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Chairman Joseph E. Petrillo and
Members of the High-Speed Rail Authority
Attn: California High-Speed Train Draft
Program EIR/EIS Comments
925 L Street, Suite 1425
Sacramento, CA 95814

Re: Grassland Water District / Grassland Resource Conservation District
Draft Program EIR/EIS Comments on the California High Speed Train

Dear Chairman Joseph E. Petrillo and Members of the High-Speed Rail Authority:

I am writing on behalf of the Grassland Water District ("GWD") and the Grassland Resource Conservation District ("GRCD") to comment on the Draft Program Environmental Impact Report / Environmental Impact Statement ("DEIR/S") for the proposed California High Speed Train System ("HST" or "the Project"), pursuant to the California Environmental Quality Act¹ ("CEQA") and the National Environmental Policy Act² ("NEPA). As explained in more detail below, the DEIR/S does not comply with the requirements of CEQA or NEPA and may not be used as the basis for selecting a preferred alignment of the HST that would run along the proposed Pacheco route. The High-Speed Rail Authority ("Authority") may not select a preferred alignment for the Project until an adequate DEIR/S is prepared and re-circulated for public review and comment.

The combined area of the GWD and GRCD contains approximately 60,000 acres of privately owned wetlands located north, east and south of the City of Los Banos in Merced County. The Districts are charged under state law and federal contract with the responsibility to manage water resources and carry out conservation programs in order to preserve and protect this resource, primarily as habitat for waterfowl and other wildlife species. Land stewardship in the GWD and

¹ Pub. Res. Code §§ 21000 *et seq.*

² 42 U.S.C. § 4321 *et seq.*

GRCD mostly comprises privately owned and managed waterfowl hunting clubs that receive their water supply from GWD.

The GWD and GRCD together with the adjacent federal wildlife refuges, state wildlife areas and state park make up the Grassland Ecological Area (“GEA”). Attached, as Exhibit 1 and Exhibit 2 to this Comment are two maps that show the boundary of the GEA and the federal, state and privately owned lands within the GEA. Encompassing approximately 180,000 acres, the GEA is the largest wetland complex in California and contains the largest block of contiguous wetlands remaining in the Central Valley.³ This region is considered a critical component of the Central Valley wintering habitat for waterfowl and has been recognized as a resource of international significance.

The GWD and GRCD are concerned about the proposed Project because the Project proposes a Pacheco Pass alignment that would pass through their jurisdictional boundaries, bisecting important biological corridors of contiguous wetlands and causing fragmentation and other direct impacts. In addition, the growth-inducing impacts of locating a train station in rural Los Banos would likely result in urban encroachment and development pressures that would spell the end of the continued viability of this area. The DEIR/S, unfortunately, makes no mention of the GEA, fails to describe the potential impacts the high speed rail may have on this area and offers no analysis as to whether these impacts could be mitigated and, if so, what mitigation measures to protect this area would be required as a condition of choosing the Pacheco alignment as the preferred alignment.

As these comments will demonstrate, the DEIR/S is a fatally flawed document. It fails in almost all aspects to perform its function as an informational document that is meant “to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project.”⁴ The DEIR/S must be revised and re-circulated before it can be relied upon to support agency decisions such as the selection of the Pacheco Pass alignment.

³ Exhibit 8, Grasslands Water District, Land Use and Economics Study: Grasslands Ecological Area (July 2001), p. 2 (hereafter “*Grassland Water District*”).

⁴ *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 391.

We have prepared these comments with the assistance of technical experts, including Terry Watt (growth inducing impacts) and Dr. Karen Weissman (biological resources, land use and other impacts). The comments of these experts are appended hereto as Exhibits 3 (*Watt Comments*) and Exhibit 4 (*Dr. Weissman Comments*) and their *curriculum vitae* are attached as Exhibits 5 and 6. Please note that these experts' comments supplement the issues addressed below and should be addressed and responded to separately.

I. IMPORTANCE OF GRASSLAND ECOLOGICAL AREA

The GEA is an irreplaceable, internationally significant, ecological resource surrounding Los Banos to the north, east and south. Originally, this area was part of a four million acre wetland system in the Central Valley of California. Of the 300,000 acres that remain, the GEA is the largest contiguous block of wetlands in the Central Valley. The protection of this area has been the result of private and public investments and partnerships.

The GEA boundary is a non-jurisdictional boundary designated by the U.S. Fish & Wildlife Service in order to identify an area for priority purchase of public easements for wetland preservation and enhancement.⁵ The GEA includes federal wildlife refuges, a state park, state wildlife management areas and the largest block of privately managed wetlands in the state. The GEA also includes a large and growing portfolio of federal, state and private conservation easements. Through 1998, conservation easements had been acquired on over 64,000 acres at a total cost of over \$28 million.⁶

The GEA is of considerable importance because it preserves a variety of habitats important to the maintenance of biodiversity on a local, regional, national and international scale. It has been estimated that thirty percent (30%) of the Central Valley migratory population of waterfowl use this area for winter foraging.⁷ The GEA is a major wintering ground for migratory waterfowl and shorebirds of the Pacific Flyway and the Western Hemisphere Shorebird Reserve Network has

⁵ *Grassland Water District* at 2.

⁶ *Id.* at pp. 11-12.

⁷ U.S. Bureau of Reclamation, *Final NEPA EA, Refuge Water Supply Long-Term Water Supply Agreements* (January 2002).

designated the GEA as one of only 22 international shorebird reserves in the world.⁸ Over one million waterfowl are regularly found in the GEA during the winter months.⁹ The GEA also provides habitat for more than 550 species of plants and animals, including 47 plant and animal species that are endangered, threatened or candidate species under state or federal law.¹⁰

In addition to providing critical biological habitat, the Grassland wetlands also provide a wide range of other benefits to the area, including flood control and educational and recreational opportunities. This concentration of wetlands and wildlife is a unique feature of the area, attracting hunters and other recreational visitors who make significant contributions to the economy of the area. The GEA receives over 300,000 user visits per year for hunting, fishing and non-consumptive wildlife recreation.¹¹ Recreational and other activities related to habitat values within the GEA contributes \$41 million per year to the Merced County economy, and accounts for approximately 800 jobs.¹²

Without a careful study of the impacts that the Pacheco route may have on the GEA, the Project risks destroying this irreplaceable ecological resource of international importance. It also risks destroying the substantial direct economic contributions to the local and regional economies that the Grassland wetlands provide, as well as jeopardizing the tens of millions of federal, state and local dollars that have been invested in the protection of this area.

II. CEQA REQUIRES AGENCIES TO BE INFORMED ABOUT THE ENVIRONMENTAL CONSEQUENCES OF THEIR DECISIONS *BEFORE* THEY ARE MADE

Except in certain limited circumstances, CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an Environmental Impact Report (“EIR”).¹³ The EIR is the very *heart* of CEQA.¹⁴

⁸ Exhibit 11, Fredrickson, Leigh H. and Laubhan, Murray K, *Land Use Impacts and Habitat Preservation in the Grasslands of Western Merced County, CA* (February 1995), p.3.

⁹ Exhibit 8, *Grasslands Water District*, supra, at p. 2.

¹⁰ *Id.*

¹¹ *Id.* at p. 14

¹² *Id.* at p. 21.

¹³ See, e.g., Pub. Res. Code § 21100.

“The ‘foremost principle’ in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.”¹⁵

CEQA has two basic purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project.¹⁶ “Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR ‘protects not only the environment but also informed self-government.’”¹⁷

Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring alternatives or mitigation measures.¹⁸ The EIR serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to “identify ways that environmental damage can be avoided or significantly reduced.”¹⁹ If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has “eliminated or substantially lessened all significant effects on the environment where feasible” and that any unavoidable significant effects on the environment are “acceptable due to overriding concerns” specified in CEQA section 21081.²⁰

In the case at hand, the DEIR/S fails to satisfy either of these basic purposes. The DEIR/S, as presently constituted, is legally deficient because: (1) it employs an inaccurate and incomplete description of the project setting which, among other defects, fails to describe the existence and importance of internationally significant wetlands habitat and wildlife within the Grassland Ecological Area; (2) it contains an incomplete project description that omits critical details of the project, including

¹⁴ *Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652.

¹⁵ *Communities for a Better Environment v. Calif. Resources Agency* (2002) 103 Cal.App.4th 98, 109.

¹⁶ 14 Cal. Code Regs. (“CEQA Guidelines”) § 15002(a)(1).

¹⁷ *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

¹⁸ CEQA Guidelines § 15002(a)(2)-(3); *see also*, *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564; *Laurel Heights Improvement Ass’n v. Regents of the University of California* (1988) 47 Cal.3d 376, 400.

¹⁹ CEQA Guidelines § 15002(a)(2).

²⁰ CEQA Guidelines § 15092(b)(2)(A)-(B).

but not limited to, significant construction, engineering and operational aspects of the project; (3) it fails to disclose, adequately consider and/or identify mitigation measures for numerous potential significant environmental impacts, including but not limited to, construction, land-use, operational and growth-inducing impacts on the wetlands habitat and wildlife within the GEA; (5) it improperly defers the identification of mitigation measures or standards and/or improperly relies upon uncertain and vague mitigation “strategies;” (6) it improperly rejects the feasible environmentally superior Altamont pass alternative without analysis; (7) it fails to support its findings regarding significance of environmental impacts, feasibility of mitigation and feasibility of alternatives with substantial evidence; and (8) for numerous other reasons as described throughout this document and its supporting exhibits. The Authority must correct these shortcomings and recirculate a revised DEIR/S for public review and comment before it may choose a preferred HST alignment that may impact the GEA.

III. THE DEIR/S FAILS TO ADEQUATELY DESCRIBE THE PROJECT SETTING

The DEIR/S employs an inaccurate and incomplete description of the project setting, thereby rendering the impact analysis legally deficient. An accurate description of the environmental setting is critical because it establishes the baseline physical conditions against which a lead agency can determine whether an impact is significant.²¹ Under CEQA and NEPA, an EIR must include a description of the physical environmental conditions in the vicinity of the project from both a local and regional perspective.²²

The DEIR/S must provide an accurate description of the environmental baseline, because “[t]he impacts of the project must be measured against the ‘real conditions on the ground.’”²³ While the absence of information in the DEIR/S does not per se constitute a prejudicial abuse of discretion, “a prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process.”²⁴

²¹ CEQA Guidelines § 15125(a).

²² *Id.*; 40 C.F.R. § 1502.15.

²³ *Save Our Peninsula Committee v. Monterey Board of Supervisors* (2001) 87 Cal.App.4th 99, 121.

²⁴ *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners* (2001) 91 Cal.App.4th

Here, the DEIR/S completely fails to describe the existence and importance of the habitat and wildlife within the GEA despite the fact that the proposed Pacheco alignment would bisect and impact this area. Such an utter failure to accurately describe the project setting is fatal to the DEIR/S as it precludes any semblance of informed decision-making and informed public participation.

The inadequacy of the project description in the DEIR/S is strikingly similar to the inadequacy of the legally deficient project description in the case *San Joaquin Raptor/Wildlife Rescue Ctr. v. County of Stanislaus* (1994) 27 Cal.App.4th 713. In that case, the court found that the EIR's description of the environmental setting of a large residential development project was inadequate as a matter of law because it failed to disclose the specific location and extent of riparian habitat adjacent to the property, inadequately investigated the possibility of wetlands on the site, understated the significance of the project's location to the San Joaquin River, and failed to discuss a nearby wetland wildlife preserve. In the case at hand, the DEIR/S not only fails to disclose or examine the existence and importance of the wetlands habitat and wildlife in the GEA, but it also fails to describe the significance of the Project's crossing of the San Joaquin River at a location nearby the GEA.

The inadequate consideration and documentation in the DEIR/S of existing environmental conditions renders it impossible for the DEIR/S to assess the project's impact, to determine appropriate mitigation measures for those impacts and to determine an environmentally preferred alternative. The description of the environmental setting in the DEIR/S thus is not only, in and of itself, inadequate as a matter of law, but it also taints the impact analysis, alternatives analysis and mitigation findings, rendering them legally inadequate as well.²⁵

IV. THE DEIR/S FAILS TO ADEQUATELY DESCRIBE THE PROJECT

An accurate and stable project description is the *sine qua non* of an informative, legally adequate EIR.²⁶ A legally sufficient project description must contain a "general description of the project's technical, economic, and

1344, 1355.

²⁵ *San Joaquin Raptor/Wildlife Rescue Ctr. v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 729.

²⁶ *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 192.

environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities.”²⁷ While an EIR need not contain design-level description of the project, it must contain sufficient specific information about the project to allow an evaluation and review of its environmental impacts.²⁸

Without an accurate description on which to base an EIR’s analysis, CEQA’s objective of furthering public disclosure and informed environmental decisionmaking would be impossible and consideration of mitigation measures and alternatives would be rendered useless.²⁹ In the case at hand, the DEIR/S provides an incomplete project description that omits critical details of the project, including but not limited to, significant construction activities, engineering and operations aspects of the project. 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 most glaring example may be the failure of the DEIR/S to reveal the frequency with which trains will pass by on these tracks. The only allusion to this information is a chart in the appendix to a technical report on operations that lays out the proposed schedule of trains for the Pacheco route.³⁰ This chart states that at least 134 total daily trains will pass through Los Banos; an average of more than one train every 11 minutes. This is critical Project information for establishing the potential visual, noise, vibration, and wildlife collision impacts and for providing the public with the real picture of what will be going through their parks, wildlife refuges, hunting clubs and neighborhoods. Yet, it is utterly absent in the DEIR/S itself.

The DEIR/S also fails to fully describe key project features such as noise barriers: “While noise barrier walls would not be the only potential mitigation strategy to be considered, they were used to represent mitigation potential in this Program EIR/EIS.” DEIR/S page 3.4-5. Such barriers could have devastating impacts on wildlife and further fragment habitat areas.³¹

²⁷ CEQA Guidelines § 15124(c).

²⁸ *Cry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20.

²⁹ *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 192-193, 197-198, 203.

³⁰ See DEIR/S, High Speed Train Operations Report, Appendix E (online at http://www.cahighspeedrail.ca.gov/eir/pdf/rgn_studies/state/Operations/Op_App_E.pdf).

³¹ Exhibit 9, Thomas Reid Associates, *Grassland Water District Land Planning Guidance Study* (1995), Appendix A (Noss, R.F., *Translating Conservation Principles to Landscape Design for the* 1124-339d

Another key project feature that the DEIR/S fails to adequately describe is the major crossing it must build over the San Joaquin River. Under the proposed Pacheco Pass alignment, this crossing would occur just a few miles from the sensitive habitat of the GEA. Yet, the DEIR/S fails to identify this project component or to describe how this undertaking would be accomplished.

Another example is the HST stations. The DEIR/S includes only general information about the total area of these project features and parking and, this information appears to underestimate total area for these features. The description fails to include the scale of these stations and their parking lots, access for each proposed station location or any indication of what likely related land uses would occur should these stations be built. A revised DEIR/S must include much more detailed descriptions of these and other HST station features, including likely diagrams and renderings of stations, parking facilities, access roads and transit oriented development around stations.

Yet another example is the lack of detailed description of construction activities. The duration of noisy and invasive construction activities through and adjacent to the GEA may severely disrupt biological species, habitat, water quality and air quality. In addition, the construction of the San Joaquin River crossing could pose serious impacts to water quality and riparian habitat. Without a complete and clear description of what it will actually take to construct the HST in these areas, impacts to the GEA from the construction of this project cannot be meaningfully analyzed.

If these and all other key project features are not thoroughly described, related impacts cannot be analyzed. These and other omissions in the description of the Project must be corrected in a revised DEIR/S and the potential for impacts (or mitigation) of these related projects and features disclosed and analyzed.

V. THE DEIR/S FAILS TO ADEQUATELY ANALYZE POTENTIALLY SIGNIFICANT IMPACTS, FAILS TO INCORPORATE ADEQUATE MEASURES TO MITIGATE IMPACTS TO LESS THAN SIGNIFICANCE AND IMPROPERLY DEFERS MITIGATION MEASURES

Both CEQA and NEPA require that the DEIR/S identify all potentially significant Project impacts and identify feasible mitigation measures to reduce those impacts to less than significant.³² The DEIR/S fails to comply with these requirements by failing to identify and mitigate potentially significant impacts related to the GEA, including impacts associated with construction and operation of the Project and impacts associated with population growth and urban encroachment induced by placement of HST stations in Merced County.

The DEIR/S attempts to excuse these failings by stating that it is a “program” EIR/EIS and that more detailed analysis of impacts and mitigation measures will be given in subsequent project-specific EIR/S. The DEIR/S, however, also states that a preferred alignment may be chosen in the final version of this DEIR/S *without any further environmental review*. Accordingly, even though this document is a first-tier program EIR/EIS, the potential impacts of choosing a HST alignment that passes through the GEA must be analyzed now in the DEIR/S and should not be deferred until after a decision on alignment has already been made. Such post-hoc review is too late and is inconsistent with CEQA’s goal of informed decision-making.

The High-Speed Rail Authority should correct these errors by analyzing all of the Project’s potential impacts and identifying feasible, and enforceable mitigation measures in a revised DEIR/S that is circulated for public review.

A. A Program DEIR/S Must Provide Sufficiently Detailed Analysis To Support The Decisions Being Made In Reliance Upon It

A program EIR may be prepared on a series of actions that can be characterized as one large project and are related either: (1) geographically; (2) as logical parts in the chain of contemplated actions; (3) in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a

³² Pub Res. Code §§ 21002.1(a), 21100 (b)(1) & (b)(3); 14 Cal. Code Regs. §§ 15126(a), 15126.4, 15143; 40 CFR 1502.16, 1508.8, 1508.25.

continuing program; or (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.³³ Program EIRs allow the lead agency to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts.³⁴ Subsequent activities in the program must be examined in light of the program EIR to determine what additional environmental documents must be prepared.³⁵ If the potential impacts of the Subsequent activity were not fully examined in the program EIR, a new EIR or Negative Declaration would have to be prepared to address these impacts.³⁶

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.³⁷ In the case at hand, the DEIR/S states that one of its intended uses is to choose a preferred alignment between the Bay Area and the Central Valley.³⁸ In order to make such a choice, the DEIR/S must first fully analyze all the potential impacts that may arise if a particular alignment is chosen and it must identify feasible mitigation measures to address these impacts.

CEQA prohibits deferring analysis of these impacts under the guise of “tiering.” Both NEPA and CEQA require analysis of a project’s impacts at the “earliest possible stage, even though more detailed environmental review may be necessary later.”³⁹ This requirement holds regardless of any intention to undertake site-specific environmental review for future project phases.⁴⁰ California courts require detailed analyses of all potentially significant impacts that may result from

³³ CEQA Guidelines § 15168(a).

³⁴ CEQA Guidelines § 15168(b)(4).

³⁵ CEQA Guidelines § 15168(c).

³⁶ CEQA Guidelines § 15168(c)(1).

³⁷ 14 Cal Code Regs § 1512(b); *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182.

³⁸ DEIR/S at 1-12.

³⁹ *McQueen v. Board of Directors* (1988) 202 Cal.App.3d 1136, 1147; see 40 C.F.R. 1501.1; 1501.2.

⁴⁰ *Stanislaus Nat'l Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182, 199.

a project. Under CEQA, an EIR must focus on the changes in the environment that would result from the project.⁴¹ An EIR must examine all phases of the project including planning, construction, and operation.⁴²

A lead agency cannot ignore the requirement for an analysis of impacts from planning, construction or operation or defer the requirement to identify feasible mitigation measures simply by deferring the analysis in a “program” EIR.⁴³ In *Stanislaus Natural Heritage Project*, the County asserted that a specific plan EIR was both a “program EIR” for some aspects of the project and a “project-level” EIR for other aspects.⁴⁴ The court rejected the County’s argument that it could review certain project phases and their environmental impacts in the future:

the County’s approval of the project under these circumstances [would] defeat [...] a fundamental purpose of CEQA: to “inform the public and responsible officials of the environmental consequences of their decisions *before* they are made.”⁴⁵

The court held that tiering is not a device for deferring the identification of significant environmental impacts that the adoption of a specific plan could be expected to cause. The court stated that calling a specific plan a “program” does not relieve an agency from having to address the significant effects of that project.⁴⁶

The High-Speed Rail Authority’s approach in this case fails to provide the requisite level of review required by CEQA. The DEIR/S fails to adequately describe the Project setting, to adequately describe the Project itself, to analyze Project impacts, and to mitigate impacts that it does identify with specific, enforceable mitigation measures. Rather, the document repeatedly defers critical analysis and Project description on the grounds that the DEIR/S is a program EIR/S. The DEIR/S’ vague and tentative analysis with respect to numerous Project elements precludes a full and proper analysis of Project impacts. Equally flawed,

⁴¹ CEQA Guidelines § 15161.

⁴² *Id.*

⁴³ *Stanislaus Nat’l Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182, 199.

⁴⁴ *Id.* at 202.

⁴⁵ *Id.* at 195 (emphasis added), quoting *Laurel Heights Improvement Association v. Regents of University of California* (“*Laurel Heights II*”)(1993) 6 Cal.4th 1112, 1123.

⁴⁶ *Id.* at 197.

the DEIR/S repeatedly determines that Project impacts would not be significant based solely on assumptions that vague and unspecified mitigation measures would be identified in later documents.

A program EIR/EIS may defer analysis of the impacts of decisions that would not be made until after additional environmental review. Here, however, the DEIR/S states that the preferred alignment may be chosen in the final version of this DEIR/S *without any further environmental review*. Accordingly, the potential impacts of choosing a HST alignment that passes through the GEA must be analyzed now in the DEIR/S if it is to be relied upon to support a decision on alignment.

B. Analyzing Significant Environmental Impacts

The DEIR/S omits analysis of a number of potentially significant Project impacts and is, therefore, legally deficient. Both CEQA and NEPA require that the DEIR/S identify and analyze all direct and indirect potentially significant environmental impacts of a project.⁴⁷ A significant environmental impact is “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.”⁴⁸ In preparing an EIR, a lead agency is required to

analyze the relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human uses of land (including commercial and residential development), health and safety 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 [must] also analyze any significant environmental effects the project might cause by bringing development and people into the area affected.⁴⁹

The primary function of an EIR is to “inform the public and responsible officials of the environmental consequences of their decisions before they are

⁴⁷ Pub. Res. Code § 21100(b)(1); CEQA Guidelines § 15126.2(a); 40 C.F.R 1508.8, 1502.16.)

⁴⁸ CEQA Guidelines § 15382.

⁴⁹ *Id.* at § 15126.2(a).

made.”⁵⁰ To fulfill this function, an EIR must be detailed, complete, and must “reflect a good faith effort at full disclosure.”⁵¹ An adequate EIR must also contain facts and analysis, not just an agency’s conclusions.⁵² In the case at hand, the DEIR/S does not meet these requirements.

The DEIR/S does not provide the necessary facts and analyses of the Project’s potential impact on the GEA to allow the Authority and the public to make an informed decision concerning the project alternatives and mitigation measures. In many cases, the DEIR/S fails to even indicate whether an impact is considered significant, less than significant or reduced to less than significant after mitigation. Where the DEIR/S does make findings as to an impacts significance, it often fails to provide supporting evidence for its conclusions.

C. Adopting Feasible Mitigation Measures

Both CEQA and NEPA require the proposal and description of mitigation measures sufficient to minimize the significant adverse environmental impacts identified in the EIR.⁵³ This requirement is the heart of CEQA. CEQA imposes an affirmative obligation on agencies to avoid or to reduce environmental harm by adopting feasible project alternatives or mitigation measures.⁵⁴ Without an adequate analysis and description of feasible mitigation measures, it would be impossible for the Authority to meet this obligation.

Mitigation measures must be designed to minimize, reduce or avoid an identified environmental impact or to rectify or to compensate for that impact.⁵⁵ A public agency may not rely on mitigation measures of uncertain efficacy or feasibility.⁵⁶ “Feasible” means capable of being accomplished in a successful

⁵⁰ *Laurel Heights Improvement Assn. v. Regents of the University of California* (1993) 6 Cal.4th 1112, 1123.

⁵¹ CEQA Guidelines § 15151; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 721-722.

⁵² See *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 568 (1990).

⁵³ Pub. Res. Code §§ 21002.1(a), 21100(b)(3); 40 C.F.R. §§ 1502.14(f), 1502.16(h); *Robertson v. Methow Valley Citizens Council* (1989) 420 U.S. 332, 352.

⁵⁴ Pub Res. Code §§ 21002-21002.1.

⁵⁵ CEQA Guidelines § 15370.

⁵⁶ *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727 (finding groundwater purchase agreement inadequate mitigation measure because no record evidence existed 1124-339d

manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.⁵⁷ Mitigation measures must be specific and fully enforceable through permit conditions, agreements or other legally binding instruments.⁵⁸ Mitigation measures that are vague, or so undefined that it is impossible to evaluate their effectiveness, are legally inadequate.⁵⁹

An agency must identify mitigation measures for significant impacts *before* it issues a proposed EIR for public review.⁶⁰ Mitigation measures adopted *after* project approval cannot validate the issuance of an EIR, since this deferral denies the public the opportunity to comment on the project as modified to mitigate impacts.⁶¹ Accordingly, deferral of the formulation of mitigation measures to post-approval studies is generally impermissible.⁶² An agency may only defer the formulation of mitigation measures when it “recognizes the significance of the potential environmental effect, commits itself to mitigating its impact, and articulates *specific performance criteria* for the future mitigation.”⁶³

Here, the DEIR/S consistently fails to identify feasible mitigation measures capable of mitigating the significant environmental impacts of the project alternatives and cumulative impacts. In particular, the DEIR/S fails to provide any mitigation analysis whatsoever relating to its potential impacts on the habitat and wildlife within the GEA.

Furthermore, where the DEIR/S does identify potential impacts, it repeatedly fails to articulate specific, enforceable mitigation measures or mitigation performance criteria. Instead, the DEIR/S refers to what it calls “mitigation strategies.” These “mitigation strategies” are almost entirely vague and

that replacement water was available).

⁵⁷ CEQA Guidelines § 15364.

⁵⁸ *Id.* at § 15126.4(a)(2).

⁵⁹ *San Franciscans for Reasonable Growth v. City & County of San Francisco* (1984) 151 Cal.App.3d 61, 79.

⁶⁰ Public Res. Code § 21061.

⁶¹ *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1393]; *Quail Botanical Gardens Foundation v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1604, fn. 5.

⁶² *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 308-309.

⁶³ *Gentry*, 36 Cal.App.4th at 1411 (emphasis provided), citing *Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1028-1029.

unenforceable statements that lack any “specific performance criteria.” Accordingly, it is impossible to determine their efficacy in reducing significant impacts to less than significant.

Nonetheless, the DEIR/S improperly and repeatedly concludes that significant impacts are rendered less than significant on the basis that unspecified “mitigation strategies” would be developed during future project-level review.⁶⁴

In particular, the DEIR/S provides vague and insufficient mitigation measures for the following categories of impacts:

Transportation: “Consultation and coordination with public transit services in order to encourage the provision of adequate bus feeder routes to serve proposed station areas could mitigate potential transit feeders.” DEIR/S page 3.1-24

Air Quality: “Potential localized impacts could be addressed at the project level by promoting the following measures: Increase use of public transit; increase use of alternative fuel vehicles; increase parking for carpools, bicycles, and other alternatives transportation modes.” DEIR/S page 3.3-33.

Construction: “Potential construction impacts, which should be analyzed once more detailed project plans are available, can be mitigated by following local and state guidelines.” DEIR/S page 3.3-33.

Noise and Vibration: “More detailed mitigation strategies for potential noise and vibration impacts would be developed in the next stage of environmental analysis.” DEIR/S page 3.4-23. “This program level analysis has identified areas where future analysis should be given to potential HST-induced vibrations.” DEIR/S page 3.4-24.

Energy: “The design particulars would be developed at the project-level of analysis...” DEIR/S page 3.5-22.

Land Use: “Local land use plans and ordinances would be further considered in the selection of alignments and station locations...” DEIR/S page 3.7-26.

⁶⁴ See, e.g., DEIR/S Table 7.3-1.

Agriculture: “Consideration of potential mitigation such as protection or preservation of off-site lands to mitigate conversion of farmlands or acquiring easements, or payment of an in-lieu fee as mitigation mechanisms, would depend on the potentially considerable environmental impacts identified at specific locations, as assessed in a project-level document. DEIR/S page 3.8-18.

Geology and Soils: “Mitigation for potential impacts related to geologic and soils conditions must be developed on a site-specific basis, based on the results of more detailed (design-level) engineering geologic and geotechnical studies.” DEIR/S page 3.13-13.

Biological Resources: “Consultation with the appropriate resource agencies to develop site-specific avoidance and minimization strategies would be incorporated in the project-level environmental review.” DEIR/S page 3.15-31.

4(f) and 6(f): Possible mitigation measures include sound walls, visual buffers/landscaping and modification of access to the resources. Strategies would be developed during the public input process. DEIR/S page 3.15-13.

For a number of the impacts identified above, the DEIR/S proposes deferring the development of mitigation measures until project-level review. CEQA and NEPA, however, require the Authority to identify feasible mitigation measures prior to taking an action that would rely on those mitigation measures. The Authority may not defer the requirement to identify feasible mitigation measures simply by deferring the analysis in a “program” EIR.⁶⁵

In the case at hand, the Authority has indicated that it intends to choose a preferred alignment between the Central Valley and the Bay Area solely on the basis of the analysis in the DEIR/S. In order to make such a choice, the DEIR/S must first fully analyze all the potential impacts that may arise if a particular alignment is chosen and it must also identify feasible mitigation measures to address these impacts. Each of the impacts identified above could face unique mitigation difficulties or costs as the HST passes through the GEA. Such

⁶⁵ *Stanislaus Nat'l Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182, 199.

difficulties could well tip the balance in the selection of a preferred alignment between the Central Valley and the Bay Area.

Identification of feasible mitigation measures after an alignment has already been chosen would defeat CEQA's goal of informed decisionmaking. The DEIR/S must be revised to identify specific, feasible mitigation measures for these impacts.

D. The DEIR/S Fails To Adequately Analyze The Potential Biological Impacts Of The HST On GEA Wildlife And Habitat

The DEIR/S fails to make sufficient analysis of the Project impacts on the biological resources of the GEA to permit an informed consideration of the implication of choosing one alignment over the other. Once the presence of the biological resources in the GEA have been identified and described, the DEIR/S must then analyze how the direct and indirect impacts of the project and cumulative projects would affect these resources.⁶⁶ 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.⁶⁷ The discussion should include relevant specifics of the area, the resources involved, physical changes, and alterations to the ecological systems.⁶⁸

The DEIR/S fails to either analyze the project's biological impacts on the GEA or to identify potential related mitigations. What little analysis that the DEIR/S does provide of the project's biological impacts is extremely cursory and incomplete. The discussion that there is of biological resources and wetlands in the DEIR/S merely provides narrative lists of species that may be potentially affected by the project. There is no meaningful analysis of the potential for the project to adversely affect the species via direct, indirect, or cumulative impacts and, consequently, no identification of specific, feasible alternatives.

Furthermore, the DEIR/S admits that the data it has relied upon in making its analysis is incomplete, stating that "[g]iven the data sets, the lack of identification of an impact does not necessarily mean that this portion of the proposed alternative would not result in potential impacts on biological resources, only the location-specific data would be required to make a more precise

⁶⁶ CEQA Guidelines Section 15126(a).

⁶⁷ *Id.*

⁶⁸ *Id.*

determination.”⁶⁹ The failure to provide location-specific analysis of biological impacts is fatal to the DEIR/S’ stated purpose of providing sufficient analysis to permit an informed selection of a preferred alignment between the Central Valley and the Bay Area. The Authority cannot base a possible selection of a preferred alignment through the GEA on such incomplete data.

A complete analysis of the potential biological impacts of the HST on the GEA is essential due to the considerable importance of this area. As discussed in more detail above, the GEA constitutes the most important waterfowl wintering area on the Pacific Flyway, and international treaties have recognized the habitat as a resource of international significance. The complex of wetland habitats within the GEA is of special significance because the size, juxtaposition, and connectivity of the different wetland types provide a unique opportunity to sustain native migratory and resident wildlife populations.⁷⁰ The associated uplands surrounding the semi-permanent wetlands are also of special importance, because they provide nesting areas for waterbirds, important food sources for grazers such as geese, and essential habitat for endangered species and numerous upland wildlife. Over one million waterfowl winter in the GEA each year and the GEA provides critical habitat for over 550 species of plants and animals, including 47 plant and animal species that are endangered, threatened or candidate species under state or federal law.

Prior to the selection of an alignment through this area, a complete assessment of all the Project’s potential biological impacts on this important ecological resource must be made. These potential impacts include interruption of habitat connectivity, train noise and vibration impacts, shock wave impacts, train collisions with large animals, water quality impacts and construction impacts.

⁶⁹ DEIR/S at 3.15-3.

⁷⁰ Exhibit 11, Fredrickson, Leigh H. and Laubhan, Murray K., *Land Use Impacts and Habitat Preservation in the Grasslands of Western Merced County, CA* (February 1995).

1. The DEIR/S Fails To Analyze The Impact The Proposed Pacheco Route Would Have Due To Its Bisection And Fragmentation Of The Grassland Ecological Area

a. Interference With Wildlife Corridors

The Proposed Pacheco alignment runs right through the Grassland Ecological Area, fragmenting a critical southern spur of the Grassland Ecological area from the rest of the contiguous wetlands and isolating another small section of wetlands as well. This route cuts across the southern part of the Volta State Wildlife Management Area and the Los Banos State Wildlife Management Area (the oldest Wildlife Management Area in the state - created in 1929) and severs the important wildlife corridor connecting the North and South grasslands.⁷¹

The proposed Pacheco alignment would thus create a physical barrier bisecting the GEA and would likely result in significant fragmentation impacts on the wetland habitat and wildlife.⁷² Such potential impacts include interference with wildlife movement and migration corridors, interference with drainage and the flow of irrigated water through the managed wetlands and interference with access to hunting clubs. The DEIR/S itself states “Segments that would be placed at grade (cut and fill) would require fencing the HST alignment for the safety of humans, as well as protection from train-wildlife collisions, and would have the potential to interfere with wildlife movement.”⁷³

These impacts could be dire. A recent study, found that “if growth of Los Banos toward the east were to fragment and isolate the North from the South Grasslands, this could have a profound effect on the movement of waterfowl between different parts of the refuges they now utilize on a daily basis.”⁷⁴ Indeed, noted conservation biologist Reed Noss found that “[a]ny further fragmentation of this vulnerable linkage between the north and south units of the Grassland Management Area could well provide the “final blow” in fragmenting the

⁷¹ See Exhibit 1, Map of Federal, State and Privately Owned Lands in GEA. Pacheco Alignment is proposed to run just north of and parallel to Henry Miller Road, isolating the sections of the GEA south of this area.

⁷² Exhibit 4, *Dr. Weissman Comments*.

⁷³ DEIR/S at p. 3.15.

⁷⁴ Exhibit 8, *Grasslands Water District*, supra.

wetland ecosystem.”⁷⁵ The proposed Pacheco Pass alignment of the HST could very well be this final blow.

The DEIR/S does state that construction of wildlife underpasses, bridges, and/or large culverts, could be considered to provide wildlife movement corridors;⁷⁶ however, no specifics or analysis are given regarding such mitigation measures. A few underpasses alone may not be sufficient to address this impact. Fragmentation does not require complete separation. Rather:

it is a relative and cumulative problem. After some threshold of fragmentation is exceeded, movement of individuals will no longer occur regularly enough to maintain the population of a fragmentation-sensitive species. Until detail, long-term studies of species in the [GEA] are performed, the prudent course is to prevent any further fragmentation of the system. Indeed, professional opinion among scientists is now firm that the burden of proof in such matters must rest on those who propose activities that may fragment or otherwise degrade ecosystems.⁷⁷

The DEIR/S must provide evidence for the success of the proposed mitigation measures in a wetland environment like the GEA and provide more detail on the number, location and type of such structures to facilitate wildlife movement across the railroad right-of-way. Without such information the impact of the proposed Pacheco Pass alignment on the GEA cannot be fairly assessed.

b. Disruption Of Canals And Waterways

Wetland ecosystems are also sensitive to disruption of water flow and other hydrological impacts that accompany fragmentation.⁷⁸ For example,

⁷⁵ Exhibit 9, Thomas Reid Associates, *Grassland Water District Land Planning Guidance Study* (1995), Appendix A (Noss, R.F., *Translating Conservation Principles to Landscape Design for the Grassland Water District* (1994)), p. 47.

⁷⁶ DEIR/S at p. 3.15-31.

⁷⁷ Exhibit 9, Thomas Reid Associates, *Grassland Water District Land Planning Guidance Study* (1995), Appendix A (Noss, R.F., *Translating Conservation Principles to Landscape Design for the Grassland Water District* (1994)), p. 47.

⁷⁸ *Id.*; see also Exhibit 3, *Dr. Weissman Comments*.

drainage canals, dikes, and roads have had severe effects on the hydrology, vegetation, flora and fauna of the Everglades.⁷⁹

In the case at hand, the proposed Pacheco Pass route would bisect several waterways within the GEA essential to the management of these critically important wetlands and wildlife habitat.⁸⁰ The Santa Fe and San Luis Canals convey water to more than 31,000 acres of public and privately owned wetlands. Mud Slough South (a natural channel) and the Porter-Blake Bypass serve as drainage facilities for thousands of acres of additional wetlands thus making possible the timely release of water, a crucial element in the management of seasonal habitat.

The DEIR/S, however, fails to even identify these waterways, much less analyze the potential impacts the Project may cause by bisecting them. Furthermore, no mitigation measures are proposed or identified to ensure that the design and construction of the project will not impede the flow and maintenance of water in these channels. Without such information the impact of this alignment on the GEA cannot be fairly assessed.

The bisection of these waterways by the HST may also have a significant impact on important wildlife corridors. Among the threatened species that would likely be affected by the bisection of the GEA is the giant garter snake (*thamnophis gigas*), a state and federally listed threatened species.⁸¹ This snake is not only historically known in the GEA, but it has been recently documented in waterways both north and south of the City of Los Banos.⁸² These snakes were found in both natural channels and water conveyance canals. It is well documented that the giant garter snake inhabits waterways, including irrigation and drainage canals, sloughs, and low gradient streams.

The San Luis Canal, which would be bisected by the HST project, has been found to contain the necessary habitat components for the giant garter snake, including: adequate water during the snake's active season, populations of food organisms, emergent, herbaceous wetland vegetation for escape

⁷⁹ *Id.*

⁸⁰ Exhibit 7, *Don Marciochi Letter*.

⁸¹ Exhibit 15, Dean Kwasny letter.

⁸² *Id.*

cover and foraging, and grassy banks and openings in waterside vegetation for basking.⁸³ In addition, the San Luis Canal functions as a movement corridor for the giant garter snake.⁸⁴

The DEIR/S, however, fails to identify the potential for interference with waterway habitats and corridors. The Authority must assess the threat the HST project may pose to the green garter snake's habitat and waterway corridor before it commits itself to a particular HST alignment.

c. Interference With Access To Hunting Clubs

The proposed bisection of the GEA by the HST also poses the potential to impede the access of GWD members to their hunting clubs.⁸⁵ The continued protection of these privately managed wetlands depends largely on the continued viability of these lands as private duck hunting clubs. Currently, 181 duck hunting clubs exist within the GWD and the GRCD. The DEIR/S fails to consider the impact that its proposed Pacheco Pass alignment may have on access to these clubs. This issue must be examined prior to any final decision being made as to the selection of this route.

2. Noise And Vibration

The DEIR/S compares the various routes for noise sensitivity and compares the HST alternative with the other alternatives. However, the DEIR/S never states anything about what the actual noise exposure would be in decibels, at varying distances from the track. The DEIR/S offers no quantitative analysis of impact and never clearly reveals to the public how much noise the trains produce.

A broad estimate of actual noise exposure can be derived from the Federal Railroad Administration (FRA) report which informs us that an electric locomotive train passby (2 engines, 10 passenger coaches) at a maximum speed of 150 mph in a flat area with no shielding will produce an Lmax sound level of 99 dBA at 50 feet from the train.⁸⁶ That study rates as a "severe impact" any case

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ Exhibit 4, *Dr. Weissman Comments*.

where the project noise exceeded 60 dBA where the ambient noise level was near 50 or 55 dBA Ldn, as would be the case in the study area, according to the analysis of Dr. Weissman.⁸⁷ The FRA report also stated that the threshold for significant noise impacts on wild birds and mammals is a sound level of 100 dB SEL. The SEL is a measure of all sound energy during an event expressed as the equivalent sound level with a duration of one second.

Figure 2.6-1 of the DEIR/S shows that the HST will be operating at speeds in excess of 200 mph in the Stockton to Bakersfield and Merced to Gilroy segments, so the noise impact would actually be greater than that estimated in the sample case analyzed in the FRA report. In her attached comments, Dr. Weissman examines the available data on this issue and estimates that the Lmax noise from the train at 200 mph would be around 101.5 dB.⁸⁸ Even at high speed, the train will take three to four seconds to pass a point receptor. This means the SEL at 50 feet distance is probably around 105 to 110 dB. With 3 dB drop-off per doubling distance for a line source, the high-speed train will likely exceed the FRA significance threshold for wild birds and mammals out to a distance of 500 feet.⁸⁹

Train frequency determines the overall impact of the project. The DEIR/S (Summary p. S-4) states that there would be 86 weekday, intercity trains envisioned by the project by 2020. A chart in Appendix E, to a technical report on operations that lay out the proposed schedule of trains for the Pacheco route, shows that 134 total daily trains would pass through Los Banos (not all stopping). This is an average of a train every 11 minutes, but as much as a train every 5 minutes during the busy portion of the business day. The high frequency means that startle effects will be frequent and that the overall sound level will rise substantially.⁹⁰

Noise disturbances of wildlife in the GEA are of significant concern. Noise disturbances may displace waterfowl from feeding grounds, cause desertion of nests, increase energetic costs associated with flight, and may lower productivity of nesting or brooding waterfowl, among other impacts.⁹¹ The EIR must evaluate the

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ Exhibit 12, U.S. Fish & Wildlife Leaflet 13.2.15; Exhibit 4, *Dr. Weissman Comments* at pp. 3-4 (citing numerous reports).

actual likely impacts of the train noise and vibration on the sensitive wildlife species in the GEA who will be exposed to these noise levels on a daily basis before the Authority may commit to an alignment that would run through this area.

3. Shock Wave

High-speed trains will produce a significant shock wave each time they pass.⁹² The shock wave can be felt at varying distances from the train, depending upon its speed. The shock wave has been likened to the impact of a supersonic plane breaking the sound barrier. It could produce a startle response in wildlife or if birds are flying within the immediate area where the train passes, it could possibly interrupt their flight.⁹³ The DEIR/S should quantify the shock wave that emanates from the train moving at over 200 mph, and determine its potential effects on wildlife in the GEA.

4. Collisions With Trains

Animals that may be crossing the tracks in the GEA can be hit by one of some 100 plus trains per day. Although a likely mitigation for the project will be subterranean tunnels to allow wildlife passage (EIR/S p. 3.15-31), there may still be substantial numbers of wildlife that attempt to cross the track at grade level and may be hit by trains.

Species at risk include the giant garter snake, San Joaquin kit fox, tule elk and bobcat.⁹⁴ The giant garter snake, for example, can be found as far away as 820 feet from the edge of marsh habitat; U.S. Fish and Wildlife service recommends a minimum buffer of 200 feet from the banks of giant garter snake habitat.⁹⁵ The HST project, however, proposes trains running by every 5 to 11 minutes right through the waterways inhabited by this threatened snake.

The DEIR/S should estimate the mortality to each wildlife species that is vulnerable to train collisions and the effect of this mortality on the respective

⁹² Exhibit 4, *Dr. Weissman Comments*.

⁹³ *Id.* (citing Howe M. S. "The compression wave produced by a high-speed train entering a tunnel." *Proceedings: Mathematical, Physical & Engineering Sciences* 1 June 1998, vol. 454, no. 1974, pp. 1523-1534.)

⁹⁴ Exhibit 4, *Dr. Weissman Comments*; Exhibit 15, Dean Kwasny letter.

⁹⁵ Exhibit 15, Dean Kwasny letter.

populations. For special status species such as the green garter snake or the San Joaquin kit fox, the DEIR/S should also discuss whether these train impacts would be substantial enough to cause further decline in the status of the species, or would interfere with the recovery of the species.

5. Construction Impacts

The DEIR/S states that because the “construction period would last at least 10 years and the miles of corridor under construction at one time would extend across the state, these physical impacts would potentially be significant.”⁹⁶ However, instead of identifying the potentially significant impacts from this massive construction project, the DEIR/S states that impacts and mitigation relating to construction should be addressed in subsequent analyses.⁹⁷ This deferral of analysis violates the core of CEQA and NEPA.

Analysis of potential construction impacts on the GEA is required before choosing a preferred alignment because this information could tip the preferred selection to a more developed route where fewer collateral impacts will be imposed to build the HST. Potential construction impacts on the GEA that must be studied in a revised DEIR/S include the impacts of truck and other vehicular traffic, equipment storage and laydown areas, blasting, and pile-driving, and temporary disruption of water supply deliveries.⁹⁸ If this information is not provided early in the decisionmaking process, a fully informed decision cannot be made.

6. Water Flow and Water Quality

The DEIR/S fails to acknowledge the potential impacts the Project may have on water flow and water quality in the GEA. The HST Project has the potential to cause significant impacts to the complex of natural and man-made channels which move water through the wetlands, establish the waterfowl habitat and support nearly all the GEA ecological functions.⁹⁹ Without illumination of these potential impacts, the Authority would be unable to make an informed decision as to the preferred route between the Central Valley and the Bay Area.

⁹⁶ DEIR/Sat 7-2.

⁹⁷ See DEIR/S at 3.3-3.

⁹⁸ See Exhibit 4, *Dr. Weissman Comments*.

⁹⁹ Exhibit 4, *Dr. Weissman Comments*.

The HST would probably be constructed on an earthen berm through most of the GEA, elevated above the flood level, in the same manner as railroad lines of the 19th century (see the Santa Fe Grade as an example).¹⁰⁰ The berm would need to be wide enough for two tracks. Construction of the berm would entail tremendous wetland fill and the importation of possibly a million cubic yards of fill, depending on the actual route taken. It is unlikely that the earth for the berm could be excavated from along the route due to soil weight bearing limitations. The berm would need to be keyed in to the substrate, meaning that the organic top layer would be removed and drainage ditches and water pumps would be installed to allow engineered placement of fill. Even where trestle construction crossed water channels, there would be disturbance from clearing and pile driving.¹⁰¹

All that construction would alter the present water flow patterns, introduce sediment and create stagnant sections of the wetlands producing essentially permanent water quality degradation. Water quality impacts on wildlife range from altered growth of feed to increased risk of avian botulism.¹⁰²

The Grassland Water District has spent much time and money managing the application of water in the Grasslands. Historically, water quality problems in the Grasslands have had a tremendous impact on wildlife. Imposition of a hydraulic barrier across the GEA will materially impact the south-to-north water management in the GEA, which is essential to maintaining water quality.¹⁰³ The potential impact that construction of a HST would have on water flow and water quality in the GEA must be analyzed before the Authority chooses its preferred alignment.

E. The DEIR/S Fails To Adequately Analyze The Growth-Inducing Impacts Of HST Access In The Los Banos Area

When preparing an EIR, the lead agency must identify, discuss and analyze the growth-inducing impacts of a proposed project.¹⁰⁴ A project must be analyzed to

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ *Id.*

¹⁰⁴ CEQA Guidelines § 15126.2(d).

determine if it will facilitate and encourage population growth, economic growth or changes in land use and development patterns.¹⁰⁵ 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.¹⁰⁶

1. The DEIR/S Provides Inadequate Analysis Of Localized Rural Growth Patterns And Impacts

The growth-inducing analysis in the DEIR/S is too general to provide any meaningful analysis of the potential local growth-inducing effects of placing a high-speed train station near rural Los Banos and of the impacts this growth may have on the GEA. The DEIR/S provides no information to analyze localized patterns of growth. Rather it provides county and statewide, numerical, tabular population analysis that provide no way to independently determine where the excess growth will go.

Furthermore, without analysis of facts specific to the growth in a largely rural area such as around Los Banos, the DEIR/S concludes that the HST would minimize the impacts associated with growth due to its inherent incentives for directing urban growth:

“In short, the 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 Modal Alternative, and in some cases less than the No Project Alternative, even with more population and employment expected with the HST Alternative.” DEIR/S page 5-34.

“Nonetheless, the results indicate that the HST Alternative would be able to accommodate more population and employment growth on less land than the other alternatives.” DEIR/S page 5-10.

The DEIR/S continues on to conclude that the growth potential with the HST is “potentially beneficial” with mitigation strategies. DEIR/S Table 7.3-1.

¹⁰⁵ *Id.*

¹⁰⁶ 40 CFR 1508(b).

These conclusions are not supported by adequate and transparent analysis or substantial evidence.

A review of this issue by planning expert Terry Watt suggests quite strongly that locating a train station adjacent to the GEA, in a largely rural agricultural area of Merced County, would result in significant localized urban encroachment and development pressures on this area that are either understated or simply ignored in the DEIR/S.¹⁰⁷ Ms. Watt also concludes that this growth will occur in suburban and rural sprawl patterns most harmful to habitat areas and farmland.¹⁰⁸

Major studies have shown that the introduction of transportation facilities redirects growth. Ms. Watt has reviewed these studies, the relevant county and local general plans and the data provided by the DEIR/S on the proposed HST project and has concluded that if alignments and stations are located in rural areas, growth and development in California could actually be redirected away from existing urban areas and into more remote rural areas where high value agricultural and habitat lands occur.¹⁰⁹ This would be far from a “smart growth” or beneficial effect of the HST.

2. The DEIR/S Fails To Adequately Analyze The Impact From The HST’s Facilitation Of Commuter Traffic To The Bay Area And Sacramento From The Less-Expensive, Rural Los Banos Area

Ms. Watt testifies in her attached comments that recent growth patterns in California demonstrate that accessibility to major employment centers triggers tremendous new growth.¹¹⁰ The introduction of the HST will dramatically shorten commute times between the Merced County area and the urban

¹⁰⁷ Exhibit 3, *Watt Comments*.

¹⁰⁸ *Id*

¹⁰⁹ *Id*.

¹¹⁰ Exhibit 3 (*Watt Comments*). 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. Examples identified by Ms. Watt include: (1) the Auburn corridor as major new employers moved to the Sacramento region and north; (2) the Truckee area, which is approximately 1 hour from the major new job growth in the Auburn Corridor; and (3) Reno. The HST will render the Grasslands area within close commute range to major job centers in the Bay Area.

employment centers in the San Francisco Bay Area and the Sacramento area, making the area surrounding the proposed Los Banos HST station more attractive to supercommuters. The substantially lower cost of homes and property in the area would be a tremendous draw for Bay Area workers to move to the area.¹¹¹

The DEIR/S, however, fails to analyze the potential impacts that may arise from this facilitation of commuter traffic to the Bay Area and Sacramento from the less expensive, rural Los Banos area and how this is likely to accelerate sprawl and increase demand for subdivisions and development.

3. The DEIR/S Fails To Analyze The Potential For A Los Banos HST Station To Accelerate The Conversion Of Agricultural And Rural Lands To Urban And “Ranchette” Development

The DEIR/S lacks any analysis of the potential for the Los Banos HST station to accelerate suburban and rural sprawl. The Merced County General Plan and Los Banos General Plan lend themselves to a pattern of suburban and rural sprawl due to the predominance of low density general plans and zoning ordinances.¹¹² The typical development density in the limited High Density development areas in Los Banos is only 15 units per acre. Most of the residentially designated vacant land in the City is in the Low Density and Very Low Density designations ranging from 1 to 7 units per acre.¹¹³ If the HST service is introduced to the area, this would create significant pressures for growth of housing and new services in the area and that pressure would extend to the privately held lands in and around the GEA that are not permanently protected.

¹¹¹ Exhibit 3, *Watt Comments*, Attachment A, *California Real Estate Statistics for Merced and Santa Clara Counties*. As of the 2nd quarter of 2004, a median priced home in Merced County cost \$228,000 and in Los Banos cost \$265,500. By comparison, during the same quarter a median priced home in San Jose cost \$507,750, nearly twice the cost of median priced home in the area near the proposed Los Banos station. In Gilroy during the same period, a median priced home cost \$550,000.

¹¹² While the DEIR/S states that the Cambridge Systematics study considered county general plans and policies, there is no evidence of this in the report. DEIR/S page 5-8. Moreover, the section identifies for subsequent analysis “Land use studies for specific alignment and station areas potentially impacted, including evaluation of potential land use conversion, potential growth, and potential community benefits.” DEIR/S page 3.2-27. These are all analyses that must be included in a revised DEIR/S prior to any action on the project. (See *Stanislaus Nat’l Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182, 199.)

¹¹³ Los Banos General Plan, pp. LU-3 – LU5.

The low-density housing patterns in this area also lend themselves to the “ranchette phenomenon” of multiple acres per dwelling, which is the worst type of sprawl, since it accelerates development of agricultural lands.¹¹⁴ The DEIR/S simply fails to consider the tremendous demand for this type of low-density development. The DEIR/S, thus, also fails to identify and analyze the additional significant impacts related to that growth including increased traffic, increased pollution, increased demand for services and infrastructure, accelerated and increased loss of open space, agricultural and habitat land.

If a HST station in Los Banos removes the barrier of accessibility to jobs, the conversion of agricultural and rural lands to urban and “Ranchette” development will likely dramatically accelerate. A revised DEIR/S must include analysis of this potentially significant impact.

4. The DEIR/S Fails To Discuss The Likely Increase In Demand For Second Homes In Undeveloped Areas Served By The HST

The DEIR/S also fails to disclose the likely increase in demand in attractive rural areas served by HST for second homes. The spectacular open space setting in and around the GEA is highly attractive for a second home market. The DEIR/S is silent on this potential growth inducing impact. The market for second homes has increased along with disposable income of the large baby boom segment of the population.¹¹⁵ A revised DEIR/S must include analysis of this potentially significant impact on rural areas proposed to be served by the HST.

5. The DEIR/S Fails To Disclose The Potential Growth Inducing Impacts Arising From Any New Infrastructure And Services Required By A Los Banos HST Station

The new Los Banos station is also likely to require major new infrastructure and services.¹¹⁶ The DEIR/S fails to reveal the extent of these facilities and fails to analyze the growth-inducing impact these new facilities will

¹¹⁴ Exhibit 3, *Watt Comments*

¹¹⁵ Exhibit 3, *Watt Comments*, Attachment C, *Baby Boomer Investors Fueling Second Home Market Sales*.

¹¹⁶ Exhibit 3, *Watt Comments*.

have in the immediate area of the station. A revised analysis must include information about the types of services and infrastructure needed for the station and it must analyze the impact of these services and infrastructure on growth in the area. Specifically, the DEIR/S should describe the current general plan and zoning of the station site and surrounding areas; the existing status of services and infrastructure; services and infrastructure that will be provided to serve the station; and the likely growth inducing effect of the station and those facilities on adjacent lands.

6. The DEIR/S Is Deficient Because It Fails To Identify And Analyze The *Impacts* That Induced Growth May Have On The GEA

The discussion of growth-inducing impacts in the DEIR/S is further deficient because it neglects not only to address the potential for significant localized growth around the Los Banos area, but it also fails to identify and analyze the *impacts* that this growth may have on the GEA. The DEIR/S must examine not just the possibility that a project may induce growth, but it must also examine what the impact of this induced growth may be on the environment.¹¹⁷ The lead agency must never assume that growth in an area is necessarily beneficial or of little significance environmentally, but must make its judgment in this regard only after open-minded analysis.¹¹⁸

Impacts of urban encroachment on the wetlands complex of the GEA have been documented in numerous studies including the 1995 Land Planning and Guidance Study and the supporting 1994 study by Reed F. Noss, "Translating Conservation Principles to Landscape Design for the Grassland Water District." These studies have shown that impacts of urban development adjacent to the GEA may include: (1) fragmentation of the North Grasslands from the South Grasslands; (2) a reduction in habitat value of the entire interior of the wetlands complex; (3) chemical disruption including the introduction of fertilizers and toxic chemicals in drainage water; (4) introduction of non-native species of both plants and animals; (5) noise disruption; (6) visual disruption caused by removal of trees and shrubs around the wetlands; (7) interruption of water deliveries for wildlife uses; and (8) the competition for the water supply that supports the wetland habitat.¹¹⁹ The

¹¹⁷ *CEQA Guidelines § 15126.2(d)*

¹¹⁸ *Id.*

¹¹⁹ Exhibit 9, Thomas Reid Associates, *Grassland Water District Land Planning Guidance Study*
1124-339d

DEIR/S, however, fails to include any discussion, whatsoever, on these potential impacts.

7. The DEIR/S Is Deficient Because It Fails To Discuss The Potential That The Growth Induced By A Los Banos HST Station Would Conflict With The Documented Need For A Buffer Zone To Protect The Continued Viability Of The GEA

Preservation of the GEA requires that fragmentation around the ecosystem stop and the area not decrease in size. Much work has already been done to evaluate the impacts of encroaching development and to identify methods for protecting the Grassland wetlands. The most important finding of these studies is that a land use buffer around the GEA is the most effective way to protect the resource.

A 1995 *Land Planning Guidance Study* prepared for the GWD addressed the concept of a buffer or band of appropriate land uses around the GEA. The study showed that a two-mile buffer was substantially more effective than a one-mile buffer in protecting the core, or interior of the refuge.¹²⁰

The 2001 *Land Use and Economics Study* examined the proposed two-mile buffer zone around the GEA and identified “zones of conflict” where the impacts of urbanization on the GEA would likely occur.¹²¹ In particular, of the six cities in Merced County, Los Banos, Gustine and Dos Palos have city spheres that include a portion of the two-mile GEA band. The study also identified growth in unincorporated areas as impacting the two-mile GEA band. According to the study, in the long term, it is essential that this band contain only resource beneficial or resource neutral uses to protect the integrity of the interior of the refuge complex as a whole.¹²²

(1995), Appendix A (Noss, R.F., *Translating Conservation Principles to Landscape Design for the Grassland Water District* (1994)).

¹²⁰ Exhibit 9, Thomas Reid Associates, *Grassland Water District Land Planning Guidance Study* (January 23, 1995).

¹²¹ Exhibit 8, *Grassland Water District*; Exhibit 14, *Grassland GEA Buffer Zones & Spheres of Conflict Map*.

¹²² Exhibit 8, *Grassland Water District*.

A key point of the 2001 land use study is that agriculture and wetlands are compatible uses to each other. Agriculture is a productive use within the wetlands complex and especially in the two-mile band around the wetlands to protect the core area from the effects of urban encroachment.¹²³ The study found that protection of a two-mile band around the core area with only compatible uses (agriculture and open space) inside the band would best protect wetland uses and their infrastructure.¹²⁴ The study concluded that General Plan policies and case-by-case local land use planning decisions should be directed away from any further encroachment on the GEA.¹²⁵

The proposed Pacheco route, however, would take the High Speed Rail and locate the proposed Los Banos Station directly within the zone of conflict where the impacts of growth would negatively affect the GEA. As urbanization progresses, fragmentation of agriculture and open space increases, the value of agricultural habitats for wildlife declines, transportation corridors expand, threats to eliminate recreational hunting increase, air and water pollution increase, and local hydrology is modified.¹²⁶ Thus, disruption and degradation of the functions, values and economic benefits of the Grassland ecosystem would be imminent.

Not only is the GEA a unique, diminishing resource in the Central Valley and the State of California, but these wetlands are also critical to the survival of migratory waterfowl, shorebirds, and other wildlife. Further loss and degradation of this largest remnant wetland habitat in the Central Valley will not only have a negative impact on local resident wildlife and plant communities, but would also have a negative impact on migratory species that move across the North American continent and among continents during their annual cycle. For these reasons, protection of this unique ecosystem is essential to the preservation and maintenance of the productivity of this important natural heritage.

The DEIR/S, however, fails to identify the need for this buffer zone and fails to identify the impact that placement of a HST station near Los Banos would have on the ability to protect the agricultural lands surrounding the GEA from conversion to other uses incompatible with the long-term protection of the GEA.

¹²³ Exhibit 8, *Grassland Water District*.

¹²⁴ *Id.*

¹²⁵ *Id.*

¹²⁶ *Id.*

Such an analysis should be an integral part of any analysis of the impacts of the proposed Pacheco route.

8. The DEIR/S Is Deficient Because It Fails To Identify Specific, Enforceable Mitigation Strategies To Address The Potential Impacts From Induced-Growth In The Los Banos Area

The DEIR/S is also deficient because it fails to identify mitigation strategies to address these potential growth-inducing impacts. While increased concentration of development around HST stations in downtown locations has the potential to avoid or to minimize some impacts, the opposite is likely to be the case where stations are located in rural areas.¹²⁷ The Cambridge Systematic study suggests that “regulatory style efforts to encourage increased density and a mix of land uses near rail stations have been effective.” However, they also acknowledge that an exception to this would be the stations located outside the downtown areas of cities in the Central Valley. Moreover, specific mitigation measures, such as urban growth boundaries, conservation easements, transit-oriented development district planning and zoning, housing density and affordability requirements and the like directed at avoiding sprawl must be in place *prior* to the HST development.

Studies that have evaluated the relationship of new transit stations and development have concluded that:

...land use benefits from investments in rail transit are not automatic. Rail transit can contribute to positive change, but rarely creates change by itself. The hardware needs software – supportive land use policies such as density bonuses and ancillary infrastructure improvements – if it is to reap significant dividends.¹²⁸

These studies demonstrate that enhanced land use planning and management is essential to securing “smart growth” outcomes.¹²⁹ The DEIR/S, however, fails to identify either the likely growth-inducing impacts from the HST or appropriate mitigation measures to address these impacts. Mitigation measures or

¹²⁷ Exhibit 3, *Watt Comments*.

¹²⁸ Exhibit 3, *Watt Comments*, Attachment D, p. 15.

¹²⁹ Exhibit 3, *Watt Comments*, Attachment B.

criteria directed at avoiding sprawl and protecting the GEA must be identified prior to the selection of a HST alignment through the GEA.

VI. THE DEIR/S FAILS TO IDENTIFY POTENTIAL CONFLICTS WITH THE SUBSTANTIAL PUBLIC INVESTMENTS MADE TO PROTECT THE WETLAND AND WATERFOWL HABITAT IN THE GEA

An especially troubling deficiency of the DEIR/S is its complete disregard for the substantial state, federal and public conservation investments that have been made in the fight to conserve the critically important waterfowl habitat of the GEA. The GEA includes federal wildlife refuges, a state park, state wildlife management areas and the largest block of privately managed wetlands in the state. These privately managed wetlands contain a large and growing portfolio of federal, state and private conservation easements. Through 1998, conservation easements had been acquired on over 64,000 acres at a total cost of over \$28 million.¹³⁰

Nowhere does the DEIR/S acknowledge, much less analyze, the Project's inconsistency with the conservation easements and state and federal wildlife areas in the GEA, which the Project bisects and/or impacts. The utter failure to examine the impact that the Project would have on the continued protection of these areas threatens to squander tens of millions of dollars in public expenditures.

Several studies have concluded that the best way to protect this investment in the GEA is to prevent any incompatible development from occurring within a two-mile buffer zone around the GEA.¹³¹ Accordingly, any analysis of the impact the HST Project may have on the GEA should include an analysis of the Project's impact on the ability to create this buffer zone.

¹³⁰ Exhibit 8, *Grassland Water District*, supra, at pp. 11-12.

¹³¹ Exhibit 8, *Grassland Water District*, supra, at pp. 11-12; Exhibit 9, Thomas Reid Associates, *Grassland Water District Land Planning Guidance Study* (1995), Appendix A (Noss, R.F., *Translating Conservation Principles to Landscape Design for the Grassland Water District* (1994)).

VII. THE DEIR/S FAILS TO DISCUSS THE IMPACT OF THE HST ON THE PRODUCTIVE ECONOMY OF THE WETLANDS

Damage to habitat would also likely lead to adverse economic impacts within Merced County. In addition to providing high biological value, the Grassland wetlands provide substantial direct economic contributions to the local and regional economies.

According to the 2001 *Land Use and Economics Study, Grassland Ecological Area, Merced County, CA*, jointly funded by the Grassland Water District, the Packard Foundation and the Great Valley Center, recreational and other activities related to habitat values within the GEA contributes \$41 million per year to the Merced County economy, and accounts for approximately 800 jobs.¹³² Agricultural lands within the GEA also account for approximately five percent (5% of Merced County's \$1.45 billion agricultural economy).¹³³

Unfortunately, the productive economy of the wetlands is threatened by population growth and urban encroachment. The 2001 land use study evaluated the impacts of a compact growth scenario, characterized by development within existing cities, and a "sprawl" scenario, characterized by low density residential development in rural areas and facilitated by subdivisions of agricultural land. According to the study, sprawl development has a significant cumulative adverse effect on the cost to local government of providing services and on revenue and employment in the GEA.¹³⁴ In addition, if non-compatible urban development encroaches on the wetlands so as to reduce its utilization by wildlife, then recreational usage could be expected to decline, and public and private funds for habitat management may be more difficult to obtain.¹³⁵

The DEIR/S should study its potential impact on the continued economic viability of the wetlands economy and how this impact may affect the continued private/public partnership that has preserved the GEA wetlands all these years.

¹³² Exhibit 8, *Grassland Water District*.

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Id.*

VIII. THE DEIR/S FAILS TO CONDUCT A 4(F) ASSESSMENT OF THE PROJECT'S IMPACT ON THE GEA

The failure of the DEIR/S to take into account the public investment that has been made to protect this critically important ecological resource violates Section 4(f) of the Department of Transportation Act. Section 4(f) states that the transportation secretary may not approve a transportation project “on publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State or local significance,” unless “(1) there is no prudent and feasible alternative to using that land; and (2) such program includes all possible planning to minimize harm to such park, recreational area, wildlife and waterfowl refuge, or historic site resulting from the use.”¹³⁶

Section 4(f) requires federal agencies to consider alternatives and creates a presumption that public parks and natural resource areas protected by this section may not be used for transportation projects unless truly compelling reasons indicate that no alternative route is possible.¹³⁷ This requirement applies even if the land from the wildlife and waterfowl refuge is not directly taken for the project, if the project will nonetheless impact the wildlife area.¹³⁸

Section 4(f) applies to any lands in which a governmental body has a proprietary interest in the land for public recreation or wildlife and waterfowl conservation purposes, including conservation easements obtained for the purpose of wildlife and waterfowl habitat protection.¹³⁹ Accordingly, it would apply to the more than 64,000 acres of privately managed wetlands in the GEA that are subject to federal conservation easements as well as to the federal wildlife refuges, state wildlife areas and state park within the GEA that would be impacted by this project.

In the case at hand, however, the DEIR/S fails to even acknowledge that the proposed Pacheco Pass alignment passes right through and/or causes nearby impacts to federal wildlife refuges, state wildlife areas, a state park and privately managed lands subject to federal conservation easements within the GEA. Without

¹³⁶ 49 U.S.C.A. § 303(c).

¹³⁷ *Citizens to Preserve Overton Park, Inc. v. Volpe* (1971) 401 U.S. 402, 412.

¹³⁸ Mandelker, *NEPA Law and Litigation* (2nd Ed. 2001) § 2:19, fn. 1, p. 2-44.

¹³⁹ Mandelker, *NEPA Law and Litigation* (2nd Ed. 2001) § 2:19, p. 2-45.

even an identification of these lands, there can be no showing made that the DEIR/S complies with 4(f) requirements.

The DEIR/S clearly fails to meet the “special effort” or assessment of “prudent and feasible alternatives” mandated under Section 4(f). Section 4(f) creates a “specific and explicit bar” to the sacrifice of these public resources for transportation projects; “only the most unusual situations are exempted.”¹⁴⁰ Under section 4(f), the protection of state and federal natural resource areas and conservation easements take precedence over other Project considerations including cost and directness of route.¹⁴¹ The DEIR/S must conduct this 4(f) assessment prior to the selection of an alignment that would impact the public GEA lands, even if other alignments may be more costly or less direct.

IX. THE DEIR/S FAILS TO COMPLY WITH EXECUTIVE ORDERS TO ANALYZE AND MINIMIZE IMPACTS ON WETLANDS AND MIGRATORY BIRDS HABITAT

By failing to analyze the impact of the Project on the GEA, the DEIR/S fails to comply with the executive wetlands order issued by President Carter, which provides that federal agencies “shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.”¹⁴² This executive order has been held judicially enforceable.¹⁴³

The inadequate analysis of the Project’s impacts on the GEA also violates the executive order issued by President Clinton for the protection of migratory birds, which requires federal agencies to avoid or minimize the effects of their actions on migratory birds.¹⁴⁴ This executive order requires that evaluation of agency projects under NEPA consider the effects of the proposed action on migratory birds, with

¹⁴⁰ *Id.* at 411.

¹⁴¹ See *Id.* at 412-13.

¹⁴² Executive Order 11,990, 42 Fed. Reg. 26,961 (1977).

¹⁴³ *City of Carmel-by-the-Sea v. United States Dep’t of Transp.* (9th Cir. 1997) 123 F.3d 1142.

¹⁴⁴ Executive Order 13186, 66 Fed. Reg. 3853 (2001).

emphasis on species of concern.¹⁴⁵ The DEIR/S fails to make this required evaluation with regard to the effect of the Project on the GEA, despite the fact that the GEA provides a nationally and internationally important wintering ground for migratory waterfowl and shorebirds of the Pacific Flyway.

VIII. THE DEIR/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.”¹⁴⁶ “[I]ndividual effects may be changes resulting from a single project or a number of separate projects.”¹⁴⁷ 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.”¹⁴⁸

A legally adequate “cumulative impacts analysis” views a particular project over time and in conjunction with other related past, present, and reasonably foreseeable probable future projects whose impacts might compound or interrelate with those of the project at hand. “Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.”¹⁴⁹ As the court recently stated in *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 114:

Cumulative impact analysis is necessary because the full environmental impact of a proposed project cannot be gauged in a vacuum. One of the most important environmental lessons that has

¹⁴⁵ *Id.*

¹⁴⁶ CEQA Guidelines Section 15355(a).

¹⁴⁷ *Id.*

¹⁴⁸ 40 CFR 1508.7.

¹⁴⁹ CEQA Guidelines § 15355(b).

been learned is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant when considered individually, but assume threatening dimensions when considered collectively with other sources with which they interact.

Here, the DEIR/S fails to assess the cumulative loss of wetlands and waterfowl habitat in light of the threat from the current rate of urbanization of this area. The studies submitted in support of this comment demonstrate that strong land use policies, including the creation of two-mile wide buffer zones, will have to be taken to protect the GEA from projected growth in and around Los Banos. The DEIR/S fails to recognize or analyze the significant cumulative impact it may have on the effort to stem urban encroachment and protect the critical habitat in the GEA and thus is legally inadequate to support the selection of the Pacheco Pass alignment.

IX. THE DEIR/S FAILS TO ADEQUATELY ANALYZE FEASIBLE ALTERNATIVES

Under CEQA, the DEIR/S must analyze “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,” focusing on alternatives that would “avoid or substantially lessen any significant effects of the project, *even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.*”¹⁵⁰ Similarly, under NEPA, federal agencies must consider alternatives to their proposed actions as well as their environmental impacts.¹⁵¹ The alternatives analysis has been called the “linchpin” of the Environmental Impact Statement.¹⁵²

¹⁵⁰ CEQA Guidelines, § 15126.6, subd. (a) & (b) (emphasis provided); see *Citizens for Quality Growth v. City of Mount Shasta*, 198 Cal.App.3d 433, 443-45 (1988).

¹⁵¹ 40 CFR § 1502.14.

¹⁵² *Monroe County Conservation Council, Inc. v. Volpe* (2d Cir. 1972) 472 F.2d 693.

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.¹⁵³

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.¹⁵⁴ A determination that an alternative is not economically feasible must be supported by evidence and analysis

¹⁵³ 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).

¹⁵⁴ Pub. Res. Code § 21061.1; 14 Cal. Code Reg. § 15364.

showing that it cannot reasonably be implemented due to economic constraints.¹⁵⁵ “The fact that an alternative may be more expensive or less profitable is not sufficient to show that the alternative is financially infeasible.”¹⁵⁶ 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.”¹⁵⁷ 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.¹⁵⁸ 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.

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

¹⁵⁶ *Id.* at 1181.

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

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

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.¹⁵⁹

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.¹⁶⁰

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.

¹⁵⁹ Summary Report and Action Plan, 1996 page ES-7

¹⁶⁰ DEIR/S at 2-36.

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

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.¹⁶¹

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.¹⁶² 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.¹⁶³ 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."¹⁶⁴

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.¹⁶⁵ The EIR acknowledged that the natural gas alternative would reduce truck and train traffic associated with the transportation of coal and

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

¹⁶² *Laurel Heights I*, supra, 47 Cal.3d at 403.

¹⁶³ CEQA Guidelines § 15125.6.

¹⁶⁴ *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.

¹⁶⁵ *Id.* at 735.

coal byproducts, but it did not quantify the reduction.¹⁶⁶ 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.¹⁶⁷ 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.”¹⁶⁸ 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.¹⁶⁹

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.

¹⁶⁶ *Id.* at 734.

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

¹⁶⁸ CEQA Guidelines § 15088.5.

¹⁶⁹ *Mountain Lion Coalition v. Fish & Game Comm’n* (1989) 214 Cal.App.3d 1043, 1052.

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