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10-25-07

Chairman Kopp and
Members of the High Speed Rail Authority
925 L Street, Suite 1425
Sacramento, CA 95814
Attn: California High-Speed Train
Draft Bay Area to Central Valley Program EIR/EIS Comments

Re: Comments on Draft Environmental Impact Report/Draft Environmental Impact Statement (DEIR/S) for the Proposed Bay Area to Central Valley High-Speed Train Program

Dear Chairman Kopp and Members of the Authority:

These comments are submitted on behalf of the following groups:

BayRail Alliance
California Rail Foundation ("CRF")
California State Parks Foundation ("CSPF") O007-1
Defenders of Wildlife
Grasslands Water District
Planning & Conservation League ("PCL")
Regional Alliance for Transit ("RAFT")
Sierra Club
Train Riders Association of California ("TRAC")
Transportation Solutions Defense and Education Fund ("TRANSDEF")

The purpose of this letter is to provide comments on the Draft Program Environmental Impact Report/Draft Environmental Impact Statement ("DPEIR/S") for the proposed Bay Area to Central Valley High-Speed Train program (hereinafter "Project") and to inform the Authority that the document fails to comply with the requirements of the California Environmental Quality Act ("CEQA"), Public Resources Code Section 21000 et seq. and O007-2
the CEQA Guidelines, California Code of Regulations, title 14, section 15000 et seq. ("CEQA Guidelines" or "Guidelines") and the National Environmental Policy Act ("NEPA") 42 U.S.C 4321; 40 C.F.R. 1500.1. The commenting groups are environmental and transportation advocacy organizations concerned about the choices made in building high-speed rail in California. Many of the groups submitting this comment letter also submitted significant comments on the prior programmatic EIR/S for HST Statewide.[1]

[1] There were also letters submitted commenting on the Final Statewide EIR/S, e.g., letter from CSPF dated 10/31/05.

(See, Letter from Stuart Flashman (TRAC/CRF) dated 8/31/2004; Letter from David Schonbrunn (TRANSDEF) dated 8/31/2004; Letter from Michael Kiesling (RAFT) dated 8/28/2004; Letter from Kim Delfino (Defenders of Wildlife) dated 8/30/2004 and in letter with other conservation groups (Comment Letter O049 dated 8/31/04); Letter from Fred Keeley (PCL and other associated groups) dated August 31, 2004; Letter from Margaret Okuzumi (BayRail Alliance) dated 8/31/2004; Letter of Kenneth Ryan (Sierra Club) dated 8/22/2004; and Letters of Thomas Enslow (Grasslands Water District) dated 8/31/2004, all of which letters and associated exhibits and attachments are already present in CHSRA files and are incorporated herein by this reference.) Major concerns were raised at that time concerning the importance of fully analyzing and retaining Altamont as an alignment choice, and concerns were expressed about some of the assumptions made in the choice of alternatives and methods of analysis used. All these concerns remain unaddressed in the present DPEIR/S. O007-3

The Bay Area to Central Valley DPEIR/S was published, partly in response to the many objections that had been raised to the Statewide HST EIR/EIS, for the purpose of analyzing northern route choices from the Central Valley to major cities of the Bay Area. The main choices analyzed in the DPEIR/S are Pacheco Pass (near Highway 152) and an alignment through the Altamont Pass (near Highway 580). While we appreciate the effort to provide the analysis requested, it appears that the haste to get this document out for public comments has resulted in omitting information that is critical to the DPEIR/S's adequacy as well as information necessary to support informed decision-making by the Board. In addition, the current DPEIR/S, despite the many comments received on the prior EIR/EIS, appears to have repeated some of the same methodological mistakes that were present in the Statewide HST EIR/EIS. As a result, the DPEIR/S fails to include a complete, accurate and objective analysis of regional rail ridership for the Sacramento-Stockton-Pleasanton-San Francisco/San Jose Corridor and for the Merced-Tracy-Pleasanton-San Francisco/San Jose Corridor. The document's failure to provide this information renders its analysis of the effects of the Program Alternatives on the environment, as well as the social and economic impacts of the Alternatives, (and resulting secondary physical environmental impacts) inadequate. Under NEPA and CEQA Guidelines, the omission of this information from the DPEIR/S circulated for public review and comment is a fatal deficiency. In addition, the DPEIR/S contains numerous erroneous assumptions that skew the resulting analysis. For these reasons, as well as many others to be described below, the DPEIR/S is fatally inadequate and must be revised and re-circulated before it can be relied upon to support CAHSRA and other agency decisions, particularly on matters as important as a HSR Bay Area access alignment. O007-4

A summary of the major defects and omissions in the DPEIR/S includes, but is not limited to, the following:

- The DPEIR/S fails to adequately and completely describe the HST project alignment, station and network alternatives. O007-5
- The DPEIR/S lacks an adequate summary section. O007-6

- The DPEIR/S fails to analyze impacts and improperly defers analysis until the project-level EIR/S. O007-7
- The DPEIR/S uses operational assumptions inconsistent with projected future statewide demand to compare the performance of Altamont and Pacheco corridor alternatives. O007-8
- The limited analysis of alignment alternatives included in the DPEIR/S is based on flawed assumptions and incomplete analysis concerning regional rail ridership for trips within the Sacramento – San Joaquin Valley – San Francisco Bay Area. O007-9
- The DPEIR/S includes flawed descriptions of project components and operational constraints that artificially narrow the range of alternatives open to consideration. O007-10
- The DPEIR/S fails to adequately identify and describe the significance of the project-related and cumulative impacts of the various Program Alternatives before and after mitigation. Conclusions regarding these impacts in the DPEIR/S are in many cases based on inadequate and misleading information (e.g. growth inducement, impacts to agricultural land, biological resources, etc.). The Summary Table compares the impacts of HST only to the No Project Alternative. O007-11
- To determine level of impact, the HST Project Alternatives are improperly compared with the No Project Alternative instead of baseline conditions for many environmental topic areas including, but not limited to: traffic, transit, circulation, air quality and biological resources. O007-12
- Mitigation "strategies" consist of vague and unenforceable suggestions and for the most part are improperly deferred until the project-level review. Some of the suggested strategies would create new impacts that have not been identified or evaluated (e.g., intersection and roadway improvements to serve HST stations, which would themselves potentially create traffic and safety impacts; elevation of railway structures to maintain wildlife corridors, which may exacerbate noise and vibration impacts; erection of soundwalls, berms, and other noise abatement structures, which may have visual and hydrologic impacts; etc.) O007-13
- The DPEIR/S fails to identify the environmentally superior HST alignments and station locations. O007-14
- The DPEIR/S fails to accurately describe the growth-inducing potential of the Pacheco alignment. O007-15
- The DPEIR/S postpones identification of the environmentally superior alternative. O007-16

With respect to both of CEQA's basic purposes – informing the public and decision makers of the environmental consequences of their actions before they are made and avoiding or reducing environmental damage to the extent feasible – this DPEIR/S fails. Because of the many flaws in the DPEIR/S, it is not surprising that such conclusions as it reaches are equally flawed. O007-17

Consideration of accurate information on project impacts related to the various project choices presented in the DPEIR/S, in combination with basic logic, would force the selection of the Altamont alignment as the environmentally-, financially-, and logistically-superior alignment. O007-18

- The Altamont alignment results in a more highly integrated and efficient High Speed Rail system and would serve a significantly larger market than does the Pacheco alignment. Even the DPEIR/S's inadequate analysis of travel times shows that the Altamont alignment gives roughly equivalent travel times between Northern and Southern California as Pacheco, but a far superior travel time between the Bay Area and the northern San Joaquin Valley. For example, travel time between Sacramento and San Francisco via Pacheco is 1 hour and 47 minutes, while via Altamont it is 1 hour and 6 minutes. O007-19
- The Altamont alignment will better serve the Bay Area's urban population centers and expected growth (see DPEIR/S at Figure 1.2-6). Once south of San Jose, the Pacheco alignment travels primarily through rural agricultural areas and wetlands, while the Altamont alignment would provide convenient access to three major Tri-Valley population centers, Dublin, Pleasanton, and Livermore2, as well as Sacramento, Stockton, Tracy, Modesto, Merced and many other nearby communities. If it were not for the flaws permeating the ridership analysis contained in the DPEIR/S, the ridership figures would have shown the clear superiority of the Altamont alignment. O007-20
- While both alignments may appear, according to the DPEIR/S' analysis, roughly similar in meeting the Project purpose of linking San Francisco and Los Angeles by a high speed train line, the Altamont alignment far better fulfills a major element of the HST Purpose and Need: "to relieve capacity constraints of the existing transportation system in a manner sensitive to and protective of the Bay Area to Central Valley region's and California's unique natural resources." (DPEIR/S at 1-4.) Levels of congestion on Highways I-80 I-580, I-680, and I-238 and SR92 are very high and represent a major constraint on the Bay Area's overall transportation system, far outstripping the levels of problematic traffic conditions in southern Santa Clara County.3 The Altamont alignment could provide major relief for these corridors by allowing fast convenient access between the Bay Area and Sacramento and other Central and Northern San Joaquin Valley destinations. The Pacheco alignment provides no comparable benefit. O007-21
- While both alignments would involve crossing wetlands areas, the Altamont alignment could, in the short term, use the already-planned Dumbarton Rail O007-22

[2] Tri-Valley stations would also be easily accessible from San Ramon, Danville, and Castro Valley.
[3] In June, 2007, Caltrans released its rankings of the Top Ten Congested Bay Area Freeways for 2006. Number one (at 12,230 weekday vehicle hours of delay) was Interstate 80 westbound during morning commute hours; #2 and 3 (at 6,720 and 5,320 hours of delay, respectively) was Interstate 580 in Eastern Alameda County during morning and evening commute hours; #6 was Route 92 eastbound during the evening commute; #8 (at 2,760 weekday vehicle hours of delay) was Interstate 80 westbound during the evening commute. *None* of the top ten was located in the south bay or on the peninsula south of San Francisco. The same was also true in 2005. See http://www.mtc.ca.gov/news/press_releases/rel407.htm

Bridge/Dumbarton Rail Project alignment with minimal additional project capital costs, thereby reducing net impact on wetlands and, through project-associated bridge improvements such as installing raised railbeds and wildlife undercrossings and removing existing impediments to tidal flows and Bay currents, actually improve existing wildlife habitat. By contrast, not only would the Pacheco alignment not offer this potential for beneficial impacts, it would sever the connectivity of a large wildlife area and impact thousands of acres of extremely important wetland and wildlife habitat, including the Grasslands Ecological Area of Merced County, California which has been designated a Wetlands of International Importance under The Convention on Wetlands of International Importance. Secondary impacts from growth induced by the Pacheco alignment would cause yet further damage to this important wetlands resource; damage that cannot be mitigated, given the unique importance of the wetlands involved. O007-22 Cont.

Alternatively, and certainly in the long term, the current Dumbarton Rail Bridge could be replaced by a tunnel or high bridge, either of which would further decrease the Project's long-term wetlands impacts. While a tunnel could potentially fully avoid wetlands impacts for either Altamont or Pacheco alignment, such a tunnel option would involve much shorter distances and less challenging terrain in the Altamont than the Pacheco alignment.

Given the multiple inadequacies described in this letter, this DPEIR/S, even with the addition of accurate information, cannot properly form the basis of a final PEIR/S. CEQA and the CEQA Guidelines require recirculation of a draft EIR where, as here, the document is so fundamentally inadequate in nature that meaningful public review and comment are precluded. See CEQA Guidelines § 15088.5. We have prepared the detailed comments below with the assistance of technical experts, including Mike White, Conservation Biology Institute, and Terrell Watt, Terrell Watt Planning Consultants. Resumes of these experts are attached hereto as Exhibit A. O007-23

I. THE DPEIR/S DOES NOT COMPLY WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT AND THE NATIONAL ENVIRONMENTAL POLICY ACT

A. Use of a Program DPEIR/S Does Not Excuse Inadequate Analysis O007-24

As discussed more fully below under the individual impacts, the DPEIR/S repeatedly fails to adequately describe the project, analyze project impacts, and mitigate its host of associated impacts with specific, enforceable mitigation measures. As apparent justification for the DPEIR/S's repeated deferral of adequate analysis of project impacts and mitigation measures, the DPEIR/S points to the fact that it is a programmatic document. However, the mere fact that the DPEIR/S is programmatic is not a carte

blanche to omit analysis and discussion of the project that is currently feasible.[4] An agency "must use its best efforts to find out and disclose all that it reasonably can." CEQA Guidelines § 15144. Where an EIR is a program EIR, it must be sufficiently detailed to provide a full analysis of the potential environmental impacts of any discretionary decisions that would be made in reliance on the EIR, but may defer to a later study full analysis of the potential environmental impacts of actions or decisions that would not be taken until after further environmental study. 14 Cal Code Regs section 1512(b); Stanislaus Natural Heritage Project v. County of Stanislaus (1996) 48 Cal.App. 4th 182. In this case, the DPEIR/S states that its intended use is to choose a preferred alignment between the Bay Area and the Central Valley.

> "The Program EIR/EIS will enable the Authority and FRA to evaluate the potential impacts of proposed HST system alignment and station locations in the Bay Area to Central Valley corridor, select preferred alignments and station locations, and define general mitigation strategies to address any potentially significant adverse impacts." DPEIR/S at 1-2.

O007-24 Cont.

> "After considering public and agency comment, the Authority and FRA will identify preferred alignment alternatives, station location options, and a preferred network alternative." DPEIR/S at S-17.

In order to make such choices, the DPEIR/S must first fully analyze, to the extent currently feasible, all the potential impacts that may arise if a particular alignment is chosen <u>and</u> it must identify feasible and enforceable mitigation measures to address these impacts. Here, the DPEIR/S's failure to describe and analyze the project extends well beyond the exact location alignments and stations. The DPEIR/S's vague and noncommittal analysis of numerous project elements, as well as its flawed description of potential project components, including regional rail opportunities, operational constraints, environmental impacts, cumulative impacts and mitigation measures, precludes both proper analysis of project alternatives and an informed choice of a Bay Area access alignment.

Another significant flaw of the DPEIR/S is that, in violation of CEQA guidelines that prohibit deferring analysis under the guise of "tiering", it repeatedly claims that project impacts would not be significant, based solely on unsupported assumptions about future conditions. In contrast to the approach taken in the DPEIR/S, CEQA Guidelines encourage consideration of environmental consequences at the "earliest possible stage, even though more detailed environmental review may be necessary later." <u>McQueen v. Board of Directors</u>, 202 Cal.App.3d 1136, 1147 (1988). Similarly, NEPA requires agencies to integrate the NEPA process into their activities at the earliest possible time. 40 C.F.R. 1501.1; 1501.2. Regardless of an intention to undertake site-specific environmental review for future project phases, the use of "tiering" in a program EIR/S is

O007-25

[4] The prior statewide PEIR/S likewise deferred discussion of numerous impacts to *this* PEIR/S. The buck has to stop somewhere! This PEIR/S will serve as the basis for a critical choice of alignment. That choice cannot properly be made until a full analysis of all pertinent impacts has been properly completed <u>in this PEIR/S</u>.

not an acceptable device for deferring the identification of significant environmental impacts. Stanislaus Nat'l Heritage Project v. County of Stanislaus, 48 Cal.App.4th 182, 199 (1996), especially where, as here, consideration of those impacts is necessary to make informed choices at the programmatic level.

The DPEIR/S attempts to present a choice between two preferred alignments and their associated general station locations:

> "After considering public and agency comment, the Authority and FRA will identify preferred alignment alternatives, station location options, and a preferred network alternative." DPEIR/S at S-17.

O007-25 Cont.

Accordingly, the DPEIR/S must include a sufficient level of detail on each feasible alignment alternative and its related impacts and mitigation to allow the HSRA to make an informed alignment choice. In the absence of sufficient information to make precise impact predictions, the PEIR/S must consider a "worst-case scenario" of impacts for each of the alignment option, including the related level of development and associated impacts, as well as specific information about each alternative to the extent it can be forecast and analyzed. By failing to provide sufficient detail about project elements and about their environmental impacts, the DPEIR/S fails to provide an adequate basis for an informed choice of HST Bay Area access alignment. The DPEIR/S's deferral of more detailed project description elements such as station locations and characteristics and right of way and track characteristics, analysis of impacts *and* mitigation measures is particularly egregious here because project approvals include alignment and station locations and commit the Authority to a course of action. See Rio Vista Farm Bureau v. County of Solano, 5 Cal.App.4th at 351, 371 (1992). One specific criticism is that the maps provided in the DPEIR/S lack sufficient detail to allow even people familiar with the geographic areas in question to readily determine whether or not state and federal parks and/or lands, or other parcels targeted for conservation or designated as buffer zones, would be significantly affected (or even traversed) by the various proposed alignment alternatives. One particularly significant DPEIR/S omission is the total absence of a description of the regional rail benefits that could be integrated with a Altamont HST alignment but not with a Pacheco HST alignment (i.e., the ability of the Altamont alignment option to be integrated with a regional rail system, under the auspices of Caltrain or other regional authority, serving the Bay Area and Northern San Joaquin Valley).

O007-26

O007-27

As part of its flawed approach, the DPEIR/S impermissibly and repeatedly concludes that the majority of all of the HST project's environmental impacts are either less than significant or will be rendered less than significant by mitigation, while at the same time deferring the necessary analysis of impacts as well as mitigation measures. Under CEQA, an EIR may conclude that impacts are insignificant only if it provides an adequate analysis of the magnitude of the impacts and the degree to which they will be mitigated. See Sundstrom, 202 Cal.App.3d at 306-07. A conclusion about the significance of an impact or the feasibility of a mitigation measure must be based on substantial evidence, not mere speculation about the possible results of future study.

O007-28

Thus, if an agency fails to investigate a potential impact, its finding of insignificance simply will not stand. Id. Further, CEQA generally requires that all mitigation measures be adopted simultaneously with, or prior to, project approval. Here the proposed mitigation measures are not measures at all. Rather, they consist of vague strategy suggestions, the details of which are deferred until project-level review. An agency may defer preparation of a plan for mitigation only when the potential mitigation measures are clearly feasible and capable of mitigating impact to a level of insignificance, or alternatively when the agency commits itself and/or the project proponent to satisfying specified performance standards that will ensure the avoidance of any significant effects. In the present case, the DPEIR/S violates CEQA by deferring critical analyses of project impacts and feasible mitigation while at the same time assuming either that the impact will be insignificant or that it can be fully mitigated. O007-29

The following is a non-exhaustive list of examples of mitigation strategies that are vague, unenforceable and details of which are deferred to a later date:

Transportation (see pages 3.1-38 to 40) O007-30

- Major intersection improvements.
- Provide additional parking.
- Widen roadways.
- Designate one-way street patterns.

Air Quality (see page 3.3-20 to 21)

- Increase use of alternative-fueled vehicles
- Increasing parking for alternative transportation modes
- Construction mitigation to be determined after more detailed project plans are available.

O007-31

Specific mitigation measures, including identified funding for them sufficient to demonstrate their feasibility, must be developed at this time, well before project-level environmental review, and based on complete project information and impact analyses. Identifying specific, enforceable, and feasible mitigation now is also important because some potential mitigation measures may, in themselves, create significant secondary environmental impacts (e.g., measures such as roadway widening, intersection signalization, construction of soundwalls, etc.). Such secondary impacts must also be considered, analyzed and, if possible mitigated. However, this cannot be done properly if full consideration of such measures is put off to a later time. Project-related and cumulative impacts determined to be significant and unavoidable must also be identified and listed as such. These include, but are not limited to the following[5]: O007-32

[5] The DPEIR/S is so poorly drafted that it is difficult to determine what impacts are significant before and after mitigation. The individual topic chapters fail to clearly identify significant impacts and demonstrate how mitigation reduces significant impacts to less than significant. The closest the DPEIR/S comes to identifying this *required information* is Table 9.3-1, which falls well short of CEQA/NEPA requirements for identification of significant impacts before and after mitigation. Instead, it only identifies the impacts as

- Traffic and circulation
- Land use compatibility
- Hydrology
- Noise
- Biological impacts related to changes in hydrology and noise
- Biological impacts related to habitat fragmentation and wildlife corridors
- Growth inducement

O007-32 Cont.

The DPEIR/S's failure to adequately identify and analyze the potentially significant effects of the project, and to design proper mitigation measures prior to project approval, renders the document legally inadequate, particularly as it applies to choosing between potential high-speed rail alignments. With the DPEIR/S in its current form, decision-makers, the public and permitting agencies cannot evaluate the advisability of project approval even at the level of basic alignment and station choice. A revised DPEIR/S that provides adequate information about project alternatives, project-related, secondary, and cumulative impacts and mitigation measures must be completed and circulated before decisions are made concerning the HST project, and specifically a choice of project alignment. O007-33

B. The DPEIR/S Lacks an Adequate Summary Section

This project is one of the largest infrastructure projects ever contemplated in California history and therefore one of the most complex projects ever considered. As such, it is critical that the document relied on to inform decision-making concerning the proposed project be well organized, clear and readable. Environmental documents are designed for many different readers and different sections are at times directed to different audiences. That makes it very important for the summary section to present information to readers interested in a getting a quick understanding of the proposed action and its consequences. Typically, EIR and EIS summary sections include a matrix or table that allows comparison of all alternatives in terms of their respective environmental impacts and includes conclusions regarding the significance of impacts before and after mitigation. Great care should be taken to ensure that after reviewing the summary section, readers have a clear understanding of the proposed project, project alternatives and how they compare to one another. This DPEIR/S fails to provide a clear, complete and therefore adequate summary section. Moreover, it is virtually impossible to determine the HST alignment choices given the excessive number of sub-alignment and network choices, many of which are given obscure names that only further obfuscate the presentation of choices to the document's readers. Moreover the environmental impacts of the various alignments and sub-alignments are not clearly described and delineated. The PEIR/S needs to be revised to include clear, complete, and accurate descriptions of the various alignment choices under consideration, including maps showing sufficient detail to indicate the relationship of the various alignment options to significant geographic

O007-34

O007-35

"potential". Table 7.2-20 also does not provide the required information pursuant to CEQA and NEPA and instead characterizes impacts as high, medium or low.

features, cities, and regional areas of concern, including specifically public parklands and other areas subject to Sections 4(f) and 6(f). O007-35 Cont.

The alternatives section describes HST Network Alternatives, which represent different ways to combine HST Alignment Alternatives and station location options as well as the HST Alignment Alternatives themselves. According to the DPEIR/S:

> "Although HST Alignment Alternatives and station location options were screened and evaluated to identify those that are likely to be reasonable and practicable and to meet the project's purpose and need, the representative network alternatives have not yet been so evaluated. The network alternatives were developed to enable an evaluation and comparison of how various combinations of alignment alternatives would meet the project's purpose and need and how each would perform as a HST network (e.g. travel times between various stations, anticipated ridership, operating and maintenance costs, energy consumption, and auto trip diversions). The different system characteristics, as well as environmental factors of the network alternatives, present complex choices that will be better supported and informed following public review and comment on this document." DPEIR/S at 2-22.

O007-36

Essentially, the document appears to be saying that the information is too complicated to make any sense until after the environmental review has become final. If the information provided in the DPEIR/S is incomplete, the document should specifically identify the gaps in the information and discuss how informed decisions can be reached without that information. If reaching a decision is not possible without the information, the document should be withdrawn and not republished until the missing information can be provided. It is inappropriate to circulate an environmental document for public review and comment with the knowledge and <u>expectation</u> that the version being circulated is not yet complete.

The comparison table (Table 7.3-2) fails to clearly characterize as significant or insignificant the impacts of each alternative. Moreover, the body of the DPEIR/S does not include clear information about the level of significance of project-related impacts. Only Table 9.3-1 indicates the potential significance of HST-related impacts before and after mitigation, but only for the HST network as a whole. No such information is provided comparing the Pacheco and Altamont alternatives. After all, one of the major purposes of the PEIR/S is to provide the information required to make an informed choice between the two alignment alternatives. Without a clear and complete set of underlying facts, making an informed choice, as CEQA requires, is impossible. This is a major flaw in the DPEIR/S, which must be corrected in a recirculated draft. O007-37

Once again, this DPEIR/S is being relied on to select Bay Area – Central Valley HST alignments and station locations. If the document is to be used for this choice, a revised summary table or matrix must be developed that clearly characterizes the significance of impacts before and after mitigation and presents the information in a manner that allows

meaningful comparison of both the modal alternatives and project components (alignments/station locations, etc.). O007-37 Cont.

Further complicating the utility of the DPEIR/S for informed decision-making, the document refers to a massive list of related programs and studies including, but not limited to the following:

- San Francisco Bay Area Regional Rail Plan (at 2-14)
- Capitol Corridor Rail Service (at 2-16) O007-38
- Caltrain Corridor Commuter Rail Service (at 2-16)
- Altamont Commuter Express Service (page 2-17)
- Dumbarton Rail Project (2-17)

These related reports are not adequately summarized in the DPEIR/S and in some cases, present very different alternatives from those analyzed in the DPEIR/S for the Bay Area to Central Valley alignments and stations (e.g. the alternatives analyzed for Altamont in the SF Bay Area Regional Rail Plan are not consistent with those analyzed in the instant DPEIR/S). This approach is both confusing and misleading. A revised DPEIR/S must provide a summary that:

- Clearly describes all alternative alignment, stations and network choices, in sufficient detail to allow for informed decision-making; O007-39
- Clearly and comprehensively characterizes the environmental, operational and other impacts of all alignment and stations alternatives and choices before and after mitigation;
- Clearly describes and summarizes relevant information in all related reports and attachments relied upon by the DPEIR/S.

C. The Project, as Defined in the DPEIR/S Fails to Adequately Achieve the Purpose and Need.

While the statement of purpose and need admirably notes the need for both statewide and regional transit improvement, the Project, as proposed in the DPEIR/S fails to meet that purpose and need.

O007-40

As both this DPEIR/S and the prior Statewide Programmatic EIR/S make clear, the purpose of the statewide HST system project is to enhance statewide passenger mobility within California and remove or reduce constraints on passenger transportation present within California's existing transportation infrastructure. (See, FPEIR/S for Proposed California HST System at 1.2.1.) In particular, the statewide HST system intends to facilitate rapid passenger transportation between California's major population, governmental, and business centers, notably San Diego, Los Angeles, San Jose, Oakland,

San Francisco, and Sacramento. (See Statewide HST FPEIR/S, Fig. 1.2-2 and legend.) In addition, however, the system is also intended to help reduce congestion due to regional and subregional trips, which interfere with overall mobility. (Statewide FPEIR/S at 1-7.)

Because the statewide HST system would link California's major cities and population centers, it could provide both statewide and regional/subregional service. For example, although the system centers on providing service between San Francisco and Los Angeles, it could also provide regional and subregional service between the various cities included in the Northern tier of the statewide HST system. This would help meet the Project's purpose of alleviating congestion caused by regional and subregional trips, particularly automotive trips.

O007-40 Cont.

This DPEIR/S, which is intended to tier off of the prior DPEIR/S, presumably also intends to meet the same purposes and needs as the statewide project. It also would meet the more specific purpose of providing access between the statewide HST system and cities in the San Francisco Bay Area. The DPEIR/S states its purpose as follows:

> "The purpose of the Bay Area HST is to provide a reliable high-speed electrified train system that links the major Bay Area cities to the Central Valley, Sacramento, and Southern California, and that delivers predictable and consistent travel times. Further objectives are to provide interfaces between the HST system and major commercial airports, mass transit and the highway network and to relieve capacity constraints of the existing transportation system in a manner sensitive to and protective of the Bay Area to Central Valley region's and California's unique natural resources." (DPEIR/S at 1-4.)

This statement acknowledges that a major project purpose is to "relieve capacity constraints of the existing transportation system," but the project described and analyzed in the DPEIR/S fails to acknowledge that this can involve reducing regional and subregional automotive trips that currently congest the Bay Area's highway system. While the DPEIR/S acknowledges a regional need for transportation improvement (DPEIR/S at 1-14 to 1-15), it fails to acknowledge that the HST system can also assist in addressing that regional and subregional need.

As a consequence of these deficiencies, the DPEIR/S fails to consider the ways in which the proposed Bay Area to Central Valley component of the state HST system can function synergistically with other existing, proposed, and potential rail systems to promote regional and subregional mobility and reduce regional and subregional auto-dependency.

In particular, the DPEIR/S fails to adequately discuss how the construction of HST right-of-way and facilities as part of the Bay Area to Central Valley HST Project could promote use of the HST system for regional and subregional trips, and perhaps even more importantly, how it might facilitate the improvement of the existing regional and

subregional passenger rail system and actually promote the institution of new and improved subregional passenger rail service. Such synergistic effects are part of the very purpose of the HST system, both statewide and in the region covered by this Project. The DPEIR/S must therefore be revised to consider this important component and how it will be affected by the alignment choices inherent in this Project. O007-40 Cont.

D. The DPEIR/S Fails to Adequately and Accurately Describe the Proposed Project

The DPEIR/S's incomplete and inaccurate project description omits critical details of the project, including, but not limited to significant construction activities, engineering and operations aspects of the project, including energy sources. As a result of the DPEIR/S's failure to discuss key project components, potentially significant environmental impacts are not adequately described, analyzed or addressed.

Under both CEQA and NEPA, the DPEIR/S must contain a clear and comprehensive project description. The CEQA Guidelines define "project" as "the whole of an action, which has a potential for resulting in a physical change in the environment, directly or ultimately…" CEQA Guidelines Section 15378. Among other components, an EIR's project description must contain a "general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities." CEQA Guidelines Section 15124(c). Similarly NEPA provides that the lead agency must ensure that the description of the project action includes "connected actions" that are currently proposed or will be proposed in the foreseeable future. <u>The lead agency must determine the proposed action's full extent, including all components, segments, and future phases.</u> An agency may not divide a proposed action into smaller segments to avoid disclosure and analysis of the full environmental effects. If the EIS excludes arguably related actions, it must include the following: O007-41

- A description of the related actions and how they relate to the proposed action;
- A brief discussion of the impacts of the related actions to the extent they are known;
- An explanation of why it is not required or possible to evaluate the actions in detail at this time; and
- An explanation of when, and in what type of NEPA document, the related actions are being or will be evaluated (e.g. a second Tier EIS).

1. The DPEIR/S's Description of the Project is Not Adequate

Under both CEQA and NEPA, the DPEIR/S must contain a clear and comprehensive project description. Because this DPEIR/S will be relied on for Bay Area alignments and station locations for HST, the project description must accurately, completely and clearly describe all of the following: O007-42

- Key features of each proposed alignment, station location and other features of HST in sufficient detail to allow comparison of environmental impacts, and other considerations at a programmatic level (e.g. construction, operations, related facilities, elevated or not and why; etc.); and O007-43
- Projected total ridership, including local and regional ridership data for the alternative alignments. This information is critical to determining the financial viability of the alternatives and what amount of capital expense could reasonably be justified based in the projected ridership.[6] O007-44
- Source of and methodology used to obtain projected riderships
- Portion of the projected local and regional ridership ascribed to each of the HSR alignment options that would occur anyway, even if there were no HSR. O007-45
- Total cost, over and above the costs of developing the high speed rail service itself, of developing said local and regional riderships and likely source(s) of the extra funding needed to develop said riderships. O007-46

Instead of providing a clear and comprehensive project description early in the DPEIR/S, the reader must "assemble" the project descriptions for each alternative choice by sifting through not only the DPEIR/S, but all of its appendices, illustrations and in some cases, related studies. Furthermore, the descriptions and presentation of the alternatives such as listed in DPEIR/S Table 2.5-1 (for example, "San Francisco and San Jose Termini" or "Oakland and San Jose Termini") do not correspond to the list of accompanying figures in DPEIR/S chapter 2.5, and the presentation of content within those figures is inconsistent with the description of alternatives. This approach contravenes both CEQA and NEPA. All information necessary to accurately and thoroughly describe the proposed project or action – and in this case, actions – should be presented in the DPEIR/S in a readily comprehensible form. A revised DPEIR/S must be completed which includes all information about the proposed modal alternatives necessary to support informed decision-making. O007-47

In addition, the project description fails to allow the identification of a single environmentally superior alternative, as required under CEQA; nor does it easily accommodate the requirement under §404 of the Clean Water Act to identify a Least Environmentally Damaging Practicable Alternative ("LEDPA"). While CEQA does not require that the lead agency choose the environmentally superior alternative, the Clean Water Act does require that, if an agency project requires deposition of fill material in waters of the United States, the LEDPA be chosen. Federal agencies will be relying on the PEIR/S in evaluating this project under the Clean Water Act. It is therefore essential O007-48

[6] According to the DPEIR/S, "Ridership forecasts for the Pacheco Pass (terminating in San Francisco) and the Altamont Pass (terminating in San Francisco and San Jose) have been used as the *representative demand* for defining intercity travel need for the HST Alignment Alternatives in this Program EIR/EIR." DPEIR/S at 2-6. As is discussed further below, the ridership analysis conducted for the DPEIR/S is plagued by incorrect and improper operational assumptions. A new ridership study is needed. (See below.)

that it accurately identify and justify the LEDPA to guide those agencies' decision making.

O007-48 Cont.

On way of addressing this deficiency would be for the PEIR/S to identify an environmentally superior alternative for both the Altamont and Pacheco alternatives, and then, comparing the two, identify the better of the two to be both the environmentally superior alternative and the LEDPA.

2. In Comparing the Performance of the Altamont and Pacheco corridor alternatives, the DPEIR/S Makes Improper Ridership and Operational Assumptions.

The DPEIR/S includes a number of inaccuracies about the various project alternatives. For example, on Page 2-17 to 2-18, the DPEIR/S described the Dumbarton Rail Corridor ("DRC") Project being undertaken by Caltrain and the Peninsula Joint Powers Board. According to the DPEIR/S, the refurbishment of the Dumbarton rail bridge being undertaken as part of this project, "conflicts with the proposed HST system and the JPB's Caltrain Corridor EMU option." However, the DPEIR/S fails to indicate in what precise respects the systems conflict.[7] While use of the DRC's refurbished bridge may not be optimal for high-speed rail, there is nothing basically incompatible between the bridge improvements currently proposed for the DRC and the requirements for high-speed rail use. In fact, at the statewide level, the High Speed Rail Authority plans to use part of the Southern California Metrolink system as part of the high-speed rail system. (See, e.g., CHSRA Statewide EIR/S, Section 6.4.2 [Sylmar to Los Angeles alignment options].) That system, like the DRC, would use a combination of diesel powered and electrified cars. While it is true that the current single-track bridge is less than ideal for joint use by the DRC and high-speed rail, appropriate scheduling would allow sufficient service for both systems, especially during the initial start-up phase of the high-speed rail system. Since the currently-planned DRC bridge is intended to allow speeds of up to 130 km/hour, trains would traverse the roughly seven kilometer distance across the span in less than four minutes. This would not significantly affect the overall travel time for the route. Replacement or improvement (e.g., to a full double-tracked high bridge, or a tunnel) could, if desired, occur at a later time, and without disrupting operations significantly.

O007-49

Failing to acknowledge the feasibility of using the expected DRC improvements as part of the Altamont network distorts the DPEIR/S' analysis of the feasibility and operational characteristics of the Altamont alignment alternative.

[7] The DPEIR/S states that the DRC currently proposes to use a mixture of conventional diesel trains and EMUs that would be incompatible with HST. However, no final decision has been reached on this question. As the DPEIR/S acknowledges, Caltrain is strongly considering an upgrade to EMUs compatible with the HST system. Such an upgrade would be essential for Caltrain and HST to share track on the peninsula. There is no reason why the DRC would not also consider an analogous upgrade. Indeed, since the DRC would expect to integrate with Caltrain, there is every reason to expect the DRC to be implemented using compatible EMUs. Thus incompatible equipment is not a valid basis for rejecting use of the DRC bridge.

In a similar vein, the DPEIR/S as well as a ridership study conducted in tandem, makes the unwarranted assumption that it is impractical to split or join train segments entering or leaving the Bay Area so that they can have different final destinations/origins (DPEIR/S at p. 4-20 and 7-12, fn.9.) [8] This ignores the reality of current HST operations in other countries, such as France and Germany, where it is routine for different cars on the same train to be routed to different destinations. Contrary to the assertion of the DPEIR/S, this is neither non-aerodynamic, confusing to passengers, nor particularly time-consuming to accomplish[9]. The two component trains can be quickly uncoupled, each set with its own locomotives (or with the cars themselves being EMUs[10]). The coupling can be designed so that aerodynamic efficiency is maintained, and passengers are clearly directed by station signs as to which cars are destined for which direction.[11] This fallacious assertion distorts the project description for the Altamont alternatives and, in particular, fatally distorts the scheduling assumptions that underlie the ridership modeling used in the DPEIR/S.[12] As a result, the ridership analysis is fundamentally flawed and fails to provide an accurate comparison of the Altamont and Pacheco alternatives. The ridership analysis must be reconsidered taking into account the ability to split trains and the consequent ability to run trains that will access both San Jose and San Francisco, and conversely to join trains originating in San Jose and San Francisco prior to continuing on to the ultimate destination.[13] O007-50

The DPEIR/S then goes on to assume, based on its prior assumptions about train splitting, that service through Altamont to/from Los Angeles must be divided between San Jose trains and San Francisco trains, and thus there will be fewer trains going to/from each of these two terminals. (DPEIR/S, Chapter 4 and S-12). As a consequence, the projected ridership and revenue from a representative Pacheco alternative appear roughly equivalent to those for the representative Altamont alternative. As already discussed, the assumption that the splitting and joining of HST sets is impractical is incorrect. In point of fact, the HST systems of both France and Germany, including the Thalys, TGV, and ICE HST networks, routinely split and join HST sets when there is insufficient demand to

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[8] Cambridge Systematics, Bay Area/California High-Speed Rail Ridership and Revenue Forecasting Study Ridership and Revenue Forecasts (draft report, August 2007). It should be noted that this study is apparently only a draft, and was apparently not released until a month after the release of the DPEIR/S. If the DPEIR/S intended to rely on the report, the comment period should have been restarted from the report's publication.

[9] A quick reference to schedules for European train routes involving train splitting shows that it is commonly expected to be accomplished in 3-4 minutes. (See, Exhibit C attached hereto.)

[10] All relevant European equipment is modular.

[11] To be sure, passengers would need to be made aware of the need to check destination signs, but this is already the case where trains to several different destinations leave from the same platform. Again, European passengers seem to cope with this "problem" easily.

[12] Based on its mistaken presumption, the DPEIR/S presumes that trips to/from Southern California using an Altamont alignment must be divided between trains going to/from San Francisco and those going to/from San Jose, and assigns each origin/destination half the number of trains used for the Pacheco alignment. Ridership would obviously be greatly reduced by this error, as train frequency greatly affects ridership.

[13] While in the past train coupling confronted logistical problems in coordinating trains and schedules, current real-time capabilities, including accurate GPS location of trainsets and reliable communications both between trainsets and with the central dispatcher make trainset coordination eminently feasible. Indeed, it is done routinely with systems such as BART.

operate a full trainset between two points. The trainsets have been designed as modular units that can be coupled together as pairs.[14]

For example, Thalys runs a high speed Paris-Köln-Amsterdam network that splits at Brussels. At peak hours, double sets run Paris–Köln or Paris–Amsterdam. However, at off-peak hours, when a double set cannot be justified, mixed-destination trains join and divide in Brussels. Thus, midday trains 9333 and 9433 depart Paris Gare du Nord coupled at 12:55pm, with one module running as 9333 to Amsterdam and the other as 9444 to Köln. Likewise, trains 9345 and 9445 leave Paris at 3:55pm and split in Brussels. This arrangement maintains frequencies on both branches despite a split in the route.

Similarly, the French tend to use splitting trains on their extensively-branched TGV network at the beginning and end of the day when loads are lighter. For example, weekday trains 6751 and 6781 leave Paris Gare de Lyon together at 7:14am and split at Dijon, with 6751 proceeding straight to Besançon and 6781 turning south to Chalon-sur-Saône. On the TGV Atlantique service, trains 8603 and 8705 leave Paris Montparnasse at 7:05am and split at Rennes, with 8603 running up Brittany's northern side to Brest and 8705 taking the southern side to Quimper. O007-50 Cont.

The most systematic practice of splitting high-speed trains appears to be on the German ICE network between Berlin and Düsseldorf and Köln in the Ruhr district. The dispersed Ruhr cannot effectively be served by a single ICE route, so for 13 hours straight every day, the Deutsche Bahn runs hourly modular high-speed trains coupled east of Hamm, last Ruhr district stop. At Hamm, trains split or join, one module serving the northern tier of Ruhr cities, the other the southern. (The above examples are further documented in the attached schedules included herein as Exhibit C.)

If the ridership analysis had properly allowed for train splitting and joining, it is self-evident that the Altamont alternative would have much greater ridership (and also cost-effectiveness).

According to the Final PEIR/S for the statewide HST system, "Travel between Sacramento and San Francisco represents the third-largest intercity travel market in the state..." The largest number of intercity trips is projected to be between the Central Valley and major metropolitan areas, and the second-largest geographic market is between the Los Angeles and San Diego regions. (Final Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Proposed California High-Speed Train System, Page 1-6; see also DPEIR/S at p. 1-6.). By all rights, ridership between Los Angeles and the Bay Area should be roughly similar under either Altamont or Pacheco alignments.[15] When one also takes into account the added expected ridership O007-51

[14] See pictures included in Exhibit C, showing the linked trainsets used for such splitting/joining. This same point was made in the TRAC/CRF comment letter on the statewide HST EIR/EIS (Flashman letter, supra, at pp.7-8 and Attachments A-C thereto. The point was never responded to.)

[15] In fact, taking regional and sub-regional ridership into account, Altamont ridership would be expected to be somewhat higher, because the line would also draw upon the active ridership communities of the Northern San Joaquin Valley and the Tri-Valley Region of the East Bay, which would be excluded from a Pacheco alignment.

between Sacramento, the northern San Joaquin Valley, and the Bay Area, ridership that would be almost nonexistent under the Pacheco alignment scenario[16], it is clear that total system ridership, including regional and subregional trips, should be considerably higher under an Altamont alignment than for a Pacheco alignment. O007-51 Cont.

The improper refusal of the ridership study associated with the DPEIR/S to accept the feasibility of coupling and uncoupling HST trainsets leads to an incorrect and biased set of ridership results that improperly and unfairly penalizes Altamont alignment ridership. In essence, the DPEIR/S analysis artificially constrains the model to produce lower ridership and revenue for the Altamont alternative than would be the case if operated under a service model that was consistent with projected statewide demand for intercity trips and the reality of modern HST operational parameters. The ridership studies need to be redone using accurate operational assumptions and the corresponding sections of the DPEIR/S also need to be appropriately rewritten to properly reflect the relative feasibility and financial viability of the two major alignments. O007-52

In addition to a revised, current, transparent and accurate ridership study, the following questions concerning ridership assumptions underlying the DPEIR/S must be answered in a revised DPEIR/S: O007-53

- How did growth projections along the two alignments (Altamont and Pacheco) factor into ridership assumptions? How much of this growth is induced by the prospect of HST stations in currently undeveloped areas along the Pacheco route? O007-54
- What assumptions underlie the huge recreation/other ridership on Pacheco? What is the documentation for these assumptions? How accurate are they? O007-55
- The boardings by station illustrated in Tables 2.3 and 2.4 of the Cambridge Systematics Ridership/Revenue Study need to be disaggregated so that intraregional trips are segregated from inter-regional and other trips. This is a first step to making the data clear and understandable. O007-56
- Given the large investment the HST system would make in upgrading rail infrastructure, it would appear reasonable, and indeed only prudent, to supplement statewide HST service with high-quality regional rail service, thereby providing an additional passenger rail alternative for access among points along this system. Why didn't the DPEIR/S consider and discuss the feasibility of such an "add-on" system and its relative effectiveness under the Altamont and Pacheco alignment alternatives? O007-57

[16] See attached Exhibit D showing population and distance for the two alignments. According to California Dept. of Finance figures, in 2006 there were over two million more Californians in bordering counties that would be directly served by the Altamont Alignment than the Pacheco Alignment. Moreover, selection of the Pacheco alignment would increase the travel time for a Sacramento to San Francisco trip by more than 50% compared to using the Altamont alignment (1hr 40 min [Pacheco] vs. 1 hr 3 min [Altamont]). Indeed, the San Francisco – Sacramento travel time via the Pacheco alignment is barely competitive with automotive or bus travel. If the Pacheco alignment is chosen, there would essentially be NO Sacramento to San Francisco HST ridership.

- There are ways to build bridges, especially rail bridges, so as to cause minimal disruption to their surroundings.[17] Why were alternative ways of constructing the Dumbarton Rail Bridge and various ways of mitigating any resulting environmental impact not discussed in the DPEIR/S? O007-58
- The DPEIR/S discounts the ability to use the renovated Dumbarton rail bridge proposed as part of the DRC for HST service across the Bay. While the DPEIR/S asserts that HST trainsets will be incompatible with Caltrain trainsets, the CHSRA is proposing to use the Southern California Metrolink system as part of the high-speed rail system. That system, like the DRC, would use a combination of diesel powered and electrified cars. Especially given the strong likelihood that all Caltrain trainsets, including the DRC, will move to using compatible electrified EMUs to reduce the system's global warming impact, why would it not be feasible to single-track HST traffic over the DRC bridge, at least during the HST service's initial phase? O007-59

3. The DPEIR/S Fails to Adequately Describe Station Locations

According to the DPEIR/S:

> "Again, the ultimate locations and configurations of stations cannot be determined until the project-level environmental process has been completed." At 2-29.

O007-60

While the current programmatic level of analysis may not have sufficient information to provide detailed analyses of station locations, configurations, and their impacts, the PEIR/S must provide such information and associated analysis of impacts as is currently available. In some cases, the proposed station locations are obvious and already fixed. These include the stations (terminals) in San Francisco, San Jose, Sacramento, and Los Angeles. In other cases, there may be alternative locations possible. To the extent these possible station sites are currently known, they should also be identified and described, together with their potential associated impacts, including potential traffic and parking, air pollution, construction and growth-inducing impacts.

4. The DPEIR/S Fails to Adequately Describe Other Key Features of the Project Alternatives

O007-61

According to the DPEIR/S, the Authority and FRA will rely on this document to select a preferred HST corridor/alignment, station locations, and recommended mitigation strategies based on the DPEIR/S. The lack of an adequate and complete project description does not support informed decision-making concerning the HST

[17] Examples of this can be found in the recent modifications to the eastern end of the San Mateo Bridge, the recently completed Benicia Bridge and MTC's currently proposed Dumbarton rail bridge.

corridor/alignment and station locations. Specifically, the DPEIR/S fails to provide consistent and complete information concerning proposed HST alignment and station choices. Information that is provided is difficult to verify because the assumptions underlying the information are not provided or are located in documents not readily available or properly summarized in the DPEIR/S. (E.g. Why are certain previously-identified and apparently contemplated stations, such as the Los Banos Station, omitted? Is it contemplated that they could be added back into the system at a future date? If so, that option and its potential impacts should be discussed. Why are some HST features – stations and rail – specifically identified as being elevated or at grade? Wouldn't it make more sense to leave such specific design considerations for a project level analysis? What is the single environmentally superior alignment under each of the Altamont and Pacheco alignment alternatives? How do those two alternatives compare? Couldn't the Dumbarton Rail Corridor improvement project also be used by HST to reduce impacts to the Bay? etc.) O007-61 Cont.

Specific examples of the types of information missing from the project description of the HST options include, but are not limited to the following[18]:

- Potential for Freight Service. According to the DPEIR/S: "Although the Authority recognizes the potential for overnight medium-weight freight service on the proposed high-speed tracks, it has not been included in this analysis. Discussions with potential high-speed freight operators could be initiated as part of subsequent project development with appropriate analysis." DPEIR/S at 2-7. O007-62

- Potential revenue from regional services such as the Altamont Commuter Express, which has been investigating the possibility of obtaining its own separate right-of-way rather than continuing to negotiate service on Union Pacific-owned tracks, thereby providing the ability to speed up the trains and avoid on-time performance problems frequently caused by Union Pacific operations. Such revenue from third parties can help lower bond costs and should be considered. O007-63

In the absence of information of this type, it is impossible to render informed decisions regarding a preferred alignment and the locations and configurations of stations. Such choices cannot and should not be made until adequate information and associated analysis of impacts have been provided. A revised and recirculated PEIR/S must include this information and accordingly revised impact analyses. O007-64

E. The DPEIR/S Fails to Adequately Analyze the Project's Significant Impacts

O007-65

The analysis of environmental impacts in the DPEIR/S fails to provide the necessary facts and analysis to allow the Authority, responsible agencies and the public to make an informed decision concerning the project alternatives (modal and HST related) and mitigation measures. CEQA requires that an EIR be detailed, complete, and reflect a

[18] Many of these project features were also the subject of comments on the 2004 statewide HST EIR/EIS.

good faith effort at full disclosure. CEQA Guidelines section 15151. A fundamental purpose of an EIR is to "inform the public and responsible officials of the environmental consequences of their decisions before they are made." Laurel Heights Improvement Assn. V. Regents of the University of California, 6 Cal.4th 1112, 1123 (1988). To do so, an EIR must contain facts and analysis, not just an agency's conclusions. See Citizens of Goleta Valley v. Board of Supervisors, 52 Cal.3d 553, 568 (1990). Not only does the DPEIR/S fail to provide supporting evidence for its conclusions concerning the significance of project-related and cumulative impacts, in most cases, it is not possible to tell from the DPEIR/S whether an impact is considered significant, less than significant or reduced to less than significant after mitigation. Many discussions simply omit this basic information. O007-65 Cont.

The treatment of mitigation measures in the DPEIR/S is similarly deficient. Mitigation measures must be identified and analyzed. This DPEIR/S refers to the mitigation measures as mitigation "strategies." The term "mitigation strategy" is not recognized or defined by CEQA or NEPA. In most cases the suggested "strategies" are so vague that it is not possible to determine their efficacy in reducing significant impacts to less than significant. Many of these so-called "mitigation strategies" consist of suggested actions, the details of which are deferred until after project actions are taken that commit the Authority to a specific course (e.g. specific HST alignment and station locations). This approach makes it impossible to evaluate the effectiveness of strategies to reduce impacts, and perhaps even more important, to compare the significant impacts after mitigation between the two major alignment options. In addition, CEQA cautions that "public agencies should not approve projects as proposed if there are…feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects. . ." Pub. Res. Code section 21002. NEPA contains similar requirements. Here the DPEIR/S simply fails to identify feasible mitigation measures capable of mitigating the significant environmental impacts of the project alternatives and cumulative impacts. O007-66

Moreover, "mitigation strategies" are simply listed at the end of each section. Specific measures are not called out for the purpose of mitigating specific alignment or station choices. This approach results in the document's failure to identify the best choices in terms of matching potential mitigation measures and potential impacts. An EIR is not a Chinese restaurant menu where one can simply choose three from column A and three from column B. Decision makers need to understand beforehand what mitigation measures will be most effective for each potential impact, and whether that impact, after mitigation, will still be significant or not. With the current DPEIR/S, it is impossible to know any of this. O007-67

This approach does not keep the DPEIR/S from concluding that potentially significant impacts can be mitigated. Numerous significant impacts are deemed by the DPEIR/S to be less than significant after vague and non-committal "mitigation strategies" are imposed (e.g. traffic and circulation). This approach violates CEQA and NEPA. A revised DPEIR/S must include specific feasible mitigation measures to address specific significant project-related and cumulative impacts, and indicate for each impact and O007-68

mitigation measure combination whether the impact is expected to be significant after mitigation. O007-68 Cont.

Finally, the DPEIR/S improperly bases its analysis of the impacts associated with the HST Alternatives on a comparison with the No Project Alternative, rather than with existing baseline conditions. This approach is improper under both CEQA and NEPA, both of which require the analysis of impacts to be based on existing physical environmental conditions in the affected area at the time the notice of preparation is published. CEQA Guidelines section 15126.2. A revised DPEIR/S must include an analysis of the impacts of these alternatives with both the existing environmental conditions (at the time the NOP was issued) and with the No Project alternative. O007-69

1. The DPEIR/S Fails to Address Adequately Traffic, Transit, Circulation and Parking Impacts

The analysis of traffic, transit, circulation and parking in the DPEIR/S is flawed for a number of reasons: O007-70

First, potential impacts are improperly compared to the No Project Alternative instead of to existing environmental conditions. According to the DPEIR/S:

> "The traffic, transit, circulation, and parking analyses focus on a broad comparison of potential impacts on traffic, transit, circulation, and parking along stations for the HST Alignment Alternatives and station location options. **Potential impacts are compared to the No Project Alternative."** [Emphasis added.] DPEIR/S at 3.1-1.

CEQA generally defines a significant effect on the environment as a substantial or potentially substantial adverse change in the physical environment. Guidelines section 15358. "Environment" as used in this definition means, "the physical conditions that exist within the area affected by a proposed project, including, but not limited to, land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance." Guidelines section 15360. The Guidelines go on to clarify:

> "In assessing the impacts of a proposed project, the Lead Agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the NOP is published, or where no notice of preparation is published, at the time environmental analysis was commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to the ecological systems, and changes induced in population, distribution, population concentration, the human use of the land (including commercial and residential development), health and safety O007-71

problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected." CEQA Guidelines section 15126.2.

O007-71 Cont.

NEPA similarly defines the baseline against which to compare the impacts of a proposed action as the pre-project environmental conditions. Many lead agencies use the time of the NOI as the baseline.

Here, the impacts are compared with the No Project Alternative and <u>not existing environmental conditions.</u> According to the DPEIR/S, the No Project Alternative includes existing conditions <u>and</u> future conditions projected to occur as of 2030 (e.g. funded and committed improvements based on Regional Transportation Plans ("RTPs")):

- "The No Project Alternative would include programmed and funded transportation improvements to the existing transportation system that will be implemented and operational by 2030. The primary differences between existing conditions and the No Project Alternative are the increased level of travel demand on local roads that lead to the stations and the implementation of new infrastructure." DPEIR/S at 3.1-24.

- "The No Project Alternative describes the study region without implementation of the HST system and is the basis for comparison of the HST Alignment Alternatives. The No Project Alternative represents the state's transportation system (highway, air, and conventional rail) as it is currently and as it would be after implementation of programs or projects that are currently projected in RTPs, have identified funds for implementation, and are expected to be in place by 2030. This financially constrained level of infrastructure improvement (based on the expected federal, state, regional, and local funding) was analyzed in consideration of the considerable growth in population and transportation demand that is projected to occur by 2030. The No Project Alternative addresses the geographic area that serves the major destination markets for intercity travel that would be served by the proposed HST system in the study region. This area extends generally from the San Francisco Bay Area and Sacramento through the Central Valley." At 2-19.

O007-72

- "The No Project Alternative satisfies the statutory requirements under CEQA and NEPA for an alternative that does not include any new action or project beyond what is already committed. The No Project Alternative includes the existing and future statewide intercity transportation system based on programmed and funded improvements through 2030, according to the following sources...". at 2-19-20

- "<u>The No Project Alternative includes this existing highway system, as well as funded and programmed improvements on the intercity highway network based</u>

on financially constrained RTPs developed by regional transportation funding agencies." At 2-20. emphasis added. O007-72 Cont.

While the DPEIR/S implies that the analysis compared the HST project alternatives to both the existing environmental conditions (2005) and to the No-Project Alternative (2030 No-Build), in fact, the project alternatives are only compared to the No-Project "future" scenario. There is no analysis comparing "2005" existing conditions plus HST project alternatives with "2005" existing conditions.[19] Examples of this flawed approach to the impact analysis occur throughout the section and include, but are not limited to the following:

> "Based on travel forecasts with and without HST alternatives, overall intercity highway conditions would improve with HST." DPEIR/S at 3.1-25.
>
> "In the case of the Altamont Pass alternatives, the V/C for the US 101 link between San Francisco to San Francisco Airport would decrease by about 3% as compared to the No Project alternative." DPEIR/S at 3.1-16.

O007-73

This approach results in confusing, obscuring and very likely minimizing the "true" impacts of introducing HST service to traffic, transit, circulation, parking as well as many other potentially significant impacts including, but not limited to biological resources, impacts to parks, impacts on agriculture, growth inducement and population and housing, among other impacts. See Tables 3.1-2 and 3.1-3 which include 2005 conditions as information, but only analyzes HST project alternatives with the 2030 No Build conditions). Such an analysis would also shed light on how the introduction of HST service might change whether, how and where circulation, parking, transit and other transportation improvements are made over the next 20+ years. For example, if the Pacheco alignment, which would serve an area currently much less populated than that for the Altamont alignment, is selected, would additional non-HST transportation infrastructure need to be built beyond what is currently contemplated, in order to serve the growth induced by the introduction of HST? A revised analysis must be developed that analyzes the HST project alternatives compared to the environment as it exists. Without this analysis, the DPEIR/S is fatally flawed. Questions that we request be addressed in either the response to comments or a revised DPEIR/S concerning this issue include:

- What are the impacts of the HST project alternatives (without programmed and funded improvements beyond existing conditions) on existing traffic, transit, circulation and parking conditions? See e.g. CEQA Significance Criteria bullet one at page 3.1-3: "An increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in the number of vehicle trips, the V/C, or congestion at intersections)." O007-74

[19] We understand the model limitations. However, this information can be generated by manipulating the model or by manual calculations if necessary to comply with CEQA and NEPA requirements for analyzing the proposed project compared to existing conditions.

- What transportation system needs, and associated projects (roads, parking, other types of transit) not currently programmed, funded or even contemplated, would be "induced" (e.g. new roads, road widening, etc.) in the alternative project areas if HST is introduced and in turn induces new growth? O007-75

- What are the impacts if a more traditional approach is taken and instead of using the "sum of the AM and PM 3-hr peak periods," the traffic analysis is based on the peak period (AM or PM) to determine the impacts of the introduction of HST project alternative on Existing Conditions and on No-Build (No Project Alternative)? The model should be re-run to determine these impacts.[20] O007-76

- In the DPEIR/S description of the difference between existing conditions and the No Project; ["The primary differences between existing conditions and the No Project Alternative are the increased level of travel demand on local roads that lead to the stations and the implementation of new infrastructure." DPEIR/S at 3.1-24]; the text implies that under future conditions there would be more trips to the stations. This further implies that the No Project alternative is already altered by the introduction of the HST project alternatives. Please clarify the differences between existing conditions and No Project and whether the No Project includes HST stations in the analysis. If it does, the HST analysis needs to be revised so that the analysis is clearly No Project 2030 conditions with and without any HST project features including HST station locations. O007-77

- Explain how the introduction of HST to the Pacheco area would not result in inducing new roadways and highway improvements to serve new growth induced by HST above and beyond the programmed and funded circulation system projects included in the No Project 2030 scenario. O007-78

Second, omitted and inadequate project description information makes it impossible to adequately evaluate project related impacts on traffic and circulation. Examples of omitted or inadequate project description elements that result in an underestimation of traffic impacts include, but are not limited to: construction activities including construction haul routes, construction related trips, current and adequate information about ridership on the different modes, consistent assumptions concerning catchment areas (i.e. the distance people will travel to ride HST), information about all potential uses (e.g. freight) of HST as well as other information. In addition, the inclusion of programmed and funded circulation improvements in the No Project Alternative serves to reduce certain impacts that could be greater under the comparison of current baseline conditions to baseline plus HST only.[21] As a result, the DPEIR/S likely significantly underestimates impacts to traffic and circulation because the project description omits O007-79

[20] It seems obvious that such a summation could mask a significant traffic impact. If, for example, the project resulted in shifting some traffic on a road segment from the AM peak to the PM peak, the AM+PM sum would be constant, but the PM peak could be elevated to the point of having a significant impact.
[21] Just because a highway improvement has been programmed and funded does not mean that it will necessarily be built. Project funding can be reprogrammed to other, more urgent, projects, leaving the improvement unimplemented.

adequate and complete information about the true extent of project-related impacts and fails to adequately analyze impacts. O007-79 Cont.

Third, the DPEIR/S analysis of HST impacts to intercity highway conditions focuses solely on the trips that would be diverted on the future circulation system with the introduction of HST and fails to analyze how/what circulation system improvements would be induced by the introduction of HST. Such an analysis must also include the potential environmental, social and economic impacts of these new facilities and improvements. See e.g. DPEIR/S at 3.1-15. This omits much of the required analysis. Like the parking analysis, which refers to new parking being provided to support HST stations where needed, the analysis of circulation and transit systems must identify additional circulation and transit facilities that will be required because of the introduction of HST. The improvements could include, but are not limited to: new roads/road or highway improvements to serve stations and/or induced growth; feeder buses and new stops; other supportive facilities (e.g. maintenance/repair yards/corp type yards etc.). The analysis must not only identify these facilities and improvements, but also analyze their impacts. While some of these could be considered "mitigation" (see e.g. page 3.1-38), many of these facilities and improvements are just as likely to occur to deal with new growth and demand. In either case, impacts related to mitigation measures must also be considered in the EIR/S. O007-80

Fourth, the DPEIR/S fails to analyze impacts to operations of existing transit lines and the impacts to neighborhoods of additional infrastructure that will be required to maintain mobility. For example, the DPEIR/S fails to consider that the Caltrain line is already saturated with eight trains in each direction per hour, and yet for both current and future increased levels of service there is no need to quadruple-track <u>the entire</u> Caltrain line between Redwood City and Santa Clara in the absence of high-speed rail. Quadruple-tracking this segment for HSR under the Pacheco alternative, provides no additional mobility or benefits to local service to those neighborhoods but only unnecessary impacts. These impacts could be avoided under the Altamont alignment alternative. On the other hand, Caltrain does require passing tracks to be constructed between Redwood City, San Mateo and Millbrae in order to be able to operate at a moderately greater frequency than it does today. This section of the Caltrain line would obtain mutual gain with reconstruction for HSR under either the Altamont and Pacheco alternatives. Similarly, construction of an Altamont alignment for HSR would facilitate the introduction of regional rail services between the San Joaquin valley and the Peninsula/San Jose at frequencies ten-fold greater than possible today. The DPEIR/S fails to consider the constrained capacity of the planned San Francisco Transbay Terminal to serve as the endpoint of all trains. It makes the highly implausible assumption that an 8-track second story could be built 30 feet above the existing San Jose Diridon station to provide needed capacity while maintaining this station as a working station with ongoing operations, and all this for only $185 million. (DPEIR/S at 4-4 [Table 4.2-1]; 4-13 [Table 4.2-2].) It should be noted that the San Jose Diridon station is already the busiest in California because of the confluence of freight and several passenger operations there. O007-81

Fifth, the DPEIR/S improperly defers mitigation measures that could potentially reduce impacts to traffic and transit. According to the DPEIR/S:

> "The Authority would expect to participate in developing potential construction and operational mitigation measures in consultation with state, federal, regional, and local governments and affected transit agencies during project-level reviews." DPEIR/S at 3.1-38.

> "Program-level mitigation strategies would be further refined, and specific measures would be considered during project-level environmental reviews where impacts are found to be significant at the project level. Potential mitigation strategies to be considered during project-level environmental reviews would include the following, listed below by regional and local applications." DPEIR/S at 3.1-39.

O007-82

The list of mitigation strategies includes a number of facility and infrastructure improvements such as providing additional parking, widening roadways, improving street capacities, and the like.

> "The above mitigation strategies would be refined and applied at the project level and are expected to substantially avoid or lessen impacts around station areas to a less-than-significant level in most circumstances." Id. at 3.1-40.

In some cases, for example in the Downtown Fremont and Tracy areas, mitigation measures could make the difference in the environmental superiority of an alignment or station choice. It is only at this early stage that the Authority can design wide-ranging measures to mitigate environmental impacts. *See* Guidelines § 15168(b)(4) (programmatic EIR "[a]llows the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility. . . ."). Failing to evaluate mitigation measure and/or deferring the evaluation to the future thus violates CEQA [and NEPA].

Feasible mitigation measures must be identified and in the case of more detailed decisions concerning HST alignments and stations, additional details concerning these project descriptions needs to be provided. It is not appropriate to make station and alignment choices based on the possibility that significant impacts to traffic and circulation "might" be avoided by as yet undetermined mitigation measures or that people may be encouraged in greater numbers than ever before to choose transit over their single occupancy vehicle. In particular, it is inappropriate to assume potential impacts will be mitigated in the absence of substantial evidence that mitigation is feasible or a commitment to achieving standards that will assure an absence of significant impacts.

Finally, a number of mitigation measures will in turn have significant impacts that are not analyzed in the DPEIR/S. For example, major transportation improvements are identified as potential mitigation to alleviate congestion. A revised DPEIR/S must analyze the

O007-83

indirect or secondary impacts of these measures. In addition, the feasibility of acquiring rights-of-way to accommodate proposed HST alignments and stations must also be addressed in terms of feasibility, cost and other factors. A map or maps showing major ownerships of property not already in the Authority's control must be produced with supporting text indicating the feasibility and estimated cost of acquiring key properties and parcels. This same information should be used for a revised growth-inducing section. O007-83 Cont.

The DPEIR/S fails altogether to analyze the physical environmental impacts of the mitigation measures including, but not limited to: local spot widening of curves, major intersection improvements, acquisition to accommodate widening projects, and provision of additional parking. DPEIR/S at 3.1-38. Impacts associated with mitigation measures where they could be significant must be analyzed in a revised EIR/S.

Remarkably, after identifying numerous significant impacts of HST on traffic and circulation, the DPEIR/S concludes that all potentially significant traffic and circulation impacts of the HST alternative will be reduced to less than significant *with* mitigation. O007-84 Mitigation consists of deferred "strategies" including "encouraging" the use of transit and working with transit providers to improve station connections, among other deferred strategies. However, such "strategies" are not adequate mitigation unless they are accompanied by 1) substantial evidence showing that they will reduce impacts to a level of insignificant or, 2) at the least, a commitment to reach defined standards that will assure that no significant impacts will result. For example, a standard requiring that transit ridership will be increased by a certain percentage, along with feasible strategies to achieve this standard (e.g., subsidized transit passes, transit promotion agreements with municipalities and major employers, local parking pricing and/or road pricing programs implemented by municipalities, etc.) could demonstrate that levels of transit use will be achieved that will reduce potential impacts to a level of insignificance. Such standards and evidence have not, however, been included in the DPEIR/S. This, along with other statements in this section of the DPEIR/S underscore the reasons why this document is not adequate to support informed decision-making concerning Bay Area – Central Valley HST alignments and stations.

Lastly, the DPEIR/S fails to reach conclusions supported by evidence concerning the significance of traffic impacts for any of the alternatives. A revised DPEIR/S must identify the significant impacts of each alternative before and after mitigation.

2. The DPEIR/S Fails to Address Adequately Travel Condition Impacts O007-85

Like the transportation section, potential impacts to travel conditions are improperly compared to the No Project Alternative instead of to existing environmental conditions. According to the DPEIR/S:

> "The No Project Alternative includes programmed and funded transportation improvements to the existing transportation system that will be implemented and operational by 2030." At 3.2-6.

> "This section presents expected travel conditions for the HST alternatives and compares relative differences between No Project and the HST." At 3.2-8. See also Table 3.2-6 which provides existing conditions, but only compares the 2030 Air Mode travel times with and without HST. See also Table 3.2-12 and 3.2-13 comparing 2030 intercity trips for auto, air, Amtrak rail and HST under base case and high end 2030 trip shares.

O007-85 Cont.

The fatal flaw with this approach is that there is no dissection of the impacts to travel conditions induced by the introduction of HST from the changes induced from programmed and funded circulation improvements [and growth]. Only with an analysis of HST against existing baseline conditions with and without HST and future conditions with and without HST can the true extent of project-related impacts be known, disclosed and mitigated.

3. The DPEIR/S Fails to Adequately Analyze Air Quality Impacts

The DPEIR/S fails to adequately and accurately evaluate the potentially significant air quality impacts of HST as a result of faulty methodology. Again, the DPEIR/S fails to analyze the HST project alternatives compared to existing conditions. The approach taken in the Air Quality analysis is:

> "A comparison of the 2005 conditions to the 2030 No Project conditions illustrates the expected trends in air quality. Currently, CARB has not released 2030 emission inventory information. For the purposes of this analysis, emission burdens were projected to 2030, based on CARB emission burden data from 2005-2020. The potential impacts from proposed alternatives were then added to the 2030 conditions. Changes in VMT from on-road mobile sources (vehicles) and for off-road mobile sources (number of plane operations and train movements) were estimated for each of the alternatives. Changes in emissions of stationary sources (electrical power generators) were also addressed." DPEIR/S at 3.3-5.

O007-86

> "To determine if the project has significant air quality impacts as defined by CEQA, the relevance of the potential emission changes was assessed from a total pollutant burden and percentage change compared to the No Project Alternative in the affected air basins and statewide." DPEIR/S at 3.3-6
>
> "The assessment is based on the total pollutant burden of an area under the No Project Alternative and the change in emissions estimated under a proposed alternative." DPEIR/S at 3.3-7.
>
> While the section compares existing conditions to the No Project Alternative [concluding that with respect to CO, NOx and TOG, emissions will be lower; PM10 higher than 2005 conditions] the section again only compares the HST Alternatives to No Project Alternatives and fails to compare the HST Alternatives to existing conditions:

"Roadways: The proposed HST Alignment Alternatives could potentially result in a daily reduction of 32.691 million VMT compared to the No Project Alternative...". 3.3-13

"Air Travel: The air-travel component is based on 43,865 daily trips (1 trip = 1 takeoff and 1 landing), or 433 statewide, being shifted from the airplane component of No Project future conditions to the proposed HST Alignment Alternatives...". 3.3-13.

"Summary of Pollutants: Table 3.3-7 summarizes the combined sources categories for existing conditions and the No Project Alternative and the HST Alignment Alternatives. Compared to the No Project Alternative, the proposed HST Alignment Alternatives are projected to result in a decrease in the amount of pollutants statewide and in all basins analyzed." 3.3-14. See Table 3.3-4 which summarizes the No Project and HST Alignment Alternatives for On-Road Mobile Source Regional Emissions.

O007-86 Cont.

Second, the DPEIR/S fails to adequately analyze the project's contribution to greenhouse gas emissions or to give any consideration to likely changes in weather patterns and climate as a result of global warming. The Attorney General's office has made it clear that projects such as HST must analyze and mitigate impacts associated with global climate change. See Exhibit E hereto**.** While the DPEIR/S briefly refers to global warming and contains limited analysis, the document's approach is inadequate. According to the DPEIR/S:

> "Changes in the amounts of CO2 (which is a major component of greenhouse gases) as a result of the project alternatives were estimated on a statewide basis. These results are provided to indicate how changes in CO2 emissions, as a result of the HST Alignment Alternatives, might affect global warming. These estimates were based on the estimated changes in fuel use and electrical energy production associated with the HST Alignment Alternatives." At 3.3-7. See also 3.3-10.
>
> "Year 2005 CO2 emissions were estimated at 1.280 million tons/day." 3.3-13.
>
> "CO2 calculations for the alignment alternatives reflect only emissions from electrical power stations, planes, and on-road VMT." 3.3-14.

O007-87

The DPEIR/S fails to include thorough discussion, analysis or mitigation for the project and cumulative project contribution to global warming impacts. The technical planning and scientific tools to assess global warming impact and feasible mitigation already exist.

A report by the Association of Environmental Professionals (AEP) includes the following recognition of the importance of climate change:

"In California, global climate change is a growing concern that must be addressed in CEQA documents."

The Report includes a recommended approach for assessing a project's contribution to global climate change. The approach is based on two key components: first, provide an inventory of greenhouse gas emissions; and second, include mitigation strategies identified in the California Climate Action Team (CCAT) Report. The CCAT mitigation was developed to provide sufficient greenhouse gas reductions necessary to meet the Governor's greenhouse gas reduction targets (targets are discussed further below).

A project-specific inventory of greenhouse gases can be quantified based on existing emissions models. Specifically, CARB has released the EMFAC 2007 emissions model to quantify on-road vehicle emissions; this model is used extensively for a broad range of applications by a wide variety of agencies, and produces estimates of vehicle-related CO2 emissions. CEQA's primary interest in comprehensively estimating a project's environmental impacts dictates that those greenhouse gas emissions must be quantified, discussed, and mitigated using all reasonable, feasible means. Operational CO2 emissions derived from URBEMIS modeling have, in a number of CEQA cases, been multiplied by 100 as an analogue to predict a project's lifetime CO2 increment. This calculation is relevant to the construction period and vehicle trips related to ridership and operations of HST. It is vitally important that the PEIR/S quantify, to the extent feasible, the overall CO2 contributions each of the various alternative alignments would make, including not only direct contributions from the Project and project-related vehicle trips (e.g., passenger trips to/from stations), but also indirect effects related to the Project's growth-inducing impacts. O007-87 Cont.

Other contributors to greenhouse gas emissions include electricity, burning of natural gas and loss of lands that currently sequester carbon. HST will rely on some source of electricity to operate the trains.

"Electricity as energy is given detailed consideration in this analysis because of the projected use of electric energy to power the proposed HST system." DPEIR/S at 3.5-6

"This analysis is concerned with the adequacy of the generation and transmission infrastructure to accommodate the inclusion of the HST system in the state's electricity grid; distribution issues are not considered at this program level of analysis." Id.

"Emission changes from power generation can therefore be predicted on a statewide level only. In addition, because of the state requirement that an increasing fraction of electricity generated for the state's power portfolio come from renewable energy sources, the emissions generated from the HST system are expected to be lower in the future as compared to emissions generated based on the state's current power portfolio." At 3.3-6.

Electricity generation accounts for approximately 21 percent of GHG emissions in California. The EIR states that HST operations would annually consume approximately 386 million barrels of oil and increase the load on statewide electric power by an

estimated 794 MW during the peak period in 2030. During construction, energy consumption for the HST system is estimated to be approximately 128 MMBTU's or 22 million barrels of oil. DPEIR/S at 9-1. While this may be a reduction over the No Project Alternative, it is still an increase in energy use. The amount of carbon emissions resulting from this demand is easily calculated: According to the Energy Star Program, a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy, one kilowatt hour consumed equates to 1.55 pounds of CO_2 emissions.[22] The EIR should have included this calculation for the various alignment options included in the DPEIR/S. O007-87 Cont.

Even as various human processes send carbon into the atmosphere, trees take up and store carbon in a process known as carbon sequestration. Climate Action Team Report at 48-49. Agricultural lands similarly take up carbon as do other open space lands.[23] Carbon that is sequestered is not free in the atmosphere and thus does not contribute to the greenhouse effect. The loss of large amounts of trees and agricultural land results in less carbon sequestration, which in turn exacerbates the effects of global climate change. Therefore, any EIR prepared for a project, like this one, that will affect large forested and agricultural areas must analyze the effects of deforestation and conversion of land to nonagricultural uses on global climate change.

The second component of any global warming emissions approach stresses inclusion of mitigation strategies identified in the CCAT Report. According to AEP, the mitigation strategies in the CCAT Report "are the most appropriate to use at this time because the report 'proposes a path to achieve the Governor's targets that will build on voluntary actions of California businesses, local government, and community actions, and State incentive and regulatory programs."[24] Many of the CCAT mitigation measures noted below should have been thoroughly evaluated for mitigation instead of deferred as the DPEIR/S currently does: O007-88

- Vehicle trip reduction strategies (paid parking, parking cash-out, etc.);
- Providing multi-modal transportation options;
- Increasing energy efficiency beyond Title 24 requirements;
- Increasing recycling; and
- Incorporating green building technology.

In the opinion of AEP, if a project complies with applicable measures noted above, the project could be considered to have a less than significant cumulative impact to global

[22] It is important to note that the Authority, not the public, bears the responsibility for choosing or developing a methodology for determining impacts. We offer these suggested formulae to help the guide the EIR's preparers in the necessary revisions, and to demonstrate that these calculations are not arcane but are actually quite easily performed.

[23] Of course, such sequestration is rarely permanent. For farmlands, some of the sequested CO2 will be re-released as food is consumed and other agricultural products used up or biodegraded. However, there will usually be a net sequestration which, depending on the crop involved, can be highly significant.

[24] AEP White Paper on Global Climate Change, p. 10.

climate change.[25] Without these mitigation measures, the project is considered to contribute significantly to global climate change, an environmental process relevant to CEQA. O007-88 Cont.

The DPEIR/S as currently drafted fails to incorporate feasible climate change mitigation and fails any attempt to estimate its impact to climate change. Such impacts must include increased CO2 production related to the growth induced by the introduction of HST to currently undeveloped areas, particularly along the Pacheco alignment. HST will cause such cumulative emissions increases and therefore must analyze them. O007-89

The State of California has also acknowledged the environmental impacts of greenhouse gas emissions on climate change. According to Governor Schwarzenegger's June 1, 2005 Executive Order, global warming, left unchecked, will accelerate coastal erosion, degrade air quality, increase wildfires, reduce water supplies, and intensify heat waves – all concerns to the State and its citizens. (See California Climate Change Center, Our Changing Climate: Assessing the Risk to California; Executive Order S-3-05.) The Governor's Executive Order established the following greenhouse gas reduction targets:

- By 2010, Reduce to 2000 Emission Levels
- By 2020, Reduce to 1990 Emission Levels
- By 2050, Reduce to 80 percent Below 1990 Levels

O007-90

If these targets are not achieved, the State of California and its resource agencies believe California will suffer serious and significant degradation of its natural environment, causing widespread environmental damage along with disproportionate harm to those with low incomes and those living in the already congested Bay Area air basin. Nothing in the DPEIR/S's treatment of CO2 emissions demonstrates leadership by the High Speed Rail Authority in characterizing and reducing global warming impacts, and this approach is both inconsistent and contradictory to actions taken by the Governor's office and the State's Attorney General's office in the last twelve months.

Increasingly over the last one to two years, the State's former and current Attorneys General have urged Lead Agencies to include analysis of global warming impacts in their environmental documents because *it is a requirement of CEQA.*[26] The basis for requiring an environmental review to disclose and analyze this impact is essential CEQA— the California Environmental Quality Act requires government agencies to disclose and analyze all of a project's potentially significant environmental impacts and to make every reasonable effort to avoid, diminish, or mitigate those harmful effects. CEQA defines significant impacts broadly and inclusively and its definition includes not only the direct environmental consequences of implementing the project, but any indirect

[25] Ibid, p. 2

[26] In August of this year, the California Attorney General, Jerry Brown, reached settlement with San Bernardino County over its approval of a General Plan update that violated the California Environmental Quality Act by not fully evaluating and addressing foreseeable effects on global temperatures, air quality and natural resources. The settlement requires the county to take specific actions to reduce its global warming impacts. The PEIR/S should consider the applicability of the settlement agreement's provisions to this statewide energy-intensive project.

effects that may follow from the project's direct physical environmental consequences. (CEQA Guidelines section 15064(d)(2).)

Rather than taking the issue on forthrightly the DPEIR/S is largely silent on the issue, giving the appearance that the HSRA wishes to have HST excused from its CEQA responsibilities to estimate and then mitigate project-specific CO2 emissions. At minimum, a revised DPEIR/S must be drafted to correct these omissions and then re-circulated to allow public review of the following:

1. A revised regional setting discussion which includes background information on global warming and climate change, State, regional and local targets and the status of any regional inventory;
2. An inventory of all the greenhouse gas emissions (i.e. carbon dioxide, methane, nitrous oxide, other) generated by the various project alternatives (both during construction and operation) and cumulative and growth inducement elements;
3. Discussion and incorporation of all feasible mitigation as identified by CCAT.

O007-90 Cont.

Among the feasible mitigation measures alluded to in the DPEIR/S are to run the trains on 100% clean, zero carbon emissions electricity. Such an approach should be a mandatory mitigation requirement of HST:

Insufficient re: Electrical Power...see 3.3-14. "if it is decided that the project would be run on 100% clean, zero-carbon emissions electricity, there would be no predicted increase in CO2 levels due to the project's increased electrical requirements." 3.3-14.

In addition, like other transit agencies including but not limited to AC Transit, all HST associated facilities (e.g. stations, maintenance yards, fleets, etc.) should be carbon neutral. In describing how carbon neutrality will be achieved, a revised EIR/S should indicate whether this is simply a shift in clean power to HST or achieved as a total reduction of polluting energy sources statewide.

O007-91

Third, the DPEIR/S improperly defers mitigation measures that could potentially reduce construction period and operation-related air quality impacts. According to the DPEIR/S:

"The program-level analysis in this document reviews the potential statewide air quality impacts of a proposed HST system, and the analysis would support determination of conformity for the proposed HST system. At the project level, potential mitigation strategies should be explored to address potential localized impacts." DPEIR/S at 3.3-19.

O007-92

Deferred measures include: increased use of public transit, increased use of alternative-fueled vehicles; increased parking for carpools, bicycles and other modes of transportation. In addition, the DPEIR/S states: "Potential construction impacts, which should be analyzed once more detailed project plans are available, can be mitigated by following local and state guidelines." DPEIR/S at 3.3-20. A general list of typical construction-period measures is provided, including replanting vegetation, minimizing equipment idling and the like. While in some cases deferral of identifying specific

mitigation measures may be appropriate, where, for example, specific station locations or construction technique application may call for specific measures, some operational and construction-related mitigation measures can be identified even at the programmatic level. These include, for example, the use of electric-powered, as opposed to diesel-powered construction equipment where feasible, and the use of low emission diesel equipment where diesel equipment must be used. The PEIR/S should be modified to explicitly identify those measures that can, even at this stage, be committed to, and discuss the potential of these measures to fully or partially mitigate project impacts. O007-92 Cont.

Finally, feasible mitigation measures to address the potentially significant and unavoidable air quality impacts of all alternatives must be included in a revised DPEIR/S. Such measures include, but are not limited to measures that require cleaner construction vehicles, 100 percent clean energy, urban forestry, green building standards, and most importantly, directing these transportation improvements and all state transportation funding to occur in urban areas, rather than in undeveloped areas where they will promote sprawl, with its associated increased auto use and air quality and CO2 emission impacts (as is particularly the case with many of the proposed segment and station alternatives included within the Pacheco alignment options).

4. The DPEIR/S Fails to Adequately Analyze Agricultural Impacts

The DPEIR/S's approach to analyzing impacts to agricultural land is flawed for a number of reasons. Like the other topic areas, impacts to agricultural land are improperly evaluated against the No Project Alternative future condition rather than existing conditions:

> "The No Project Alternative assumes that, in addition to existing conditions, additional transportation improvements would be developed and operational by 2030...It was not possible as part of this study to identify or quantify the amount of farmland that might be affected by the transportation improvements in the No Project Alternative." DPEIR/S at 3.8-5. O007-93

This approach results in underestimating the true extent of growth-inducing impacts associated with the introduction of HST to currently undeveloped agricultural lands along the Pacheco alignment especially.

In addition, the approach taken to calculating impacts to farmland is flawed. For HST impacts on agricultural lands, the study area was determined to be 100 feet from the rail right of way or rail centerline in the case of the HST being located off an existing rail line. According to the DPEIR/S, this is a conservative study area, because it would be possible to fit the HST line within a 50 foot right-of-way in constrained areas. DPEIR/S at 3.8-4. This approach grossly underestimates the impacts of these alternatives on agriculture and farmland. For example, where the HST right of way divides an agricultural field, unless provisions are made to allow frequent undercrossings of farm equipment, the alignment will effectively sever the property, making it significantly more difficult and expensive to keep it in production. Indeed, where the HST line severs

a small portion of land, that land will almost certainly be taken out of production, and will more than likely be sold off for non-agricultural use. In addition to the agricultural impacts, such land conversions will likely contribute to the project's growth-inducing impacts.

The analysis also fails to analyze impacts to agricultural infrastructure necessary to sustain ongoing agriculture. The analysis only considers potential "severance" of farmland or loss of farmland acres. DPEIR/S at 3.8-10. Because the project description is lacking, these discussions fail to disclose the significance of these impacts. Also according to the DPEIR/S:

> "Parcel-specific information was not considered in this program-level analysis. Project-level farmland severance impacts would be addressed in subsequent project-level documents." DPEIR/S at 3.8-10.

Deferral of this analysis is improper under both CEQA and NEPA and will result in depriving decision-makers at this key point of alignment selection from information concerning comparative impacts to agricultural land. A revised PEIR/S must provide this information in association with the Pacheco and Altamont alignments and station location choices. Questions that must be answered include but are not limited to the following: O007-93 Cont.

- How much agricultural land must be acquired for each alternative?
- What is the estimated cost?
- How much more agricultural land will be lost due to fragmentation and severance impacts of the respective alternatives?
- What is the total estimated value of the agricultural production lost under each alternative?

Moreover, the DPEIR/S overlooks the impacts of the project on grazing. This impact is simply deferred until a later analysis. The DPEIR/S ignores the spillover effects of residential development on farming operations. As will be discussed further below, unless specific measures are taken to avoid or mitigate growth-inducing impacts, the HST project can be expected to induce significant amounts of new residential growth along its right of way and especially where train stations are placed. Such residential development will predictably interfere with continued grazing operations. According to a review by the American Farmland Trust, these spillover effects could affect 2 to 3 times as much farmland as is actually converted as a result of new residential uses conflicting with farmland uses.[27]

Mitigation strategies for agricultural impacts are also improperly deferred. While the DPEIR/S identifies appropriate strategies, they would be considered in the future at a project-level. Of course the most significant "mitigation measure" the Authority could implement is the selection of the Altamont Alignment which would be clearly superior with respect to protecting agricultural land. Specific mitigation measures that must be

[27] See the page 7 of the comment letter from American Farmland Trust dated 8/5/2004, HSR Final Statewide EIR/S page 5-236

included in a revised and recirculated DPEIR/S include but are not limited to purchase of agricultural easements to protect farmland before HST is introduced, urban growth boundaries and smart growth zoning in communities served by HST. In addition, a revised DPEIR/S must provide evidence that proposed mitigation measures will actually reduce or eliminate the significant conversion of farmland. O007-93 Cont.

5. The DPEIR/S Fails to Adequately Analyze Biological Resource Impacts.

Once the presence of biological resources in a project site have been identified and described, a DPEIR/S must then analyze how the direct and indirect impacts of the project and cumulative projects would affect resources. As set forth in the CEQA Guidelines Section 15126(a): O007-94

> Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to the ecological systems, and . . . .

The DPEIR/S does not disclose the Project's (including all alternatives) impact to the physical environment and its corresponding effect on biological resources as required under CEQA and NEPA for a number of reasons including, but not limited to the lack of adequate and complete setting information, inadequate analysis of impacts and failure to identify feasible mitigation measures. Our summary of the significant flaws and omissions in the DPEIR/S with respect to biological resources follows.

In general, the discussion of the Regulatory Requirements and Methods of Evaluation is misleading and does not meet the intent or standards for CEQA significance determinations. The description in the Affected Environment lacks crucial information necessary to allow a complete assessment of impacts, and thus the Environmental Consequences of the project are not fully assessed and are under-represented. Furthermore, a lack of information and analysis raises the question of bias in the document. Because two of the major alignment alternatives – Altamont Pass and Pacheco Pass differ with respect to many of the resources that were not adequately described or assessed, the conclusions regarding the relative impacts of these two alternatives are potentially misleading. O007-95

An overarching problem with the analysis is that there is no real synthesis or interpretation of the biological resources information available for the project alignments. The document essentially presents raw data on biological resources and impacts (numbers of species, acres of wetlands, etc.) but these data are never meaningfully discussed or interpreted. The purpose of the EIR/EIS is to present technical information in a meaningful and understandable way, so that the public and decision-makers can be adequately informed and do not have to synthesize and interpret raw data themselves. The mere presentation of data, without sufficient analysis for the public and decision makers to evaluate the impacts represented by the data and their relative significance, O007-96

does not satisfy CEQA's mandate of providing decision makers with the information they need to make a decision that is fully informed by the environmental impacts that decision will have. For example, the EIR/EIS should discuss the quality and regional importance of the biological resources in the various alignment segments and describe the nature and magnitude of the impacts to these resources, rather than just list the resources present and impacted. While the DPEIR/S provides various tables listing biological resources, it does not provide an analysis of the relative significance of different resources and impacts on resources. In particular, it is crucial to explain clearly the relative significance of impacts on biological resources from choosing the Altamont vs the Pacheco alignment. That information is not adequately provided in the DPEIR/S, and in its absence the DPEIR/S is inadequate. Other specific issues and examples are discussed further below.

The discussion in the DPEIR/EIS on the Regulatory Requirements and Methods of Evaluation seems to ignore a central purpose of CEQA: to disclose when projects may have significant effects on the environment. Significant effects are defined as substantial, or potentially substantial, adverse change in any of the physical conditions with the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance. The significance criteria defined for the HST evaluation are largely focused on "sensitive" resources (e.g., special status species and their habitats) or those protected by specific regulations or policies (e.g., wetlands, HCP or NCCP plans). This does not meet the CEQA's requirement to disclose <u>any</u> of the potentially significant impacts to the flora and fauna of California, not just impacts to those with regulatory status. The analysis must assess the potential impacts of the project alternatives within a broader biological context – where are existing biological resources, regardless of their regulatory status, likely to be significantly affected by the project and what are the nature and magnitude of those impacts? This specifically needs to include consideration of cumulative impacts, including ecosystem impacts and impacts on clusters of ecosystems. This is particularly important for a project such a HST, which has the potential to physically divide land areas and create relatively impassible barriers.[28] The document's significance criteria should be expanded to include impacts that would degrade or sever high quality and intact habitats, functional watersheds and wetland systems, regional functions of existing conserved natural areas, etc. – i.e., should assess impacts to high priority conservation targets for public agencies and conservation organizations in California. O007-96 Cont.

The discussion of the Affected Environment is presented in a piecemeal fashion and does not describe the overall resource values within the project area. The Affected Environment discussion is critical to the analysis of impacts and to allow the nature of the impacts to be placed into their appropriate biological context. The document lists the species, habitats, water resources, wildlife corridors, and management plans that are present in each HST corridor. However, there is no context provided or interpretation of this information that allows the quality, integrity, value, or importance of these resources to be assessed and how they would be impacted by each of the alternatives. The

[28] While the tracks themselves may be relatively easily crossed, the additional fencing that will be needed to keep people and animals away from the tracks to prevent accidents will make the HST right-of-way an obstacle every bit as ecologically damaging as an eight-lane freeway.

document states that, "At this programmatic level of analysis, it is not possible to know precisely the location, extent, and particular characteristics of biological resources that would be affected or the precise impacts on those resources. The impacts are therefore considered significant for each alignment alternative and all but 12 of the station location options." (DPEIR/S at 3.15-65). While it may not be possible to know with absolute precision the impacts of a specific alignment at this stage, the omission of this contextual information (as well as deficiencies in analysis of Section 4(f) and 6(f) issues as discussed below) obscures the true likelihood and differences in magnitude of the impacts to sensitive biological resources posed by each of the alternatives.. The document should answer, for each of the alignment options, questions such as:

- How much potential special status species habitat is present, and of what quality?
- Are the communities and habitats in small, fragmented patches or part of a larger intact area?
- Are the existing communities and habitats degraded by urban edge effects or other stressors?
- Do unique soils exist that may support unique assemblages of plants and animals?
- Are portions of the HST corridor in protected status or targeted for protection by public agencies or private conservation organizations?
- What other pending or proposed projects might contribute to a cumulative impact on biological resources?
- What would be the cumulative impact on biological resources of the project plus development related to the project's growth-inducing impacts?

O007-96 Cont.

Only by characterizing biological resources with respect to these and other issues, rather than merely presenting a list of species and habitats with no context or interpretation, can the impacts to biological resources be meaningfully assessed.

The information used to describe wildlife corridors in the Affected Environment section is taken out of context and does not provide a true description of areas important for wildlife movement and habitat connectivity in the study area. In fact, restricting the focus to "wildlife corridors" rather than assessing habitat connectivity more generally, misses an important biological value that can be significantly degraded by the project. The Missing Linkages report (California Wilderness Coalition 2000, referenced in the DPEIR/S at p. 3.15-16) discusses linkages and corridors *identified by participants* at the conference in 2000. These were high priority corridors and linkages, which themselves have varying levels of existing functionality not discussed by the DPEIR/S. However, that an area was not identified by the Missing Linkages project does not imply that habitat connectivity is not an issue. On the contrary, landscape scale habitat connectivity through an area such as the Diablo Range is relatively secure in comparison to more urbanized areas such as the Altamont Hills, which may explain why it was not identified in the Missing Linkages report. The Missing Linkages report is one source of information, but regardless of what it reported, the HST DPEIR/S must characterize the true biological values and ecosystem functions of land that may be affected by the project. Only with this in mind can the significance of impacts on various different resources and habitats be meaningfully compared. Further, only with such information

O007-97

firmly in hand can the feasibility of impact mitigation be accurately evaluated. This was not done adequately for habitat connectivity as well as other habitat functions and values, such as watershed processes, ecosystem integrity, fire regimes, etc. O007-97 Cont.

Fundamental to national wetlands policies is the protection of wetland "functions and values," not just wetland acreage. Wetlands are listed by Cowardin class in the Affected Environment discussion; however, no characterization of their functions or values is provided.[29] For example, the DPEIR/S provides no information about the relative importance of the different Cowardin class and subclass wetlands that may be affected by the HST system to the overall ecosystem health of the state or region. Nor does the DPEIR/S discuss the availability of replacement wetlands that might be offered as mitigation to replace the impacted wetlands' function in the regional or statewide context. Without this information, the wetland impact acreages presented in the Environmental Consequences section cannot be meaningfully interpreted, alternatives cannot be meaningfully compared, and the potential and feasibility of adequately mitigating lost functions and values as a result of the project cannot be assessed. O007-98

The DPEIR/S does not provide a discussion of the status and regional contributions of conservation areas (i.e., public and private lands protected and managed for natural resources values) in the study area. Substantial investments of public and private funds have been made to acquire and manage lands to protect natural resources, and they support essential regional natural resources functions. The DPEIR/S must assess the potential for the project to degrade and reduce the quality of these areas from a biological resources standpoint. To do this adequately, the DPEIR/S must assess the conservation contributions and regional natural resources functions of these protected areas in the Affected Environment section. O007-99

Figures 3.15-1 to 3.15-3 do not adequately characterize the biological resources in the various alignments, and thus, give a false impression as to the magnitudes of their impacts. The figures do not depict the distribution of habitats and rely solely on sensitive species, wetlands, and wildlife corridors to visually depict environmental consequences of the project. At a minimum, figures showing the distribution of vegetation communities, urban, agricultural land, and other infrastructure such as roads should be provided. In addition, it should also be clarified that the special status species information reported was not collected for this project and does not provide a O007-100

[29] See, .e.g, http://www.water.ncsu.edu/watershedss/info/wetlands/values.html for a general discussion of various wetlands values. These include water quality improvement, water supply, flood control, erosion control, fish & wildlife habitat, recreational, cultural, aesthetic, and scientific value, and commercial value. Various protocols for wetlands evaluation exist, including the Wetlands Evaluation Technique (WET), used by FHWA, The Environmental Monitoring Assessment Program—Wetlands, developed by USEPA, and the Hydrogeomorphic Approach developed by the U.S. Army Corps of Engineers. (See, http://water.usgs.gov/nwsum/WSP2425/functions.html) While these approaches differ in their emphases, they all provide methodologies for evaluating wetlands. Unfortunately, the DPEIR/S uses none of these approaches and evaluates none of these values for the potentially impacted wetlands. A revised PEIR/S needs to apply and justify an evaluation of wetlands values to wetlands that may be impacted by the various alignment alternatives.

comprehensive description of special status species distributions across all parts of the study area. O007-100 Cont.

The Environmental Consequences section of the DPEIR/S is fundamentally flawed in that alternatives are not evaluated at an equal level of detail. For example, the DPEIR/S states in Section 3.1.5.A (p.3-24): "It was not possible as part of this study to identify or quantify impacts on biological resources that would occur as a result of transportation improvements in the No Project Alternative. For existing transportation facilities to be improved, impacts on biological resources have previously been addressed, and only small additional or increased impacts are expected from the future transportation improvements in the No Project Alternative. In some cases, widening of existing corridors or similar improvements could result in additional impacts on biological resources." If impacts of transportation improvements associated with the No Project Alternative have "previously been addressed," then a summary of these impacts should be available for inclusion in the HST DPEIR/S. Furthermore, impacts due to widening existing transportation corridors as part of the No Project Alternative could be assessed in the same way that impacts for HST alignment alternatives were assessed – by making assumptions regarding direct and indirect impact buffers around the existing transportation corridors. Not presenting information that is readily available not only demonstrates a significant bias in the analysis of impacts, it leads one to wonder what other information may not be adequately disclosed in the EIR/EIS. O007-101

The presentation of potential impacts of the project in the Environmental Consequences section of the DPEIR/S is inadequate and misleading. The analysis of impacts is presented as a list of impact acreages and potentially affected species, without any interpretation of the significance of these impacts. In the case of special status species, the analysis relies on available species data, which does not include areas that have not been surveyed in the past, and thus is a potentially misleading assessment of impact to special status species. The analysis must interpret the numbers and lists presented in the document so that the public and decision-makers can understand the implications of these numbers and lists and be adequately informed. Furthermore, the summary tables presenting biological resources impacts (e.g., Table 3.15-1 and Summary Table S.5-1) only list numbers of special status species potentially affected, wildlife corridors identified by the Missing Linkages Project, linear feet of non-wetland waters, acres of wetlands, and presence/absence of anadromous fish. The failure to indicate, analyze, and discuss the relative values of the different resources makes it impossible for decision makers or the public to accurately gauge the significance of the impacts that would be caused by different alignment alternatives. The acreages and relative values of impact to terrestrial vegetation communities, particularly those considered sensitive by governmental agencies and non-governmental organizations, should also be listed in these or other summary tables. Furthermore, the length of each alignment segment appears to vary substantially, thus the potential for impacts varies considerably. It is virtually impossible from the presentation of biological impacts for a reader to assess the overall magnitude of impacts from major alignment alternatives. The impacts across segments for major alternatives, including an evaluation of values beyond mere raw

acreage involved, should be totaled and presented to provide a comparable assessment of impacts. O007-101 Cont.

While the acreage of impacts to terrestrial vegetation communities is presented in the text for each alignment segment, there are several problems with this presentation. First, many communities listed as impacted under each segment are not presented under the heading "Sensitive Vegetation Communities" and should be. For example, grasslands are not considered sensitive communities in the DPEIR/S; however, large expanses of grasslands in California are increasingly rare and those that support special status species, such as San Joaquin kit fox, are certainly considered sensitive by the California Resources Agency and the U.S. Fish and Wildlife Service. The southern alignment alternatives (e.g., Pacheco Pass, Henry Miller UPRR, Henry Miller, BNSF, and GEA North) would each adversely affect thousands of acres of grasslands, but this impact is never specifically discussed -- notwithstanding the submittal of detailed information about these resources in the Prior DEIR/S[30] -- except for presenting a single acreage number buried in a long list of other acreages for each alignment segment. Furthermore, the likely direct impacts of construction on these biological resources must be discussed. Construction in areas located in close proximity to existing access roads will have a lesser impact on biological resources than construction in areas where such access roads do not exist and would need to be built to transport the equipment used in construction. While detailed analysis may need to wait for project-level analysis, the programmatic analysis can and must include general consideration of the relative impact of locating Project facilities on an alignment running near or along existing roadways, compared to one without nearby road access. O007-102

The impact analysis does include an indirect impact buffer zone, but it does not acknowledge or provide any discussion of indirect or cumulative impacts that may occur as a result of the project outside of this zone. For example, construction of the HST can be expected to induce residential growth in the vicinity of the alignment. This residential growth is likely to produce impacts to biological resources outside of the assumed indirect impact corridor for the HST project. Furthermore, these growth-inducing impacts would have different magnitudes of effect in different parts of the study area, such as the relatively undeveloped areas along the Pacheco Pass corridor versus the relatively more developed Altamont Pass corridor. Growth-inducing effects on biological resources requires a much more thorough analysis, including consideration of the cumulative impacts from the project plus the growth it induces.

The discussion of impacts to Special Management Areas is completely inadequate. There is no assessment of the nature or magnitude of impacts to these areas. Public parks and other conserved lands serve as the backbone of functional biological open space. These areas are refugia for flora and fauna in the face of ongoing land uses changes that degrade habitat quality. When parks and private conservation areas are part of a larger system of relatively unfragmented open space, they serve as core areas managed for natural resources values within larger landscapes. Thus, indirect impacts, including growth- O007-103

[30] See e.g. Letters on Prior Statewide HST DPEIR/S submitted by the Grasslands Water District and referenced earlier herein.

inducing impacts, to Special Management Areas can be quite significant and merit special attention. Given the resources that have been invested in these areas and their importance to maintaining regional biological functions in light of ongoing land use and climate changes, impact to these special management areas are potentially very significant impacts that merit much more evaluation and discussion in the DPEIR/S. The comments of the Grasslands Water District and of the California Department of Fish & Game regarding impacts of the proposed Pacheco alignment on the Grasslands Ecological Area are of particular significance. In particular, impacts on the San Joaquin Kit Fox, a federally and California listed endangered species, and its habitat appear highly significant. The PEIR/S needs to be revised to address these impacts and the feasibility of mitigation by way of requiring elevation of the HST right-of-way through this sensitive area. In addition, the issues of wildlife impacts from project-associated noise and vibration need to be addressed more thoroughly.[31] O007-103 Cont.

The mitigation measures presented in the Mitigation Strategies and CEQA Significance Conclusions provide no meaningful assurance that impacts from any project alignment would be fully mitigated. The current discussion in the DPEIR/S relies on a formulaic presentation of mitigation considerations but presents no concrete information upon which to base an assessment of whether potential impacts can or will be adequately mitigated. While selection of specific mitigation measures may not be appropriate at this time, at a minimum, an assessment of the availability of adequate mitigation land and the ability to mitigate particular impacts (e.g., landscape scale fragmentation impacts), as well as the ability to adopt clear and enforceable standards must be realistically assessed. O007-104

A revised analysis of project-related and cumulative impacts to biological resources must be completed as part of a revised and recirculated DPEIR/S and, at a minimum, must include the following: O007-105

- Consistency with local natural resources related planning elements and policies for each jurisdiction the alignment traverses;
- Conflicts with NCCP or HCP plans;
- Conflicts with existing protected areas and parklands;
- Quantification of all direct, indirect, and cumulative impacts to natural resources, both permanent and temporary;
- Assessment of adverse impacts to wildlife movement corridors and opportunities to enhance the function of these corridors;
- Assessment of anticipated mitigation measures and permitting requirements, and the probability of successfully mitigating specific impacts;

[31] The DPEIR/S seems to assume that noise will not affect wildlife. This is not true. Noise can significantly affect and interfere with normal wildlife behavior. (See, e.g., Quest for quiet - efforts to reduce noise pollution in wilderness areas, by Bill O'Brien, Sierra Magazine, July-August, 1992. See also comments made by Tejon Ranch on the prior programmatic EIR/S for HST Statewide, especially page 3 of pdf at http://www.cahighspeedrail.ca.gov/eir_final/pdf/vol_2/ch_5/ch-5_pg385-392.pdf). This issue needs to be addressed in the PEIR/S, especially in regard to the areas where the Project may go through or near sensitive wildlife areas.

- Assessment of any growth-inducing impacts to natural resources (see Planning/Land Use Study Terms below).
- Characterization with documentation of the significant impacts of the HST alternatives (alignments and stations) on biological resources compared with the existing environment and before and after mitigation.

O007-105 Cont.

It is simply not appropriate to make choices concerning HST alignments and stations without this information being developed and circulated for public review and comment in a revised EIR/S.

6. The DPEIR/S Fails to Adequately Analyze Significant Land Use and Planning Impacts

The DPEIR/S analysis of land use impacts with respect to HST alignments and station choices is inadequate and incomplete. There is insufficient information provided concerning existing and planned land uses in the areas affected by the alternative alignments and stations to support an adequate analysis. Moreover, the section fails to identify impacts associated with the alignments and station choices.

Specifically, such an analysis must include analysis of the following aspects of the project:

- Compatibility with existing and planned land uses;
- Consistency with local plans and policies for each jurisdiction the alignment traverses;
- Consistency with applicable regulations of permitting agencies, where relevant.
- Potential to promote sprawl residential and commercial development in California

O007-106

For the analysis to be meaningful, alternative alignments and stations should be overlaid on layers of aerial photos indicating all of the following:

- Current parcels and parcel size under common ownership;
- Current land uses;
- Current General Planning;
- Current Zoning;
- Key land use and environmental constraints (e.g. wetlands, agricultural lands, geologic hazards, etc.)

In contrast, the DPEIR/S specifically states, "Because this analysis was conducted at the county level, it does not explicitly reflect potential land designation or policy constraints that are included in each jurisdiction's general plan." (Id. at p. 5-7, footnote 5).

Because the DPEIR/S fails to present this necessary information, the conclusions it reaches concerning land use impacts are simply unsupported. The DPEIR/S fails to analyze and disclose the project's (including all alternatives') impact to the physical

environment and its corresponding effect on land uses as required under CEQA and NEPA for a number of reasons, including its lack of adequate and complete setting information and study areas, its lack of information about existing and planned land uses and policies, and its inadequate analysis of impacts and failure to identify feasible mitigation measures. O007-106 Cont.

Unlike the other sections of the DPEIR/S, the land use analysis only looked at one Network Alternative for each alignment choice. Having identified a wide range of network alternatives for each alignment choice, the PEIR/S needed to either evaluate the relative land use impacts of the various options or explain why some options had been eliminated from consideration. The DPEIR/S seems to assume that any one network alternative will adequately exemplify the land use impacts of other alternatives for that general alignment choice. It fails, however, to present any evidence to support this assumption. If the PEIR is to rely on only one network alternative for each alignment option, it needs to provide substantial evidence to support the implied claim that the chosen network alternative's land use impacts are representative of the other network alternatives that were not examined. O007-107

First, omitted and inadequate project description information makes it impossible to adequately evaluate Project-related impacts on land use. Examples of omitted or inadequate project description elements that result in an underestimation of land use impacts include, but are not limited to the extent of new and expanded infrastructure and public services needed for HST, general plan and zoning amendments that will be needed for the alignments, stations and related facilities and the like. Absent a description of the whole project, land use impacts cannot be fully disclosed or analyzed. O007-108

Second, the description of the affected environment discussion in the Land Use Section has numerous omissions and inconsistencies that make the section inadequate for choosing a preferred modal alternative, let alone HST alignment and station alternatives. For example, the DPEIR/S suggests that general plans were considered using an economic and growth inducement model prepared by Cambridge Systematics, Inc. However, the land use section provides no evidence that general plans, zoning, and existing land uses were actually considered[32]. Moreover, the affected environment discussion does not provide an adequate description of the setting for areas affected by the project alternatives. The study area for land use is inadequate. These limited study areas result in a gross underestimation of the land use compatibility impacts that could occur as the result of these projects being constructed. The study areas must be expanded to address the true effects of a train going by at 200 miles per hour and the growth-inducing impacts of the HST that may completely alter existing neighborhoods and areas well beyond them. Revised analyses of project-related and cumulative land use impacts must be completed based on a complete description of the project and project setting. O007-109

The DPEIR/S fails to identify feasible mitigation measures for significant land use impacts. Mitigation "strategies" proposed for land use impacts are vague and deferred. O007-110

[32] Indeed, as already noted, the DPEIR/S appears to indicate that local land use plans and their associated policies were <u>not</u> considered in the DPEIR/S's land use analysis.

While identification of detailed mitigation measures may not always be feasible at a programmatic level, it is certainly possible, and indeed necessary, to consider and discuss the feasibility of various alternative mitigation strategies, and it is not only feasible but necessary for the PEIR/S to commit to achieving defined and demonstrably achievable standards in order for it to conclude that adequate mitigation will occur. The DPEIR/S' approach to mitigation is simply inadequate for either modal alternative selection or more detailed alignment and station location selection for HST. Feasible mitigation measures must be identified and, in the case of more detailed decisions concerning HST alignments and stations, additional details concerning these project descriptions must be provided. It is not appropriate to make an alignment choice based on the possibility that significant impacts to land use and environmental justice "might" be avoided by as yet undetermined mitigation measures.

For example, with respect to land use impacts, the DPEIR/S should have specified mitigation requirements for land use and growth-inducing impacts including:

- "Requirements" for agreements with cities/counties the route traverses for "smart growth" policies (e.g. in downtowns around stations specific programming for higher densities, reduction or elimination of minimum parking requirements, market-based parking pricing policies, etc.; in rural areas specific policies for farmland protection, etc.). If "smart growth" policies are not in place prior to HST being constructed, the sprawl inducing impacts should be assumed to be significant; O007-110 Cont.
- Limitations on the amount of station parking provided, along with pricing and other policies to encourage users of commuter rail services (i.e., station area residents) to use public transit or non-motorized means for station access and discourage the use of HST stations as "park and ride" lots to service sprawl development projects on converted agricultural lands;
- Up-front purchase of conservation and agricultural easements to either side of the tracks;
- Fees (such as an ongoing portion of ticket revenues) for additional purchase and stewardship of conservation, recreational and agricultural lands; and
- Permanent restrictions on the addition of future stations, or, in the alternative, analysis of each potential future station's growth-inducing impact and identification of mitigation measures to address that impact.[33]

In addition to identifying feasible alignments and restricting station locations to existing urbanized areas to minimize conversion of agricultural and habitat lands to urban uses, these measures, put into place early, would further improve the chances that HST would result in beneficial impacts.

[33] For example, there is currently no station proposed on DMB Associates' approximately 20,000+/- acre holding between Gilroy and Los Banos. A station located on this currently undeveloped land could be tremendously growth-inducing. Similarly, if a station is located in Los Banos in the future, growth-inducing impacts on habitat and agricultural lands would be significant. Unless the PEIR/S can identify a means of assuring that such stations will not be built, the assumption must be that they will eventually be added, and their growth-inducing impacts must therefore be assessed in the PEIR/S and appropriate mitigation measures proposed.

Last, it is not clear from the DPEIR/S what the significant land use impacts are before and after mitigation. A revised and recirculated EIR/S must include clear statements of significance and demonstrate how mitigation measures will in fact reduce potentially significant impacts to less than significant. O007-111

7. The DPEIR/S Fails to Adequately Analyze the Growth-inducing Potential of the Alternatives.

The DPEIR/S fails to provide any meaningful analysis of the growth-inducing potential of the proposed HST alternative alignments and stations. Based on inadequate and contradictory information, the DPEIR/S concludes that the growth potential with HST is "potentially beneficial" with mitigation strategies. Indeed, there is already a considerable amount of existing literature documenting the potential land use impacts of HST service on growth rates and distribution of growth. This literature is not even mentioned. This and other conclusions reached in the DPEIR/S are not supported by adequate and transparent analysis or substantial evidence.

CEQA requires that an EIR contain an analysis of a project's growth-inducing impacts. Growth-inducing impacts are those that encourage or facilitate other activities or projects that could significantly affect the environment. The "detailed statement" setting forth the growth-inducing aspects of a project must "[d]iscuss the ways in which the proposed project could foster economic growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." CEQA Guidelines Section 15126.2(d). It must also discuss how a project may "encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively" or remove obstacles to population growth. Population growth in turn may impose new burdens on existing or planned community services. Similarly, NEPA requires that agencies consider the indirect effects of a proposed action, such as growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate. 40 CFR 1508(b). While the CEQA Guidelines note that additional growth should not be assumed to be either detrimental or beneficial, significant impacts related to growth induced by a project must be identified and, if adverse, mitigation proposed. O007-112

The general analysis of growth inducement that is included in the DPEIR/S fails to accurately analyze and document the likely growth that could be induced and erroneously concludes that growth induced by HST will be beneficial after mitigation strategies are imposed. Lead agencies must not assume growth induced in an area is beneficial or of little consequence until it has completed a comprehensive and objective analysis. CEQA Guidelines section 15126.2, subd.(d). Here the DPEIR/S conclusions concerning growth inducement are not supported by substantial evidence (e.g. that the Altamont Alternative will result in the consumption of more land through growth-inducement than Pacheco). The exercise of analyzing growth inducement is technically feasible and must be included in a revised DPEIR/S. Major flaws in the DPEIR/S approach to growth inducement include but are not limited to the following:

First, while the DPEIR/S states that professional experience was used in determining growth impacts (DPEIR/S at 5-4), it is clear that the professionals did not evaluate aerial photos and property ownership maps along the two alignments. This information is missing from the list of information and key steps taken to estimate the growth-inducing effects of the alternatives. See DPEIR/S at 5-6. Had the consultant team taken this basic step, the analysis would be far superior to the "modeling" outputs presented. Specifically, there are numerous consolidated large land holdings of vacant/undeveloped agricultural and open space lands along the Pacheco route between San Jose and Merced.

Reference to the history in California of similar situations (e.g., development of the San Fernando Valley in the 1940s and 50s, development of Central Contra Costa County in the 1970s and 1980s) indicates that introduction of HST into low density areas dominated by large and speculative real estate holdings can be predicted to induce the type of growth destined to increase sprawl and therefore worsen California's air quality and global warming condition. Yet, the DPEIR/S fails to identify this likely scenario, and instead suggests that somehow history will not repeat itself and that areas along the Pacheco route will either develop as dense urban areas or stay undeveloped. Again, the history of California development strongly indicates that the only way that sprawl will be prevented in whatever areas are opened up to development by HST service is by requiring implementation of strong land use regulatory controls. O007-113

Such controls, including mandatory urban growth boundaries, mandatory high density mixed use areas surrounding each HST station, and mandatory development of a complementary local public transit system need to be made prerequisites for the building and opening of HST stations or, where stations already exist, making that station a stop on the HST line. In addition, the CHSRA needs to commit itself to not opening stations except where there is already an existing significant population center. Otherwise, it must be assumed that the HST service will induce conventional suburban growth in station vicinities, with predictably associated traffic, air quality, water quality, and other adverse impacts, all of which would need to be studied in the PEIR/S.

Moreover, the DPEIR/S fails to provide any analysis of the growth-inducing potential of the proposed alternatives and in particular of the HST alignment and rail stations in specific areas where stations will be located. Without a station-by-station analysis, it is not possible to evaluate which combinations of stations along a potential alignment would be environmentally superior. Furthermore some mitigation measures for growth inducement and other impacts will likely be specific to individual stations. Therefore, mitigation measures cannot be properly evaluated if individual station impacts are left unanalyzed. Both of these points are shown by the discussion of the Modesto station location on page 5-30 of the DPEIR/S: O007-114

> "In Stanislaus County, the Amtrak Briggsmore station could lead to the urbanization of 1,000 more acres in the county than the SP Downtown station site 9, leading to additional indirect impacts; this difference between station sites accounts for about 35% of the difference in

> urbanized area size between the Altamont and Pacheco network alternatives noted in Table 5.3-6 for Stanislaus County."

A large impact that significantly affects the Altamont HST alternative could be mitigated by selecting the environmentally superior station in Modesto. The DPEIR/S does not disclose this in Table 5.3-6 or anywhere else in the document, leaving the reader to figure out how to plug the 35% into the numbers in Table 5.3-6 and attempt to recreate the calculations needed to understand how this would affect the overall comparison of HST alternatives. For other station locations, the reader is not given <u>any</u> quantification of how various station locations, or their addition or removal, would affect the different alternatives. O007-114 Cont.

While the DPEIR/S fails to analyze growth-inducing impacts of specific alignments and station locations, it does provide general information concerning potential economic and housing growth inducement by region. Notwithstanding the overwhelming empirical evidence that applying this approach to remote areas like those that the Pacheco and Diablo alignments would traverse, would exert tremendous pressure for growth induction, the DPEIR/S concludes that:

> "Overall, the system alternatives exhibit very similar levels of growth-inducing effects in terms of population, employment, and urbanization patterns."

This conclusion is simply not supported by the evidence in the DPEIR/S. To the contrary, elsewhere in California, recent growth patterns demonstrate that accessibility to major employment centers has triggered tremendous new growth.[34] The introduction of HST to the rural and undeveloped areas along the Pacheco routes will make it possible for Bay Area employees to easily commute to and from affordable suburban and rural housing in and around the Grasslands area and create significant pressure for growth of housing and new services in this area. Additional growth in the rural areas poses significant indirect threats as a result of increased population and pressure on farmlands, wildlife habitat, and open space. The applicable county general plans for these rural areas currently call for a predominance of low density and rural residential uses. The relative affordability of homes and property in these areas as compared with the Bay Area will be a tremendous draw for Bay Area workers to move to the area as they did during the "dot com" boom of the late 1990's, when workers moved to areas such as Salinas and Vacaville/Fairfield that were outside of the Bay Area's traditional suburban areas and where housing was much more affordable than in the central Bay Area. A revised DPEIR/S must disclose and analyze the likely growth-inducing impact of HST on such rural areas, including how introduction of a HST station is likely to accelerate growth and O007-115

[34] Examples include the Auburn corridor, as major new employers moved to the Sacramento region and north, and the Truckee area, which is approximately 1 hour from the major new job growth in the Auburn Corridor and Reno. Historical growth patterns in California clearly demonstrate that the close proximity of a major job center inevitably leads to growth inducement for housing within commute range. HST will render the Grasslands area within close commute range to major job centers in the Bay Area. While the DPEIR/S should review relevant studies on growth inducement related to major transportation infrastructure, please see Exhibit F for a Land Use and Economics Study of the Grasslands Ecological Area.

increase demand for subdivisions and development. Land conversion estimates should be developed for each rural area served by HST, as well as analysis and discussion of the significance of likely impacts on farmland, wildlife habitat, ecosystems, and open space.[35] O007-115 Cont.

The methodology behind the projections in Table 5.3-5 and all subsequent tables is unexplained and the results are suspect. Alameda County, with additional stations under the Altamont alternative, is projected to have less employment under this alternative than under the Pacheco alignment. Contra Costa County is also projected to have less employment and population under the Altamont alignment alternative, despite having better access to HST stations under this alternative. San Francisco would have reduced travel times to both Southern California and the Central Valley under the Altamont alternative, at the cost of reduced access to Gilroy and Morgan Hill, yet again the DPEIR/S indicates that it would have more employment and population growth under the Pacheco alternative. Is access to southern Santa Clara County more important to San Francisco's growth than access to the rest of the HSR network combined? That is what the model results appear to state; and is not believable. Conversely, Santa Clara County's population is shown as growing faster under the Altamont alternative than under the Pacheco alternative. Thus, Table 5.3-5 indicates that shifting HSR access from southern Santa Clara County to Altamont would increase growth rates for the county. Again, the result is counterintuitive, and, at the very least, requires explanation. These results indicating that removing stations from Alameda or Santa Clara Counties increases employment or residential growth while adding more stations reduces growth do not make sense. They strongly suggest that the models used are fatally flawed, or that the two models used different data sets and/or assumptions, making comparisons between the models invalid. O007-116

Since results were not broken down by station and a list of which stations where included in each alternative is not provided, it is impossible to verify how the county level numbers were arrived at. Further, since the methodology behind the model is not disclosed in the DPEIR/S, the accuracy of its assumptions cannot be verified. Because the model projections in Table 5-3.5 are the basis for all other tables and discussions on the relative growth-inducing and economic impacts of the two alternatives, all the projection numbers used to determine impacts are suspect. The entire analysis needs to be O007-117

[35] In the statewide HST PEIR/S, similar comments were raised. The response in the Final EIR/S was to argue that the cumulative commute time would make long distance commutes from the Central Valley to the Bay Area infeasible. However, this response overlooks several salient points: 1) Especially if the Pacheco alignment is chosen, points in the Los Banos to Merced portion of the alignment will easily be within an hour's ride of San Jose. 2) Further, San Jose development has tended to sprawl southward, and there are numerous proposals for major commercial development in the Coyote Valley south of San Jose. This area would be even closer and more susceptible to growth-inducing impacts, both as a residential "feeder" for San Jose and as a commercial center receiving commuters from the Central Valley, if HST service is introduced on the Pacheco alignment. The DPEIR/S needs to evaluate both these highly foreseeable outcomes and their effects on the Pacheco alignment's growth-inducing impacts. 3) Commute times in the Bay Area have continued to increase along with traffic congestion and the expansion of the commute areas to affordable housing. Four hour per day commutes are no longer considered unthinkable. Expected Central Valley to Bay Area commute times need to be compared to actual commute times of current Bay Area commuters to determine what level of commute time is considered acceptable.

redone and republished, based on a model that is accurate and whose methodology, assumptions, and supporting data are disclosed and explained. O007-117 Cont.

Second, as with the other impact sections, it is clear that the section "analyzes" some growth impacts, such as employment only in relationship to future conditions. See Table 5.3-5 and 5.3-6. This approach results in an underestimation of the growth that will be induced by the introduction of HST, particularly into undeveloped areas underserved by roads and transit. O007-118

Third, the DPEIR/S concludes that HST will lead to more efficient use of the land and higher densities. These conclusions are simply not supported by the general plans or by the evidence presented in the DPEIR/S. Incredibly, the DPEIR/S concludes that the HST Alternative will result in significantly improved land use efficiencies over the No Project Alternative:

> "The results indicate that the Pacheco network alternative is the most efficient of the alternatives, providing an incremental development density that is 1.3% more efficient than the No Project Alternative, while the Altamont network alternative is 0.8% more efficient than the No Project Alternative." DPEIR/S at 5-17. O007-119

However, the DPEIR/S provides no data, evidence, or research citations to support this conclusion. While, after decades of research on the growth impacts of high speed rail, studies have shown that HSR service concentrates commercial growth around stations[36], other studies have shown that HSR is correlated to higher overall growth rates[37] along with the dispersion of residential populations and induced long-distance commuting[38]. It is impossible to verify the basis of the DPEIR/S conclusion when no evidence or even citation to supporting studies or data is presented. Further, the DPEIR/S provides no evidence to support its claim that development induced along the Pacheco route would be more compact or energy efficient than that along the Altamont route. Even if the open space development induced by the Pacheco route were denser than infill Altamont development[39], one has to look at where that development would be. Altamont infill

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[36] Sands, Brian D. The Development Effects of High-Speed Rail Stations and Implications for California. Berkeley, CA: Institute of Urban and Regional Development University of California at Berkeley, 1993.

Rietveld, P., F.R. Bruinsma, H.T. van Delft, and B. Ubbels. Economic Impacts of High Speed Trains. Experiences in Japan and France: Expectations in the Netherlands. Amsterdam: Vrije Universiteit Amsterdam, 2001.

[37] Haynes, Kingsley E. "Labor Markets and Regional Transportation Improvements: The Case of High-Speed Trains an Introduction and Review." Annals of Regional Science 31, no. 1 (1997): 19.

[38] Rietveld, P., F.R. Bruinsma, H.T. van Delft, and B. Ubbels. Economic Impacts of High Speed Trains. Experiences in Japan and France: Expectations in the Netherlands. Amsterdam: Vrije Universiteit Amsterdam, 2001.

[39] This seems a highly questionable assumption. Certainly there appears, based on examination of city and county general plans, significantly more awareness of the need for compact growth and clustered development in the general plans of, for example, Livermore, Pleasanton, Dublin and Alameda County [all of these jurisdictions have adopted urban limit lines or otherwise expressed a preference for infill, clustered

development in the middle of Livermore or Tracy, even if it were, theoretically, to be less clustered than in the open spaces near Los Banos, would still contribute less in new sprawl and therefore less in energy consumption, less in air pollution and less in global warming than the type of development that would occur if Pacheco is selected. In any case, the DPEIR/S's assumptions and conclusions are unsubstantiated. What is needed is a direct comparison, both at the general plan level and in terms of the on-the-ground built environment, of the efficiency of development policies and practices in the areas along the two alternative alignments, including a breakdown of the data for the different station location options. This analysis needs to be included in the revised DPEIR/S.

The DPEIR/S's claimed result appears to be tied in major part to the assumption that: "Much of the potential incremental growth associated with each alternative is likely to focus around HST stations...". DPEIR/S at 5-18. While the document cites to "[r]ecent trends among local jurisdictions" showing a growing consideration of land use policies that are intended to encourage high-density, mixed-use development in downtowns, no information on plans for station locations or alignments is provided to support this claimed trend. DPEIR/S at 5-20. Further, policies promoting high-density mixed-use development around rail stations, as opposed to the more typical suburban sprawl, do not materialize out of nowhere. Absent regulatory intervention, new development in an area would be constrained to follow the existing low-density and auto dependent zoning, leading to continuation of the same growth patterns as those of existing development. Areas where sprawl is endemic and allowed, encouraged or required by the current zoning and related land use regulations tend to produce more sprawl; while areas where high-density compact development predominates because it is allowed, encouraged, or required by the current zoning and land use regulations, tend to produce more of the same. The PEIR/S' analysis of induced growth needs to apply this principle in assessing the impacts on, and in designing mitigation for, the areas where HST may induce additional development. O007-119 Cont.

The type of result posited in the DPEIR/S is not likely to occur in areas planned and zoned for very low densities, such as those along the Pacheco route. The DPEIR/S, in Table 5.3-7 on Page 5-17, shows Pacheco as using land more intensively than Altamont. However, this supposed fact is due primarily to errors in using the statistical data involved. The chart was produced by taking total land consumption forecasts and dividing by total population and employment increases. In short, it is only a broad average figure across a large area. More precise and focused figures are needed before conclusions about relative development density can be taken seriously. The DPEIR/S also does not explain where these various figures come from and how they were derived. Thus, for example, does "land consumption" mean agricultural land taken out of production for any reason? Does it include land taken out of production for park dedication? If so, the figures are deceptive, because land placed in parks is NOT being developed and should not be considered in determining land use efficiency. Without much more information on the meaning of the figures and how they were derived, the table is effectively meaningless. In any event, the impingement of growth induction in

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development, and smart growth]. By comparison, jurisdictions along the Pacheco route have shown little recognition of the need to promote compact, infill "smart growth", rather than sprawl development.

the remote areas that would become accessible if the Pacheco route were adopted would undoubtedly result in more sprawl than would occur along the already built-up Altamont route. O007-119 Cont.

The DPEIR/S fails altogether to analyze the HST's role in inducing low-density suburban and rural residential development. This is among the document's major flaws. The DPEIR/S ignores the "ranchette phenomenon," which is one of the highest impact types of sprawl.[40] Census figures make it possible to separate rural and urban populations. The DPEIR/S simply fails to consider the high demand for this type of sprawl development and therefore fails to identify and analyze the additional significant impacts related to that growth (assuming mitigation in the form of growth-control policies is not implemented) including increased traffic, increased pollution, increased demand for services and infrastructure, accelerated and increased loss of open space, agricultural and habitat land. New transportation facilities are classic for inducing and accelerating growth, particularly in rural and undeveloped areas. Examples abound, including the "streetcar suburbs" of Eastern U.S. cities and the growth in the East Bay associated with the expansion of the "Key" streetcar system.[41] A revised DPEIR/S must analyze likely new and accelerated growth based on existing general plans and the likelihood that HST will prompt general plan and zoning amendments for additional growth and accelerate both urban and rural development. O007-120

Without any analysis of facts the DPEIR/S concludes that HST will minimize a variety of impacts normally associated with growth due to its inherent incentives for directing urban growth:

> "In short, either HST Alternative provides a strong incentive for directing urban growth and minimizing a variety of impacts that are frequently associated with growth. This outcome would be seen in results for resource topics such as farmland, hydrology, and wetlands, where the indirect effects of the HST Alternative are less than the No Project Alternative, even with more population and employment expected with the HST Alternative." DPEIR/S at 5-32

O007-121

This conclusion is utterly unsupported by any factual evidence or citation to supporting literature. In fact, the history of past expansions of transportation infrastructure is rife with evidence that unless mechanisms are put in place to control how growth occurs, rampant sprawl is likely to result. One need look no further than the expansion of the BART system into the East Bay, with the associated construction of large park-and-ride

[40] The analysis completed by the American Farmland Trust (see comment letter submitted by AFT on the Prior DEIR/S), suggests that between 300,000 and 700,00 additional acres of land could be converted to rural ranchettes based on population projections, current ranchette development trends and assuming an average of 5 acres per dwelling and 2.8 persons per household. This trend will accelerate the subdivision of open space lands for ranchette development where HST removes the barrier of accessibility to jobs.

[41] Even these past examples of growth underestimate the degree of sprawl induction that could result from HST station placement. Those previous examples occurred at times when cars were far less prevalent and roadways far less extensive and well-developed. In those days, most people walked to the trolley stop. With HST service, most people can be expected to drive to/from the HST station unless strong incentives and disincentives are combined to counteract the modern tendency to drive.

lots, to see where expanded rail infrastructure has promoted sprawl development in places such as Pittsburg and Antioch. Conversely, the more recent transition of some of these areas (e.g., Fruitvale and del Norte stations) to more compact "smart growth" development has required the active intervention of the local jurisdiction's planning policies. If the DPEIR/S proposes to claim that addition of HST will, in itself, induce compact urban growth, it must support this claim with evidence based on past situations where, under comparable circumstances, construction of HST, or at least rail infrastructure, has promoted dense, focused urban development, as opposed to suburban sprawl. Further, these situations would need to involve comparable situations, planning policies, and cultural norms to those that exist along the proposed HST alignments[42]. Comparison with HST construction in Europe or Japan is not possible without taking into account the cultural differences, local and regional environmental, development, and land use policies in place at the time HST was implemented, and other relevant differences from the current situation in Northern California. O007-121 Cont.

Fourth, the DPEIR/S fails to disclose the likely increase in demand in areas served by HST for second homes. For example, the Sierra Foothills along the Central Valley will become very accessible to the major population of LA, Sacramento and the Bay Area. The spectacular open space setting in the Sierras already make them highly attractive as a second home market. With HST bringing these areas within an hour of major population centers, the likely increase in second home demand is likely to be significant. The DPEIR/S is silent on this potential growth-inducing impact and its secondary impacts. A revised DPEIR/S must include analysis of this potentially significant impact on rural areas proposed to be served by HST. O007-122

Fifth, stations proposed for rural areas are likely to require major new infrastructure and services. The DPEIR/S fails to reveal the extent of these facilities nor does it analyze the growth-inducing impact these new facilities will have in the immediate areas surrounding the stations. A revised analysis must include information about the types of services and infrastructure needed for these stations and analyze how the extension of those facilities will remove an existing barrier to growth in these formerly unserved and relatively remote areas. Specifically, the DPEIR/S should describe the current general plan and zoning of each proposed station site and surrounding areas; the existing status of services and infrastructure; services and infrastructure that will be provided to serve each new station; and the likely growth-inducing effect of the station and those facilities on adjacent lands. O007-123

Sixth, the DPEIR/S discussion of economic and growth inducement suggests that the introduction of HST to the Central Valley will change the types of jobs in the region and lead to personal income growth. Yet, the DPEIR/S fails to analyze the likely results of this dramatic change, including, but not limited to increased demand for larger, high-end homes, increased demand for services and overall increased growth and development to serve the very different demands of higher income individuals and families. O007-124

[42] E.g., it is clear that many parts of California have cultures acclimated to extensive private auto use, as opposed to long-established urban areas such as New York, Boston, Chicago, or many parts of Europe and Japan, where public transit use is the norm.

Seventh, the assertion in Section 5.5.16 that there are no growth-induced impacts on 4(f) and 6(f) resources is utterly unsubstantiated, and must be deleted. The indirect impacts of developing a Pacheco HST Alignment were identified in comments from the U.S. Fish and Wildlife Service, amongst others. See below. O007-125

Eighth, the growth inducement analysis entirely ignored Monterey and San Benito counties. These counties cannot be found on any of the tables accompanying the growth inducement analysis, despite their proximity to one of the alignment alternatives. The AMBAG counties are projected to have a 75% increase in population between 2000 and 2030 (Table 3.2, Bay Area/California High-Speed Ridership and Revenue Forecasting Study, Draft Final Report; CAHSR, 2007). An increase of that magnitude needs to be explained, especially as to whether the potential for HST played a role in enlarging that projection. The growth inducement analysis needs to be redone, with attention paid specifically to these neighboring counties of the Pacheco alignment. O007-126

Ninth, the land use efficiencies for the two alternatives differ only in the third decimal place. (Table 5.3-7) Nothing in the growth inducement analysis identified the margin of error for the econometric model, or whether this difference lies outside it. There was no statement that the difference is significant. O007-127

Finally, the mitigation "strategies" proposed for dealing with growth-induced impacts are not sufficient. While increased development density around HST stations in downtown locations has the potential to avoid or minimize some impacts, the opposite is likely to be the case where stations are located in rural areas. The Cambridge Systematics study suggests that regulatory efforts to encourage increased density of land uses near rail stations have been effective. DPEIR/S at 5-32. The inclusion of Section 6, HST Station Area Development, in the DPEIR/S is of interest in this regard. However, the DPEIR/S proposes no mechanism to ensure that such principles will be applied in the placement of HST stations. If the policies proposed on page 5-32 are to be effective in mitigating growth-inducing impacts, they must be mandatory prerequisites for the location of any station. Again, the document fails to analyze the gap between these principles and the existing general plans for the proposed stations along each route. Such an analysis would likely favor the Altamont route as having stations in locations where the local jurisdiction has enacted "smarter" planning and zoning. Such an analysis must be included in a revised DPEIR/S. O007-128

Specific mitigation measures, such as urban growth boundaries, transit-oriented development district planning and zoning, housing density and affordability requirements, incentives to reduce auto ownership and use, and the like, directed at avoiding sprawl, must be in place prior to HST station development if adverse impacts associated with growth inducement are to be avoided or minimized. Such measures include:

- Requirements for agreements with cities/counties the route traverses for "smart growth" policies (e.g. in downtowns around stations specific programming for higher densities, etc.; in rural areas specific policies for

farmland protection, etc.)[43]. One mechanism to pursue these agreements might be allocating funding in return for smart growth provisions in General Plans and zoning; and

- Conditioning the actual construction and opening of HSR stations upon the local jurisdictions' adoption of "smart growth" policies encouraging locating transit-focused development in the station vicinity and discouraging the proposal or approval of sprawl development. O007-128 Cont.
- Up-front purchase of conservation and agricultural easements to either side of the tracks and stations where located in undeveloped areas outside of cities.
- Urban growth boundaries;
- Limits on subdivisions outside of urban growth boundaries and the like.

Other questions concerning the DPEIR/S section on Economic Growth and Related Impacts include, but are not limited to the following:

- The section states that "in order to better simulate the population and employment growth effects for each system alternative," they were kept as separate economic modeling regions. DPEIR/S at 5-3. If this was the approach, rather than using a single interactive model, how was it possible to model the growth-inducing effects of the different alignments on the two regions together? Was any model available that could verify the outputs of the separate models? If so, was it utilized for such a validation exercise? If not, how can the results be validated? O007-129

  It is a basic axiom of modeling systems that modeling results need to be validated against real world data to confirm the validity of the model before the results can be used with any confidence. The DPEIR/S needs to indicate that such validation occurred and provide evidence of the degree of confidence that can be placed in the model used, based on the results of the validation test.

- According to the DPEIR/S, the land consumption for both HST Network Alternatives is projected to be about the same magnitude because of the predominant effect of population growth. DPEIR/S at 5-13. In the 11 core area counties, the Altamont network is projected to consume an additional 5,000 acres of land for urbanized densities compared to the Pacheco network alternative. This outcome is counter-intuitive. On the preceding page, the statement is made that a reduction in the availability of land for development in some Bay Area counties creates market forces for higher density and slight increases in infill and redevelopment potential. Real estate and transportation experts should be retained to validate this modeling result based on existing development along the O007-130

[43] Studies on whether introduction of transit stations result in higher density, so called "smart growth" development, have shown that these benefits are not automatic. Rather, land use and zoning changes must be put in place in order to achieve these outcomes. The Metropolitan Transportation Commission has launched a study to better ascertain the relationship of transit stations, land use and ridership. A revised PEIR/S should consider this and other studies when formulating effective mitigation measures to ensure a beneficial land use outcome from the placement of HST stations.

two alignments using basic tools including aerial photographs, parcel and property ownership data, etc. O007-130 Cont.

- The undefined "expected densification trends over time" on page 5-7 are strongly undercut by Footnote 5, which discloses the expectation that future land use will be mostly like present land use. "The densities that are allowed under zoning and general plan designations are implicitly included in the analysis to the extent that existing development patterns and market forces have been influenced by past zoning and general plan decisions." For the most part, in the areas involved, this is <u>not</u> going to be Smart Growth. The footnote indicates the lack of evidence for later findings that expect future densification. O007-131

- It makes no sense that the Altamont alignment would cause more population growth in Santa Clara County than the Pacheco alignment (Table 5.3-1). Common sense dictates that that result would be reversed (especially considering that the modeling assumed Pacheco would provide higher levels of service). This counterintuitive result casts doubt on the entire modeling exercise. It requires further explanation. O007-132

Even with these measures identified in a revised DPEIR/S, additional evidence must be provided that they would actually have the desired effects in rural areas. Revised analyses of these likely significant and adverse growth-inducing impacts of HST must be completed. O007-133

8. The DPEIR/S Fails to Analyze Adequately Section 4(f) and 6(f) Issues and Impacts.

The discussion of the issue of parks, open space, wildlife refuges and otherwise "protected" areas in the DPEIR/S, is inadequate for numerous reasons including lack of adequate information about the proposed project alternatives, lack of setting information, inadequate impacts analysis and failure to identify feasible mitigation measures.

The DPEIR/S begins with the following disclosure:

> "At this stage, it is not practical to study or measure the severity of each potential impact identified. No fieldwork was conducted as part of this analysis. In subsequent project-level analysis, Section 4(f) and 6(f) resources, potential uses and impacts, and appropriate mitigation measures would be evaluated in detail and determinations made." DPEIR/S at 3.16-2. O007-134

This approach to such a critical topic is simply indefensible. Alignment and station choices will be made following the release of the FPEIR/S. These are crucial decisions in terms of the potential Section 4(f) and 6(f) resources. Additional study at a later date will not undo the damage done by premature and ill-informed choices. Additional information, analysis and mitigation for HST alignment impacts to Section 4(f) and 6(f) resources must be included in a revised EIR/S <u>at this level</u> before such choices are made.

Other flaws in the document's treatment of this topic include, but are not limited to the following: The DPEIR/S fails to adequately characterize the project setting with respect to Section 4(f) and 6(f) resources. In enacting Section 4(f) as part of the Department of Transportation Act of 1996, Congress declared that "special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands." 49 U.S.C. Section 303. As a means of implementing these goals, Congress specified two fundamental mandates: 1) prohibiting federal agencies from approving transportation projects that require use of a public park or recreation area unless there is no feasible and prudent alternative to using the parkland; and 2) requiring transportation projects which use a public park or recreation area to include all possible planning to minimize harm to the parkland. U.S.C. Section 303c. Authoritative interpretation of federal agencies' duties under this provision was established and continues to be provided by the 1971 Supreme Court decision in Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402. In that case, the Supreme Court overturned the Secretary of Transportation's approval of a six-lane highway through a park in Memphis. In reaching its decision, the court held that "only the most unusual situations are exempted" from the Section 4(f) mandate. The court further clarified that such situations would include only "unique problems" such as extreme financial costs or community disruption of "extraordinary magnitudes." Id. at 411, 413. O007-135

Based on this and other cases, it is clear that choosing an alignment or station alternative that requires use of a public park or recreation area simply because it is the least expensive or most efficient choice does not meet the mandate of Section 4(f). In the case of HST, there appear to be feasible alternatives that avoid impacting public parks, recreation areas, nature preserves, and refuges. Our summary of flaws in the DPEIR/S analysis of these impacts is as follows[44]:

The DPEIR/S lists the significant Section 4(f) and 6(f) resources in each region. DPEIR/S at 3.16-4.[45] However, it is important that the reader have an understanding of the locations of these valuable resources in relation to the alignments under consideration. The PEIR/S needs to include a map identifying and showing the locations of all Section 4(f)and 6(f) resources, and specifically all state parks, in relation to the alternative alignments under consideration in the PEIR/S. O007-136

First, the DPEIR/S defers meaningful analysis of impacts to these resources. The DPEIR/S contains a table, Table 3.16-3 and text which briefly summarize general direct and indirect impacts to these resources. The table and text suggest there will be numerous significant direct and indirect impacts to these resources depending on alignment, station and network, but provide information that is so vague as to be of little analytical use. Without a more specific impact analysis, it is impossible to know what O007-137

[44] See also letters submitted by the California State Parks Foundation, Defense of Place and the Natural Resources Defense Council.

[45] It should be noted that the State Department of Parks and Recreation, in a letter dated 10/28/05, identified nine state parks in the Bay Area/Central Valley area that could potentially be affected by the HST project but were not referenced in the Statewide PEIR. This PEIR should comment on the completeness of its listing of Section 4(f) and 6(f) resources compared to the list in that letter.

impacts will result from different possible alignments and to what extent mitigation measures would reduce or eliminate those impacts. Under the requirements of federal law, and because protected areas are such a high priority for Californians, simply deferring discussion and analysis on the specific impacts to Section 4(f) and 6(f) resources to the project level EIR is unacceptable. These resources provide amenities including: important recreation opportunities, barriers to and buffers from urban sprawl, an experience of areas with unique qualities, wildlife habitat and migration corridors, an escape from the urban environment, as well as serving as a valuable resource for both humans and wildlife. These resources are the reason why Section 4(f) and 6(f) set these areas aside for future generations. The negative impacts on both the Section 4(f) and 6(f) resources themselves and the amenities they provided should have been considered in more detail in the DPEIR/S. Indeed, the DPEIR/S approach to these resource impacts fails to reflect the "special effort" or assessment of "prudent and feasible alternatives" that Section 4(f) requires. Section 4(f) makes it clear that preservation of parkland is of paramount importance; more so than costs, directness of route, or community disruption. See *Citizens to Preserve Overton Park v. Volpe* (1971) 401 U.S. 402, 412-13. A revised and recirculated EIR/S must include a thorough analysis of these impacts. O007-137 Cont.

Section 3.16 of the DPEIR/S compared the number of Section 4(f) and 6(f) resources that would be impacted by the HSR versus No Project alternatives, which includes future transportation improvements. The section fails to disaggregate the impacts of future conditions from the impacts of HST on these resources. A simple tally of the impacts on Section 4(f) and 6(f) resources between the different alternatives deprives the DPEIR/S of any meaningful information about the nature of these impacts to these resources for each choice. Further, a mere numeric listing of resources affected by different alternatives is not an adequate analysis of the relative impact of different alternatives. The analysis must include analysis of the relative extent and severity of each impact, as well as the extent of feasible mitigation possible and the relative extents and severity of impacts before and after mitigation. It is of particular importance to compare the relative extent and severity of impacts on Section 4(f) and 6(f) resources between the Altamont and Pacheco alignment alternatives.[46] O007-138

Parks, open space, wilderness, and wildlife refuges are clearly spending priorities for Californians, based on the billions of dollars that have been allocated for acquisition of such places in voter approval of several recent ballot initiatives. Extensive discussion of the HSR impact on these protected areas should have been a higher priority in the DPEIR/S. A revised EIR/S must quantify the potential impacts to significant public investments made to both publicly owned and privately owned conservation areas[47].

Third, as in other environmental impact sections of the DPEIR/S, the "mitigation strategies" for 4(f) and 6(f) issues are vague and improperly deferred. Yet, based on O007-139

[46] It appears that at least Pacheco State Park and San Luis Reservoir State Recreation Area would be directly impacted by the Pacheco alignment alternative. In addition, the PEIR/S needs to identify other park-related impacts, including noise and impacts on the ease of park access.

[47] See, for instance, the comment letter submitted by the The Nature Conservancy concerning significant properties that were purchased with public funding and whose biodiversity will be impacted by HST.

these "strategies", a number of potentially significant impacts to these resources are concluded to be potentially less than significant after mitigation. A revised EIR/S must not only include the required analysis of these issues, but identify feasible mitigation measures, including annual operation and maintenance costs that are automatically incurred with a project of this scope. A revised PEIR/S must demonstrate and document, based on substantial evidence, how each measure actually reduces potentially significant impact to less than significant.

O007-139 Cont.

Section 4(f) requires analysis of alternatives be conducted and specific mitigation measures identified before an alignment choice is made. A revised and recirculated DPEIR/S must include this information. Avoiding the impacts on Section 4(f) and 6(f) resources should be a major priority for evaluating all possible Bay Area – Central Valley routes in the revised environmental document. If these areas are ultimately to be impacted, a revised evaluation must demonstrate that there was no other option and meet the high bar set by the courts for impacting these precious resources.

9. The DPEIR/S Fails to Adequately Analyze Cumulative Impacts.

CEQA and NEPA require that cumulative impacts be analyzed. The CEQA Guidelines define cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." CEQA Guidelines Section 15355(a). "[I]ndividual effects may be changes resulting from a single project or a number of separate projects." Id. Federal Regulations implementing the National Environmental Policy Act (NEPA) also require that the cumulative impacts of the proposed action be assessed. Cumulative impact is defined by the Council on Environmental Quality as an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions." 40 CFR 1508.7.

O007-140

A legally adequate cumulative impacts analysis views a particular project over time and must consider the impacts of the project combined with other projects causing related impacts, including past, present, and probable future projects. CEQA Guidelines 15130(b)(1). Projects currently under environmental review unequivocally qualify as reasonably probable future projects to be considered in a cumulative impacts analysis. See San Franciscans' for Reasonable Growth v. City and County of San Francisco, 151 Cal.App.3d 61, 74 & n. 13 (1984). In addition, projects anticipated beyond the near future should be analyzed for their cumulative effect if they are reasonably foreseeable. See Bozung v. Local Agency Formation Comm'n, 13 Cal3d 263, 284 (1975). Alternatively, an EIR may utilize:

> A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact.

CEQA Guidelines Section 15130(b)(1)(B). Any such planning document shall be referenced and made available to the public at a location specified by the lead agency. Id.

The discussion of cumulative impacts must include a summary of the expected environmental effects to be produced by those projects, a reasonable analysis of the cumulative impacts, and full consideration of all feasible mitigation measures that could reduce or avoid any significant cumulative effects of a proposed project. See CEQA Guidelines Sections 15126.4(a)(1) and 15130(b)(3). O007-140 Cont.

This DPEIR/S fails altogether to meet these requirements and instead only discusses present and future projects within the immediate area that the HST would traverse. Moreover, by including some future (programmed and funded) transportation projects in the No Project Alternative, the section likely understates many significant cumulative impacts. O007-141

Key transportation and other projects are omitted from the discussion and analysis (e.g. http://www.dmbinc.com/communities/ A 4,500 acre planned community in San Benito county adjacent to the Gilroy HST station; major development proposed in the vicinity of the San Francisco Transbay Terminal HSR station; "transit village" for Union City transit hub; proposed major development at/near Sacramento Amtrak Station). As a result of this approach, the cumulative impact analysis is improperly narrow in scope and therefore underestimates and omits cumulative impacts. O007-142

The cumulative impact analysis also fails to specify mitigation measures for cumulative impacts, as required under CEQA and NEPA.

F. The DPEIR/S Fails to Identify Feasible Mitigation Measures

Both CEQA and NEPA require that mitigation measures be identified and analyzed. The Supreme Court has described the mitigation and alternatives sections of the EIR as the "core" of the document. Citizens of Goleta Valley v. Board of Supervisors, 52 CAL.3d 553 (1990). As explained below, the DPEIR/S identification and analysis of mitigation measures, like its analysis throughout, is thoroughly inadequate. O007-143

An EIR is inadequate if it fails to suggest mitigation measures, or if its suggested mitigation measures are so undefined that is it impossible to evaluate their effectiveness. In the instant case, the DPEIR/S defers the description of meaningful mitigation measures and instead relies on vague and "future" mitigation "strategies" to suggest that potentially significant impacts will be reduced to less than significant. Improperly deferred details of mitigation measures include, but are not limited to the following:

- Traffic and Circulation: Encourage use of transit to stations. Work with transit providers to improve station connections. Note that the feasibility of this mitigation is dramatically affected by alignment choice, yet the DPEIR/S does not take this into account. O007-144

- Land Use: "Continued coordination with local agencies. Explore opportunities for joint and mixed-use development at stations. Relocation assistance during future project-level review." Note that alignment choice and station locations would have a large impact on the feasibility of this proposed mitigation. O007-145
- Growth Potential: "Work with local communities to encourage higher density development around stations." Note that the potential for higher density development around stations can vary considerably depending on alignment and station location. O007-146
- placing bridges on piers to minimize impact on wetlands
- trading wetland sites if necessary O008-147
- creating incentives for using transit systems such as replacing free parking with free or discounted transit passes
- providing for free shuttle services between regional rail stations and major employment centers O007-148
- providing sound walls where necessary O007-149
- ensuring that connections between trunk line rail services and feeder lines are fast, efficient and reliable O007-150

All of the recommended mitigation "strategies" adhere to a backward standard that is analogous to closing the barn door after the horses have already escaped. By deferring the need for mitigation until project-level environmental review, the DPEIR/S ignores critical mitigation issues that must be addressed before alignment decisions are made and before growth-induced ongoing impacts occur. O007-151

Again, a revised EIR/S must include adequate and feasible mitigation measures to address both project-related and cumulative impacts based on the "whole" project and a complete list of cumulative projects. Mitigation measures must be accurately presented in terms of their feasibility, including costs.

G. The DPEIR/S Fails to Characterize the Significance of All Potential HST Alignment and Station Alternatives

The DPEIR/S fails to clearly and properly identify the impacts of each HST alternative alignment and station before and after mitigation as compared with the existing environment. The DPEIR/S identifies the following impacts of the HST "system," (as compared with the No Project Alternative), as follows: O007-152

- Potentially increase the load on the statewide electric power system by an estimated 794 MW during the peak period in 2030;
- Impact biological resources including wetlands and habitat for threatened and endangered species;
- Impact agricultural lands;

- Impacts on 4(f) and 6(f) resources.

This list and the related Table (9.3-1) are defective for a number of reasons. First, they only characterize the impacts of the HST "network" in comparison with the No Project Alternative and fail to characterize the differences between Pacheco and Altamont alignments. Second, the information to support this list is inadequate. The DPEIR/S restates that "Only general statements of potential impacts can be made at this program level of review because detailed field studies were not conducted...". DPEIR/S at 9-2. Moreover, the document states that potential impacts would need to be further studied and clarified in the next stage of project design when more specific information would be available on the amount and location of right-of-way needed for the alignments and stations. DPEIR/S at 9-2. The fact remains that, based on the PEIR/S, decisions will be made that will determine alignments and, at least generally, station locations. At least to that extent, the discussion of impacts may not be put off for future study. Rather, sufficient information about potential impacts must be provided in this PEIR/S so that the impacts of the alternative alignments and stations can be usefully compared.

Finally, the DPEIR/S creates its own unauthorized categorization scheme when it concludes that many of the impacts are "Potentially less than significant." DPEIR/S at 9-8. There is no such category available for CEQA documents. Impacts are either Significant and Unavoidable, Potentially significant, Less than Significant with Mitigation, or Less than Significant. The DPEIR/S impermissibly attempts to finesse its lack of required information through vagueness and creativity. Under CEQA, however, the impacts must be categorized on the basis of information in the record, using approved categories. Decision makers, and the public, need to know whether an impact can be mitigated or not. Calling an impact "potentially less than significant" does not satisfy that need. If mitigation is clearly feasible and will clearly suffice to reduce the impact to a level of insignificance, it should be so stated and the mitigation specified as required. Otherwise, the impact needs to be treated as significant. For these reasons – that more information and study is needed; along with the lack of evidence to support the DPEIR/S's assertion that so-called "deferred" "mitigation strategies" will suffice to reduce the Project's potentially significant impacts on water quality and hydrology, geology, and a myriad of other areas to less than significant – this list is without merit. O007-152 Cont.

Table 9.3-1 provides a summary of Key Environmental Impact/Benefits of Alternatives, but only for HST as compared with No Project. No such summary is provided to compare the two key alternatives – Pacheco and Altamont. This table can reasonably be expected to be the main, if not only source of such information for the public and decision makers unless they review each section of the DPEIR/S in detail. The omission of a summary comparison between the key alternatives, along with the DPEIR/S' deficient and non-conforming analysis, make this document inadequate to guide the CHSRA in selecting a Bay Area – Central Valley HST alignment and associated station locations.

As stated above, the Table's conclusions that numerous significant impacts will be less than significant with "deferred" mitigation or beneficial before mitigation are

unsupported by evidence including, but not limited to: Traffic and Circulation, Energy Use, land use, visual quality, noise, hydrology and water resources, growth potential, public utilities and services, geology, and hazardous materials. A revised PEIR/S must clearly characterize the significance of impacts for each alignment and station alternative by environmental topic before and after mitigation. Facts and evidence must be provided to support conclusions that impacts will either be beneficial or less than significant after mitigation. O007-152 Cont.

H. The DPEIR/S Fails to Analyze Alternatives Adequately

The DPEIR/S fails to adequately analyze the included alternatives and inappropriately eliminates other alternatives from consideration without justification. Here are some examples: O007-153

Route segments listed in **Table 2.5-4** as having been eliminated from further consideration include the option of routing the line from Fremont Central Park to the Great Mall in Milpitas along the WPRR rail line, using among others a segment of the former WPRR between Warm Springs and San Jose (DPEIR/S page 2-43). The DPEIR/S eliminates this alignment alternative for reasons of "constructability" and "Right-of-Way" without presenting any evidence that these problems exist to any greater degree in the WPRR alternative than in the alternative carried forward, which would place the HSR line in the median of I-880. O007-154

Furthermore, the entire segment is eliminated because of stated problems with the section south of Hwy 101, even though a reasonable alternative could use the section north of Hwy 101 (DPEIR/S, Appendix G, page 2-G-5).

Additionally, the DPEIR/S improperly assumes that the BART extension between Warm Springs and San Jose will be built in that segment, even though that BART project not only has not been built, but has significant funding shortfalls and has not even received a federal record of decision (DPEIR/S, Appendix G, page 2-G-4). The PEIR/S should be revised to discuss how the configuration of this HSR alignment will be modified if this BART extension is not built. O007-155

The stations in the Fremont area proposed for the Altamont alternative are located without a single station on a direct line to both San Jose and San Francisco. (Such a station is specifically proposed in the BayRail Alliance "Caltrain Metro East" proposal as presented on public display boards by MTC and CAHSRA staff at the joint Bay Area to Central Valley HST PEIR Scoping Meetings/Regional Rail Plan Community Workshops in November and December 2005.) Instead, the DPEIR/S inflates the cost and reduces connectivity and performance of the Altamont alternatives by proposing three separate stations (Union City, Shinn, and Warm Springs) on three separate branches within 10 miles of each other while ignoring the downtown Fremont area. This portion of the Altamont alignment option needs to be reconfigured so that 1) it connects downtown Fremont to both the San Jose and San Francisco main lines and 2) reduces the number of suburban stops by eliminating at least one of the three current stops. Any remaining O007-156

suburban stops need to have their rationales better explained and justified in terms of performance and ridership. O007-156 Cont.

In addition the DPEIR/S fails to consider building a station at the Mineta San Jose International Airport itself, directly adjacent to the terminals, as part of the Altamont alternative. This is particularly disturbing given that one of the stated objectives of the Project is "to provide interfaces between the HST system and major commercial airports". Yet the DPEIR/S improperly forecloses the option of such an airport stop at this programmatic level of analysis. At the very least, such an option should have been included for consideration at a project level. O007-157

Although the DPEIR/S analyzes a number of alternatives at an "equal" level of detail, the respective alternatives analyses fall short of the standards set by CEQA and NEPA. Under CEQA, an EIR must analyze a reasonable range of alternatives to the project, or to the location of the project, that would feasibly attain most of the basic objectives while avoiding or substantially lessening the project's significant impacts. See Pub. Res. Code Section 21100(b)(4); CEQA Guidelines Section 15126.6(a); Citizens for Quality Growth v. City of Mount Shasta, 198 Cal.App.3d 433, 443-45 (1988). Similarly, under NEPA a reasonable range of alternatives that satisfy the statement of purpose and need must be analyzed. See above argument under I.C that the project is improperly constrained so that it fails to adequately address the statement of purpose and need, and therefore, the range of alternatives is also improperly constrained. O007-158

The DPEIR/S fails to identify the environmentally superior HST alignments and station location alternatives. According to the DPEIR/S:

> "The preferred alternative will be identified in the Final EIR/EIS." DPEIR/S at 8-2.
>
> "Chapter 8 of the final Program EIR/EIS will include this evaluation and identify preferred HST Alignment Alternatives and station location options, as well as the preferred HST Network Alternative." At 2-23.

A revised and recirculated EIR/S must identify the environmentally superior alignments and station locations as required by law. O007-159

II. THE DPEIR/S SHOULD BE REDRAFTED AND RECIRCULATED

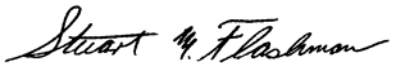
As has been set forth herein, the DPEIR/S is marred by many serious deficiencies, which foreclose its use to guide the CHSRA's, or federal authorities', decision-making. Neither the Authority nor any federal agency may consider approving the Project unless and until the DPEIR/S is revised to fully disclose and analyze the project's impacts and identify feasible mitigation measures and an environmentally superior alternative. The revised document will then need to be recirculated for a new round of public comment. Given the multiple inadequacies discussed above, this DPEIR/S cannot properly form the basis of a final PEIR/S. Both NEPA and CEQA and the CEQA Guidelines require O007-160

recirculation of a draft EIR/S where, as here, the document is so fundamentally inadequate in nature that meaningful public review and comment are precluded. See CEQA Guidelines § 15088.5. O007-160 Cont.

CONCLUDING COMMENTS

Again, we appreciate the opportunity to comment on the DPEIR/S. Please keep the following individuals listed below informed of any and all upcoming matters related to the HSR project. O007-161

Sincerely,



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ATTACHMENTS:

Exhibit A - Resumes of experts consulted

Exhibit B - Testimony of Dr. Michael White, Senior Ecologist, Conservation Biology Institute

Exhibit C - Photos and Schedules for HSR lines that split trains in France and Germany

Exhibit D - Population and distance for the two alignments

Exhibit E - Memos from California Attorney Generals on CO2 analysis requirement in CEQA

Exhibit F - Grasslands Ecological Area Land Use and Economic Study