

## Comment Letter AL072 Continued

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### A. Rejection of Feasible Alternative Prior to Study in the DEIR/S

The alternatives analysis in the DEIR/S is legally deficient because it fails to consider the only feasible alternative that would substantially lessen the significant impacts of the Project. The initial identification of potential corridors to link the Bay Area to the Central Valley began with several earlier environmental, ridership, and corridor evaluation studies that were relied upon to form the foundation for and set the scope of the DEIR/S. These studies concluded, based upon quantitative analysis, that an alignment over the Altamont Pass corridor would have a potential ridership advantage and reduced environmental impact when compared to the Pacheco Pass.

Despite this conclusion, the Authority, in an action with no public input, eliminated further study of the Altamont Pass alignment in 1999 in favor of the Pacheco Pass alignment due to assumptions that a Pacheco Pass alignment would provide higher ridership and revenue (based on frequency of service), and that commuter ridership between the Bay Area and the Central Valley should be served through regional transportation solutions. The decision not to consider the Altamont Pass alignment as an alternative in the DEIR/S has been criticized by the U.S. Environmental Protection Agency as premature and has been called a fraud and intellectually dishonest by public officials and transportation advisers who have been scrutinizing the Project.<sup>153</sup>

The validity of these assumptions leading to the removal of the Altamont Pass alignment from further consideration is questionable and is not supported by quantifiable data. Furthermore, these assumptions merely suggest that the Authority believes that the Pacheco Pass route is the more economically feasible route and do not support a finding that the Altamont Pass route is economically *infeasible*.

A "feasible" alternative is one that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.<sup>154</sup> A determination that an alternative is not economically feasible must be supported by evidence and analysis

<sup>153</sup> Exhibit 13, Hostege, *Truth May Have Come Off The Tracks*, Oakland Tribune (August 22, 2004) <http://www.oaklandtribune.com/Stories/0,1413,82-32553-2351799,00.html> (as of August 25, 2004).

<sup>154</sup> Pub. Res. Code § 21061.1; 14 Cal. Code Reg. § 15364.

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showing that it cannot reasonably be implemented due to economic constraints.<sup>155</sup> "The fact that an alternative may be more expensive or less profitable is not sufficient to show that the alternative is financially infeasible."<sup>156</sup> Here, not only was no analysis or evidence presented to support the claim that the Altamont Pass would provide lower ridership and revenue, but also no analysis or evidence was presented showing how the alleged ridership and revenue advantage of the Pacheco Pass alignment made the Altamont Pass alignment infeasible.

In *Burger v. County of Mendocino* (1975) 45 Cal.App.3d 322, the court held that the county's approval of an 80 unit hotel project over a smaller 64 unit alternative on the grounds that the smaller alternative was economically infeasible was not supported by substantial evidence. In evaluating whether substantial evidence supported the County's rejection of the smaller alternative as economically infeasible, the court found that "there is no estimate of income or expenditures, and thus no evidence that a reduction of the motel from 80 to 64 units, or relocation of some units, would make the project unprofitable."<sup>157</sup> Thus, the court identified three criteria that should be evaluated in a comparative analysis to determine whether a project alternative or mitigation measure would be economically feasible: (1) estimated income; (2) estimated expenditures; and (3) estimated profitability between the proposed project and alternative or with and without recommended mitigation measures.

In the absence of comparative data and analysis on these three criteria, no meaningful conclusions regarding the feasibility of the Altamont alternative could have been reached.<sup>158</sup> While the DEIR/S alludes to a finding that the Altamont Pass alignment would be economically infeasible, neither the DEIR/S nor its supporting documents provide any quantitative evidence to support this claim. Indeed, the quantitative evidence that is contained in the supporting documents suggest the opposite - that the Altamont Pass alignment would be cheaper to build and would provide greater ridership due to its substantially decreased trip time between Sacramento and the Bay Area.

<sup>155</sup> *King County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 737.

<sup>156</sup> *Id.* at 1181.

<sup>157</sup> *Burger v. County of Mendocino*, 45 Cal.App.3d at 326-327.

<sup>158</sup> *Citizens of Goleta Valley v. Board of Supervisors* (1988) 197 Cal.App.3d 1167, 1180-1183.

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For example, the Commission issued a 1996 "Summary Report and Action Plan, summarizing its environmental, ridership, and other analyses. This summary report specifically recommended the Altamont alignment, stating:

Of the three northern mountain pass options (from south to north: the Panoche, the Pacheco and the Altamont), the Commission recommends the Altamont for linking the Central Valley to the greater San Francisco Bay Area. This option generates higher ridership and revenue for the system, and is less costly to construct than the two other mountain passes considered.<sup>159</sup>

Despite this earlier finding, the DEIR/S asserts in Chapter 2, "Alternatives" that a Pacheco route would be cheaper to build and operate than an Altamont alignment because:

...fewer daily train sets (complete assembly of engines and cars) would be required for the Pacheco Pass option, and this could result in reduced initial capital costs (fleet procurement) and lower operating (less on-board train personnel) and maintenance (fleet size, non-revenue train miles, etc.) costs. It would be practical and cost effective to operate train service to the Bay Area via the Pacheco Pass.<sup>160</sup>

This analysis, however, fails to provide any quantification of costs.

This conclusion also appears to be contradicted by Appendix Table 2-H-3, which compares the ability of Altamont, Pacheco, and Panoche passes to "minimize operating and capital costs." Table 2-H-3 rates Altamont "most favorable" for capital and operating costs combined. While Table 2-H-3 confirms that Altamont has "the lowest estimated capital costs," no operating and maintenance cost figures are presented for any route. Operating costs are not addressed even qualitatively for the Altamont and Panoche pass alignments. For Pacheco, the Appendix claims "potentially lower operating and maintenance costs," but offers no quantitative evidence to back up this conjecture. A revised DEIR/S must present comparable and quantifiable dollar estimates of operating and maintenance costs for each alignment, based on the same ridership and economic data.

<sup>159</sup> Summary Report and Action Plan, 1996 page ES-7

<sup>160</sup> DEIR/S at 2-36.

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Another example of the failure to provide quantitative and comparable data in support of the decision to drop the Altamont Pass is the statement in the DEIR/S that the environmental mitigation costs for replacing wetlands impacted by an Altamont Pass alignment could reach \$1 billion. Not only is this estimate unsupported by any substantial evidence, it also provides no basis of comparison with the Pacheco Pass or Diablo Pass alignments since no comparable estimate as to the cost of mitigating the wetlands along these alignments is provided.

The Authority's estimate for mitigation costs along all the proposed HST segments is three percent (3%) of the construction cost, regardless of the potential degree of environmental impacts in each segment. Only over the Altamont Pass does the Authority attempt (without supporting data) to give an actual estimate of mitigation costs for a specific segment. This disparity in calculating the cost of mitigation makes any comparison of the mitigation costs between the Altamont alignment and the Pacheco or Diablo alignment impossible.

Were the Authority to estimate the environmental mitigation costs for replacement of wetlands impacted by Pacheco alignment, the evidence in the record indicates that the cost of this mitigation would be significantly higher than the same cost for the Altamont alignment. The DEIR/S shows that the Altamont Pass alignment would impact approximately 27.4 acres of wetlands, while the proposed Pacheco Route would impact approximately 290 acres (and this number appears to substantially underestimate the impact due to the failure to analyze the Project's potential impacts on wetlands in the GEA). Given the importance of the GEA and the magnitude of the wetlands that a Pacheco Pass alignment would impact, the cost of mitigating wetland impact would logically be greater for the Pacheco Pass alignment than for the Altamont alignment.

Furthermore, the Altamont pass is the only alternative that would substantially reduce the Project's impact by locating the HST along an already developed corridor. A revised DEIR/S must include a reasonable range of alternatives that would feasibly attain project objectives *with fewer impacts*. The only alternative alignment that appears capable of feasibly attaining project objectives with fewer impacts is the Altamont Pass alignment.

A route along the existing Altamont pass commuter corridor would serve more people, cost less to operate, result in less growth-inducing impacts and would avoid massive construction and development in rural areas and wetlands habitat than either the Pacheco or Diablo alternatives and would avoid altogether the unique

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and critical habitat of the GEA. For these reasons and because the early environmental review process clearly identified that Altamont Pass had less impact than Pacheco, the Altamont Pass alignment should have been considered as an alternative in the DEIR/S, regardless of the Authority's (unsupported) conclusion that the Altamont Pass may be more expensive or less profitable.<sup>161</sup>

The High Speed Rail Authority must consider the Altamont Pass alternative in the DEIR, prepare a quantitative evaluation of the alternative and recirculate the DEIR, as required by CEQA.

**B. Inconsistent And Meaningless Analysis Of Alternatives**

The limited alternatives analysis that is provided is, in itself, legally deficient because the analysis of the alternatives is based upon inconsistent, incomplete and meaningless quantitative comparisons. CEQA requires that an EIR provide a discussion of project alternatives that allows meaningful analysis.<sup>162</sup> An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.<sup>163</sup> The purpose of the discussion of alternatives is both to support the decision makers and to inform public participation. Thus, "[a]n EIR's discussion of alternatives must contain a quantitative analysis sufficient to allow informed decisionmaking."<sup>164</sup>

In the case *Kings County Farm Bureau*, the court found the EIR's discussion of a natural gas alternative to a coal-fired power plant project to be inadequate because it lacked necessary "quantitative, comparative analysis" of air emissions and water use. The EIR also failed to quantify the reductions in water use from a natural gas facility.<sup>165</sup> The EIR acknowledged that the natural gas alternative would reduce truck and train traffic associated with the transportation of coal and

<sup>161</sup> See *Burger v. County of Mendocino*, 45 Cal.App.3d at 326-327.

<sup>162</sup> *Laurel Heights I*, supra, 47 Cal.3d at 403.

<sup>163</sup> CEQA Guidelines § 15125.6.

<sup>164</sup> *Laurel Heights I*, supra, 47 Cal.3d at 404; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 733-735.

<sup>165</sup> *Id.* at 735.

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coal byproducts, but it did not quantify the reduction.<sup>166</sup> The court concluded that absent such data, the significance of the elimination of this impact was unknown.

Here, the analysis of alternative routes along the Diablo Mountain Range is meaningless due to lack of comparable data. Because the Diablo alignments were introduced late in the corridor selection process, the Diablo routes were not included in the ridership and revenue analyses. Additionally, as discussed in detail above, the DEIR/S does not provide an accurate description and estimation of the potential impacts of the proposed Pacheco Pass alternative on the GEA. The alternatives analysis thus fails to provide the necessary quantitative and comparative assessments of various alternatives to the proposed Project.

**XI. THE DEIR/S MUST BE RECIRCULATED FOR PUBLIC REVIEW**

An EIR must be recirculated for public comment whenever "significant new information" is added after the public review period or where "substantial changes" are made to the draft EIR.<sup>167</sup> The Guidelines clarify that new information is significant if "the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project" including, for example, "a disclosure showing that . . . [a] new significant environmental impact would result from the project."<sup>168</sup> The courts have also held that a deficient analysis in a draft EIR cannot be bolstered by a final EIR unless the final EIR has been circulated for public review.<sup>169</sup>

The comments presented above identify numerous issues that have not been addressed at all in the DEIR/S. Indeed, the DEIR/S utterly fails to even acknowledge the existence of the GEA, much less to examine the potential impacts of the Pacheco alignment on this resource of international importance. The response to these comments will thus, necessarily, constitute "significant new information" within the meaning of CEQA and the public must be provided an opportunity to review the revised DEIR/S.

<sup>166</sup> *Id.* at 734.

<sup>167</sup> Pub. Res. Code § 21092.1; *Sutter Sensible Planning v. Sutter County Board* (1981) 122 Cal.App.3d 813, 823.

<sup>168</sup> CEQA Guidelines § 15088.5.

<sup>169</sup> *Mountain Lion Coalition v. Fish & Game Comm'n* (1989) 214 Cal.App.3d 1043, 1052.

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**XII. CONCLUSION**

The omission of the GEA as a major zone of biological concern is a major flaw in the DEIR/S since it results in the incomplete assessment and underestimation of the direct and indirect impacts that would arise from the selection of the Pacheco Pass alignment. The Grassland Ecological Area is an irreplaceable, internationally significant, ecological resource. The proposed Pacheco Pass Alignment would bisect this area causing fragmentation and other direct impacts. Furthermore, the growth-inducing impacts of locating a train station in rural Los Banos would likely result in urban encroachment and development pressures that could destroy this ecological treasure.

Prior to choosing the Pacheco Pass as a preferred alignment, the High Speed Rail Authority is required to ensure that it is fully informed about: (1) the project setting as it passes through the Grassland Ecological Area; (2) the potential direct and indirect impacts the Pacheco alignment may have on the biological resources of the GEA and the continued viability of the GEA; (3) whether these impacts can be mitigated and, if so, what mitigation measures to protect this area will be imposed as a condition of choosing the Pacheco alignment as the preferred alignment; and (4) whether other feasible alternatives, such as the Altamont Pass alignment, exist which would substantially or entirely avoid impacting the GEA.

The current DEIR/S has failed to make these legally required analyses and thus may not be relied upon to support a selection of Pacheco Pass as the preferred alignment. The DEIR/S should be revised to address the shortcomings described above and in the attached documents and it should be re-circulated for public review.

Sincerely,



Thomas A. Enslow

TAE:cnh  
Enclosures  
cc: Client

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**EXHIBITS**

1. Map of Federal, State and Privately Owned Lands in GEA
2. Map of GEA and Public Lands
3. Terry Watt Comments and Attachments A - E
4. Dr. Karen Weissman Comments
5. C.V. of Terry Watt
6. C.V. of Dr. Karen Weissman
7. Don Marciochi Letter (August 30, 2004)
8. Grassland Water District, Land Use and Economics Study (July 2001)
9. Thomas Reid Associates, Grassland Water District Land Planning Guidance Study (January 23, 1995)
- Exhibit 9A**  
Noss, Reed F., Translating Conservation Principles to Landscape Design for the Grassland Water District (May 1994)
10. C.V. of Dr. Reed Noss
11. Fredrickson, L.H. and Laubhan, M.K., Land Use Impacts and Habitat Preservation in the Grasslands of Western Merced County, California (February 1995)
12. Korschgen, C.E. and Dahlgren, R.B., U.S. Fish and Wildlife Service, Fish and Wildlife Leaflet 13.2.15, "Human Disturbances of Waterfowl: Causes, Effects, and Management"
13. Hostege, "Truth May Have Come off the Tracks," Oakland Tribune (August 22, 2004)
14. Grassland GEA Buffer Zones and Zones of Conflict Map
15. Dean Kwasny Letter (November 3, 1999)

AL072-33

**Response to Comments of Thomas A. Enslow, Adams, Broadwell, Joseph & Cardozo, Grassland Water District and Grassland Resource Conservation District, August 31, 2004 (Letter AL072 and Attachment B)****AL072-1**

The Co-lead agencies acknowledge the importance of the GEA and are planning additional review of alignment options between the Central Valley and Bay Area. Please see standard responses 3.15.7 and standard response 6.3.1 regarding anticipated future review of alignment options between the Central Valley and the Bay area and standard response 3.15.2 regarding the general level of review in this PEIR/S and the detailed impact reviews anticipated under the project-level, Tier 2 studies. The additional evaluations to be completed in these future studies will further review the types of issues raised in this comment related to the mountain crossing alignment options. Section 3.15.2.C of the Final Program EIR/EIS has been revised to include discussion of the location, content, and importance of the GEA.

The PEIR/S has been prepared at a level of detail appropriate for determining whether to proceed with the proposed HST program and for identifying preferred alignment options for the HST Alternative rather than presenting a more detailed assessment of project impacts. The Program EIR/EIS uses planning data at a consistent level of detail to compare potential impacts and choices between alignment options. The detailed questions included in this comment will need to be addressed as part of the new alignment studies for the Central Valley to the Bay Area. Detailed evaluations of site-specific impacts to the GEA and appropriate mitigation measures would be provided in subsequent project-level, Tier 2 studies, should the ultimately selected HST corridor alignment pass through or near the GEA.

The Co-lead agencies acknowledge the size of the GEA. Given its size, the Co-lead agencies are not certain that the ultimately selected HST alignment can or will avoid the GEA area, but the Co-lead agencies commit to continuing to review ways to first, avoid and minimize potential impacts, and second, mitigate impacts to the

GEA, if necessary. This Final PEIR/S includes a discussion of design practices and additional possible mitigation measures to be applied to reduce potential impacts to wetlands and biological resources (see Sections 3.15.5 and 3.15.6 in the Final PEIR/S).

**AL072-2**

See Response AL072-1 above. The expected additional Program EIR/EIS for the Bay Area to Central Valley will include additional information on potential impacts to wetlands, and water resources.

**AL072-3**

See Response AL072-1 above. The co-lead agencies disagree with your assessment, "as a result of the DEIR/S failure to discuss or to identify key project components, potentially significant environmental impacts are not adequately described, analyzed or addressed". The frequency of HST trains was described in Sections 2.6.1 "Travel Times and Frequency of Service" (which includes reference to the Authority's June 2000 Business Plan), and 2.6.2 "Conceptual Service Plan" of the Draft Program EIR/EIS. In addition, Section 6.2.4 "Performance Criteria described the HST Alternative as "capable of maintaining operations at 3-minute headways", Section 3.2.3 discussed both the high frequency of the HST Alternative and the overall capacity of the system (which is calculated based upon minimum frequencies of 3-minute headways), and Section 6.2.2 "Bay Area to Merced Station Options" notes that the conceptual operating plan that was assumed for the Business Plan, "proposed 66 trains (per day, per direction – 132 total) to serve the Bay Area". The Draft Program EIR/EIS had a special section on noise barriers 3.4.5A "Noise Barriers". The co-lead agencies disagree with your assessment that noise barriers could have "devastating impacts on wildlife and further fragment habitat areas". The HST Alternative would be fenced to prevent right-of-way intrusion with or without noise barriers where the alignment was at-grade or in a cut or fill

section. General mitigation strategies can be defined at the program level of analysis and each environmental section of Chapter 3 in the Final Program EIR/EIS has been modified to include mitigation strategies that would be applied in general for the HST system. Each section of Chapter 3 also outlines specific design features that will be applied to the implementation of the HST system to avoid, minimize, and mitigate potential impacts (including measures to mitigate effects on the HST Project on animal movements and corridors in Section 3.15.6). The methods of construction including excavation and disposal/use of excavated materials are discussed in Section 3.18.5 of the Final EIR/EIS. However, construction impacts are highly site-specific in nature and will be addressed in detail during the subsequent project level environmental review.

**AL072-4**

Construction and operational impacts are highly site-specific in nature. See Section 3.18 of the Final Program EIR/S for a general discussion of potential construction impacts. These issues will be addressed in more detail during subsequent project level environmental review, based on more precise information regarding location and design of the facilities proposed (e.g., specific alignment, right of way corridor width, elevated, at-grade, cuts and fills, etc.). The more detailed engineering associated with project level environmental analysis will allow the Authority to further investigate ways to avoid, minimize and mitigate potential impacts. Once the alignment is refined and the facilities are fully defined through project level analysis, and after avoidance and minimization efforts have been exhausted, specific impacts and mitigation measures will be addressed. However, general mitigation strategies can be defined at the program level of analysis. Each environmental section of Chapter 3 in the Final Program EIR/EIS has been modified to include mitigation strategies that would be applied in general for the HST system. Each section of Chapter 3 also outlines specific design features that will be applied to the project level studies and implementation of the HST system to avoid, minimize, and mitigate potential impacts.

Potential growth related impacts to placement of a HSR station in Merced County are addressed in Section 5.2 of the Final Program EIR/EIS.

**AL072-5**

The co-lead agencies acknowledge the intent to provide sufficient information to support the decisions to be made in the Program EIR/EIS. In this regard the Co-Lead agencies have determined that additional information is required to identify a preferred alignment option between Merced and the San Francisco Bay Area. Please see standard responses 3.15.7 and standard response 6.3.1 regarding anticipated future review of alignment options between the Central Valley and the Bay area and standard responses 3.15.2 and 3.15.13 regarding the general level of review in this PEIR/S and the detailed impact reviews anticipated under the project-level, Tier 2 studies. The additional evaluations to be completed in these studies will review the types of issues raised in this comment.

**AL072-6**

The Co-Lead agencies disagree with the commentor's conclusion that the Program EIR/EIS does not meet CEQA requirements. The Program EIR/EIS presents extensive information regarding the potential impacts of a statewide HST system at a program level of detail. The Co-Lead agencies have determined that additional information is required to identify a preferred alignment option between Merced and the San Francisco Bay Area. Please see standard responses 3.15.7 and standard response 6.3.1 regarding anticipated future review of alignment options between the Central Valley and the Bay area, and standard responses 3.15.2 and 3.15.13 regarding the general level of review in this PEIR/S and the detailed impact reviews anticipated under the project-level, Tier 2 studies.

**AL072-7**

Specific mitigation measures will be addressed during subsequent project-level environmental review, based on additional information regarding location and design of the facilities proposed. The more

detailed engineering associated with the project level environmental analysis will allow the Authority to further investigate ways to avoid, minimize and mitigate potential impacts. Once the alignment is refined and the facilities are fully defined through project level analysis, and only after avoidance and minimization efforts have been exhausted, will specific impacts and mitigation measures be addressed. However, general mitigation strategies can be defined at the program level of analysis and each environmental section of Chapter 3 in the Final Program EIR/EIS has been modified to include mitigation strategies that would be applied in general for the HST system. Each section of Chapter 3 also outlines specific design features that will be applied to the implementation of the HST system to avoid, minimize, and mitigate potential impacts. Please also see standard response 6.3.1.

**AL072-8**

In an effort to minimize impacts to the Grassland Ecological Area (GEA), the conceptual HST Pacheco Pass alignments through the GEA was placed immediately adjacent to an existing roadway, Henry Miller Road, that currently passes through privately held lands of the GEA at the southernmost end of the Los Banos Wildlife area, and that provides vehicular access to that area. The Co-lead agencies acknowledge the importance of the GEA and are planning an additional programmatic review of alignment options between the Central Valley and Bay Area. Please see standard response 3.15.7 regarding anticipated future reviews of alignment options between the Central Valley and the Bay area and standard response 3.15.2 regarding the more general level of review in this PEIR/S and the more detailed impact reviews anticipated under the project-level, Tier 2 studies. The PEIR/S has been prepared at a level of detail appropriate for determining whether to go forward with the program and for identifying preferred alignments in other parts of the state, but not at a detailed project-level of analysis. Therefore, the PEIR/S uses planning level data at a consistent level of detail to compare potential impacts and choices between alignment options. The detailed questions included in this comment will need to be addressed as part of the planned additional alignment studies for the

proposed HST system from the Central Valley to the Bay Area. Detailed evaluations of site-specific impacts to the GEA and appropriate mitigation measures would be provided in subsequent project-level, Tier 2 studies, should the ultimately selected HST corridor alignment pass through or near the GEA. The Co-lead agencies acknowledge the size of the GEA. Given its extent, the Co-lead agencies are not certain that the ultimately selected HST alignment can or will avoid the GEA area, but the Co-lead agencies commit to continuing to review ways to first, avoid and minimize potential impacts, and second, mitigate impacts to the GEA, if necessary. This Final PEIR/S includes discussions of design practices and construction impacts, and identifies additional possible mitigation measures to be applied to reduce potential impacts to wetlands and biological resources.

**AL072-9**

Please see response to Comment AL072-8 regarding anticipated additional HST alignment and detailed environmental impact studies to be completed in the future. Please see standard response 3.15.9 regarding wildlife corridors. The currently proposed HST alignment through the GEA has been placed immediately adjacent to an existing roadway as it passes through the GEA area. Future reviews of alignment options between the Central Valley and the Bay Area will evaluate variations of the options for the route alignments, within the preferred broad corridor identified between the Pacheco and Altamont passes. This Final PEIR/S includes an expanded description of design practices and possible mitigation measures to reduce potential impacts to wetlands and biological resources, addressing such issues as how to protect water flow and how to reduce interference with animal movement by, e.g., by constructing portions of the track in an aerial alignment. Please note that the Authority has dropped a station in the Los Banos area from further consideration. Anticipated future project-level, Tier 2 evaluations to be performed following selection of a preferred HST corridor alignment, will provide more detailed review of impacts to the GEA (should it pass through or near the GEA area), and associated mitigation measures.

**AL072-10**

The Draft Program EIR/S acknowledges that the project alternatives have the potential to result in habitat fragmentation, but the analysis can only be more general in nature until a project-level, Tier 2 environmental review is completed. As noted on page 3.15-18 of the Draft PEIR/S, "Table 3.15-1 summarizes the potential direct and indirect impacts on biological resources and wetlands from disturbance to or fragmentation of habitat due to construction and operation of the Modal and HST Alternatives." Measures to mitigate the effects of the HST Project on habitat fragmentation have been added to the Final PEIR/S, 3.15.6

In an effort to minimize impacts to the Grassland Ecological Area (GEA), the conceptual HST Pacheco Pass alignments through the GEA were assumed to be immediately adjacent to an existing roadway, Henry Miller Road, that currently passes through privately held lands of the GEA at the southernmost end of the Los Banos Wildlife area, and provides vehicular access to that area.

The HST would be designed so as to not impede the flows of the Santa Fe and San Luis canals and to minimize impacts to flows of natural waterways, for example by placement of aerial alignments or culverts in areas that currently allow for natural water flows under the roadway.

This Final PEIR/S includes expanded design practices and additional possible mitigation measures to reduce impacts to wetlands and biological resources, addressing such issues as how to protect water flows and how to reduce interference with animal movement (e.g., by constructing portions of the track in an aerial alignment.)

The Co-lead agencies have identified biological resource habitats along all of the alignments for both the Modal and HST alternatives – please see Response 3.15.2. As noted, the Draft PEIR/S places appropriate emphasis on biological resources and contains four appendices providing additional information on biological resources. In particular, Appendix 3.15-D provides a detailed tabulation of biological resources and wetlands. Table 3.15-1 in the Draft PEIR/S identifies acreage of sensitive vegetation, presence of wildlife

movement corridors, linear feet of jurisdictional waters, acreage of wetlands, presence of anadromous fish, and the number of special status species for each region of each alternative.

Additional information on special status species and sensitive habitats is available in the Technical Evaluations for Biological Resources, which were conducted for each HST region. These studies are available for review on the California High Speed Rail Authority website ([http://www.cahighspeedrail.ca.gov/eir/regional\\_studies/default.asp](http://www.cahighspeedrail.ca.gov/eir/regional_studies/default.asp)). For example, the Bay Area to Merced Biological Resources Evaluation contains tables listing all of the special status species present along the project alignments and the acreage of habitat present along each alternative. Table 4a lists special status plants, and Table 4b lists special status wildlife. For example, Table 4b identifies the giant garter snake and notes its presence in "freshwater marshes, sloughs, and adjacent low-elevation reaches of streams of the Central Valley; will also utilize well vegetated agricultural irrigation canals and associated levees (Stebbins 1972; U.S. Fish and Wildlife Service 1999)." More detailed mitigation measures for potential impacts to the giant garter snake will be evaluated as part of the Tier 2 EIS. Please also see responses to Comment AL072 – 8 and Comment AL072-9.

**AL072-11**

As noted in Responses to Comments AL072 – 8, 9, & 10, the conceptual HST Pacheco Pass alignments through the GEA were assumed to be immediately adjacent to an existing roadway, Henry Miller Road, which currently passes through privately held lands of the GEA at the southernmost end of the Los Banos Wildlife area, and provides vehicular access to that area. The HST alignment would be designed to preserve the current levels of vehicular access to the GEA areas through use of grade separations. Potential impacts to recreational access would appropriately be addressed in future studies.

**AL072-12**

The program level noise assessment provides an initial evaluation to determine areas of potential impact and their order of magnitude, and to focus the more detailed detailed analysis at the project level. The program level noise evaluation provided an inventory of locations where noise impact could occur and where noise mitigation measures may be needed. Actual noise exposure is highly site-specific and would be calculated at the project level when more system design and train operation detail has been determined.

For a program level noise assessment, an FRA screening procedure was adapted to identify where impacts are likely to occur, but not to attempt to predict noise exposure at specific receptors or to select mitigation requirements. The FRA screening procedure takes into account the noise impact criteria, typical conditions in types of corridors, and typical ambient noise conditions in various types of communities. Screening distances within which potential impacts may occur were developed using proven and calibrated noise models and empirical measurements of noise emissions of existing steel-wheel/steel-rail high-speed trains. Screening distances were selected for the HST Alternative according to the expected maximum operation levels and speeds, and land use types adjacent to the alignment options. The screening distance along with the length of the HST alignment provided an area within which there is potential for noise impact. The FRA screening procedure was developed for HST speeds from 125 mph to 210 mph. For speeds less than 125 mph and for areas near stations, the FTA screening method based on lower speeds was used in concert with the FRA method. The FRA and FTA screening distances for noise are included in Appendix A of the Final Program EIR/EIS.

Regarding potential effects on wildlife, see Standard Response 3.4.1 [noise effects on wildlife]

**AL072-13**

The aerodynamic effects of high-speed trains are well documented and are accounted for in specific aspects (track spacing, tunnel diameter) of the engineering design criteria, as applicable. A high-

speed train operating in open air at maximum speed of 220 mph (less than 30% of the speed of sound at sea level at 70 degrees Fahrenheit) does not create a shockwave "likened to the impact of a supersonic plane breaking the sound barrier". The noise from high-speed trains may have potential effects on wildlife. See Standard Response 3.4.1.

**AL072-14**

The Co-lead agencies understand the potential for high speed train passbys to injure or kill wildlife on the tracks and the HST system will be designed to provide passageways (as noted in the comment) at select locations for wildlife migration from one side of the alignment to the other. To the extent that the existing adjacent roadway through the GEA currently serves as a barrier to wildlife crossings, the placement of the HST adjacent to this roadway will serve to reduce number of such events as compared to placement in an area without existing transportation facilities. As with the existing roadway, however, total mitigation may not be feasible. Statewide, as discussed in Response to Comment 3.15.5, a substantial portion of the overall HST system would be adjacent to existing rail or road rights-of-way and on aerial structure or in tunnels, thus reducing the extent to which the HST will be a new barrier to wildlife movements. A more detailed project-specific evaluation of the effects of the selected HST alignment, for example on the giant garter snake and the kit fox, will occur during the subsequent project level environmental review – please see response to Comment 3.15.2.

**AL072-15**

Please see Standard Response 3.15.13 regarding the purposes of the Program EIR/EIS. In this regard the Co-Lead agencies have determined that additional information is required to identify a preferred alignment option between Merced and the San Francisco Bay Area. Please see standard response 3.15.7 regarding anticipated future review of alignment options between the Central Valley and the Bay area and standard response 3.15.2 regarding the general level of review in this PEIR/S and the detailed impact reviews anticipated under the project-level, Tier 2 studies.

Section 3.18 of the Final Program EIR/EIS addresses construction methods and the potential for construction impacts in general. In addition, each section of Chapter 3 also outlines specific design practices and features that will be applied at the project level and to the implementation of the HST system to avoid, minimize, and mitigate potential impacts. However, construction impacts are highly site-specific in nature. These issues will be addressed in detail during subsequent project level environmental review, based on more precise information regarding location and design of the facilities proposed (e.g., specific alignment, right of way corridor width, elevated, at-grade, cuts and fills, etc.). The more detailed engineering associated with project level environmental analysis will allow the Authority to further investigate ways to avoid, minimize and mitigate potential impacts.

**AL072-16**

Please see standard response 2.18.1. The co-lead agencies disagree with your assessment that the HST, "would probably be constructed on an earthen berm through most of the GEA, elevated above the flood level, in the manner as railroad lines of the 19<sup>th</sup> century". Page 3.14-18 of the Draft EIR/EIS stated (under "Mitigation Strategies" for Floodplains), "Where feasible, avoid or minimize construction of facilities within floodplains. Where feasible, restore the floodplain, if impacted by construction, so it can operate as before. Where no practicable alternative to avoid construction in the floodplain exists, minimize the footprint of facilities within the floodplain, e.g. by use of aerial structures or tunnels." Similar language was also used for wetlands under Section 3.15 of the Draft EIR/EIS.

**AL072-17**

The Authority has dropped consideration of Los Banos as a site for a potential HST station, and has not identified it as a potential station site. Therefore, the potential Los Banos station site would not be advanced to project level analysis, and no potential station would be located in the vicinity of the Grasslands Ecological Area.

The discussion in Section 5.3.6 and Table 5.3-7 of the Draft Program EIR/EIS indicate generally that the proposed HST system would support accommodating more population and employment on less urbanized acreage than any of the other system alternatives. Detailed support for this conclusion was provided in Section 5 (Section 5.4, in particular) of the technical report on economic growth effects.

The co-lead agencies would also like to note that only station locations, not HST alignments, underlie the potential accessibility benefits of the HST system and the growth effects and indirect impacts, if any. Remaining station location sites in the Central Valley are either currently urbanized or will be urbanized even in the absence of HST. The commenter's statement regarding the potential for rural stations to redirect growth and development away from urban areas was reflected in the Draft Program EIR/EIS. In particular the last sentence in Section 5.3.5 on Page 5-21 states: the analysis suggests an advantage, both in terms of potential HST ridership inducement and growth control, with locating HST stations in or near the downtown areas instead of in suburban or undeveloped areas. Also, several portions of Section 5.4 of the Program EIR/EIS provide detailed quantification of the potential indirect impacts of locating HST stations in outlying areas.

**AL072-18**

Please see standard response 5.2.6.

**AL072-19**

The Authority has dropped consideration of Los Banos as a site for a potential HST station, and has not identified it as a potential station location. Therefore, the potential Los Banos station site would not be advanced to project level analysis. Please see standard response 5.2.5 for issues related to the treatment of current development densities in each station site and the potential for HST to have a different magnitude of "Ranchette" style development. Please see footnote 4 on Page 5-8 of the Program EIR/EIS related to the use of

General Plan information in the analysis. Please also refer to response to Comment O047-2.

**AL072-20**

The comment expresses concern about a potential increase in the demand for second homes as a result of the proposed HST in the vicinity of the Grasslands Ecological Area due to its attractive open space setting. The Authority has dropped further consideration of Los Banos as a potential station stop, so there would be no increase in demand that might be associated with a station. There would be no travel time or cost benefit to using HST in accessing a second home in rural areas of the Central Valley due to the problems presented by station egress to and from the second home and an outlying HST station. In order for individuals to use HST as a primary access mode to second homes, individuals owning a second home would need to either keep an extra car at a Central Valley HST station (and incur long-term parking costs) or regularly rent a car at a Central Valley HST station. This combination of high egress cost and multiple mode shifts would be at odds with rational travel and economic behavior.

**AL072-21**

The Authority has dropped consideration of Los Banos as a site for a potential HST station. Therefore, the potential Los Banos station site would not be advanced to project level analysis.

**AL072-22**

The High-Speed Rail Authority has dropped consideration of Los Banos as a site for a potential HST station. Therefore, the potential Los Banos station site would not be advanced to project level analysis, and a potential station site would not be located in the vicinity of the Grasslands Ecological Area.

However, the co-lead agencies would like to note that the methodology used in Section 5 of the Program EIR/EIS assesses the urbanization potential and resulting indirect impacts for hectare grids throughout the study area, including areas around Los Banos and

the Grasslands Ecological Area. Section 5.4 of the Program EIR/EIS reports the indirect impacts that are likely to result from the induced growth using an "open-minded analysis" as requested by the commenter. Appendices G and H of the technical report on economic growth effects provides additional details on the grid-based projection process used in the analysis.

**AL072-23**

The Authority has dropped consideration of Los Banos as a site for a potential HST station. Therefore, the potential Los Banos station site would not be advanced to project level analysis, and a potential station site would not be located in the vicinity of the Grasslands Ecological Area. Future studies may consider potential impacts to a buffer zone around GEA as options in the southern part of this broad corridor are analyzed.

Additionally, the co-lead agencies would like to note that potential indirect impacts of urbanization on specific parcels of wetlands, farmlands, hydrological resources and sensitive habitat is directly estimated and reported in summary fashion in section 5.4 of the Program EIR/EIS.

**AL072-24**

Please see standard response 5.2.1 for issues related to mitigation of growth inducement and indirect impacts.

**AL072-25**

Given the location of the proposed HST alignment adjacent to an existing roadway and the mitigation measures to be applied to the HST project as discussed in the Program EIR and expanded in the Final Program EIR, the Co-lead agencies do not agree that the project would "squander" the investment made in GEA resources.

The Co-lead agencies note the size of the GEA. Given its size, the Co-lead agencies are not certain that the ultimately selected HST alignment can or will avoid the GEA area, particularly if a two-mile buffer zone were to be applied as suggested by the comment. The

HST Co-lead agencies are committed to the continued review, identification, and adoption of alignments and mitigation measures to avoid and minimize, to the extent possible and feasible, adverse impacts to natural resources. This Final Program EIR/EIS includes expanded design practices and additional possible mitigation measures to reduce impacts to wetlands and biological resources.

The Co-lead agencies again note that the HST Project would present lower levels of overall adverse environmental impacts than would occur under the road- and airport-based Modal Alternative.

Please also see responses to Comments AL072-1, AL072-9 and AL072-23.

#### **AL072-26**

The Authority has dropped consideration of Los Banos as a site for a potential HST station. Therefore, the potential Los Banos station site would not be advanced to project level analysis, and a potential station site would not be located in the vicinity of the Grasslands Ecological Area. Dismissal of a Los Banos station from further consideration would eliminate the potential for any of the effects mentioned by the commenter.

#### **AL072-27**

Please see Standard Responses 3.16.1 and 6.3.1 and response to Comment AS012-17.

Potentially affected 4(f) and 6(f) resources are identified in the regional technical reports that are summarized in Section 3.16. A table identifying the potential effects to parks for both the alternatives is provided in the Final Program EIR/EIS (Table 3.16-2 and Appendix 3.16-A. Regarding the selection of an alignment potentially affecting the GEA, please see response to Comment AL072-1 above.

#### **AL072-28**

As discussed in the Program EIR/EIS (please see Section 3.15.1), the Co-lead agencies are aware of the executive orders, laws, and

regulations regarding protection of natural resources (wetlands, migratory birds, etc.). As part of its initial planning, the Co-lead agencies identified potential alternatives and alignments that would avoid or minimize impacts to natural resources, including wetland and natural areas. The Program EIR/EIS has estimated the acres of wetlands and linear feet of jurisdictional waters that would be affected by each option, and evaluations conclude that the modal alternative has the potential to affect a larger amount of jurisdictional resources than the HST alternative (see Table 3.15-1 in the Draft EIR/EIS). This early planning process led to the identification of HST alignments directly adjacent to existing roadways and rail corridors, as is the case for the alignment passing through the GEA. Additional mitigation measures added to the PEIR/S demonstrate the Co-lead agencies' commitment to the avoidance and minimization of adverse impacts to natural resources in the GEA area and throughout the state.

Please see Response to Comment O042-1 regarding the purpose and intended uses of the PEIRS.

#### **AL072-29**

See Standard Response 3.17.1.

#### **AL072-30**

See Standard Response 2.18.1 and 6.3.1.

#### **AL072-31**

See Standard Response 6.3.1.

#### **AL072-32**

See Standard Response 6.3.1.

#### **AL072-33**

The Draft Program EIR/EIS describes the systemwide alternatives (HST, No Project, and Modal Alternative), and describes the potential environmental impacts of the various HST design options. A

summary of the HST design option comparisons is provided in Chapter 6. As this is a program-level document, the alternatives are considered at a conceptual level of detail. Please see standard response 6.3.1, indicating further study of the northern mountain crossing corridor will be undertaken before a preferred alignment linking the Central Valley and the Bay Area is selected. Please also see response to Comment AL072-1.

Exhibits 3 and 4: See responses AL072-1 to 33.

