

# High-Speed Rail in California: The Dream, the Process, and the Reality

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The 1983 high-speed rail proposal between Los Angeles and San Diego, California, was high technology and privately financed. It was initiated by the American High Speed Rail Corporation (AHSRC), a private firm, to develop a profitable business venture and offer a major new component to the transportation system. The 130-mi, electrically powered \$3.1 billion system was to be based on the high-speed technology and design of the Japanese bullet train. The route was to be largely within or parallel to existing Interstate highway (I-5) and railroad right-of-way. AHSRC had an ambitious schedule, too ambitious, however; it underestimated the processing time and effort required of a major environmental study and a complex decision-making process, including public involvement. Assuming a minimum of problems, AHSRC might have been able to begin construction in September 1986, almost 2 years later than had originally been envisioned. The project proved to be very controversial, with the proponents eventually unable to obtain financing to continue. Opposition to the project centered mainly on environmental and economic impacts. Important considerations were noise, vibration, and visibility; beach access and lagoons; safety and property values; and transportation, namely, Amtrak service, local traffic and circulation, and local public transportation. The professional community seriously questioned AHSRC's ridership estimates and methodology. The content and process of communication between the project proponents and the public and governmental agencies were important factors in the outcome. The proponents were not accustomed to working closely with these groups. Elements of an approach to minimize communication problems in large-scale projects are as follows: exercise political diplomacy at all levels of government, maintain an open data process, establish open communication with the public and governmental agencies and keep the loop closed by continuing to provide feedback, maintain credibility by accepting criticism and handling it professionally, and avoid any perception of arrogance.

High-speed rail in the United States is being studied seriously in several parts of the country. The purpose of this paper is to add to the growing and necessary data bank of such efforts. Although not quite a case study, this paper describes a large-scale, privately initiated and financed high-speed train project (The Dream) and the environmental process for the proposal (The Process). It also analyzes the controversy surrounding the project and suggests measures for optimizing opportunities in communication and cooperation and for minimizing problems (The Reality). The paper concludes with what is perhaps the most important lesson to be learned: the public has grown accustomed to having a voice in large-scale projects, and the

public participation process is not likely to disappear. With the increasing involvement of private enterprise in such projects, it would serve well to continue the search for and to find middle ground that would optimize opportunities for both the developer and the public.

## THE DREAM

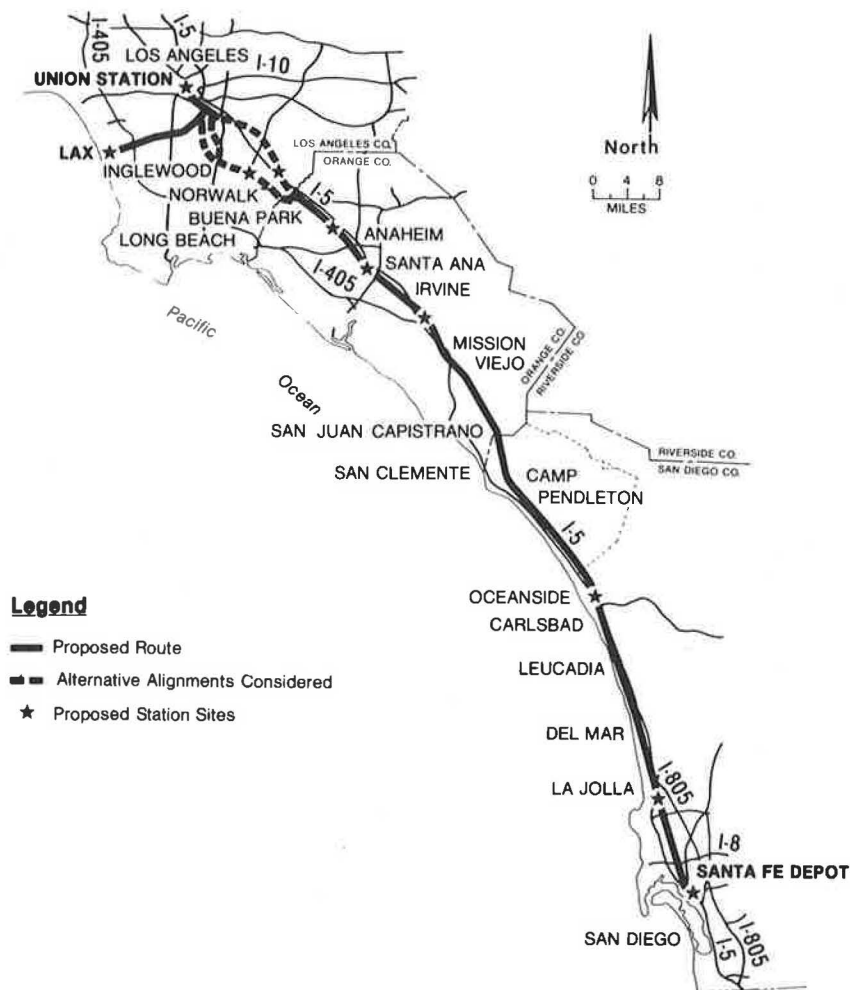
A study reported in April 1981 by the Federal Railroad Administration (FRA) and the National Railroad Passenger Corporation (Amtrak) (1) identified the San Diego-Los Angeles Transportation corridor as having the best potential for development of 25 rail passenger corridors studied. Shortly thereafter, a group familiar with the study and possessing good credentials formed the American High Speed Rail Corporation (AHSRC). Under their own initiative and without being solicited by any governmental agency, they proposed to construct, operate, and maintain a privately funded \$3.1 billion high-speed passenger train service between Los Angeles and San Diego (Figure 1). Their goal was to have the full route in operation by 1990. The purpose of the project was to develop a profitable business venture and offer a major new component to the transportation system.

Founded in December 1981, the AHSRC unveiled its plans for the project in March 1982. Reasons for proceeding included the following projections and assumptions:

- Highway congestion would increase dramatically over the next 10 years (an automobile trip between Los Angeles and San Diego would take 3½ hr in 1990);
- Gasoline prices would increase sharply;
- Growth in the corridor would be at a high in terms of population, employment, travel, and tourism;
- Not only would the population increase in numbers, but the population density would increase as well;
- Local parking and feeder services would be available and coordinated with the high-speed train; and
- Fares for the high-speed train service would be competitive with airline and Amtrak fares.

In addition, benefits were to include the following:

- With a nonstop run of 59 min, the "bullet train" would be faster than airplanes when the trip from the Los Angeles downtown to the San Diego downtown was considered (currently, airplanes take about 35 min to travel from airport to airport). Also, the bullet train would be faster than the conventional train (2 hr and 40 min) and the automobile (2 hr and 30 min);



**FIGURE 1** Route of proposed high-speed passenger train service between Los Angeles and San Diego, California.

- The project would reinforce existing local and regional plans for improvements to local transit systems;
- Capital costs of \$1.5 billion of the \$2.1 billion total cost would be expended in the United States;
- The project would involve about 8,600 person-years of direct construction labor during the 4-year construction period; indirect employment would be two to three times greater (2);
- Operating and maintaining the system would require about 1,040 person-years per year of labor and would create indirect economic impacts from local purchases of materials and services and from local spending by passengers and workers (2); and
- Government revenue would increase from taxes, permit fees, and other available sources.

The AHSRC described the high-speed rail proposal at several public meetings and in published documents. Most of the following project and financial information is derived from their published material (2-4).

The train system was based on the high-speed technology and design of the bullet train (*Shinkansen*) developed by the Japanese National Railway. It was to be electrically powered

by an overhead catenary system, operate on exclusive right-of-way, and have a maximum cruising speed of 160 mph. Approximately 34 percent of the route was to be constructed on elevated, grade-separated structures, about 51 percent at ground level or cut and fill (with grade separation for street, rail, and other crossings), and about 15 percent through tunnels. Of all nontunnel portions, about 80 percent of the alignment was to be within or closely parallel to existing railroad and Interstate highway (I-5) right-of-way.

The proposed route was to pass through Los Angeles, Orange, and San Diego counties for a total route length of 130 mi: 18 mi from the Los Angeles International Airport (LAX) to Union Station in downtown Los Angeles, and 112 mi from Union Station to the Santa Fe Depot in downtown San Diego. Other stations would be located in Norwalk, Anaheim, Santa Ana, Irvine-Mission Viejo, Oceanside, and North San Diego.

AHSRC estimated that, depending on the station stops, market conditions, and pricing structure, up to 100,000 passengers would use the high-speed service daily, more than 36 million passengers per year. These person trips would represent about 12 percent of the 875,000 trips projected to be made daily from

the transportation market areas within the study corridor. The AHSRC defined these market areas as those within a 5- or 10-mi radius of the proposed stations. Only those passengers with trip origins and destinations within these areas were considered potential riders.

In order to meet projected traffic demands and generate adequate revenue, AHSRC proposed to provide service at half-hour intervals or less, using 15 train sets of 8 cars each with a seating capacity of about 500 passengers per train. Twelve train sets would be used at the peak period to provide service, two sets would be used as spares, and one set would be scheduled in heavy overhaul. The system was costed on the basis of 86 trains a day (5).

Nonstop service would be offered from LAX to Union Station, and a combination of local and nonstop service would be offered from Union Station to Santa Fe Depot. The 18-mi trip from LAX to Union Station would take about 15 min, and the nonstop run from Los Angeles to San Diego would take about 59 min. Approximately 6 min would be added to the running time for each intermediate station stop.

AHSRC planned to operate a portion of the route by mid-1987 in order to generate revenue during construction. The corporation estimated an operating cash flow of \$10 million in 1987 and about \$193 million in 1988. AHSRC proposed to use this revenue to offset capital requirements: there was a difference of \$200 million between projected capital costs and the preliminary financing plan.

Projected costs to build and equip the proposed system were as follows:

<i>Cost</i>	<i>Amount (\$ billions)</i>
Capital costs	2.1
Inflation	0.5
Interest	0.5
Total	3.1

The preliminary financing plan, providing for several sources of capital, was as follows:

<i>Source</i>	<i>Amount (\$ billions)</i>
Equity	0.5
Japanese debts and credits	0.7
Commercial bank	0.4
Tax-exempt bonds and notes	1.3
Total	2.9

The equity sources were to include investors who would be economic beneficiaries from the project through enhancements of land values, creation or expansion of markets, preferential treatment as vendors, or utilization of tax benefits. The primary source of the tax-exempt bonds was to be the California Passenger Rail Financing Commission Act (Chapter 1553, Statutes of 1982), which established the California Passenger Rail Financing Commission (CPRFC). The CPRFC was authorized to issue up to \$1.25 billion for the financing of rapid-rail transit system projects. Rapid-rail transit was defined as that with peak speeds in excess of 120 mph. The bonds were to be repaid

solely from revenues of the project and were not to be claims against the credit of the state itself.

Although construction period financing on a tax-exempt basis was to utilize the authority of the CPRFC, the financing for the short term was to be tax-exempt debt borrowing and was to be backed by third-party bank guarantees or letters of credit, or both. Long-term tax-exempt bonds were to be issued under the authority of the CPRFC only after the commencement of revenue service in 1987 or 1988.

As indicated, AHSRC's goal was to have a portion of the route in service by mid-1987 and the full route in operation by 1990. The corporation's processing schedule was therefore ambitious: environmental reviews were to be completed by the end of 1984 [18 months to process a document complying with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA)]; the application for a Certificate of Public Convenience and Necessity was to be approved by the California Public Utilities Commission by the end of 1984 (18 months of processing); design and construction were to be completed by the end of 1989 (7 years of effort); the initial segment was to be in operation by mid-1987; and the full route was to be in operation by 1990. As far as the environmental review process and the processing time required for a Certificate of Public Convenience and Necessity were concerned, the schedule was to prove to be too ambitious. Following is a description of the environmental process required and followed for the proposed high-speed rail project.

## THE PROCESS

The legislation that provided for the tax-exempt bonds also amended CEQA with respect to rapid-rail transit. The intent of the amendments was to facilitate processing of rapid-rail projects. Unfortunately, they caused confusion by appearing to exempt such projects from CEQA or at least to prevent logical candidates such as the California Coastal Commission, the State Department of Parks and Recreation, the California Public Utilities Commission (PUC), and the California Department of Transportation (Caltrans) from being the state environmental lead agency. Only the CPRFC appeared to be unaffected by the amendments.

Shortly after the governor signed the legislation, the AHSRC and its environmental consultant began discussing the bullet train with state and federal agencies. AHSRC met frequently with the staff of Caltrans, FHWA, PUC, and others to determine the format and type of information required for project approval and to begin the environmental process. Coordination and scheduling were of high priority. The AHSRC was also to be conducting technical forums in Southern California to introduce the project to the public and local and regional agencies.

Anticipating a high-speed-rapid-rail transit project application by AHSRC, the governor's Office of Planning and Research (OPR) organized the effort to provide for an effective and efficient response. After deliberations on the project and the real effects of the legislation, the project was determined to be subject to CEQA and to require an environmental impact report (EIR). The project was a major undertaking requiring discretionary action by a wide variety of public agencies that could not act without first considering the environmental

impacts of the project. FHWA had already determined that the project would be subject to the provisions of NEPA and would require an environmental impact statement (EIS). This decision made the EIR question moot.

Following these discussions, it was decided that Caltrans should be the state environmental lead agency for the following major reasons: PUC took the position that their discretionary action (granting of a Certificate of Public Convenience and Necessity) was exempted from CEQA; no state agency other than Caltrans was to have as much involvement with the project throughout the transportation corridor; no other state agency had as many experts on environmental impact; no other state agency had as much experience with the NEPA process; and no state agency had as much experience working with FHWA (any alternative use of the I-5 right-of-way necessitates review and approval by FHWA). FHWA was later named as the federal environmental lead agency.

The culmination of all these meetings and decisions was a letter dated August 4, 1983, from the AHSRC to the director of Caltrans and the Division Administrator of FHWA requesting them to formally begin the environmental process. Specifically, it was a letter of intent to file applications for encroachment permits and commencement of environmental review.

On August 5, the secretary of the Business, Transportation and Housing Agency of the state supported Caltrans in its role as lead agency. The secretary advised the department, however, to conduct a thorough environmental analysis fulfilling all of the requirements of CEQA and NEPA and not to support or oppose the project. In addition, the secretary recommended that Caltrans apply several policies to carry out its lead agency responsibility. These included expediting the processing of the bullet train proposal, but not in such a manner that the activities would interfere with the delivery of the State Transportation Improvement Program (STIP); requiring that the applicant (AHSRC) pay Caltrans for all departmental costs (state law required reimbursement for all costs directly related to any application or approval of a rapid-rail transit system or project); considering contracting with consultants or other governmental agencies or both for environmental studies but continuing to have the authority to determine the nature, extent, and cost of any such studies; if necessary, taking more than one year to complete the EIR/EIS to ensure a thorough evaluation; and entering into a formal written agreement with the applicant clearly establishing responsibility for funding and other requirements. This the department did, effective November 1, 1983.

On August 22, 1983, Caltrans responded to the AHSRC acknowledging receipt of the letter of intent and also explaining that it had begun establishing the framework for conducting the environmental analysis. The department's activities included beginning the coordination process with the PUC and other public agencies, working with the AHSRC on such matters as information needed for the encroachment permits and environmental studies, estimating costs and timing involved, appointing a project manager and staff, and initiating actions needed to retain a consultant.

Regarding the actions needed to retain a consultant, the department had earlier reviewed the primary options needed to produce an environmental document. Not surprisingly, they

were either to hire a consultant or to produce a document in house. The department preferred a consultant because in-house production would divert too many person-years (PY) of environmental staff from the Caltrans highway program.

Once it had been decided that a consultant was to be retained, the problem arose as to the timing involved in the selection of a consultant. Because of the desire to move as rapidly as possible, the department proposed that AHSRC pay for the consultant services and Caltrans select the consultant and supervise the work. The department was to be expected to prepare the document for circulation and to meet federal requirements.

The AHSRC accepted the proposal. The department decided to retain the consultant previously employed by AHSRC and enter into an agreement with AHSRC and the consultant clearly spelling out roles and responsibilities. All parties made every effort to avoid conflicts of interest. The department had confidence in the ability of the consultant because of the quality of information they produced as the environmental manager for AHSRC, their professionalism exhibited at meetings, and the depth and scope of expertise of their staff to be assigned to the project.

Upon appointment of the project manager and his staff, the department launched into the formal environmental process. In cooperation with FHWA, the department published a Notice of Intent in the *Federal Register* on November 19, 1983, announcing Caltrans and FHWA as the lead agencies and describing the proposed project. At this time, the department also published a Notice of Preparation to satisfy CEQA requirements. The department also sent similar information to "potentially affected interests."

Scoping meetings were conducted by Caltrans as follows. From November 21 through December 1, 1983, six meetings were held with local agencies; from December 5 through December 16, nine public scoping meetings were held, three in each county affected: Los Angeles, Orange, and San Diego; and from January 11 through January 13, 1984, six scoping meetings were held with state and federal agencies. These latter meetings had two purposes: (a) to exchange information, prepare an initial list of other issues for inclusion in the draft EIS, and identify the necessary agency discretionary permits; and (b) to identify cooperating agencies.

The department conducted a major organizational meeting on February 8, 1984, with FHWA, the consultant, representatives of cooperating agencies, and Caltrans technical experts. Roles were defined: as lead agencies, Caltrans and FHWA were to be solely responsible for the content of the entire environmental document, and the consultant was to prepare the main body of the environmental input to the EIS under Caltrans-FHWA supervision. The cooperating agencies were to be continually informed and were expected to participate as much as necessary.

The department's technical experts were to assist Caltrans high-speed rail staff to review issues for the consultant's proposed study plan and the preliminary environmental information that the consultant had prepared for AHSRC. They were to assess, and propose if necessary, the methodology to be implemented by the consultant. They were also to maintain quality control over the environmental study effort, evaluate and guide



CEQA/NEPA/PERMITS	SOCIAL AND GROWTH INDUCING IMPACTS
PROJECT DESCRIPTION	Cultural Resources
PURPOSE AND NEED	Growth/Community
ALTERNATIVES/PROJECT	Housing/Relocation
ALTERNATIVES/NO PROJECT	Land Use
NATURAL SYSTEMS	Planning
Air Quality	Public Health
Biology/Flora	Public Institutions/Services
Biology/Fauna	Safety/General
Coastal Zone	Safety/Toxic and Hazardous
Electromagnetic	Materials
Energy	Transportation
4(F) Properties	ECONOMICS
Geotech./Geology	Business
Geotech./Seismology	Feasibility/Financial Failure
Geotech./Soils	Feasibility/Ridership
Geotech./Other	Residential Property Values
Hydrology/General	Taxes/Fiscal
Hydrology/Flood Plains	Utility Rates
Noise	ABANDONMENT IMPACTS
Parklands	CUMULATIVE IMPACTS
Vibration	CONSTRUCTION IMPACTS
Visual/Aesthetics	MILITARY OPERATIONS
Water Quality/General	OTHERS
Water Quality/Waste Management	
Wetlands	

**FIGURE 2** Subject categories for California high-speed train scoping comment file.

the consultant's work under the overall supervision of Caltrans high-speed rail staff, and ensure that the document adequately identified and addressed all relevant issues. The technical experts were to make on-site reviews of the consultant's work as needed to ensure that appropriate methods and personnel were used. Task leaders were named for each of the environmental areas to be discussed in the EIS.

Caltrans high-speed rail staff formalized the technical reviews and the results of scoping into "letters of direction" to the consultant. The consultant, in turn, prepared "scopes of work" on the various disciplines required for the adequate preparation of the EIS. These efforts were concurrent; the department provided letters of direction from March through June 1984 and the consultant prepared scopes of work from March into the summer.

During this time, Caltrans held several important planning meetings with the consultant, AHSRC, and PUC to clarify direction and the scopes of work, to obtain information that only the project proponents could supply, and to incorporate the recommendations of the project proponent into the process as appropriate.

Coordination with PUC was crucial because issuance of their Certificate of Public Convenience and Necessity was perhaps the most important discretionary action that had to take place if the project was to be implemented. Objectives included the following:

- The results of Caltrans environmental studies would neither duplicate nor be inconsistent with PUC's own environmental analysis, which is required as part of their process and is

outside the provisions of CEQA. Being able to use the department's environmental studies, or as much of the information as possible, would also save the AHSRC time and money in processing costs;

- The results of Caltrans studies would be available to PUC for the making of their decisions. Impacts and mitigation identified in the CEQA-NEPA process, for example, could affect project feasibility, with which the PUC is largely concerned.

The direction provided to the consultant was based partially on their preliminary environmental information and the review and guidance received from the department's technical experts. Equally important, however, were the results of scoping. Primary resources in this regard were the scoping report produced by the high-speed rail staff (6) and a compilation of all written comments received (see Figure 2 for a listing of all subject categories addressed). These comments were cross-indexed according to the person or agency who commented and according to the area of discipline, such as air quality and electromagnetic interference.

Among the many environmental considerations raised at the public scoping meetings, the most important were

- Noise, vibration, and visual impacts;
- Pedestrian and bicycle access to the beach and community facilities across the tracks;
- Impacts on the ecology of the lagoons;
- Safety;
- Possible decline in property values;
- Possible preemption of improved or enhanced Amtrak service and planned local light rail service;

- Local traffic and circulation impacts, especially around stations and during the construction process; and
- Impacts on the local public transportation system to provide access to the new facilities as well as to continue or to improve existing local service.

As indicated, the AHSRC had an ambitious schedule for preparation and review of required environmental studies. The corporation had estimated an 18-month process that was to coincide with the project approval process, especially that of PUC. At the first planning meeting in May 1984, Caltrans, FHWA, and the consultant began to develop a preliminary, minimum-processing time schedule. After evaluating additional information from AHSRC and PUC and assuming a minimum of problems, the department adopted an optimistic preliminary schedule providing for an EIS processing and approval time of 20 months.

The clock was to begin when the department was confident that the necessary project-related data upon which to conduct the technical studies were in hand. The period was to end when Caltrans and FHWA had approved the final environmental impact statement (FEIS). Several important steps would have to occur, of course, before the FEIS could be approved. Important ones included having all the necessary technical data, preparing the draft EIS, circulating the draft EIS for public and agency comment, and adequately responding to the comments in the preparation of the FEIS.

The department knew from its own experience that traffic estimates were one key constraint on the speed with which the environmental document could be produced. The department therefore made an extensive effort to review the travel estimates of the proponent, to develop data on feeder traffic to the stations, and to make estimates on the alternatives that were to be developed in depth. Also, many technical studies such as air quality, noise, and energy are dependent on traffic information that allows the models to run.

The department had reasons to believe, however, that there would be a minimum of problems in preparing the EIS. They included cooperation from AHSRC in providing needed technical data; preliminary work already accomplished by the consultant; the comprehensive results of scoping; the expressed cooperation of local, state, and federal agencies, as well as of the department's technical experts; the department's experience; and an open relationship with citizens groups watching the proposal. The department had already laid the foundation for a representative citizen-agency panel to provide ongoing review of Caltrans efforts.

During the scheduling meetings, the parties discussed the timing involved in obtaining decisions on the merits of the project itself from the various public agencies having approval authority, including FHWA, Caltrans, and PUC. Because of California statutory requirements governing the application for a Certificate of Public Convenience and Necessity, PUC was expected to act before the FEIS had been approved but during a period when the department was preparing the FEIS. It was assumed that most, if not all, of the requisite environmental information would be available for PUC's consideration.

The timing of approvals by the other agencies, however, depended on the availability of the approved FEIS. Because

these processes and decisions were beyond the scope of the EIS preparation and approval process, the department and FHWA could only estimate the time it would take for the AHSRC to obtain necessary permits. The estimate was a minimum of 4 additional months. The most optimistic schedule that AHSRC could reasonably expect, therefore, was 24 months: 20 months for the EIS and 4 more months for project approvals.

On the assumption that the department would have all the needed technical data from AHSRC by September 1984, that PUC would issue a Certificate of Public Convenience and Necessity in the estimated time frame, that all other applications for permits would be processed expeditiously, and that AHSRC would obtain financing, AHSRC would have been able to start construction in September 1986, almost 2 years later than had been envisioned.

## THE REALITY

On November 13, 1984, AHSRC requested the department to stop work as the state environmental lead agency for the proposed bullet train. According to AHSRC, it suspended its plans to build and operate the train because of a lack of short-term financing. The request came one year after Caltrans and FHWA had notified cooperating agencies of the proposal.

The failure of the project and the perceptions of those close to the project as to the cause of failure can be very instructive. This is especially true in light of the several high-speed rail proposals under serious consideration in other parts of the United States. Although the failure of the bullet train to proceed was a direct result of a lack of venture capital, there were several undercurrents of concern that persisted throughout the life of the project, countered the credibility of the proposal, and probably were major factors in decisions not to risk large amounts of capital in the project. Belden (7) said that "AHSRC officials placed virtually all the blame for the collapse of their project on money trouble, despite the fact that other important issues, including political diplomacy, environmental impact and the reliability of ridership figures were also at work, as they are in all proposed high-speed projects."

Two other concerns, also listed by Belden, were expressed as post mortem comments by independent observers who believed that "AHSRC from the outset essentially told Southern Californians what it was going to do for them, rather than asking what people wanted. It also was accused of playing fast and loose with the political process."

The latter concern, of course, refers to the legislation mentioned earlier, which was passed under strange circumstances and which was thought to have exempted the project from complying with certain aspects of California environmental law. Studer (8), writing about this legislation, said, "So quickly did the pieces go together in the final drama, just hours before the end of the legislative session, that there was time for only one perfunctory hearing, which left more questions unanswered than answered."

The formation of the United Citizens Coastal Protective League, the largest citizens organization opposing the project, was attributed by its leader, Robert Bonde, to the indignation resulting from the passage of that piece of legislation (9). Although the possible CEQA exemption was the catalyzing

issue at the time, the group later became very concerned that, should the project fail subsequent to the issuance of the tax-exempt revenue bonds, the state government would feel obligated to pick up the payments and possibly operate the system at the expense of the taxpayers. Because the financial health of the project was to depend ultimately on ridership, AHSRC demand estimates were subjected to even greater scrutiny and the group questioned the lack of an impartial feasibility study.

It was in the arena of demand forecasting that the professional community first became involved. About mid-1983, the media were quoting well-established members of academia, such as an associate professor of economics and urban and regional planning at the University of Southern California, who termed the project a "boondoggle" (10). A study by Jonathan Richmond (11) was released by the City of Tustin a few months later (12). This study concluded that the methodology used in the ridership estimates, "which turned reality upside down," and inadequacies in the cost estimates would make the project "a massive unplanned burden on the public sector." The study also concluded that, because the public would have to support the project, "it should be the public and not the corporation who decided whether the plan goes ahead."

The professional planning staff for the San Diego Association of Governments also lacked confidence in the ridership forecasts and believed that adequate environmental analysis was of paramount concern because the coastline was the area's "most valuable physical resource" (13). They asked that AHSRC proprietary studies be made available to them for analysis.

In the meantime, the Office of Technology Assessment was readying a report on passenger rail technologies (14) to be officially released early in 1984. Although this study did not evaluate specific proposals for high-speed corridors in the United States, the report stated that "based on foreign experience and current U.S. market factors, however, it seems that any U.S. corridor with totally new high-speed rail service would have difficulty generating sufficient revenues to pay entirely for operating and capital costs."

There was a third sector of criticism or opposition in addition to citizens groups and academics and professionals. Local government, mainly cities acting alone or in concert with others and in association with local, state, and federal politicians, took their case to the media and eventually to the courts (15).

Thus, the project had three classes of critics: citizens groups, local governments, and professionals. The ways in which the opposition was expressed ran the gamut from court action to a country and western ballad with the title "Stop The Bullet," containing the following chorus (16):

Stop the bullet! They got the trigger aimed at you, they want to pull it. There ain't no place the noise won't reach; They want to screech right by the beach; So we can't let 'em, come on, stop the bullet!

The main citizens group, the United Citizens Coastal Protective League, was also active in contacting government leaders and heads of financial institutions, both in the United States and in Japan (17).

Although opposition was vocal, diverse, and well organized, and had the attention of the media, some observers believed

that the real damage to the project lay in the manner in which AHSRC responded. The corporation was very defensive when criticized and, except for the environmental process, the forum for discussion of the project became the media. AHSRC had refused to make public any marketing or ridership studies on the grounds that possible competitors could use the material to their advantage. In response to criticism of ridership estimates, AHSRC charged local government with spending "scarce public tax dollars to harass a private company" (18). Criticism from a citizens group was termed "propaganda." The media reported that AHSRC officials were perceived by some as being arrogant and lacking credibility. Credibility, in fact, became an issue in the environmental scoping meetings when citizens and local government sought assurance that recommended mitigation would indeed be carried out. At the time the project was stopped, Caltrans high-speed rail staff was putting together a citizens committee to monitor the environmental process and begin bridging the credibility gap.

The public controversy surrounding the project has had repercussions in several areas. Locally it stimulated interest in upgrading the Los Angeles-San Diego Amtrak service. A task force was formed to make recommendations, and improvements in service are forthcoming. Nationally, a conference (19) was sponsored by Louis Thompson of FRA to try to make demand forecasting for high-speed rail a more logical process. Although not precipitated directly by the project failure, a presentation by Elizabeth Deakin at the 1986 Annual Meeting of the Transportation Research Board was titled, "Ethics of Private Infrastructure Finance." Among other things, she remarked that making choices on which assumptions to use in modeling trip-generation rates and modal shares is a major ethical issue facing the transportation analyst. The High Speed Rail Association developed standard guidelines for revenue and ridership forecasting because of the "tentative quality, lack of disclosure of methods and uncertain comprehensiveness of some early high speed rail travel analyses in proposed corridors elsewhere in the United States. These early studies had led to confusion and even disbelief among the public, the investment community and government officials" (20).

It is difficult, if not impossible, to determine the extent to which failure to obtain financing can be attributed to the actions of the opposition. In any event, the proponents, who were not accustomed to working closely with the public, made mistakes that caused problems. Although the mistakes may be obvious to public agencies used to involving the public, it may be worthwhile to discuss elements of an approach that could at least minimize problems:

- Political diplomacy should be exercised at all levels of government: federal, state, and local. Actions that may seem expedient at the time may prove to be adverse in the long term. The legislation discussed in this case (California Passenger Rail Financing Commission Act) is a good example of such an action.

- An open data process should be maintained. Relatively open access to project material is important. True discussion and debate can only take place when both parties base their positions on the same data. To withhold data is to invite skepticism. The treatment of the ridership forecast in this project is a good example of what not to do. Had the study been

made available, the forum would have been the scientific community rather than the media.

- Open communication should be established with the public and governmental agencies, especially at the local level, and the loop kept closed by continuous feedback on issues that have been raised. This is difficult advice to follow because it involves a lot of listening and iterative, sometimes elementary, discussion. It involves understanding and satisfactorily addressing the point of view of the public. In such a large project with pervasive impacts, the community at large has to be accepted, in fact, as a partner. As Cooper and Shea expressed it (21), "Public approval, therefore, is expedited if the plan first deals with issues the public cares about, showing that the developer and the designer understand the place and polity and are willing to balance profit with public interest." Silver and Burton conclude (22), "If a comprehensive plan is to be acceptable as a total package (in this case, the legislation and the proposed 'bullet train' project) it must arise out of widespread debate and compromise; it cannot be the result of elite, back-room bargaining that magically crystallizes into social consensus."

- Credibility should be established through an open data process and open communication and credibility maintained by accepting criticism and handling it from a professional standpoint. A position of defensiveness erodes credibility and blocks a comprehensive understanding of the reasons for the criticism.

- Any perception of arrogance should be avoided. Nothing can crystallize opposition and give it a personal focus more quickly than a perception of arrogance. Once perceived, the opinion is very difficult to change. In this project, the media reported that the public believed that once the corporation got the "official blessing" from the legislature, it would dictate necessary action and not consider the opinions of others.

As the reservoir of public funds dwindles and the involvement of private enterprise in public transportation projects grows, the size and scope of privately financed projects will increase. The public, following the passage of NEPA in 1969, has grown accustomed to having a large part in determining the nature of such projects. Although the process that allows this to happen may be somewhat tedious and lengthy, and therefore, perhaps, inimical to short-range interests of private enterprise, it is not likely to disappear. It thus behooves us to continue to search for a middle ground that will optimize opportunities for both the public and the developer.

## REFERENCES

1. *Rail Passenger Corridors: Final Evaluation*. FRA, U.S. Department of Transportation, April 1981.
2. *Preliminary Description of Proposed Los Angeles to San Diego High Speed Rail Project*. American High Speed Rail Corporation, Los Angeles, Calif., 1983.
3. *Financing Plan Synopsis*. American High Speed Rail Corporation, Los Angeles, Calif., 1983.
4. *Project Description, California High Speed Train Project*. American High Speed Rail Corporation, Los Angeles, Calif., April 1984.
5. *Summary Report: Engineering and Construction*. American High Speed Rail Corporation, Los Angeles, Calif., Nov. 4, 1982.
6. *Report of Scoping Regarding Proposed California High Speed Train*. California Department of Transportation, Sacramento, March 1984.
7. T. Belden. High Speed in Limbo. *Passenger Train Journal*, Feb. 1985, p. 12.
8. R. P. Studer. Bullet Train Sets Speed Record Clearing Legislature. *San Diego Union*, Oct. 3, 1982.
9. D. Smollar. His Name's Bonde, and He's 007 to the Bullet Train's Promoters. *Los Angeles Times*, Oct. 12, 1983.
10. R. Skrentny. Sasakawa and the Bullet Train. *California Business*, Vol. 18, No. 6, June 1983, p. 42.
11. J. Richmond. *Slicing the Cake: The Case for a Los Angeles-San Diego Bullet Train Service*. Woodrow Wilson School of Public and International Affairs, Princeton, N.J., 1983.
12. L. Scarr. Bullet Train Said Doomed by Costs, Lack of Passengers. *San Diego Union*, Oct. 26, 1983.
13. G. Flynn. Bullet Train Environmental, Ridership Studies Questioned. *San Diego Union*, Oct. 30, 1983.
14. *U.S. Passenger Rail Technologies*. Report OTA-STI-22. Office of Technology Assessment, U.S. Congress, Dec. 1983.
15. G. Flynn. Four-City Coalition Will Challenge Bullet Train. *San Diego Union*, Jan. 5, 1984.
16. D. Ogul. Hitting the Brakes on That Fast-Moving Bullet Train. *California Journal*, Feb. 1983, p. 53.
17. G. Flynn. Bullet Train Opponents Tell It To Japanese. *San Diego Union*, July 30, 1983.
18. L. Beckman. Bullet Train Data Assailed by Consultant. *Los Angeles Times*, Oct. 26, 1983.
19. *Proceedings, Seminar on Demand Forecasting for High Speed Rail Passenger Service*. FRA, U.S. Department of Transportation, Sept. 1984.
20. Pennsylvania High Speed Intercity Rail Passenger Commission. *Pennsylvania High Speed Rail Feasibility Study: Market Demand*. Parsons Brinckerhoff/Gannett Fleming, Harrisburg, Pa., July 1986.
21. A. Cooper and B. Shea. Cityfront Center, Chicago: Designing for Public Approval and for Changing Markets. *Urban Land*, July 1986, p. 3.
22. H. Silver and D. Burton. The Politics of State-Level Industrial Policy: Lessons from Rhode Island's Greenhouse Compact. *American Planning Association Journal*, Summer 1986, p. 287.

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