UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OCT 19 2012

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Washington, DC 20590

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

Subject: Supplemental Draft Environmental Impact Statement for the California High-Speed Rail System, Fresno to Bakersfield Section (CEQ# 20120235)

Dear Mr. Valenstein and Mr. Morales:

Thank you for the opportunity to review the Supplemental Draft Environmental Impact Statement (SDEIS) for the Fresno to Bakersfield Section of the High-Speed Rail (HSR) System in California, which was shared with U.S. Environmental Protection Agency (EPA) on July 23, 2012. We completed our review 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 has worked closely with Federal Railroad Administration (FRA) and California High-Speed Rail Authority (CHSRA) through the programmatic environmental analysis, as well as through intensive early coordination at the project level. Project level coordination was guided by specific decision checkpoints, which are defined in an agreement signed between EPA, U.S. Army Corps of Engineers, FRA, and CHSRA (*Integrated National Environmental Policy Act and Clean Water Act Section 404 Memorandum of Understanding (NEPA/404 MOU)*). We appreciate the opportunity to engage in early coordination, and we believe that it will continue to lead to efficient resolution of potential issues and strengthened environmental documents as the environmental analysis of the statewide HSR system continues.

EPA recognizes the potential benefits, including reduced vehicle emissions, an alternative transportation choice like HSR can provide if planned well. 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 HSR system. EPA commends FRA and CHSRA for committing, through the MOU, to "plan, site, design, construct, operate, and maintain a high-speed train 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". We also appreciate CHSRA's actions to implement the goals of the MOU over the last year.

For the Fresno to Bakersfield portion of the HSR system, EPA provided recommendations through an October 13, 2011 comment letter following our review of the Draft Environmental Impact Statement (DEIS). We again provided recommendations via a May 16, 2012 comment letter following our review of the Administrative SDEIS. We appreciate the responsiveness to many recommendations provided by our agency throughout the coordination and commenting process. In particular, we commend FRA and CHSRA for updating the analysis of growth-inducing impacts and for acknowledging that the project will affect the timing and location of growth patterns. Through this letter, we identify our agency's remaining concerns that can be addressed in the Final Environmental Impact Statement (FEIS). Following review of the DEIS, we rated this Project *Environmental Concerns – Insufficient Information (EC-2)*. Following review of the SDEIS, we again rate the Project EC-2. Please see the enclosed Summary of EPA Rating Definitions.

EPA's continuing concerns are based on, in part, air quality, aquatic resource, and growth-related impacts. The enclosure provides a full description of the following recommendations and other comments to be addressed in the FEIS.

Air Quality Impacts
The project will require a lengthy construction window in an area containing some of the nation's worst air quality. Please continue to work with the San Joaquin Valley Air District and EPA to finalize the general conformity determination for the San Joaquin Valley Air Basin portion of the project. The FEIS should include details on the Voluntary Emissions Reduction Agreement (VERA), including specific incentives and strategies for focusing emission reductions proximate to actual impact locations in order to focus mitigation measures on those communities most impacted.

Aquatic Resource Impacts
Intensive early coordination and synchronizing CWA permitting and NEPA has benefited the environmental review process by addressing outstanding aquatic resource issues as early as possible. We commend FRA and CHSRA for efforts to date to reduce impacts of this project on jurisdictional waters of the United States. We recommend that FRA and CHSRA commit to avoidance and minimization measures identified during the NEPA/404 MOU process. Further, FRA and CHSRA should ensure that the FEIS, Checkpoint C package, and CWA Section 404 permit application include values consistent with those in the Corps' finalized preliminary jurisdictional determination. Additionally, we recommend that FRA and CHSRA commit to low impact development measures to retain, infiltrate, and treat stormwater runoff from all features of the HSR project.

Planning and Growth Related Impacts
A new HSR system can improve air quality by reducing automobile emissions, offering a cleaner transportation option, and shifting development patterns to be more transit and pedestrian oriented. HSR can also serve as a catalyst for advancing the sustainability principles of the HUD-DOT-EPA Partnership for Sustainable Communities. We recommend that FRA and CHSRA identify all measures within their control to minimize potentially adverse impacts from HSR induced changes to growth patterns.

- For station-cities, include commitments for partnerships and for providing grant funding to promote comprehensive station area planning, so that local stakeholders have the tools to maximize economic, community and environmental benefits from the project.
- For the urban edges of station-cities and neighboring communities, identify measures to prevent unplanned HSR induced growth. These could include commitments for partnering with state agencies, regional planning organizations, or local governments to 1) evaluate whether counties

and key non-station cities need technical assistance in planning for HSR and 2) help connect them to available resources and tools.

- For agricultural lands in areas most at risk of experiencing HSR induced development pressures, commit to promote placement of conservation easements.
- To increase transit access to HSR, commit in the FEIS to partner with local and regional transit providers to develop connectivity plans and implement measures to increase transit access to HSR.

We appreciate the opportunity to review the SDEIS and continue to be available to discuss measures to design a sustainable HSR system for California. Please note that as of October 1, 2012, EPA Headquarters no longer accepts paper copies or CDs of EISs for official filing purposes. Submissions after October 1, 2012 must be made through EPA's new electronic EIS submittal tool: *e-NEPA*. To begin using *e-NEPA*, you must first register with EPA's electronic reporting site at: https://cdx.epa.gov/epa_home.asp. Electronic filing with EPA Headquarters does not change the requirement to submit hard copies to the EPA Regional office for review. When the FEIS is released for public review, please send two hard copies and two electronic copies (on CD) 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

Enclosures: Summary of EPA Rating Definitions
EPA's Detailed Comments

Cc via email:

Mark A. McLoughlin, ICF International
Colonel Michael C. Wehr, 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
Robert Tse, U.S. Department of Agriculture
Michelle Banonis, U.S. Bureau of Reclamation
Ken Alex, Governor's Office of Planning and Research
Mike McCoy, 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
Mark Nechodom, California Department of Conservation
Paul Romero, California Department of Water Resources

Bill Orme, State Water Resources Control Board
Mayor Ashley Swearengin, City of Fresno
Mayor Sue Sorensen, City of Hanford
Mayor Harvey L. Hall, City of Bakersfield

SUMMARY OF EPA RATING DEFINITIONS*

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

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

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

"EC" (Environmental Concerns)

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

"EO" (Environmental Objections)

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

"EU" (Environmentally Unsatisfactory)

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

ADEQUACY OF THE IMPACT STATEMENT

Category "1" (Adequate)

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

Category "2" (Insufficient Information)

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

Category "3" (Inadequate)

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

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

EPA'S DETAILED COMMENTS ON THE SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE CALIFORNIA HIGH-SPEED RAIL SYSTEM, FRESNO TO BAKERSFIELD SECTIONS, OCTOBER 19, 2012

1. AIR QUALITY

While the high-speed rail (HSR) could potentially have great long term benefits to air quality in California by reducing vehicle 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 Heavy Maintenance Facility (HMF) and support vehicles. Depending on the energy source used, emissions may also result from the increased electricity demand for powering the train system. Because the San Joaquin Valley Air Basin (SJVAB) 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 possible.

General Conformity

EPA understands that California High-Speed Rail Authority (CHSRA) is currently coordinating with the San Joaquin Valley Air Pollution Control District (SJVAPCD) and California Air Resources Board (CARB) regarding Clean Air Act general conformity requirements, including a Voluntary Emissions Reduction Agreement (VERA) for the HSR system. The Final Environmental Impact Statement (FEIS) 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).

Recommendations:

- Describe the process for finalizing the general conformity determination in the FEIS, and discuss of how the simultaneous construction of portions of multiple different HSR project sections (assessed in different EISs but all within the SJVAB) will be addressed for purposes of general conformity.
- Revise the list of options for demonstrating compliance with general conformity on p. 3.3-78 so that it clearly states that pollutant emissions that exceed annual general conformity thresholds would be offset to zero (rather than just being offset to below the general conformity thresholds).
- Include details of the VERA in the FEIS, including specific incentives and strategies for focusing emission reductions proximate to actual impact locations in order to focus mitigation measures on those communities most impacted.
- Commit to partner with local governments and the agricultural community to identify opportunities to offset emissions in close proximity to impacted locations, and include a list of potential opportunities. Potential opportunities could include renewable energy production from local farming practices and measures to reduce truck traffic through freight improvements.

Transportation Conformity

The Supplemental Draft Environmental Impact Statement (SDEIS) states, "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" (p. 3.3-79).

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.

Air Quality Impacts on Health

Sections 3.3 and 3.19 of the SDEIS discuss how project construction and operation will impact local and regional air quality. The San Joaquin Valley has among the worst air quality in the country and high rates of asthma. As a result, new air emissions may exacerbate health impacts in the San Joaquin Valley to a greater degree than they would elsewhere. All available measures should be taken to minimize air emissions and protect human health during construction of the HSR system and operation of the HMF. While EPA recognizes the potential for long-term air quality benefits from the HSR system, the SDEIS does not appear to directly assess how local air quality impacts from construction and operation may impact those with asthma or other respiratory diseases. EPA is supportive of the many project design features and mitigation measures identified in Section 3.3.8 and 3.3.9 of the SDEIS to reduce air quality impacts.

Recommendations:

- Assess how local air quality impacts during construction of stations and operation of the HMF may affect health and exacerbate asthma or other respiratory conditions in children and adults in the FEIS. 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.
- Specify control measures that will be used for the concrete batch plants to minimize pollution from these plants. In Section 3.3.8, clearly state that project design features listed also apply to concrete batch plants.
- In the FEIS, commit to continue to partner with SJVAPCD to identify applicable technologies to further reduce and mitigate operational air emissions from the HMF.
- Describe in the FEIS any future health risk analysis that will be conducted prior to selecting a site for the HMF, and describe how this analysis will be made available to the public.

2. AQUATIC RESOURCES AND CLEAN WATER ACT SECTION 404

Alternatives Analysis for Clean Water Act Section 404

The SDEIS assesses two new alignment alternatives on the west side of Hanford and a third alignment option through the City of Bakersfield. While EPA does not endorse any particular alternative, we appreciate the consideration of a wider range of alternatives to ensure adverse environmental impacts are minimized. We appreciate that the SDEIS provides a quantitative assessment of each alternative's direct and indirect impacts to aquatic resources, as well as tables to adequately differentiate the types of aquatic resources impacted by each alternative.

Recommendations:

- For the next milestone of the NEPA/404 MOU process (Checkpoint C- Identification of the LEDPA), apply the California Rapid Assessment Method (CRAM) and a Watershed Evaluation Report (WER) to fully describe location, condition, and context of the impacted aquatic resources within the landscape. In the FEIS, summarize the analysis presented during Checkpoint C to provide a clear comparison of the quality (functional status) of waters impacted by each alternative.
- Provide one summary table (rather than separate tables for direct and indirect impacts) that presents final numbers of impacts to direct temporary, direct permanent and all indirect impacts to waters.
- Provide a comprehensive diagram to more fully illustrate the distinction between direct, indirect, and indirect bisected impacts on vernal pools. Additionally, the FEIS should specify that, although the impacts are defined as indirect in order to illustrate the location of the feature, the mitigation for this type of impact to vernal pools will be based upon the same ratios as those used for direct permanent impacts to vernal pools.
- The FEIS, Checkpoint C package, and CWA Section 404 permit application should include values consistent with those in the Corps' finalized preliminary jurisdictional determination.

Water Quality Impacts

The proposed projects may result in 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. While the SDEIS indicates that the HSR does not require large amounts of lubricants or hazardous materials for operation, the nature and quantities of the materials that will be used are not provided. The SDEIS also lists several waters within the project study area that are impaired pursuant to the CWA Section 303(d).

Recommendations:

- Provide supporting information that illustrates the proposed project will not further impair 303(d)-listed water bodies and will not increase pollutants from stormwater runoff and nuisance flows.
- Commit to a set of low impact development techniques (LID), such as bioretention areas, porous pavement, and vegetated swales, for the construction and post-construction stage of the project to retain, infiltrate, and treat stormwater runoff.
- Describe and confirm the availability of adequate space for mitigation via measures such as LID and clarify how runoff from heavy maintenance facilities will be handled.
- Describe the quantity and content of lubricants and hazardous materials that will be used for operation and illustrate how runoff from the tracks and maintenance yards would be less than a significant source of pollutants. For example, runoff monitoring data from existing similar railroads could be provided along with a description of how ongoing maintenance activities will be implemented to avoid runoff of lubricants and hazardous materials.

Significant Degradation to Aquatic Resources
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 project could cause and/or contribute to significant degradation of aquatic resources.

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.).
- Provide a summary of supporting information that demonstrates the project will neither cause nor contribute to significant degradation of waters. Drawing on Checkpoint C watershed data, including the project's potential for both positive and negative impacts on existing water quality and habitat functions, this information should include 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.

Mitigation for Impacts to Aquatic Resources
Identifying mitigation opportunities in advance of the FEIS, 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. 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 commensurate with these regulatory decision points.

Recommendations:

- The Draft Mitigation Plan for Checkpoint C should describe the processes that FRA and CHSRA will use, and commitments they 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 FEIS should include a summary of the draft mitigation plan in order to disclose the projects mitigation needs and provide assurance to the public that those mitigation needs will be met.

3. REGIONAL AND LOCAL INDUCED GROWTH

EPA appreciates additions to the SDEIS to more fully describe potential induced growth impacts from the proposed HSR project. We also applaud ongoing efforts to support station area planning. Through the *Memorandum of Understanding for Achieving a Sustainable High-Speed Rail System for California*, EPA supports FRA and CHSRA's vision for vibrant, mixed use, multi-modal station areas in urban centers, such as downtown Fresno. Achieving this vision, as described in section 3.13 of the SDEIS, is critical in order to minimize impacts that would likely result without compact, multi-modal station area development (i.e. high vehicle miles traveled to

and from the station and greenfield development, among other impacts). In order to achieve station area features described in section 3.13 of the DEIS, however, we recommend that FRA and CHSRA identify in the FEIS how existing policies (including Urban Design Guidelines and Station Area Development Policies) will be implemented as planning, construction, operation, and maintenance of the HSR system move forward. In addition, we remain concerned with secondary impacts from siting a HSR station on agricultural lands outside of Hanford, and recommend that additional mitigation measures are needed.

Regional Growth

New information added to the SDEIS on SB375 and Sustainable Communities Strategies provides a more comprehensive understanding of efforts to achieve well-planned, efficient development patterns that best serve communities. We understand that future impacts of HSR on growth patterns will depend on a number of factors, including local, county, and metropolitan planning prganization decision-making, which cannot be fully determined at this time.

Recommendations:

- In the FEIS, identify the role land use decision-making will play in determining the potential location, context, and intensity of future HSR-induced growth scenarios (for example, already urbanized areas, adjacent agriculture land, or other greenfields). Include the range of possible growth outcomes and associated environmental impacts.
- In the FEIS, further describe the potential for growth-related impacts to occur from commuters living in the Central Valley and working in Los Angeles or San Francisco.

Growth-Related Impacts and Station Area Planning

EPA is particularly concerned with the potential for induced growth in the vicinity of the proposed Kings/Tulare Regional station alternatives. Proposed East and West Hanford station alternatives are sited on lands primarily used for agriculture and not planned for immediate development. We note that the SDEIS states that land use impacts are found to have substantial intensity as a result of direct and indirect land conversion (p. 3.13-59), yet the induced growth impacts from Kings/Tulare Regional Station Alternatives are not considered to be significant under NEPA.

Recommendations:

- Clarify in the FEIS why induced growth impacts from the Kings/Tulare Regional Station alternatives and HMF are not considered to be significant under NEPA, with consideration of local context, and clarify how the region's Blueprint Urban Growth Area influenced siting of station area alternatives.
- Include commitments in the FEIS to work with Kings County and other local governments with land use authority in the vicinity of the proposed Kings/Tulare Regional Station options to (1) help minimize the potential for induced growth from the HSR station, (2) ensure that local interests are met to the extent possible, and (3) promote policies to help ensure that infrastructure will not be provided to support development in areas beyond current planned growth areas (aside from the HSR station itself).

EPA is supportive of FRA and CHSRA's vision for HSR station areas proposed for already urbanized areas to stimulate infill development in city centers, be pedestrian friendly, connect well via multiple transportation options, and provide easy access to goods, services, and jobs. The vision and form of HSR-induced development outlined in the Section 3.13 of the FEIS is only likely to occur if major investments in planning, changes to land uses, and coordination among housing, transportation, business and many other sectors first take place. We recognize FRA and CHSRA's station area planning grant program as a critical step toward achieving this vision. We also applaud FRA and CHSRA's strong partnerships with the City of Fresno on HSR station area planning.

Based on information provided in the SDEIS, however, we strongly suggest that additional commitments are needed from FRA and CHSRA in order to promote and incentivize well-planned growth. While the FEIS includes assumptions that HSR stations will attract well-coordinated, relatively denser, infill development, this assumption should be supported with strong commitments from FRA and CHSRA, documented and memorialized through the environmental planning process..

Recommendations:

- In the FEIS (Section 3.13.6), include commitments to continue coordination with station cities throughout the design and construction phases of the project, and to support efforts to develop planning documents, land use regulations, and municipal development policies that encourage higher density, mixed-use development around Fresno and Bakersfield stations.
- Describe in the FEIS what specific activities will be funded under the existing Station Area Planning Grant Program, what the timeline is for the funded activities, and how communities are being engaged.

Growth-related Impacts Outside of Station areas

We remain concerned that development pressures from HSR at urban fringes and nearby lands could induce changes in zoning codes and the loss of agricultural land through conversion to other uses, such as residential or commercial development. Lower-density development near urban fringes could cause additional impacts to air quality from automobile travel to the HSR station, beyond what is described in the SDEIS. The SDEIS states 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, and EPA recognizes that easements could be strategically placed prevent unplanned growth. In addition, while EPA is supportive of FRA and CHSRA's existing station area planning grant program, we strongly suggest a parallel planning process to promote well planned development at urban edges (i.e. county level) and neighboring communities that are likely to experience HSR induced growth.

Recommendations:

- Augment the criteria for siting conservation easements listed in section 3.17.7 to include vulnerability of farmland parcels to HSR induced growth (based on proximity to all stations and maintenance facilities). A specific commitment to

promote easements around the Kings/Tulare station should also be included because the SDEIS has already identified the potential for nearby for HSR-induced growth.

- Describe in the FEIS coordination with state entities (such as the Strategic Growth Council), regional, or local governments to 1) evaluate whether local governments need technical assistance in planning for HSR and 2) help connect them to available resources and tools.

4. MULTIMODAL CONNECTIVITY AND PARKING POLICY

As stated in our scoping and DEIS comments, a substantial benefit of a proposed HSR corridor connecting Fresno to Bakersfield is the opportunity to generate improved local transit services and to reduce vehicle miles traveled. The SDEIS describes 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 SDEIS. Achieving strong connectivity with local transit systems requires early and robust coordination with local transit agencies, which is not described in the SDEIS.

The SDEIS states that FRA and CHSRA's goals for both the Kings/Tulare Regional Station West and East alternatives 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, Visalia, and Tulare". 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 SDEIS does not provide details on how FRA and CHSRA are engaging the local authorities in Visalia to coordinate with this project, or other projects, to connect the proposed Hanford HSR station to Visalia, Tulare, and other cities via transit.

Recommendations:

In the FEIS, describe FRA and CHSRA's strategy for long-term coordination with local transit agencies and cities to develop transit connectivity plans for HSR station areas and for connectivity to neighboring communities where high HSR ridership is expected, and include the following components: .

- Design and construction of stations to be pedestrian and bicycle-friendly by incorporating features such as bike lockers, changing rooms, and showers.
- Coordination with car share organizations and promote use of shared vehicles at HSR stations to provide an additional alternative to car ownership.
- Coordination transit service and/or ride-sharing to connect HMF sites to population centers, to promote an alternative to single-occupant vehicles for employees' commutes.
- Features to facilitate easy transfers between local transit and HSR, such as shared ticketing, wayfinding for local transit within HSR stations, and other features.

Parking Policy & Coordination

EPA acknowledges that the SDEIS was 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 SDEIS and in guidance documents created by FRA and CHSRA. EPA supports goals listed in the SDEIS, 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 SDEIS, however, the FRA and CHSRA's plan for parking appears inconsistent. For example, the chapter 2 displays an image of a potential layout for the Mariposa Street Station in Fresno with surface parking lots surrounding the station, which is not consistent with the station area vision discussed in Section 3.13. EPA has not seen a clear parking policy in FRA and CHSRA documents, and it is unclear if FRA and CHSRA are coordinating with local jurisdictions to implement parking policies.

Recommendations:

- Include a clear parking policy in the FEIS, containing a clear commitment to work with local jurisdictions and follow the Urban Design Guidelines and best practices.
- Augment project design features in Section 3.13.6 to include commitments 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 expansive parking lots to minimize impacts. Specifically, commit to constructing parking structures rather than surface parking at the Kings/Tulare Regional Station, and, to the maximum extent possible, 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.
- In the FEIS, make revisions so that images of stations (such as Figure 2-36, showing Fresno station surrounded by parking lots) are consistent with the vision for vibrant, walkable communities described in section 3.13. Images should be added to the FEIS to clarify the types of station areas that could be created through this project.

5. BROWNFIELD REDEVELOPMENT

Brownfields are properties with real or perceived contamination, and due to concerns over liability they can pose a barrier to redevelopment. EPA is aware of underutilized and vacant properties near potential stations in Fresno and Bakersfield. Brownfield sites could potentially pose a risk to successful implementation of station area development plans. Assessing brownfields early can give developers the assurance they need to move forward with projects, or, if needed, assessments can serve as the first step in moving toward cleanup. It is currently unclear if identification, assessment, and reuse of brownfield sites will be addressed through the station area planning assistance FRA and CHSRA are providing to cities.

Recommendations:

- Commit to allow HSR station cities the option of using a portion of FRA and CHSRA station area planning grant funding to identify and assess brownfield sites within .5 mile of stations.

- In cities where station area planning grants will not include assessment of brownfields and brownfields may potentially be a barrier to redevelopment, commit to separately fund assessment of key brownfield parcels to promote redevelopment consistent with FRA and CHSRA station area planning guidelines.
- Commit to assessment of underutilized and vacant properties if any are present around the selected HMF site and could be developed under HMF induced growth.
- Consider whether station and HMF sites offer the opportunity for beneficial reuse of brownfield sites when selecting preferred locations.
- Commit to partner with the EPA Region 9 Brownfields Office regarding opportunities to provide station-cities with information on funding mechanisms to assess and cleanup brownfield sites. Further, if appropriate, work with EPA to provide information on EPA's Brownfield program to station cities *before* station area planning grants are finalized.

6. 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.

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. EPA appreciates the addition of Appendix 3.12-C, "Children's Health & Safety Risk Assessment," which provides a qualitative assessment of risks to children from the project.

Recommendations for Appendix 3.12-C:

- Update the introductory language in section 3.1 so it is consistent with conclusions regarding significance of impacts. For example, section 3.1 states that, "no significant impacts on children's health and safety are expected..." while section 3.3.5 concludes, "there would be the potential for significant impacts on children's health and safety..."
- Update text so that the duration of construction activities for a given portion of the project is consistently provided. For example, revise the air quality row of Table 3.12-C6 so that construction emissions accurately account for the 4 year construction duration for stations.
- The far right column in Table 3.12-C6 and Table 3.12-C7 states that impacts are not significant without explaining why. Add language to explain the significance determination, especially for impacts considered "substantial" elsewhere in the SDEIS.
- Clearly identify the project alternatives that have the least impact to children. Information should be provided in a table that displays side-by-side comparisons of portions of alternatives with common endpoints.

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:

- Augment Project Design Feature #8 on p. 3.2-126 so that it states that the Construction Transportation Plan will include:
  - Identification and assessment of the potential safety risks of project construction to children, especially in areas where the project is located near homes, schools, daycare centers, and parks.
  - Promotion of child safety within and near the project area. For example, crossing guards could be provided in areas where construction activities are located near schools, daycare centers, and parks.
- Augment Project Design Feature #5 on p. 3.2-125 of the *Transportation* section to commit to establishing truck traffic routes away from schools, daycares, and residences, or at a location with the least impact if those areas are unavoidable.

7. ENVIRONMENTAL JUSTICE AND COMMUNITY IMPACTS

EPA appreciates the revisions to the environmental justice analysis which address many of our past comments related to environmental justice and Title VI of the Civil Rights Act. We are also pleased to see a commitment to implement a job training and set-aside program for low income and minority residents. We continue to recommend, however, further disclosure of information and additional commitments in order to more fully address environmental justice and community impacts.

Clarify Analysis and Findings
EPA appreciates the October 18, 2012 call with FRA and CHSRA to clarify how the "reference community" (i.e. four county region) was used in the environment justice analysis, and we suggest that the methodology be more fully described in the FEIS. We would also appreciate additional clarification on how "moderate" or "substantial" impacts translate into "significant" or "not significant" environmental justice impacts under NEPA. Overall, we appreciate revisions to strengthen the environmental justice analysis, and believe that a summary table could help to more clearly display differences in community impacts among alternatives, as suggested below.

Recommendations:

- In the FEIS, verify that the conclusions presented in Table 3.12.7 and subsequent discussion and Table 3.12.8 and subsequent discussion follow from the comparison of the impacted community of concern to the reference community. Further discuss the methodology used to make the comparisons.
- Provide an explanation for why impacts that were noted as "substantial" within the *Environmental Consequences* section for environmental justice (Impact SO#18 – Environmental Justice) were not noted as being "significant" in the *NEPA Impact Summary* section.

- Augment the list of locations that would experience disproportionately high and adverse impacts on communities of concern on p. 3.12-114 of the *Environmental Justice Effects Conclusion* section so that it also lists the Corcoran Bypass alternative (p.3.12-112 states that the Corcoran Bypass alternative would result in this impact).
- To help clarify impacts that communities would face, and the tradeoffs between alternative alignment options, we recommend that a single table be added to section 3.12 to compare socioeconomic impacts. Information should be provided for portions of alternatives with common endpoints. Use the table to clearly 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 most significantly impacted by existing air pollution, high disease rates, and other indicators of social vulnerability.

Minimizing and Mitigating Impacts to Communities of Concern

While EPA supports measures to minimize and mitigate impacts to communities of concern that are already provided in the SDEIS, we believe that the following measures are also necessary in order to ensure that communities of concern are not disproportionately harmed by this project.

Recommendations:

- As a specific project design feature or mitigation measure in Section 3.12, commit to replacement housing options to allow displaced residents to remain in their communities if desired. Offer rehabilitation of existing housing or construction of new housing in those communities when no replacement housing for displaced residents appears to be available.
- As a specific project design feature or mitigation measure in Section 3.12, offer relocation assistance to residents found to be living in motels.
- Widen the scope of Mitigation Measure SO-1 to commit to conducting community workshops in *all* (rural and urban) 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.

Meaningful Public Involvement during Relocation and Construction

Chapter 7 of the DEISs discusses public and agency involvement; however, it is unclear how public concerns raised during the relocation process and construction period will be addressed.

Recommendations:

- Augment commitments for a Construction Mitigation Plan that are included at the beginning of Section 3.12.6, *Project Design Features*, for socioeconomic impacts, to 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 FEIS about how the public will be involved in the development of the mitigation relocation plan and how the plan will be implemented.
- Review environmental justice concerns raised during the public involvement process to facilitate the identification of highest priority concerns and mitigation measures.

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 the appropriate planning, engagement, policies, and programs, urban revitalization efforts risk "pricing-out" historic residents and harming existing cohesion of established communities. FRA and CHSRA should identify specific commitments to help ensure that station areas and HMFs are developed in an equitable manner.

Recommendations:

- 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 include guidelines for promoting equity.
- In Section 3.12.6, as an element of the station area planning grant program, commit to partnering with cities to promote an appropriate percentage of low-income housing within station area developments since development of HSR stations (undertaken by CHSRA) may cause property taxes and values to rise, potentially "pricing out" historic residents.
- As a project design feature in Section 3.12.6, commit to consideration of impacts to low-income and minority communities when selecting the HMF location.

8. AGRICULTURAL IMPACTS

The SDEIS addresses 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). The SDEIS does not, however, fully describe the methodology for calculating parcels found to be "non-economic" or the appraised parcel value, although the SDEIS does reference relevant factors, including infrastructure access and proximity issues. In addition, EPA is concerned with the potential impacts to farmers from reduction of transportation access to areas across the proposed HSR right-of-way. The SDEIS indicates that CHSRA would work with each affected property owner to address concerns, attempt to resolve conflicts, and potentially arrange for additional grade-separated crossings; however, no clear commitment is identified in the document. EPA is supportive of efforts to work directly with affected farmers to mitigate impacts to road access and agricultural operations.

Recommendations:

- In the FEIS, include a robust description of the compensation strategy that will be used for farmland, including, 1) how it was developed; 2) how it assesses the decreased efficiency of operations on remaining land (e.g. due to smaller field sizes, etc.); 3) assumptions used regarding land staying in the same cropping system and/or changing to systems more amenable to smaller sites, such as truck farming for local consumption; 4) the specific role and qualifications of agricultural specialists in developing the strategy; and 5) and any local input received.
- In the FEIS, include details on how remnant parcels are accurately determined to be "non-economic". Include 1) assumptions for analysis; 2) source of data used; 3)

factors considered (in addition to connectivity to other farmland); 4) the specific role and qualifications of agricultural specialists in making determinations; and 5) any local input received.

- As a project design feature in Section 3.14.6, commit to work with each affected property owner to address issues related to loss of road access, attempt to resolve conflicts, and consider input directly from affected farmers in determining placement and quantity of crossings.
- If adjacent land owners do not purchase remainder parcels (as suggested by the SDEIS), then consider providing remainder parcels on a subsidized basis to beginning and disadvantaged farmers willing to use small-farm practices to supply the local market

9. SPECIAL STATUS SPECIES AND WILDLIFE MOVEMENT

EPA commends FRA and CHSRA for the commitments made in the SDEIS to accommodate wildlife movement throughout the project corridor. The SDEIS describes specific project elements that would be constructed to enable wildlife connectivity for each alternative, including types of features and approximate locations. The SDEIS further recognizes that known wildlife linkages are essential to the health and viability of natural ecosystems, and provides descriptions of the major wildlife linkage areas that will be impacted by the HSR alternatives. We appreciate the additional qualitative discussion of these linkages within the SDEIS, as well as the detail provided regarding design elements and mitigation measures to avoid these impacts.

Recommendations:

- The FEIS should document coordination with Fish and Wildlife Service and California Department of Fish and Game to provide assurance that all appropriate avoidance and mitigation measures to address impacts to special status species and wildlife movement have been addressed.
- The FEIS should identify specific HSR design commitments that could remove existing barriers to wildlife movement and enhance use of modeled wildlife linkage areas.

10. NOISE & VIBRATION

Many of EPA's comments related to noise and vibration have been addressed in the SDEIS, and EPA appreciates updates made to strengthen mitigation measures. EPA recommends additional disclosure of methodologies and clearer descriptions of potential impacts after mitigation.

Recommendations:

- In the FEIS, include tables displaying estimated construction and project noise impacts after mitigation. Include details on type and location of receptors. Information should be provided for portions of alternatives with common endpoints to allow for easy comparison between alternative alignment options.
- In the FEIS, describe how FRA and CHSRA determined that select severely impacted sites were "economically unfeasible" to mitigate via a sound barrier.
- P. 3.4-52 states, "The Authority has developed proposed Noise and Vibration Mitigation Guidelines that identify criteria by which noise and vibration mitigation would be deemed effective. The proposed Noise and Mitigation Guidelines are included as

Appendix 3.4-A". This information does not appear to be in Appendix 3.4-A, and it should be provided in the FEIS.

- Augment project design features in Section 3.4.6 to indicate exactly which FTA and FRA guidelines for minimizing noise and vibration impacts will be implemented during construction.
- P. 3.4-69 states that the College of the Sequoias along the West Hanford West Bypass 1 and 2 at grade alternatives would experience severe noise impacts and no sound wall is being proposed, and no rationale is provided. Add a rationale to the FEIS to support this decision, and if appropriate consider adding a sound wall.
- Within 3.4.7, Mitigation Measures, clearly indicate thresholds (noise levels) that FRA and CHSRA are committing to mitigate impacts down to, and what the criteria will be (including specific noise level) for FRA and CHSRA to offer building sound insulation or noise easements.

11. SUSTAINABILITY PARTNERSHIP, POLICIES, AND PRACTICES

In September 2011 FRA and CHSRA signed the *Memorandum of Understanding for Achieving an Environmentally Sustainable High-Speed Train System in California* (Sustainability MOU) with EPA and other federal and state partners, committing to collaboratively promote environmental sustainability of the HSR project. EPA commends FRA and CHSRA for formalizing, through the MOU, the commitment to "plan, site, design, construct, operate, and maintain a high-speed train 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". EPA also recognizes CHSRA's goal to achieve net-zero HSR stations as a positive step toward a healthier environment.

Recommendations: EPA encourages FRA and CHSRA to highlight efforts to promote sustainability in the FEIS. Because many impact categories discussed throughout chapter 3 would be benefited by CHSRA's sustainability program, describing these sustainability efforts will aid in disclosing project impacts.

General Sustainability Guidelines

- Include a copy of the Sustainability MOU in the FEIS.
- Commit to implement an Environmental Management System (EMS) to assess and improve environmental performance throughout the life of the project.

Green Building

- Commit to incorporate specific language on preferred qualifications and practices in Request for Qualifications and Request for Proposals to help ensure that contractors have the necessary expertise to design, construct, and operate the HSR system in a sustainable manner, in line with CHSRA's stated goals.
- Commit to analyze 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 HSR Sustainability MOU to fully identify benefits and address potential challenges of obtaining Platinum Level certification.

- 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.
- 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.pdf
- Commit to provide general information and, when needed, technical assistance on green building practices to local jurisdictions as part of FRA and CHSRA's station area planning grant program. In addition, encourage third party certification (such as LEED for Homes and Build it Green) and goals to exceed CALGreen requirements by meeting "optional" standards.
- As a project design feature in section 3.13, *Land Use*, commit to 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.
- As a project design feature in section 3.13, *Land Use*, commit to working with station cities 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.

Use of Recycled Materials

- 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 and retaining wall backfill..
  - 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.

Renewable Energy

- As a project design feature in section 3.13, *Land Use*, 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. EPA recently released the Renewable Energy Siting Tool (REST), a mapping tool and dataset that helps identify prime contaminated and degraded lands in California for renewable energy development (See: http://www.epa.gov/region9/climatechange/renewcontlands/index.html).
- In section 3.6, clarify if the goal to power HSR operations with 100% renewable energy includes powering stations and heavy maintenance facilities.
- As a project design feature in section 3.6, commit to 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.