IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

THIRD APPELLATE DISTRICT

TOWN OF ATHERTON, et al., Appellants, **v.** **CALIFORNIA HIGH-SPEED RAIL AUTHORITY, et al.,** Respondents.	Case No. C070877

Sacramento County Superior Court

Case No. 34-2008-80000022-CUWMGDS
Case No. 34-2010-80000679-CUWMGDS
Honorable Michael P. Kenny, Judge

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Court of Appeal No.: C070877

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INTRODUCTION

Appellants challenge the California High-Speed Rail Authority's certification of the Revised Final Program Environmental Impact Report (EIR) and approval of the Pacheco Pass network alternative as the general route for California's new high-speed train (HST) system to connect the San Francisco Bay Area and the Central Valley. Appellants allege several problems in the Revised Final Program EIR, which they claim violate the California Environmental Quality Act (CEQA): inadequate analysis of vertical profile options for the alignment along the San Francisco Peninsula; a flawed ridership model; and an inadequate range of alternatives. Appellants are wrong on each issue.

On the vertical profile issue, Appellants misinterpret CEQA's provisions and case law regarding the standards for program EIRs and tiering, and the distinction between a first-tier EIR and a second-tier EIR. CEQA's tiering rules focus an EIR's analysis on the decision the agency is prepared to make, rather than forcing the agency to speculate about unripe future decisions that it may or may not make. The Authority prepared a first-tier, program EIR to help it decide on the general location for the HST route between the Bay Area and Central Valley, and was also developing second-tier analysis of the details of that route, including the vertical profile. The Revised Final Program EIR adequately addressed the first-tier impacts of the general location decision, and appropriately deferred detailed, site-specific information to the second tier.

On the adequacy of the ridership model, Appellants invite the Court to engage in its own technical critique, rather than apply the deferential substantial evidence standard of review. The ridership model is a complex

series of mathematical equations that forecast future travel behavior in California with and without an HST system. It is precisely the type of technical evidence that merits deference. Substantial evidence supports the model, and the record demonstrates the EIR squarely disclosed the dispute among transportation modeling experts.

Finally, on the range of alternatives, Appellants fail to grapple with the deferential substantial evidence standard of review. An EIR's range of alternatives is governed by the rule of reason. Substantial evidence demonstrates that the range of alternatives studied in the EIR, 21 in all, was more than reasonable. Further, substantial evidence shows that the Setec proposal, which Appellants claim should have been studied in the Revised Final Program EIR, was not itself a reasonable alternative and did not undermine the reasonableness of the range of alternatives already studied.

Appellants fail to meet their burden to demonstrate that the Authority prejudicially abused its discretion in certifying the Revised Final Program EIR. The record demonstrates the EIR complies with CEQA.

STATEMENT OF FACTS and OF THE CASE

On September 2, 2010, the Authority certified the Revised Final Program EIR for compliance with CEQA, selected the Pacheco Pass Network Alternative serving San Francisco via San Jose, and committed to further study in second-tier EIRs. (SAR000003-07.)[1] These actions

[1] This brief includes three distinct administrative record components with unique identifiers. The original two-disk record is cited with a leading letter followed by the bates page number (e.g., A000001). Corrections were provided on a January 22, 2009, disk. The 2010 Supplemental Administrative Record citations are cited in this brief as "SAR" and the

(continued...)

concluded more than a decade of study of Altamont Pass and Pacheco Pass alternatives for the HST system to reach the Bay Area.

I. 1993-1996: THE INTERCITY HIGH-SPEED RAIL COMMISSION

The State's high-speed rail endeavor began in 1993 when Governor Pete Wilson created the Intercity High-Speed Rail Commission to evaluate the feasibility of high-speed rail in California. (D002189-91.) The Commission completed five technical studies, including a Corridor Evaluation and Environmental Constraints Analysis in September 1996. (D001936-37; C001629-1878.) Commission hearings revealed strong public opinion about where an HST system should go, particularly whether the connection between the Central Valley and Bay Area should be the Altamont Pass or the Pacheco Pass. (D002208-09; D002150.)

The Commission's Final Report and Action Plan concluded that high-speed rail was technically, environmentally, and economically feasible in California. (D001940, 2134-35.) The report recommended how to advance the HST system, including preliminary recommendations on an alignment to connect the Bay Area and the Central Valley via the Altamont Pass, reaching San Francisco by crossing the Bay on a new Dumbarton Bridge. (D001942, 46.) The Final Report's recommendations were preliminary and subject to change based on additional study by the new High-Speed Rail Authority. (D001941, 2157, 2177-79.)

(...continued)
2010 Supplemental Administrative Record Addendum as "SARA" followed by the bates page number.

II. 1997-2000: THE HIGH-SPEED RAIL AUTHORITY AND THE BUSINESS PLAN

In September 1996, the California High-Speed Rail Act created the California High-Speed Rail Authority to prepare a plan for construction, operation, and financing of a statewide, intercity HST system. (Cal. Pub. Util. Code, § 185000 et seq; *id.*, §§ 185031, 185032.) Between 1997 and June 2000, the Authority studied train technologies, alignment and station options, operational scenarios, ridership, financing, and the general scope of likely environmental impacts. (C000276-387 [corridor study]; C000393-455 [financial plan]; C000536-709 [ridership study].)

The Authority's 1999 Corridor Evaluation Final Report compared the pros and cons of the Altamont Pass and Pacheco Pass subcomponents of potential alignments to reach the Bay Area. (C000339-341; C000251.) Both mountain passes involve potential adverse environmental impacts of different types (C000339-341), however, the report noted the Pacheco Pass would have more negative environmental consequences than the Altamont Pass when comparing just the pass areas alone. (C000341.) The report also identified the negative effect of having a branch to serve both San Francisco and San Jose with an Altamont Pass alignment, thereby reducing the number of trains serving each city. (C000339.) Ultimately, after weighing all the various considerations, the Report recommended Pacheco Pass for further study. (C000353.) This recommendation was included in the Authority's June 2000 Business Plan, which recognized that further work was needed to define train technology, track alignments, and station options for the HST system as a whole. (C000130, 141, 182.)

III. 2000-2005: THE STATEWIDE PROGRAM EIR

In 2001, the Authority, in cooperation with the Federal Railroad Administration, undertook a programmatic environmental review process in

compliance with CEQA and the National Environmental Policy Act (NEPA) to study a proposed HST system. (C021431-32.) The EIR process for the statewide HST resulted in a three-volume Final Program EIR in August 2005. (C021384-22244 [vol. 1]; C022467-26963 [vol. 2]; C026964-035294 [vol. 3].) The 2005 Program EIR described the proposed HST system as linking the major metropolitan centers of Sacramento and the San Francisco Bay Area in the north, through the Central Valley, to Los Angeles and San Diego in the south. (C021431.) The technology included "state-of-the-art, electrically powered, high-speed steel-wheel-on-steel rail technology capable of speeds in excess of 200 mph." (*Ibid.*) Conceptual alignments for the system were described, including a Pacheco Pass route to reach the Bay Area. (C022269-70.)

On November 2, 2005, the Authority certified its Final Program EIR for the statewide HST system. (G000207-209 [res. 05-01].) The Authority approved the steel-wheel-on-steel rail train technology, and adopted conceptual alignments and station location options for most of the statewide system. (*Ibid.*) Due to strong public interest in an Altamont Pass route, the Authority did not select the northern mountain crossing segment of the system to connect the Central Valley with the Bay Area. (C022076-81; G000209.) The Authority directed staff to prepare a new program EIR focused exclusively on the general route into the Bay Area. (G000209.)

IV. 2005-2008: THE BAY AREA TO CENTRAL VALLEY PROGRAM EIR

The Authority commenced its Bay Area to Central Valley program EIR process on November 14, 2005. (B000001-03.) The purpose of the new program EIR was to take a fresh look at potential alignments and station options within the broad corridor between the Bay Area and Central Valley, generally bounded by and including the Pacheco Pass to the south,

the Altamont Pass to the north, the Burlington Northern/Santa Fe Railroad Corridor to the east, and the Caltrain Corridor to the west. (B000004-05.) The Authority held six scoping meetings in late 2005, which involved over 500 participants and numerous letters and comment cards on a wide variety of issues. (B000903-4; B000831; see generally B000825-62 [scoping report]; B000053-824 [scoping letters].) Major themes that emerged were the divergence in opinion over the Altamont Pass or the Pacheco Pass, concerns over a Bay crossing, and concerns over the Grasslands Ecological Area. (G000209.021-22.)

The Authority released a two-volume Draft Program EIR on July 16, 2007 that examined multiple Pacheco Pass and Altamont Pass routes. (B004967; B001076-2082 [vol. 1]; B002083-3150 [vol. 2].) The initial public comment period was more than 70 days, until September 28, 2007. (B001049-50; B001079-80.) The Authority held eight public hearings on the Draft Program EIR at which more than 150 people participated.[2] Following public requests, the Authority extended the comment period to October 26, 2007. (B003793-94; B003756-57.) By the deadline, the Authority received more than 400 comment letters containing more than 1300 individual comments (B006322; see generally B006337-6838), had received hundreds of oral comments at the public hearings (see generally B006839-7216 [Ch. 25]) and had accepted comments through its website from more than 100 individuals. (B007217-310 [Ch. 26].)

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[2] Hearings were held in San Francisco (B003173-242), San Jose (B003267-342), Livermore (B003350-384), Oakland (B003396-448), Gilroy (B003518-564), Merced (B003595-672), Stockton (B003684-741), and Sacramento (B003753-792).

On May 30, 2008, the Authority released a three-volume Final Program EIR with revised analysis, appendices, and comments and responses. (B003835-5040 [vol. 1]; B005041-6306 [vol. 2]; B006307-8240 [vol. 3].) The Authority provided thorough notice of the availability of the Final Program EIR. (B003808-26; B003796-97.) In June, the Authority issued an Addendum/Errata correcting information about anticipated environmental benefits of the HST system. (B008242-304.)

In July 2008, the Authority Board held a two-day meeting to consider the Final Program EIR and proposed alternatives. (G001093-94.) On July 8th, the Board received a presentation on the Final Program EIR and heard public comments. (G001339-49; G001373- 1408.) On July 9th, the Board received a summary of both the July 8th public comments and letters it received on the Final Program EIR. (G001350-67.) The Board certified that the Final Program EIR complied with CEQA, approved the Pacheco Pass Network Alternative with San Francisco and San Jose Termini, adopted CEQA findings of fact and a statement of overriding considerations, and adopted a mitigation monitoring and reporting program. (G001440-84 [transcript, 1-22-09 corrections disc]; G001481-82 [approval]; A000001-4 [res. 08-01]; A000005-109 [findings].) The Authority filed a notice of determination the same day. (B008305.)

V. 2008-2009: *ATHERTON I* LITIGATION AND FINAL JUDGMENT

Atherton I petitioners filed a petition for writ of mandate on August 8, 2008, challenging the Authority's July 2008 certification of the Program EIR and approval of the Pacheco Pass network alternative for further study. (1 JA 000001-28.) Following record lodging, briefing on the merits, and a hearing, the Court issued a ruling in August 2009. (1 JA 000238-259.) The Court held that much of the Program EIR complied with CEQA, but

identified three EIR issues that required correction: (1) a more detailed project description between San Jose and Gilroy, along with analysis of impacts on surrounding businesses and residences which may be displaced, construction impacts on the Monterey Highway, and impacts on Union Pacific's use of its right-of-way and spurs and consequently its freight operations; (2) additional land use analysis; and (3) recirculate based on Union Pacific's (UPRR's) refusal to share its right of way. (1 JA 000258.) The Court also held the vibration finding not supported by substantial evidence. (1 JA 000258.)

While litigation was pending, the Authority conducted planning and preliminary engineering for second-tier projects to implement the statewide HST system. *Atherton I* Petitioners moved for a stay of preliminary planning work for the San Francisco to San Jose and San Jose to Merced second-tier projects. The Court denied the motion (1 JA 000280-284) and issued the final judgment and peremptory writ of mandate on November 3, 2009. (2 JA 000285-312; 2 JA 000313-314.) No appeal was filed. Between 2009 and September 2010, the Authority continued planning and preliminary engineering for its San Francisco to San Jose, and San Jose to Merced second-tier projects. (A000004 [next steps]; SARA1-18 [SJ/Merced second-tier planning]; SARA47-176 [SJ/Merced second-tier alternatives rpt]; SARA177-82 [SF/SJ second-tier planning]; SARA 216-352 [SF/SJ second-tier alternatives report]; SARA353-68 [SF/SJ second-tier planning]; SARA402-522 [SF/SJ second-tier alternatives report].)

VI. 2009-2010: REVISED PROGRAM EIR AND *ATHERTON I* CORAM NOBIS PETITION

On December 3, 2009, the Authority rescinded its 2008 certification of the Final Program EIR and related approvals and reported this action to

the trial court on January 6, 2010, with its Initial Return to Peremptory Writ of Mandate. (2 JA 000324-327; SAR011135-36; SAR011139.) The Authority issued a Revised Draft Program EIR for a 45-day public comment period, from March 11, 2010, to April 26, 2010. (SAR006303-04; SAR006056-6302.) In addition to accepting written comments, the Authority held two public meetings in San Jose on April 7, 2010, to receive verbal comments from dozens of individuals. (SAR011160; SAR011209-11; SAR011219-59; SAR011261-63; SAR011271-299.) During the public comment period, the Authority received more than 500 written comment letters and extensive verbal statements containing more than 3,750 individual comments. (SAR000431.)

Shortly after the close of the comment period, on May 6, 2010, *Atherton I* Petitioners filed a petition for writ of error coram nobis, seeking to re-open the 2009 final judgment. (2 JA 000329-000383.) The petition alleged that evidence about the ridership model had been "improperly withheld from the public, but once available, showed the ridership model was flawed." (2 JA 000329.) The Authority opposed the coram nobis petition (2 JA 000384-404) and the Court denied it, reasoning that it failed on both procedural and substantive grounds. (2 JA 000418-444.) One factor was that the *Atherton I* Petitioners had a remedy in the EIR process then underway, in which they were active participants. (2 JA 000439-441.)

The Authority prepared a Revised Final Program EIR with revised main text [SAR000135-394] and a roughly 2000-page volume of comments and responses [SAR000395-2500]. The Revised Final Program EIR was made publicly available on August 23, 2010. (SAR005946.) The 3-volume 2008 Final Program EIR was considered part of the Revised Final Program EIR. (*Ibid.*; SAR002501-5945.)

Following the issuance of the Revised Final Program EIR, the Authority received more than one hundred additional written comments on the Revised Final Program EIR. (See generally SAR011861-12453.) At the Authority Board's meeting on September 1-2, 2010, twenty-six people provided further verbal comments. (SAR011309-10; SAR011591; SAR011608-39; SAR011644; SAR011659-671.) The Authority Board then certified the Revised Final Program EIR, adopted CEQA findings and a statement of overriding considerations, adopted a mitigation plan, and again approved the Pacheco Pass Network Alternative serving San Francisco via San Jose for further environmental review at the second tier. (SAR000003-07 [Res. 11-11]; SAR0000008-115 [findings, overriding considerations]; SAR000116-34 [mitigation plan].)

The Authority filed a Supplemental Return on September 22, 2010, requesting discharge of the writ and lodged the Revised Final Program EIR with the Court. (2 JA 000474-575 and 3 JA 000576-647; 3 JA 000648-649.) *Atherton I* Petitioners filed an initial set of objections on September 23, 2010, (3 JA 000651-656), further objections on October 4, 2010 (3 JA 000657-668), and a new lawsuit, *Atherton II*, with four new petitioners. (3 JA 000669-730; 3 JA 000734-735.) The *Atherton I* and *Atherton II* cases were related and assigned to the same judge. (3 JA 000731-733.) The Authority lodged the record in January 2011. (3 JA 000740-775.) By stipulation, *Atherton I* petitioners were dismissed from *Atherton II*, and the trial court established a briefing and hearing schedule. (3 JA 000776-783; 3 JA 000784-787.)

The parties filed briefs according to the trial court's schedule. (3 JA 000804-38, 3 JA 000839-64, 4 JA 000865-85 [petitioners' briefs]; 4 JA 000906-47, 4 JA 000948-90 [respondent's briefs]; 5 JA 001139-1202, 5 JA

001240-57 and 5 JA 001258-75 [reply briefs].) The Authority also filed a request for judicial notice, which the trial court granted. (4 JA 000991-1072, 5 JA 001073-1239; 5 JA 001328.) At oral argument, the Authority presented two exhibits marked for identification, which the court admitted into evidence. (5 JA 001277; 5 JA 001318.) On November 10, 2011, the Court issued rulings in each case, upholding the revised EIR in certain respects, but not in others. (5 JA 001278-1316 [*Atherton I*]; 5 JA 001317-57 [*Atherton II*].) The trial court issued an order denying the Authority's motion to discharge the writ, and ordering issuance of a supplemental writ in *Atherton I* on February 1, 2012. (6 JA 001391-1475.) The supplemental writ issued the same day. (6 JA 001476-77.) The trial court issued a final judgment in *Atherton II* granting in part and denying in part the petition for writ of mandate on February 1, 2012. (6 JA 001478-1565.) The writ issued the same day. (6 JA 001566-67.) The Authority was served on February 13, 2012. (6 JA 001568-71.) The *Atherton I* and *Atherton II* petitioners filed notices of appeal on April 13, 2012. (6 JA 001572-74; 6 JA 001575-77.)

SCOPE AND STANDARD OF REVIEW

The question before this Court is whether the Authority complied with the trial court's 2009 final judgment and writ when it certified the Revised Final Program EIR and approved the Pacheco Pass Network Alternative. This question is framed by the 2009 *Atherton I* final judgment, which identified the issues the Authority was required to address to comply with CEQA. (Pub. Resources Code, § 21168.9, subd. (a) [writ includes only mandates necessary to achieve CEQA compliance]; *id.*, § 21005, subd. (c) [court must specify grounds for noncompliance]; *Ballona Wetlands*

Land Trust v. City of Los Angeles (2011) 201 Cal.App.4th 455, 480 (*Ballona Wetlands*) [scope of review in post-judgment proceeding "limited to ensuring compliance with the peremptory writ of mandate."].)

A post-judgment proceeding is narrower than an entirely new CEQA case because, "a trial court evaluating a return to the writ may not consider any newly asserted challenges arising from the same material facts in existence at the time of the judgment. To do so would undermine the finality of the judgment." (*Ballona Wetlands*, *supra*, 201 Cal.App.4th at p. 480.) If the material facts about a CEQA issue have not changed since the time of the final judgment, the issue is beyond the scope of the post-judgment proceeding. (*Id.* at pp. 480-481.) Only if the material facts on an issue have changed since the final judgment will a reviewing court consider the new issue. (See *Planning and Conservation League v. Castaic Lake Water Agency* (2009) 180 Cal.App.4th 210, 229 (*Castaic*).)

For the issues appropriately considered in the return to writ context, the Court applies Public Resources Code section 21168.5 because the Authority's decisions are quasi-legislative. (1 JA 000240-41; *Western States Petroleum Assn. v. Superior Court* (1995) 9 Cal.4th 559, 567 (*Western States*).) The Court's inquiry is limited to whether there was a prejudicial abuse of discretion. (Pub. Resources Code, § 21168.5.) A prejudicial abuse of discretion is established, "if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence." (*Ibid.*)

The Court's review of each issue in this appeal is subject to the deferential substantial evidence prong of the prejudicial abuse of discretion test. (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564 (*Goleta II*); *In re Bay-Delta Programmatic Environmental Impact*

Report Cases (2008) 43 Cal.4th 1143, 1161-1162 (*Bay-Delta*).) The substantial evidence standard is the same as that used by appellate courts reviewing the factual findings of trial courts. (*Western States*, *supra*, 9 Cal.4th at pp. 572-573.) An EIR is presumed adequate (Pub. Resources Code, § 21167.3) and the plaintiff in a CEQA case has the burden of proving otherwise. (*Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners* (1993) 18 Cal.App.4th 729, 740 (*Al Larson*).) An EIR must be upheld if "there is any substantial evidence in light of the whole record to support the decision." (*Rio Vista Farm Bureau Center v. County of Solano* (1992) 5 Cal.App.4th 351, 369 (*Rio Vista*).) A court "may not set aside an agency's approval of an EIR on the ground that the opposite conclusion would have been equally or more reasonable." (*Goleta II*, *supra*, 52 Cal.3d at p. 564.) In judging the EIR, courts look for adequacy, completeness, and a good faith effort at full disclosure, not technical perfection. (Cal. Code Regs., tit. 14, § 15151 (CEQA Guidelines); *Rio Vista*, *supra*, 5 Cal.App.4th at p. 368.)

Moreover, courts evaluate whether substantial evidence supports the EIR, not whether an appellant has substantial evidence to support its legal theories. (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 407 (*Laurel Heights I*).) An appellant must set forth in its opening brief *all* evidence relevant to the challenged decision, not just evidence that favors its position. (*California Native Plant Soc. v. City of Rancho Cordova* (2009) 172 Cal.App.4th 603, 626.) Failure to do so waives the argument. (*Tracy First v. City of Tracy* (2009) 177 Cal.App.4th 912, 934-935.)

ARGUMENT

I. The Revised Final Program EIR Properly Used Tiering To Focus on the Environmental Consequences Of the Decision at Hand, and To Defer Details About Future, Second-Tier Projects (Including Vertical Profile) to Second-Tier EIRs.

Appellants' argument that second-tier details of the HST's vertical profile have to be studied in the first-tier EIR ignores the well-established case law explaining how a first-tier EIR should address developing second-tier projects. (See 5 JA 001300-06 [trial court discussion of tiering].) Under CEQA, detailed information about second-tier projects can be deferred to second-tier EIRs, provided a first-tier EIR adequately recognizes the environmental consequences of the decision at hand. (*Bay-Delta, supra*, 43 Cal.4th at p. 1170.) Here, that decision is the general location for the high-speed train connecting the Bay Area to the Central Valley, which encompasses a study area of roughly 4500 square miles. (SAR000437; B003870 [Fig. 1-1].) The Revised Final Program EIR identified the impacts of that broad decision at a program level based on a reasonable assumption of the HST's vertical profile. The EIR did not ignore those impacts for the San Francisco Peninsula, as Appellants suggest, but rather acknowledged potential differences in impacts in the areas of noise and aesthetics, attributable to different elevated profiles. The EIR appropriately deferred detailed, site-specific information about the high-speed train's vertical profile to the second tier, when ripe for decision.

A. Tiering allows agencies to keep first-tier projects and future second-tier projects separate.

Tiering allows a lead agency to cover general matters in broader EIRs for general projects, to be followed by subsequent, more detailed EIRs for more detailed, site-specific projects. (CEQA Guidelines, § 15385.) The level of detail in a first-tier EIR "need not be greater than that of the program, plan, policy, or ordinance being analyzed." (*Id.*, §§ 15152, subd. (b), 15146.) A program EIR is a first-tier EIR that "may be prepared on a series of actions that can be characterized as one large project" that are related in specific ways. (CEQA Guidelines, § 15168, subd. (a); *Rio Vista*, supra, 5 Cal.App.4th at pp. 371-72.) "[A] *program* EIR is distinct from a *project* EIR, which is prepared for a specific project and must examine in detail site-specific considerations." (*Bay-Delta, supra*, 43 Cal.4th at 1169.) The use of tiering is particularly appropriate in the case of a large-scale project like the HST system. The Revised Final Program EIR, like the 2005 Statewide Program EIR, is a first-tier project selecting a general corridor, to be followed by second-tier projects identifying, e.g., the HST's exact footprint, vertical profile, and cross-street configurations. (SAR000013-14 [findings]; SAR000435-41.)

The Supreme Court has addressed tiering in detail.

> [W]here a lead agency is using the tiering process in connection with an EIR for a large-scale planning approval …the development of detailed, site-specific information may not be feasible but can be deferred … *as long as the deferral does not prevent adequate identification of significant effects of the planning approval at hand.*

(*Bay-Delta, supra,* 43 Cal.4th at p. 1170 emphasis added, citing CEQA Guidelines § 15152, subd. (c).) *Bay-Delta* thus emphasizes that just because the lead agency is preparing a first-tier EIR, it cannot have blinders

on to the consequences of the project it is proposing to approve. A first-tier EIR must identify the significant impacts of the first-tier decision under study, but "detailed, site-specific information" can be deferred. (*Id.*, 43 Cal.4th at p. 1170.)

Even when second-tier information is developed at the same time as a first-tier EIR, the requirements for what must be analyzed in the first-tier EIR do not change. *Bay-Delta* involved a challenge to a program EIR on a first-tier planning project to improve the Sacramento/San Joaquin Delta. *(Bay-Delta, supra,* 43 Cal.4th at p. 1152.) The appellate court held the lead agency had to recirculate its program EIR to include details about its rapidly-developing second-tier project called the "environmental water account," which had only been addressed through a general discussion of its components in the program EIR. (*Id.* at p. 1174.) The court held the environmental water account had to be studied at the first tier, in the program EIR, reasoning that tiering cannot be used as an excuse to defer analysis of the significant impacts of the first-tier project. (*Ibid.*) The Supreme Court disagreed, explaining that under CEQA's tiering rules, "it is proper for a lead agency to use its discretion to focus a first-tier EIR on only the general plan or program, leaving project-level details to subsequent EIR's when specific projects are being considered." (*Id.* at pp. 1174-75.) The details of the environmental water account were appropriately deferred to a second-tier CEQA document. (*Id.* at p. 1175; see also *Al Larson, supra,* 18 Cal.App.4th at p. 742-43 [tiering appropriate where first-tier EIR considered nearly concurrently with second-tier project EIRs].)

B. The Revised Final Program EIR adequately identified the impacts of the decision at hand.

Appellants argue that the vertical profile information generated during the Authority's second-tier environmental process revealed new significant noise and aesthetic impacts that are not acknowledged in the Revised Final Program EIR. (AOB, p. 16). This is not the case. The Revised Final Program EIR analyzes noise and aesthetic impacts at a corridor-wide, programmatic level, taking into account information about the most likely vertical profile, which Appellants entirely ignore. (B004100-37 [noise]; B004230-4307 [aesthetics].) Consistent with *Bay-Delta, supra*, the Revised Final Program EIR adequately identified significant impacts of the broad, locational decision at hand. (43 Cal.4th at p. 1170.)

1. The Revised Final Program EIR is fully consistent with *Bay-Delta*.

Appellants' attempt to distinguish the clear guidance of *Bay-Delta* is unavailing.[3] Put simply, where a first-tier project under study is broad and general, analysis of the impacts of reasonably foreseeable future second-tier projects need only be commensurately broad and general. (*Bay-Delta, supra*, 43 Cal.4th at p. 1173.) While the program EIR at issue in *Bay-Delta* did not include a specific analysis of the concurrently-developed second-tier environmental water account project, it did include a general analysis of that project's component parts, such as water transfers and new water storage. (*Id.* at p. 1175.) This general analysis allowed the program EIR to fulfill its function as a first-tier EIR. (*Id.* at p. 1177 ["The PEIS/R therefore

[3] Water supply identification, at issue in *Bay-Delta*, merits unique treatment under CEQA. (See *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 441-42.)

complied with CEQA in analyzing the impacts of the EWA in general terms and deferring project-level details to subsequent project-level EIR's."].) Just as in *Bay-Delta*, the Revised Final Program EIR provides a satisfactory first-tier discussion of the first-tier project including disclosing the general consequences of vertical profile variations on the Peninsula.

The first-tier project studied in the Revised Final Program EIR is the broad location for the HST, not the specific rail alignment footprint or its vertical profile. (B006325 [Std. Resp. 1]; SAR000155-56 [Ch. 1].) The EIR made reasonable assumptions about the proposed HST vertical profile across the study area for purposes of the analysis. (B003956 [Fig. 2.5-3].) The Revised Final Program EIR described the alignment for San Francisco to San Jose as mostly at-grade, with some elevated sections of the existing rail corridor. (B003953 [Ch. 2]; B006539 [RTC L025-19].) Maps indicate that portions of the HST alignment north of Redwood City were anticipated to be cut & fill/at-grade and other portions on retained fill, which means above the existing grade. (B003956 [map depicting retained fill in purple and cut & fill/at-grade in green]; B003958 [more detailed map of Caltrain corridor depicting retained fill in purple and at-grade in white].) The cross section diagrams applicable to these areas likewise indicate that these areas would be above grade, on a berm, or that they would potentially be raised above an underpassing roadway. (B005237; B005238; SAR000516 [RTCs L002-23, L002-24].) The Revised Final Program EIR took into account available information suggesting that elevated profiles were more likely in constrained areas. (See, e.g., B004861 [identifying likely aerial structure along I-580 and I-680 in the East Bay].) The EIR evaluated the likely scenarios across the study area, and with regard to the San Francisco Peninsula, acknowledged the potential for different impacts depending on

the vertical profile. This complied with CEQA. (*Bay-Delta, supra*, 43 Cal.4th at p. 1170.)

Of course, where second-tier information reflects a *direct* consequence of the first-tier decision, such second-tier information may require more detailed analysis in a first-tier EIR. (5 JA 001305-06 [trial court ruling that lane closures identified in second-tier work are a "direct consequence of the physical placement of the high-speed rail ROW" and impacts must be analyzed in Revised Final Program EIR].) But as the second-tier information about vertical profile is not a direct consequence of the location of the HST (the first-tier decision), a programmatic impacts analysis is sufficient and design details can be addressed at the second tier. (*Bay-Delta, supra*, 43 Cal.4th at p. 1175.)

2. The Revised Final Program EIR's aesthetics impact analysis accounted for variations in vertical profile in the Belmont-San Carlos-Redwood City area.

Appellants argue that the Revised Final Program EIR ignored the consequences of the potential vertical profile options in the Belmont-San Carlos-Redwood City area (AOB, p.16.), but the EIR's aesthetics analysis discloses the possibility of aerial structures and their corresponding impacts, at a general, programmatic level. The aesthetics analysis reflects that portions of the existing Caltrain rail line are already raised above grade. (See B006539 [RTC L025-19].) In San Carlos, for example, improvements have been undertaken to grade separate the Caltrain station. (B004254 [Ch. 3.9].) The same is true for stations at Bayshore and Lawrence, which the EIR describes as representative of improvements that would be expected to other Caltrain stations along the line with no HST stop. (*Ibid.*) The

possibility of a grade separation with the rail line raised on a structure to go over streets is identified and a representative photo simulation provided showing the possibility of an elevated structure on piers. (B004251-53 [Ch. 3.9]; see also SAR001701 [RTC I241-15 describing potential aesthetic impacts].) In Redwood City, the text identifies a potential aerial profile in conjunction with a potential elevated station. (B004254; B004256 [visual simulation].) Aesthetics impacts are identified as significant, and the Authority committed to mitigation strategies at the second-tier including detailed work on aesthetics for elevated alignments. (B004306-07 [Ch. 3.9]; SAR000040-45 [findings]; see also SAR000683-84 [RTC L022-6].)

3. The Revised Final Program EIR's noise impact analysis accounted for variations in vertical profile in the Belmont-San Carlos-Redwood City area.

Appellants are likewise incorrect in arguing that the Revised Final Program EIR ignored the noise impacts of potential vertical profile options in the Belmont-San Carlos-Redwood City area. The programmatic noise analysis utilized a screenline approach for assessing impacts based on estimates of the number of potentially impacted land uses in noise sensitive settings within a set screening distance. (B004101; B004109; C027433 [2005 PEIR, Appx. 3.4-A]; SAR009776 [FRA manual].) The noise analysis for San Francisco to San Jose overall was identified as having medium noise effects, or significant under CEQA, due to several factors. (B004119; B004129.) The HST would be traveling through an urbanized area, but at relatively lower speeds, thereby lowering its noise impact. (B004118; B004110-11.) Grade separation of the existing railroad and its

electrification, when combined with the lower speed of the HST, would provide substantial noise reduction benefits by eliminating the noise of heavy diesel commuter trains (to be replaced by lighter, quieter electric trains) and the need for horn noise. (B004104; B004110.) Nevertheless, these impacts were ranked higher for San Francisco to San Jose than most other locations in the study area. (See B004124; see also B004119-22.)

Moreover, the Revised Final Program EIR explicitly discloses that high-speed train noise would be higher if trains are on elevated structures. (B004111 [Ch. 3.4].) This is due in part to the loss of sound absorption from the ground and also due to extra sound radiation from an elevated structure. (*Ibid.*) The EIR did not ignore this issue.

Appellants speculate that a short stretch of aerial structure in the Belmont-San Carlos-Redwood City area would change the programmatic impact conclusion, but this is not the case. (AOB, pp.15-16.) The programmatic noise analysis relies on a multi-faceted impact metric that incorporates distance, population density, mixed use population, and the number of schools and hospitals. (B004102.) Through Fremont, for example, where both alignment alternatives studied in the EIR specifically included aerial structures, at the same speeds as the Peninsula (125 mph or less), the northern alternative had the highest noise impact rating (red), while the southern alternative resulted in a lower impact rating than in the San Francisco to San Jose alignment alternative (green). (B004124 [Fig. 3.4-6]; see B003956 [profile characteristics].) The program level of analysis looks at the corridor as a whole, so the presence or absence of an aerial structure for a short stretch does not change the analysis. (See B004102-03; SAR009776 [FRA manual explains that screening procedures useful for making broad-brush comparison of impacts for different

corridors].) The EIR identified significant noise impacts for the Peninsula, and the Authority committed to mitigation strategies at the second-tier. (B004129; SAR000024-28 [findings].)

C. The Authority's implementation of its second-tier process is consistent with CEQA.

Appellants argue that the Preliminary and Supplemental Alternatives Analysis (AA) Reports triggered a requirement for the Authority to study vertical profile in more detail in its first-tier EIR (AOB, pp. 16-17), beyond the programmatic analysis discussed *supra* in Section I.B. But the AA Reports were not final decisions; the Authority has made *no decision* about vertical profile variations either at the first or second tier. (SAR000438 [explaining that project-level studies independent from first-tier process]; SARA376 [explaining that AA process precedes project EIR]; see, e.g., *Rio Vista, supra*, 5 Cal.App.4th at p. 372 [CEQA applies to project actually, not hypothetically, approved].) The Supplemental AA Report was a staff recommendation for which options to carry forward into a second-tier EIR, but is not evidence of a decision by the Authority on vertical profile. (SARA510.) The Authority is far from even releasing a second-tier draft EIR with a defined range of alternatives, let alone approving a second-tier project or vertical profile decision for the Peninsula. The AA Report process exemplifies how tiering anticipates more geographically defined second-tier projects will evolve. (SARA 216-350 [Preliminary AA Report]; SARA 402-522 [Supplemental AA Report]; CEQA Guidelines, § 15152; *Rio Vista, supra*, 5 Cal.App.4th at pp. 372-73.)

Like the lead agency in *Bay-Delta, supra*, the Authority explained its "scope and purpose in the tiering scheme." (43 Cal.4th at p. 1170.) The EIR explained the first-tier project involves the fundamental choice

between Altamont Pass, Pacheco Pass, or both passes, but does not involve the specific rail alignment footprint or vertical profile. (B006325 [Std. Resp. 1]; SAR000155-56 [Ch. 1].) The Revised Final Program EIR's network alternatives feature general alignment and general station locations at a level of detail commensurate with the broad first-tier project under study, allowing the Authority to make its choice based on broad distinctions. (SAR000013-14 [findings]; B003898 [Ch. 2], B003872 [level of detail for alternatives is general]; SAR000155-56; SAR000435-41 [Std. Resp. 1-3].) The Authority has consistently stated that the precise footprint location and vertical profile of the alignment would be refined at the second tier based on more detailed engineering and planning. (SAR000468 [commitment in 2008 to explore vertical profile at second tier]; see also B006325-28 [Std. Resp. 1-2].)

The focal point of Appellants' criticism is the 2010 AA process, the second-tier evaluation conducted by the Authority that considered elevated, at-grade, and below-grade profiles for the entire San Francisco to San Jose corridor, including the short stretch between Belmont, San Carlos, and Redwood City. (SARA226-27, 29; SARA250.) The AA Reports functioned as progress reports, documenting the process of public engagement and input and making available additional engineering and environmental detail as part of preparing for a Draft EIR. (SARA368.) The AA process included exploration of vertical profile options, and revealed potential tradeoffs among the different environmental impacts. For example, an underground alignment may require lengthier disruptive construction than other vertical profile options but produce fewer long-term noise or aesthetic impacts, while an aerial alignment may increase the aesthetic and noise impacts relative to other options but with a narrower

physical footprint that would reduce traffic and land use impacts. (See SARA390 [noting constructability difficulties with cut-and-cover{red} but minimal other environmental impacts {green}while aerial structure has limited right-of-way impacts {green} and more significant other environmental impacts {red}].)

At the time of the AA process, the Belmont-San Carlos-Redwood City communities indicated various preferences for vertical alignment options, based in part on the existing rail line's configuration. (See SARA298-304; SARA250.) Redwood City staff requested consideration of elevated structures to restore the original street network. (SARA256.) Belmont/San Carlos requested study of converting the existing berm into an aerial viaduct, "such that the existing grade-separated road profiles could be flattened and allow for increased site lines." (*Ibid*; see also SARA301, 304.) The Authority's process for development of its second-tier projects for San Francisco to San Jose took into account the Belmont-San Carlos-Redwood City communities' input. (See SARA186 [describing working group process and over 200 meetings held]; SARA229 [describing pre-scoping, scoping and informational meetings]; SARA256-58 [describing working group meetings, public workshops].) In light of the programmatic impact analysis in the Revised Final Program EIR, this exploration of vertical profile in the second-tier process, rather than the first-tier EIR, was entirely consistent with CEQA. (CEQA Guidelines, § 15385; *Bay-Delta, supra*, 43 Cal.4th at p. 1170.)

D. Appellants' Conflation of First- and Second-Tier Projects Undermines Tiering.

Appellants conclude their argument by citing *City of Antioch v. City Council of Pittsburg* (1986) 187 Cal.App.3d 1325, 1333-35, for the

proposition that a non-tiered EIR was required to analyze the reasonably foreseeable impacts of the project under study. (AOB, pp.18-19.) This holding does not extend, however, to require a first-tier EIR to "consider the most probable [vertical] alignment and its impacts." (AOB, p. 19.) The whole point of tiering, a concept not at issue in *City of Antioch*, is to analyze first-tier projects and second-tier projects separately, when each is ripe for decision. (Pub. Resources Code, § 21093.) *Bay-Delta* makes it clear that a lead agency need not mix tiers; the agency must only identify the significant impacts *of the decision at hand.* (*Id.*, 43 Cal.4th at p. 1170; *Laurel Heights I, supra*, 47 Cal.3d at p. 396 [EIR must include analysis of future projects that are "reasonably foreseeable consequence[s]" of decision at hand].)

The Authority's broad focus on its first-tier project in the Revised Final Program EIR and its commitment to examine vertical profile alternatives at the second tier are fully consistent with CEQA's tiering rules. (SAR000005-7 [Reso. 11-11], 13-14 [findings]; SAR000438 [noting further environmental review]; *Bay-Delta*, *supra*, 43 Cal.4th at pp. 1174-75; CEQA Guidelines, § 15152.) Addressing this issue in more detail at the program level would lead to inappropriate speculation, and overwhelm an already voluminous program EIR. (CEQA Guidelines, § 15145; *Bay-Delta*, *supra*, 43 Cal.4th at p. 1173.) Inappropriately conflating the Authority's second-tier planning efforts with the first-tier project in the Revised Final Program EIR has the potential to place the Authority in a never-ending loop, in which its developing information to move the HST system forward at the second tier forces the agency to continuously go back and reanalyze its decisions at the first tier. CEQA mandates no such illogical result. (*Laurel Heights Improvement Assn. v. Regents of University of California*

(1993) 6 Cal.4th 1112, 1132 [Legislature did not intend to promote "endless rounds of revision and recirculation of EIRs"].)

II. Substantial Evidence Supports the Ridership Model and the Revised Final Program EIR's Discussion of the Model and the Disagreement Among Experts.

Appellants claim the Revised Final Program EIR violates CEQA because it uses ridership forecasts generated by a model (the "ridership model") that academic experts conducting a peer review found flawed. (AOB, pp. 20-25.) The single problem Appellants raise is that the "headway coefficient," was too high, and allegedly tainted the entire model and its forecasts. (*Id.* at pp. 22-25.) Appellants are wrong.

The Court applies the deferential substantial evidence standard of review to this claim, which presents a classic disagreement among experts; in this case between academicians and industry practitioners. Substantial evidence supports the adjusted headway coefficient and, more importantly, demonstrates the reasonableness of the ridership model as a whole. The Authority addressed the model dispute with candor, and the EIR served its information purpose.

A. The Substantial Evidence Standard of Review Applies to the Ridership Model Claim.

The standard of review is critical to the ridership claim. Appellants argue the trial court erred by characterizing the dispute over the ridership model as simply a disagreement among experts, and they suggest a deferential review of the Authority's decisions about the model is not appropriate. (AOB, pp 23, 24 citing 5 JA 1314-1315.) Appellants are incorrect. The adequacy of the ridership model is a technical factual issue the Court reviews deferentially, applying the substantial evidence standard.

1. The ridership model is a complex computer software tool for forecasting travel behavior.

The ridership model consists of a large number of inter-related mathematical equations that provide a tool for predicting how people will travel in the future as a function of changes in variables such as population, employment, travel time and costs, fuel costs, and rail and airline schedules. (SAR010628; SAR000442; F004865-873 [model overview].) [4] The equations reside in computer software files used to apply the model and generate the forecasts published in the ridership final reports, and used in the Program EIR. (SAR010628; see generally F004763-850 [final forecasts]; F004851-939 [final report]; F004961-63 [software required]; B003920-21 [2008 Final Program EIR].) [5] The adequacy of the ridership model is precisely the type of highly technical, factual issue the Court reviews deferentially to determine if it is supported by substantial evidence. (SAR009086-87 [ridership forecasting is "very technical issue"]; *City of*

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[4] The extensive ridership model reports are in the record at page range F004075 to F005006. The final coefficients and constants were not published in a report, but were publicly available from the Metropolitan Transportation Commission upon request. (SAR010625-626; SAR010629-630; SAR000449.) When the Authority received a request for this data, it provided it. (See SAR011124-130; SAR010629-630; SAR011576; SAR000449.)

[5] Program EIR ridership forecasts describe total system ridership, ridership by network alternative, and adverse impacts and benefits in the areas of traffic, air quality, and energy. (B003920-21; B004699-920 [ridership by network alternative]; SAR000445.) Ridership was one factor among *many* contributing to the discussion of the preferred alternative. (SAR000269-302.) Contrary to Appellants' argument, ridership did not distinguish between Altamont Pass and Pacheco Pass network alternatives. (SAR000287; SAR000760.)

Long Beach v. Los Angeles Unified School Dist. (2009) 176 Cal.App.4th 889, 898 [methodology challenge reviewed for substantial evidence].)

2. The ridership model dispute presents a classic disagreement among experts.

Contrary to Appellants' argument, their challenge to the ridership model presents a classic dispute among experts, as the trial court correctly recognized. (5 JA 001311 ["Petitioners fail to convince the Court that ITS's objections . . . were anything other than a difference of professional opinion"].) The model was developed over a two-year period by an expert in the field of travel demand modeling, Cambridge Systematics (Cambridge), an industry leader with more than 35 years of experience, including high-speed rail ridership forecasting. (SAR009066-67; SAR009075-76; SAR009102; SAR000442; B001153.) The work was managed by a nationally recognized expert at the Metropolitan Transportation Commission. (SAR009105; SAR009045, 49.) An expert panel peer reviewed the developing model three times. (SAR000444; SAR010627; F004929-35; F004118-48; F004149-87; F004188-97.) Indeed, Appellants have not contested the qualifications of any of these experts. (See *Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437, 1467-68 (*Save Round Valley)* [failure to show expert opinion clearly inadequate where expert qualifications not challenged].)

In 2010, the Senate Transportation and Housing Committee requested an additional peer review of the model development process by the UC Berkeley Institute for Transportation Studies (ITS). (SAR013898-901; SAR009004.) The peer review delved into complex modeling issues, with questions and answers sent between ITS and Cambridge. (SAR009014-36 [app. A]; SAR009037-43 [app. B]; SAR009044-58 [app. C]; SAR009059-

63 [app. D].) ITS issued its final report on June 30, 2010 (SAR009005-63), and indicated that many of its questions about the model were satisfactorily resolved. (SAR008997; SAR009089.) ITS stated that Cambridge's work on the ridership model "meets generally accepted standards for travel demand modeling." (SAR009008; SAR009005.) Nevertheless, ITS criticized the model as having "significant problems" that render the model "unreliable for policy analysis." (SAR009005.)

Appellants' ridership model claim is premised on ITS being right and Cambridge being wrong – a dispute among experts. (AOB, pp. 21-24.) The Court applies the substantial evidence standard of review, and does not reweigh the evidence to determine which expert has the better technical argument. (*Laurel Heights I, supra*, 47 Cal.3d at p. 393.) The only question is whether there is "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached." (CEQA Guidelines, § 15384.) A disagreement among experts is therefore not grounds for finding an EIR inadequate. (*Laurel Heights I, supra*, 47 Cal.3d at pp. 392-393; *Fort Mojave Indian Tribe v. Department of Health Services* (1995) 38 Cal.App.4th 1574, 1600.) The EIR is presumed valid and the burden is on the appellant to demonstrate that a study the EIR relies upon is "clearly inadequate." (*Laurel Heights I, supra*, 47 Cal.3d at p. 409, fn.12; see also *No Slo Transit, Inc. v. City of Long Beach* (1987) 197 Cal.App.3d 241, 251.)

B. Substantial Evidence Supports the Ridership Model.

Appellants fail to meet their burden of showing the ridership model is "clearly inadequate." Substantial evidence supports the adjustment to the

headway coefficient. Substantial evidence also shows the model as a whole functioned in a reasonable way and was endorsed by other experts.

1. Substantial evidence supports the adjustment to the headway coefficient.

Appellants' claim that no evidence supports Cambridge's adjustment of the headway coefficient (AOB, pp. 21-22) is wrong. The equations that comprise the model are grouped into separate, yet integrated, models for forecasting long-distance interregional travel and intraregional travel within urban areas. (SAR010628; SAR000442; SAR010624; F004867-68 [ridership final report].) The interregional model is itself comprised of four sets of models: trip frequency, destination choice, main mode choice, and access/egress mode choice. (F004868-72.) [6] The headway coefficient is part of the main mode choice model, the model component that produces probabilities a traveler will choose automobile, air, conventional rail, or high-speed rail for a particular trip. (F004896-97 [final report].) Headway refers to service frequency, or the time between successive aircraft or train departures (SAR009036; SAR009006), and the headway coefficient is one model parameter describing how sensitive travelers are to changes in frequency of service. (SAR009054.)

The model is developed through a process of estimation, calibration, and validation based on historical observations of the variables and ridership, combined with new survey data of travelers and their travel choices in response to variables. (SAR010624; SAR000444.) The first step, *estimation*, used stated preference survey data, [7] which when viewed

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[6] Appellants do not dispute the intraregional model. (F004872-73.)

[7] Stated preference surveys ask what a traveler would do in a hypothetical situation, whereas revealed preference surveys ask what a

(continued...)

in isolation, suggested the headway coefficient value should be 20% of the in-vehicle time coefficient value. (F004550-F004551 [interregional model report]; F004897 [final report].) In other words, travelers would value frequency of service 20% as much as time spent in the vehicle. The estimation result from the data was different from the modelers' initial expectations:

> If wait times were half the headway and valued twice as highly as in-vehicle time, then we would expect the same coefficient on headway and in-vehicle time. (F004550; F004897.)

For the interregional travel modes, however, headway in the ridership model is not a coefficient on average wait time, as in urban transportation modeling. (SAR000445; F004550.) Wait time is included in the model separately, as part of "mode specific constants." (SAR000445; F004550.) Rather than average wait time, headway represents travelers' anticipated reaction to schedule convenience. (SAR000445; SAR009054.)

Using the estimation results for the relationship between headway and in-vehicle time did not reproduce observed conditions for air travel during model *calibration*:

> Service headway (frequency) was constrained during model calibration to address an overestimation (compared to observed base year data) of air trips in markets with low frequency air service and an understimation of air trips in markets with high frequency air service. (SAR009036.)

(...continued)
traveler did do in an actual situation. (Compare F004210-215 and F004218-223.) Only stated preference surveys could be used to gather data on potential high-speed train use because the United States has no high-speed trains. (F004896; SAR009034.)

The modelers constrained the headway coefficient to match the in-vehicle time coefficient, meaning they adjusted it, based on their professional judgment. (SAR009036.) This adjustment, among others, resulted in a calibration of the interregional models that properly replicated observed travel behavior, and which the original peer review panel found acceptable. (F004597-4604 [calibration of main mode choice model]; F004193 [Third Peer Review (mistitled "First") noting calibration reasonable].) In addition, the model generated forecasts of HST ridership and market share that were "logical given observed HST ridership patterns around the world." (SAR000447.)

Relying on the ITS critique, Appellants nevertheless claim the adjustment of the headway coefficient to match the in-vehicle time coefficient is wrong, because equivalent values for the two coefficients is appropriate only in the context of intra-urban travel. (AOB, pp. 22-23.) This argument is off the mark, however, because Appellants mistakenly equate headway with average wait time. (AOB, pp. 22-23.) As Cambridge explained, the model addresses average wait time and its effect on travel decisions separately from headway. (SAR000445; SAR009053-54.) Headway was included in the model as an *additional* component, "to reflect travelers' anticipated reaction to schedule convenience." (SAR009054.)

Appellants also ignore the thorough explanation Cambridge provided to ITS about the basis for constraining the headway coefficient, which was included in the Revised Final Program EIR. (See SAR009009-10; SAR000780, 86-87; SAR009035-36, 53-54; SAR000444-45.) Constraining of coefficients is a common and accepted practice in travel model development and frequently done in practical applications of transportation modeling. (SAR009035-36 [constraining coefficients in

transportation models recommended in federal "New Starts" program]; SAR000444-45 [constraining variables a common practice].) Model coefficients are constrained in cases where estimation results are clearly unrealistic. (SAR000444.) Constraining coefficients is also done ". . . to improve the robustness of the model by enhancing its internal consistency and the ability to replicate existing travel patterns." (SAR009035.) ITS acknowledged this was the case. (SAR009006 [changes to key model parameters "frequently done"].) Consistent with the state of practice, Cambridge constrained coefficients, including the headway coefficient, to "better replicate existing travel patterns, maintain the policy sensitivity of the models, and enhance the robustness of model application." (SAR009036.)

The professional judgment of the modelers to constrain the headway coefficient to match in-vehicle time was not a baseless guess, as Appellants suggest. (AOB, p. 23.) Rather, the modelers "weighted statistical evidence from the data against the sensitivity of the model, literature that reflects previous evidence, and the ability of the model to predict observed travel patterns." (SAR009035; SAR0009069-70.) The modelers judged that constraining the headway coefficient was a more reasonable approach to calibrating the model than using larger mode-specific constants, which may have affected the model's sensitivity. (SAR009035-36; SAR009152 [model parameters must be considered as a whole, not in isolation].) And although not explicit in the original peer review reports, Cambridge

explained that the assigned value was "within the range of reasonable values presented to peer review." (SAR009036; SAR009053-54.) [8]

While ITS considered it inappropriate to constrain the headway coefficient to match in-vehicle time, the criticism was based on the incorrect assumption that headways for interregional service are much longer than for urban travel. (SAR009053.) As Cambridge explained, the plans for high-speed rail in California would offer far more frequent interregional service than currently available. (SAR009069-70; SAR009053-54.) The headways of high-speed rail systems are often as short as on some of the best urban commuter rail systems in operation, as noted by the original peer review panel. (See SAR009080 [Cambridge Systematics response]; F004144 [high frequency of Japanese high-speed rail].) ITS acknowledged this was the case for high-speed rail and conceded the constrained headway coefficient "may be appropriate" for high-speed rail, although it still disputed it for air travel. (SAR009010.) As explained in the Revised Final Program EIR, "[t]he decision to constrain certain coefficients in the model was made neither unilaterally nor arbitrarily, but was based on the best available data, published literature, and accepted practice." (SAR000444-45.)

[8] Appellants offer no alternative value for the ratio of headway to in-vehicle time, but imply the 20% ratio was the correct even though the evidence shows it did not result in a calibrated model. (AOB, p. 22; SAR009036, 54.)

2. The model as a whole performed in a reasonable manner and was endorsed by other experts.

By focusing on the headway coefficient in isolation, Appellants overlook the fact that the relevant issue is not whether the headway coefficient is one value or another, but rather how the mathematical equations in the model work together *as a whole*. The validity of a model for forecasting depends on a number of factors, ranging from the design of the model, the coefficients and parameters used, the sensitivity of the model to changes in various assumptions, and how those sensitivities compare to real-world evidence from similar contexts. (SAR009151.) As one of the model developers explained, "the sensitivity of the model to changes in the inputs – is the most informative one in judging the validity and applicability of a forecasting model, and one that the team relied upon heavily in the final stages of model calibration and validation." (SAR009151.)

Appellants never confront the substantial evidence in the record demonstrating that the ridership model, after all the various adjustments, calibrated appropriately and was sensitive to changes in policy variables. The results of the calibration were provided to the original peer review panel, which found them acceptable. (F004193 [Third Peer Review Panel Report, mistitled as "First"].) ITS acknowledged that the model provided reasonable "back casts" of observed travel behavior. (SAR009006.) In addition, sensitivity tests showed the model performed "consistently with changes in input variables and that ridership forecasts fall within reasonable bounds" when compared to prior work and practical experience with high-speed train ridership. (SAR009050-51; SAR009067; SAR009074 ["model is policy-sensitive"]; SAR009106; SAR000447-448.) The evidence,

viewed as a whole, shows the ridership model was a reasonable tool supporting the EIR. (*Laurel Heights I*, *supra*, 47 Cal.3d at p. 408.)

Appellants claim, however, that the constrained headway coefficient penalized Altamont Pass alternatives, "causing a disastrously reduced expected ridership." (AOB, p. 24.)[9] Appellants are again wrong. The headway coefficient value was applied consistently to the alternatives, but its effect on ridership differed depending on the nature of the alignment. (SAR000758 [RTC O009-1].) Those alignments that involved a service split, or branch, would have less frequent service to a particular terminal destination by virtue of their physical configuration. (SAR000758 [RTC O009-1].) Both Altamont and Pacheco alternatives that included a branch or service split exhibited similar patterns of ridership changes as headways to each terminal changed as a result of a split in train service, thereby reducing frequency. (SAR000759-60 [RTC O009-3]; SAR000758 [RTC O009-1 [Altamont Pass alternative crossing Bay with branch to serve both San Francisco and San Jose had about 6 million fewer riders than the Pacheco Pass alternative that served San Francisco and San Jose in straight line.])

Furthermore, Cambridge was not alone in endorsing the ridership model as a reasonable tool for the purposes for which it was being used. One of the model developers from an independent firm described the model as, "one of the most technically advanced and successful projects I have had the opportunity to work on." (SAR009151.) The Metropolitan

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[9] Respondent objects to Appellants' inclusion of an opening brief attachment under Rule of Court 8.204(d) because it does not accurately reproduce material Respondent agreed was considered to be part of the record. (See 4 JA 000865-885; 4 JA 000941 [fn. 4].)

Transportation Commission affirmed its belief that the model "was the appropriate tool" for the planning purposes for which it was being used. (SAR009045-46; SAR010626 [model used for multiple public agency projects].) And a modeling expert from the Los Angeles Metropolitan Transportation Agency called the model "the most advanced model of its kind in the nation." (SAR009131.) Faced with the conflicting input from ITS on the one hand, and Cambridge and other modeling experts on the other hand, the Authority was entitled to select which expert to rely on. (*Greenebaum v. City of Los Angeles* (1984) 153 Cal.App.3d 391, 413 (*Greenebaum*); SAR008998-99 [Authority's view that "professional opinions of industry practioners carry more weight" than academician opinion in "this 'real world' context"].)

3. Cambridge's professional judgment, supported by facts, constitutes substantial evidence.

Appellants contend, however, that Cambridge's expert opinion is not based on facts, and does not qualify as substantial evidence. (AOB, p. 23.) Yet Appellants ignore Cambridge's explanation that it based its expert judgment on the statistical evidence from the data it had gathered, literature, and the model's ability to predict observed travel patterns. (SAR009035; SAR009109-10 [discussion of headway coefficient]; SAR000444-45 [standard response 4].) While these facts were presented in summary form, CEQA does not require a specific format for documenting facts underlying an expert judgment for that judgment to constitute substantial evidence. (CEQA Guidelines, § 15384 [substantial evidence includes reasonable *inferences* from facts]; *Save Round Valley, supra*, 157 Cal.App.4th at pp.

1467-1468 [EIR preparers entitled to rely on "credible opinion of experts"].)

Laurel Heights I is instructive. In that case, the appellate court found certain studies supporting an EIR, "wanting in various particulars." (*Laurel Heights I*, *supra*, 47 Cal.3d at p. 408.) The Supreme Court criticized the lower court for engaging in its own scientific critique:

> The issue is not whether disputed studies are irrefutable or whether they could have been better. The relevant issue is only whether the studies are sufficiently credible to be considered *as part of* the total evidence that supports [the decision]. (*Id.* at p. 409 emphasis in original.)

The Court emphasized that the goal, "is not to review each item of evidence in the record with such exactitude that the court loses sight of the rule that the evidence must be considered *as a whole*." (*Id.* at p. 408 emphasis added.) The Court found the disputed studies were substantial evidence in that they offered "at least an inference" the project would have no harmful effects. (*Id.* at p. 409.)

As in *Laurel Heights I*, the focus is not on whether the ridership model or reports could have been better. (47 Cal.3d at pp. 408-409; SAR000449 [model calibration is "dynamic, rapidly paced process," final model parameters not contained in published report, but publicly available since 2007 upon request].) Cambridge's explanation about the basis for constraining the headway coefficient, and its description of the facts upon which it based its professional judgment, constitutes substantial evidence supporting its expert judgment and the model as a whole. (CEQA Guidelines, § 15384 [substantial evidence includes reasonable inferences from information]; *Laurel Heights I, supra*, 47 Cal.3d at p. 409.) The

record thus confirms that Cambridge's professional judgment was a "credible expert opinion" the Authority could rely on. (*Save Round Valley*, *supra*, 157 Cal.App.4th at pp. 1467-1468.)

C. The Authority's Procedures and the Revised Final Program EIR Served CEQA's Informational Role.

Finally, when a dispute among experts exists, CEQA requires the lead agency to ensure the EIR is responsive to the opposition, especially where matters of opinion are at issue. (*Greenebaum*, *supra*, 153 Cal.App.3d at p. 413.) The Authority did exactly that. The Board itself and the Revised Final Program EIR candidly addressed the expert dispute.

1. The Authority Board Directly Addressed The Ridership Dispute at a Public Meeting.

Once the ITS peer review report was published in June 2010, the Authority Board invited both ITS and Cambridge to present their respective views at the Board's July 2010 meeting. (SAR009086-144 [trnscpt].) The ITS team emphasized the lack of "error bands" in the analysis, but acknowledged this is not standard practice in either industry or academia. (SAR009086-92; SAR009091; SAR009100 ["this is a problem with almost all existing work"].) Cambridge defended the ridership model and offered explanations for each issue ITS identified in its report, including the headway coefficient. (SAR009101-115.) Cambridge also depicted the disagreement as a dispute between academic theory versus industry practice. (SAR009102-06, 115.) The Board listened to both presentations and asked questions. (SAR009090-101; SAR009115-118.) The Board and the public were thus fully informed about both sides of the dispute.

2. The Revised Final Program EIR Directly Addressed the Ridership Dispute and the Board Directly Addressed The Dispute in Its Decision.

Moreover, because public concern over the ridership model reached back to late 2009 and early 2010, the Authority received many comments on the Revised Draft Program EIR alleging the ridership model was flawed. (SAR000442; see, e.g., SAR000522 [L003-4], 658 [L020-26], 1016 [I009-24], 1140 [I051-5], 747-57 [CARRD], 779-80 & 84-92 [Flashman].) The Authority included an eight-page standard response on the ridership model and forecasts in the Revised Final Program EIR. (SAR000442-45.) The standard response addressed multiple criticisms of the model, including those about the headway coefficient and even concern the model had been hidden or secretly manipulated. (SAR000444-49.) The critical ITS peer review report and the July 2010 presentations are discussed and cited in the list of sources considered for the Revised Final Program EIR. (SAR000446; SAR002500.) The Revised Final Program EIR also included individual responses to comments on ridership. (See, e.g. SAR000758-61; SAR001305.) The EIR therefore fulfilled its purpose of summarizing the main points of disagreement, and the staff basis for accepting Cambridge's judgment over ITS's judgment. (*Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1391 (*Residents*).)

Authority staff emphasized the ridership model dispute in its presentation to the Authority Board for the Revised Final Program EIR. (SAR011553, 55-56; SAR011600-02.) Following additional public comment, staff provided a further response, acknowledging "very strong differences in professional opinion" about the model. (SAR011574-78; see, e.g., SAR012322-24; SAR012425-52; SAR001346, 47 [I128-3, I128-

13].) The summary explains the staff perspective that Cambridge, an industry practitioner with extensive practical experience, carried more weight in the context of the high-speed rail project. (SAR011575.) In making its final decisions, the Authority adopted findings confirming it had considered *all* of the evidence on the ridership model, acknowledging the points of disagreement between Cambridge and ITS, but concluding the model was an appropriate tool for the Revised Final Program EIR. (SAR000090-91.)

This process complied with CEQA. Criticism of the ridership model was highlighted for the Board and the public, not swept under the rug. (SAR011553, 55-56; SAR011600-02; SAR000442-48; CEQA Guidelines, § 15151; *Residents*, *supra*, 107 Cal.App.4th at p. 1398.) The Authority weighed the conflicting evidence and reached a conclusion. (SAR000090-91.) In contrast to cases where an EIR fails to even acknowledge the opinions of experts that cast doubt on an EIR's analysis, the Revised Final Program EIR, and the Authority Board, addressed this issue with candor, and in compliance with CEQA. (See *Berkeley Keep Jets Over the Bay Com. v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1371 [EIR failed to acknowledge expert opinion questioning EIR analysis of toxic air contaminants]; *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 88 [EIR inadequate because information on expert dispute not included].)

III. The Revised Final Program EIR Studied a Reasonable Range of Alternatives.

Appellants argue that even though the Revised Final Program EIR analyzed 21 network alternatives, the Authority should have recirculated the EIR again with a full study of the Setec proposal in light of Union

Pacific's (UPRR's) position denying use of its right-of-way. (AOB, pp. 27-28.) Supreme Court and appellate case law, and substantial evidence, confirm the reasonableness of the range of alternatives studied in the Revised Final Program EIR, even in the context of UPRR's position. (*Goleta II*, *supra*, 52 Cal.3d at p. 565-66 [EIR must contain a reasonable range of alternatives given facts at issue, permitting reasoned choice and informed decision-making]; *Bay-Delta*, *supra*, 43 Cal.4th at p. 1163; *Mount Shasta Bioregional Ecology Center v. County of Siskiyou* (2012) 210 Cal.App.4th 184, 196 ("*Mount Shasta*"); CEQA Guidelines, § 15126.6.) Even before addressing the substantial evidence question, however, collateral estoppel should bar key portions of Appellants' argument that the Setec proposal required the Authority to recirculate the EIR with another alternative.

A. Collateral estoppel bars relitigation of key components of the Setec proposal previously decided by the trial court, and renders the Setec proposal incomplete as a project alternative.

In the first *Atherton I* lawsuit, Appellants[10] challenged the 2008 Program EIR's alternatives analysis by arguing that the Authority improperly rejected trainsplitting[11] as an operational alternative, and

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[10] Although only *Atherton I* Appellants challenged the 2008 Program EIR, the trial court held that the *Atherton I* and *Atherton II* parties were in privity with one another. (5 JA 001327-28.)

[11] Trainsplitting refers to the ability to split a single trainset in two parts to allow the train to serve more than one city. (B004643.) In the context of the Setec proposal, trainsplitting would allow a single trainset traveling from Los Angeles over an Altamont Pass network alternative and crossing the Bay at Dumbarton to be split into two trains, one serving San Jose and one serving San Francisco. (SAR010292-94.)

improperly determined that there were significant obstacles to alternatives that used the US-101 median. (1 JA 000253-54.) The trial court in 2009 rejected this argument in its entirety, holding that the 2008 Program EIR "studied a reasonable range of alternatives and presented a fair and unbiased analysis." (1 JA 000254.) The trial court specifically found that substantial evidence supported the 2008 Program EIR's explanations for rejecting trainsplitting, and the difficulties associated with using US-101. (1 JA 000254-56.) The Revised Final Program EIR analyzes the same 21 network alternatives the trial court previously determined to be a reasonable range. (SAR000912 [RTC O012-9].) Appellants again challenge the reasonableness of that range by introducing the Setec proposal, which relies upon familiar concepts of trainsplitting and alternatives utilizing US-101. (AOB, pp. 27-28.) Collateral estoppel should bar further relitigation of the following issues determined by the trial court:

- The Authority's rejection of trainsplitting is supported by substantial evidence (1 JA 000255); and
- The Authority's rejection of a US-101 alignment is supported by substantial evidence (1 JA 000256).[12]

[12] Collateral estoppel applies if five thresholds are met: (1) the issue sought to be precluded from relitigation must be identical to that decided in a former proceeding; (2) the issue must have been actually litigated; (3) the issue must have been necessarily decided in the former proceeding; (4) the decision in the former proceeding must be final and on the merits; and (5) the party against whom preclusion is sought must be the same as, or in privity with, the party to the former proceeding. (*Lucido v. Superior Court* (1990) 51 Cal.3d 335, 341.) The listed issues from the trial court's 2009 ruling were actually litigated, necessarily decided and final. (*South Sutter, LLC v. LJ Sutter Partners, L.P.* (2011) 193 Cal.App.4th 634, 662-63 ["actually litigated," "necessarily decided," and "final"].)

The application of collateral estoppel boils down to a fact-specific inquiry of whether the issues decided in 2009 are identical to the issues Appellants now raise. (See, e.g., *Oro Fino Gold Mining Corp. v. County of El Dorado* (1990) 225 Cal.App.3d 872, 878.) The Authority acknowledges that Appellants' current argument (the range of alternatives is faulty because UPRR right-of-way restrictions affected specific geographic segments of some of the network alternatives under study) was not squarely present in the prior legal challenge even though the trial court previously ruled on the range of alternatives for essentially the identical project. (See 5 JA 001329 [2011 trial court ruling].) Although Appellants' *overall* challenge is not barred by collateral estoppel, the trial court's 2011 ruling is correct in its suggestion that its specific 2009 rulings should bar relitigation of identical issues now put forth by Appellants based on the Setec proposal. (See 5 JA 001334 [trainsplitting]; 5 JA 001341 [rejection of US-101]; see also SAR000204-09 [Revised Final Program EIR explains impact of UPRR right-of-way].)[13] This is consistent with CEQA's requirements: unless the material facts on an issue have changed since the issuance of a final judgment or order, a reviewing court should not consider "any newly asserted challenges arising from the same material facts in existence at the time of the judgment." (*Ballona Wetlands, supra,* 201 Cal.App.4th at pp. 480-81; cf. *Castaic, supra,* 180 Cal.App.4th at p. 229 [allowing challenges to second EIR where material facts changed].)

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[13] Because the Setec proposal cannot be understood as a complete alternative absent these components, it may be unnecessary to further consider it. (*California Native Plant Soc'y v. Santa Cruz* (2009) 177 Cal.App.4th 957, 993 (*Santa Cruz*) [alternatives need only relate to proposed project *as a whole*], citing *Big Rock Mesas Property Owners Ass'n v. Bd. of Supervisors* (1977) 73 Cal.App.3d 218, 227.)

B. Substantial evidence supports the Revised Program EIR's discussion of the Setec proposal.

Even if Appellants' challenge to the EIR's alternatives analysis based on the Setec proposal is not barred either in whole or in part, the challenge fails because substantial evidence shows the Revised Final Program EIR's alternatives discussion complies with CEQA, particularly in light of the unique project at issue and the reality that there are simply a limited number of feasible locations for a high-speed train. CEQA imposes no categorical legal imperative on the scope of alternatives to be analyzed in an EIR; each case must be evaluated based on its facts, applying the rule of reason. (*Mount Shasta, supra,* 210 Cal.App.4th at p. 199, citing *Goleta II, supra*, 52 Cal.3d at p. 566.) A lead agency need not study in detail alternatives it reasonably determines are infeasible, or that do not accomplish a substantial environmental advantage. (*Goleta II, supra*, 52 Cal.3d at p. 566; *Sequoyah Hills Homeowners Assn. v. City of Oakland* (1993) 23 Cal.App.4th 704, 713-14.) "When an EIR discusses a reasonable range of alternatives sufficient to foster informed decisionmaking, it is not required to discuss additional alternatives substantially similar to those discussed." (*Cherry Valley Pass Acres and Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316, 355 (*Cherry Valley*) citations omitted.) A lead agency's selection of alternatives will be upheld unless it is demonstrated "that the alternatives are manifestly unreasonable and that they do not contribute to a reasonable range of alternatives." (*Santa Cruz, supra,* 177 Cal.App.4th at p. 988, citation omitted.)

1. The alternatives analysis was reasonable and fostered informed public participation and decision making.

Substantial evidence shows the Revised Final Program EIR contained a robust discussion of a reasonable range of alternatives in the context of UPRR's denial of use of its right-of-way, and Appellants fail to meet their burden to put forth evidence undermining the EIR's reasonableness. The Revised Final Program EIR analyzed 21 representative network alternatives for the decision at issue: the general location of the Bay Area to Central Valley connection, along with general station locations. (B004699.) The 21 network alternatives represented a range of reasonable alternatives among the three basic approaches being considered: 11 Altamont Pass network alternatives; six Pacheco Pass network alternatives; and four alternatives using both Pacheco Pass and Altamont Pass, with local service over the Altamont Pass. (B004699-920 [2008 EIR, Ch. 7]; Power Point presentation by Respondent California High-Speed Rail Authority on *Atherton II*, 34-2010-80000679 ("*Atherton II* Trial Exhibit"), pp. 2-5 [depictions of all 21 network alternatives].) Within each network alternative, there are numerous alignment options. (B003940 [Fig. 2.5-1]; B003944 [Fig. 2.5-2].) Tables summarize each network alternative's physical and operational characteristics and environmental impacts. (See B004702-08 [Altamont Pass base case]; B004768-73 [Pacheco Pass base case].)

Contrary to Appellants' suggestion that the Revised Final Program EIR failed to include a meaningful alternatives analysis in light of UPRR's refusal to share its right-of-way (AOB, p. 26), the Revised Final Program EIR updated and revised the 2008 Program EIR's analysis to take into

account the changed circumstances, explaining the anticipated environmental effects if the Authority has no access to UPRR right-of-way for all of its previously described alternatives. (SAR000150-53; SAR000203-10.) The EIR carefully considered the impact of UPRR's position on its alternatives analysis, in particular, how land use impacts or the need for additional property would change if UPRR does not allow use of its right-of-way. (SAR000203-10; see also SAR000213 [Fig. 3-2 depicting UPRR interface].) The EIR plainly identified that some alternatives would be more challenging to construct and would have greater land use impacts and real property needs than previously understood if UPRR right-of-way is not available. (SAR000210; SAR000213 [Fig. 3-2]; see also SAR000459 [Std. Resp. 9].) After analyzing this issue, the Revised Final Program EIR concluded that the alternatives previously studied remained potentially feasible and expanding the range of alternatives was unnecessary. (SAR000459.) The Revised Final Program EIR then analyzed whether and how the UPRR right-of-way issue would affect the fundamental choice of route to connect the Bay Area to the Central Valley. (SAR000270-73 [Ch. 7].) By defining the major tradeoffs among alternatives and explaining how the changed conditions might affect the fundamental choice, the EIR fostered informed public participation and decision-making. (*Laurel Heights I, supra*, 47 Cal.3d at p. 404.)

2. The Setec proposal did not undermine the reasonableness of the range of alternatives.

The thrust of Appellants' argument seems to be that because some, if not all, Altamont Pass network alternatives were rendered more difficult because of UPRR's position, the Authority had to formally consider the

Setec proposal as an alternative and study it in the EIR. But the EIR explained that the Setec proposal does not offer any significant benefit above the existing 11 Altamont alternatives, and suffers certain key drawbacks. (SAR000467-69; SAR010283-95.) Specific elements of the Setec proposal, which were thoroughly and correctly addressed by the trial court (5 JA 001333-41), are reviewed below.

a. The Setec proposal involves trainsplitting, an option the Authority concluded is not reasonable.

The Authority determined in 2008 not to consider trainsplitting on its main trunk line between Los Angeles and San Francisco as an operational alternative, citing multiple reasons including time delay and operational risk. (B004716; B006694 [RTC O007-50]; see also SAR000929-30; SAR010292 [discussing impracticability of splits before serving major markets of San Francisco and San Jose].) Examples from other countries' high-speed rail services show that trains are split only in minor markets and in off-peak periods, not on their main trunk service. (B006694; compare SAR010292 [showing split patterns and population estimates for Europe and Japan] with SAR000824 [showing split of Bay Area main trunk line in green between San Jose, San Francisco].) The Setec proposal assumes trainsplitting will be used, and Appellants present hypothetical schedules comparing service over Altamont and Pacheco Passes, concluding that trainsplitting could allow for a slight increase in train frequency serving San Francisco. (AOB, pp. 38-39.) The Authority does not disagree with Appellants' conclusion; in fact, the Authority's experts drew the same conclusion. (SAR010293 [noting "small increase in frequency" with trainsplitting].) Any increase in frequency from trainsplitting, however,

comes at the expense of overall travel time, a key consideration for the HST system. (SAR000280; SAR010292-94; SAR000929-30.)

To the extent this issue is not barred by collateral estoppel, substantial evidence supports the Authority's determination that trainsplitting was not an appropriate project characteristic for the HST system in California, and an alternative relying on trainsplitting was not worth further consideration. (SAR010292-94; SAR000929; see *Laurel Heights I, supra*, 47 Cal.3d at p. 407; CEQA Guidelines, §§ 15126.6, subd. (c), 15384.)

b. Substantial evidence demonstrates the Setec proposal is not reasonable.

The geographic similarity between the Setec proposal and alignments already considered is another independent reason why the Setec proposal did not merit further consideration. (See *Atherton II* Trial Exhibit, p. 22.) While some segments of the Setec proposal appear to present additional options for traversing areas where the Revised Final Program EIR concludes that UPRR right-of-way may present challenges, the Setec proposal largely overlaps with alternatives either studied in the 2008 Final Program EIR or preliminarily considered but screened out from detailed study in the 2008 EIR. (SAR000467-68; see *Cherry Valley, supra,* 190 Cal.App.4th at 355 [EIR not required to discuss additional alternatives substantially similar to those discussed].)

South of Livermore: Appellants acknowledge that the Setec proposal route in this area is similar to an alignment the Authority preliminarily considered, but screened out from detailed study in the 2008 Final Program EIR. (AOB, pp. 29-30.) The Authority's south of Livermore alternative was eliminated from detailed consideration because it passed through a chokepoint of parkland and land under agricultural

easements, and thus had high impacts to biological resources and agricultural lands. (B003969; B005492-93; B005501-02). This alternative also failed to meet key project objectives of locating stations to connect with local transit/highways, and maximizing use of existing transportation corridors. (B003873-74 [listing of project objectives]; SAR000466-67 [south of Livermore alignment bypasses existing urbanized areas].) The Authority's experts concluded the Setec proposal's south of Livermore route would pass through the same chokepoint and create the same impacts as the alternative already eliminated from detailed study. (SAR010289-92; SAR000913-14; see *Atherton II* Trial Exhibit, pp. 15-19.)

Appellants point out that the Authority is studying this area for its slower-moving Altamont Corridor Rail Project (AOB, pp. 31-32), but they ignore the fundamental differences between high-speed rail and commuter rail. The Altamont Corridor Rail Project involves commuter rail, a different type of train service, moving at much lower speeds than high-speed trains, and with much different engineering criteria for the alignment. (C000052 [engineering criteria report explains "more stringent alignment requirements than those needed for lower speed lines"]; C000057 [depicts minimum horizontal radius, corridor width acceptable for HSR]; B003911 [HSR performance criteria].) For the Altamont Corridor Rail Project to be "compatible" with high-speed rail simply means that high-speed trains could run on narrower and more curved commuter rail tracks, but at slower speeds such that it would not constitute HST service. (See SAR008804-8820, 8816 [technical memorandum]; SAR010425-39 [presentation].) Again, substantial evidence shows that an Altamont Corridor Rail Project alignment is not appropriate for trains traveling at 220 mph, and supports the Authority's decision not to study a high-speed alignment in this area.

Fremont Area: Appellants argue the Authority inappropriately dismissed the Centerville line as a means to traverse the Fremont area.[14] The Centerville line is essentially the same as an option already studied in the 2008 Final Program EIR. (SAR000914-15; SAR010288-89; B003962; B005179, 81.) The Centerville option would require either purchase of UPRR right-of-way, as envisioned by the Setec proposal (SAR000810-11; SAR000914-15), or an aerial structure adjacent to UPRR tracks, as described in the Revised Final Program EIR. (SAR000208.) Appellants argue the Authority has inconsistently addressed UPRR right-of-way, but the Authority took the same approach at this location as it did south of San Jose, in evaluating the potential for acquiring land *adjacent to* UPRR right-of-way. (SAR000208 [discussion of acquisitions in Fremont].) Substantial evidence supports the EIR's consideration and rejection of this routing.[15]

Dumbarton Rail Bridge: The Authority studied three methods of crossing the Bay at Dumbarton: a high bridge, a low bridge, and a tube. (B003949-50; *Atherton II* Trial Exhibit, pp. 9-12 [visual depictions].) Appellants argue that the Setec proposal presents new evidence on a high bridge crossing. (AOB, pp. 34-36.)[16] However, this concept has already

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[14] In contrast to Appellants' emphasis on all facets of the Setec proposal at the trial court, Appellants now focus their Fremont-area arguments only on the Centerville line.

[15] As noted by the trial court, it is ironic that *Atherton I* Appellants challenged the 2008 Program EIR for utilizing the UPRR right-of-way despite UPRR's objections, and now challenge the Revised Final Program EIR for failing to consider an alternative utilizing UPRR right-of-way. (5 JA 001338.)

[16] In contrast to Appellants' discussion of a high and low Dumbarton bridge crossing at the trial court, Appellants now focus only on a high bridge.

been studied, and the new evidence was reviewed and determined not to alter the Authority's conclusions. (SAR000922-24; SAR010286, SAR010294-95; *Cherry Valley, supra,* 190 Cal.App.4th at p. 355.) Substantial evidence supports the range of alternatives studied by the Authority.

Fremont to San Jose: The Authority looked at multiple routes for the bottleneck connecting Fremont to San Jose, including a route along I-880 studied in the 2008 Program EIR (B003954, 59; SAR000921-22), and a route using the former Western Pacific Railroad alignment that was preliminarily considered but not carried forward for the 2008 Program EIR because it is being used to extend BART. (B003968, 71.) The Revised Final Program EIR provided specific analysis of UPRR right-of-way issues for this area, identifying construction and operational challenges and potential solutions including aerial structures. (SAR000205.) The Setec proposal included those same two routes, plus a third: using any corridor under study for the Altamont Corridor Rail Project. (SAR010286.) However, "joint use" of the Altamont Corridor Rail Project by high-speed trains does not mean, as Appellants argue (AOB, pp. 36-37), that a corridor under study for commuter rail would be engineered to meet the criteria required for true HST service. (SAR008816.) In light of the Authority's prior analysis of two of the concepts and the inappropriateness of treating commuter rail as equivalent to high-speed rail, as discussed above, substantial evidence shows that the range of alternatives studied by the Authority was reasonable.

US-101: Finally, the Setec proposal suggests the use of US-101 for a portion of the Peninsula, but the Authority has already determined that US-101 is not practical for HST service, particularly where the freeway has

very high bridge structures north of Redwood City. (B003968 [2008 Program EIR, ch. 2]; B005485; SAR000465, SAR000921-22, 925.) To the extent this issue is not barred by collateral estoppel, substantial evidence shows that the range of alternatives studied by the Authority was reasonable.

In summary, substantial evidence supports the Revised Final Program EIR's conclusion that the range of alternatives remained adequate in light of the UPRR right-of-way issue. While Appellants may disagree as a policy matter with the Authority's conclusion that no new alternatives beyond the existing 21 network alternatives required study, they fail to meet their burden to show that no substantial evidence supports the Authority's conclusions. (*Mount Shasta, supra*, 210 Cal.App.4th at p. 199 [appellant must "show the agency failed to satisfy its burden of identifying and analyzing one or more potentially feasible alternatives" and "may not simply claim the agency failed to present an adequate range of alternatives and then sit back and force the agency to prove it wrong."].) Nothing about the Setec proposal undermines the Authority's conclusion.

CONCLUSION

The Authority respectfully requests that the Court of Appeal affirm the final order of the trial court in *Atherton I* and the final judgment of the trial court in *Atherton II*.

Dated: December 27, 2012

Respectfully submitted,

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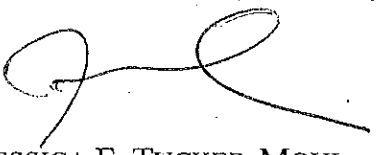

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CERTIFICATE OF COMPLIANCE

I certify that the attached Respondent's Opposition Brief uses a 13 point Times New Roman font and contains 13926 words.

Dated: December 27, 2012

KAMALA D. HARRIS
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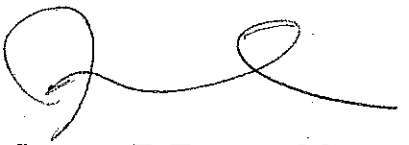

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DECLARATION OF SERVICE BY U.S. MAIL and ELECTRONIC MAIL

Case Name: ***Town of Atherton et al. v. California High-Speed Rail Authority***
Case No.: **Court of Appeal, Third Appellate District Case No. C070877**

I declare:

I am employed in the Office of the Attorney General, which is the office of a member of the California State Bar, at which member's direction this service is made. I am 18 years of age or older and not a party to this matter. I am familiar with the business practice at the Office of the Attorney General for collection and processing of correspondence for mailing with the United States Postal Service. In accordance with that practice, correspondence placed in the internal mail collection system at the Office of the Attorney General is deposited with the United States Postal Service that same day in the ordinary course of business.

On January 2, 2013, I served the attached **RESPONDENT'S OPPOSITION BRIEF** by placing a true copy thereof enclosed in a sealed envelope with postage thereon fully prepaid, in the internal mail collection system at the Office of the Attorney General at 1300 I Street, Suite 125, P.O. Box 944255, Sacramento, CA 94244-2550, addressed as follows:

Stuart M. Flashman * Law Offices of Stuart M. Flashman 5626 Ocean View Drive Oakland, CA 94618-1533 E-mail: Stu@stuflash.com	1 copy
California Supreme Court 350 McAllister Street, Room 1295 San Francisco, CA 94102	4 copies
Honorable Michael Kenny, Dept. 31 c/o Clerk of Court Sacramento Superior Court 720 Ninth Street Sacramento, CA 95814	1 copy

In addition, on the same day, I also sent an electronic copy of the above same document, converted to "pdf" format, as an email attachment to the the party shown above with an asterisk, at the email address shown above.

I declare under penalty of perjury under the laws of the State of California the foregoing is true and correct and that this declaration was executed on January 2, 2013, at Sacramento, California.

RUTHANN RESHKE
Declarant

Ruthann Reshke
Signature

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