow for the testing of track, signaling systems, and train sets at operational speeds.

Improved nonelectrified passenger service using the Central Valley sections is not part

I035-43

of the project (i.e., a high-speed electrified train project) for environmental review purposes. If such service were to be proposed, environmental review would be conducted by those agencies that would institute and operate such service. As an indirect practical matter, however, potential environmental impacts of construction that would permit such service were fully analyzed in the Revised DEIR/Supplemental DEIS because any such service would run on HST track, the construction impacts of which were fully analyzed.

I035-44

Refer to Standard Response FB-Response-AG-02, FB-Response-GENERAL-01, FB-Response-SO-01.

The Farmland Consolidation program is described in Section 3.14.6, Project Design Features, of the Final EIR/EIS. As explained there, the Authority will establish and administer the Farmland Consolidation program to sell remnant parcels to neighboring landowners for consolidation with adjacent farmland properties. Also, on request, the program will assist the owners of remnant parcels in selling those remnants to adjacent landowners. The program also will assist landowners in obtaining lot line adjustments where appropriate to incorporate remnant parcels into a larger parcel that is consistent with size requirements under the local government's general plan. The program will be administered by the Authority as part of the HST project, and the Authority would use the same real property transaction processes used by Caltrans, implemented by Authority right-of-way agents, who generally follow Caltrans procedures. The program will facilitate the purchase and consolidation of remainder parcels; the cost of land will depend upon the market.

In April 2013, the Authority reached an agreement with agricultural interests on mitigation of agricultural land impacts for the Merced to Fresno Section of the HST System (Authority 2013). Under that agreement, the Authority will acquire agricultural conservation easements for its impact on Important Farmland (i.e., land classified as prime farmland, farmland of statewide importance, farmland of local importance, and unique farmland) at the following ratios:

- Important Farmland converted to nonagricultural uses either by direct commitment of the land to project facilities or by the creation of remnant parcels that cannot be

Response to Submission I035 (Fukuda and Others, October 18, 2012) - Continued

I035-44

economically farmed will be mitigated at a ratio of 1:1.

- Where HST project facilities would create a remnant parcel of 20 acres or less in size, the acreage of that remnant parcel will be mitigated at a ratio of 1:1.
- An area 25 feet wide bordering Important Farmland converted to nonagricultural uses by project facilities (not counting remnant parcels) will be mitigated at a ratio of 0.5:1.

I035-45

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-03.

I035-46

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-02, FB-Response-AG-03.

When analyzing agricultural impacts, the Revised DEIR/Supplemental DEIS looked at each impacted parcel individually to assess whether the parcel would be able to remain in agricultural production (see Section 3.14, Impact AG #5). If the parcel can remain in agricultural production, but at a decreased level of productivity, the landowner will be compensated for the decrease in productivity. All parcels that were considered to be potentially uneconomic were counted in the permanent project footprint. The Authority purposely used a cautious approach in estimating remnant parcels so as to not underestimate farmland impacts. The Authority will take on long-term management of any remnant parcels that are found to be uneconomic to farm.

As described in Section 3.14.6, the Authority will establish and administer a Farmland Consolidation Program through its right-of-way agents to sell remnant parcels to neighboring landowners for consolidation with adjacent
farmland properties, assist the owners of remnant parcels in selling those remnants to adjacent landowners, and assist landowners in obtaining lot line adjustments where appropriate to incorporate remnant parcels into a larger parcel that is consistent with size requirements under the local government's general plan. The objective of the program is to minimize the number of unused remainder parcels.

In April 2013, the Authority reached an agreement with agricultural interests on mitigation of agricultural land impacts for the Merced to Fresno Section of the HST

I035-46

System (Authority 2013). Under that agreement, the Authority will acquire agricultural conservation easements for its impact on Important Farmland (i.e., land classified as prime farmland, farmland of statewide importance, farmland of local importance, and unique farmland) at the following ratios:

- Important Farmland converted to nonagricultural uses either by direct commitment of the land to project facilities or by the creation of remnant parcels that cannot be economically farmed will be mitigated at a ratio of 1:1.
- Where HST project facilities would create a remnant parcel of 20 acres or less in size, the acreage of that remnant parcel will be mitigated at a ratio of 1:1.
- An area 25 feet wide bordering Important Farmland converted to nonagricultural uses by project facilities (not counting remnant parcels) will be mitigated at a ratio of 0.5:1.

I035-47

Refer to Standard Response FB-Response-SO-01, FB-Response-AG-02.

A temporary impact is land that will be used for construction purposes of the HST and will be returned to the landowner once construction is done. The landowner will be compensated for any losses of income due to temporary use of agricultural land.

I035-48

Refer to Standard Response FB-Response-GENERAL-04, FB-Response-SO-01.

As a feature of the project, the Authority will assign a representative to act as a single point of contact to assist each confined animal facility owner during the process of obtaining new or amended permits or other regulatory compliance necessary to the continued operation or relocation of the facility. The Authority will consider and may provide compensation when acquisition of a confined animal site would either require relocation of the facility or amendment of its existing regulatory permits. This is part of the project and is not a mitigation measure. Implementation is assured because it is a design feature. Representatives of the Authority will be knowledgeable in permit processes and help coordinate permitting for the landowner; however, applications for permits would remain the responsibility of the landowner.

Response to Submission I035 (Fukuda and Others, October 18, 2012) - Continued

I035-49

Refer to Standard Response FB-Response-GENERAL-04, FB-Response-SO-01, FB-Response-AG-06.

The Revised DEIR/Supplemental DEIS only states that the land could return to agricultural production. It is not expected that many dairies would be closed as a result of the HST. Any land that does not return to agricultural use will be purchased by the Authority at fair market value, and the Authority will take on long-term management of the lands.

I035-50

Refer to Standard Response FB-Response-AG-05.

The commenter is mistaken. Impact AG # 10, Wind-Induced Effects, discusses a number of studies done of HSTs and their capacity to induce wind (see Section 3.14.5). No freight train studies were included because such trains do not share the aerodynamic profile of a HST. These conclusions are supported by the July 2012 Agricultural Working Group White Paper entitled "Induced Wind Impacts."

The Agricultural Working Group was established in July 2011 to assist the Authority with an independent advisory group that could address the issues being raised by the agricultural community. The representatives of this group are specialists and experts in their specific fields of agriculture. They include representatives from universities and governmental agencies, county agricultural commissioners, and agribusiness representatives. A series of White Papers was produced by this group and they were presented to the High-Speed Rail Authority Board. For more information on the White Papers, see Section 3.14.

I035-51

Refer to Standard Response FB-Response-GENERAL-01.

An EIR project description is intended to be general, not detailed (CEQA Guidelines §15124(c).) Final design or even advanced design of infrastructure is not required in the project description (*Dry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20, 36.) The question is whether the project description narrowed the scope

I035-51

of environmental review, or prevented full understanding of the project and its consequences (Ibid.).

A higher level of design is not necessary because 15% design provides enough information for a conservative environmental analysis. A higher level of design provides refinement, but does not yield more information needed for adequate CEQA review. For example, if a lead agency knows the location, size, and basic design of a building, it has enough information for environmental review. The details about whether the water system will use PVC or copper pipe, or whether windows will be vinyl or wood, are not necessary for assessing the impacts of building construction. Further, it is common practice with larger transportation infrastructure projects to prepare environmental analysis before completion of final design.

If design refinements or changes occur in the future that would change the project footprint, the potential impacts of those changes would be subject to additional environmental review pursuant to CEQA Guidelines Sections 15162 through 15164, FRA Procedures for Considering Environmental Impacts (64 FR 101, page 28545, section 13(c)(17)), and the Authority's own procedures for subsequent review. Where the change is found to be substantial, a subsequent or supplemental environmental document would be prepared.

I035-52

Refer to Standard Response FB-Response-GENERAL-07.