# CALIFORNIA HIGH-SPEED TRAIN

Program Environmental Impact Report/Environmental Impact Statement

## Bay Area to Merced

# HAZARDOUS MATERIALS/WASTES TECHNICAL EVALUATION

January 2004

*Prepared for:*

California High-Speed Rail Authority

U.S. Department of Transportation
Federal Railroad Administration

CALIFORNIA HIGH SPEED RAIL AUTHORITY

U.S. Department of Transportation
**Federal Railroad Administration**

CALIFORNIA HIGH-SPEED TRAIN PROGRAM EIR/EIS

# Bay Area-Merced Hazardous Materials/Wastes Technical Evaluation

*Prepared by:*

**Parsons**

January 2004

# DISCLAIMER

To achieve the study objectives of this report, Parsons was required to base its conclusions on the best information available during the period of the investigation and within the limits prescribed by the California High-Speed Rail Authority, in our contractual agreement.

No investigative method can completely eliminate the possibility of obtaining partially imprecise information. Thus, Parsons cannot guarantee that the investigations completely characterized the degree or extent of contamination by hazardous or otherwise harmful materials described in this report, or if no such contamination was found, its absolute absence. Professional judgment was exercised in gathering and analyzing the information obtained, and we commit ourselves to the usual care, thoroughness, and competence of the engineering profession.

This report is not a legal opinion. It does not necessarily comply with the requirements defined by any environmental law such as “innocent landowner defense” or “due diligence inquiry.” Only legal counsel retained by the California High-Speed Rail Authority, can be competent to determine the legal implication for the California High-Speed Rail Authority, of any information or conclusions presented in this report.

Except as expressly provided for you in our agreement with the California High-Speed Rail Authority, Parsons is not responsible for any effect upon legal rights, obligations, or liabilities of any party or for any effect on the financeability, marketability, or value of the property investigated in the study or for the occurrence or non-occurrence of any transaction involving the property.

# TABLE OF CONTENTS

**1.0 INTRODUCTION ..... 1**
1.1 ALTERNATIVES ..... 2
1.1.1 No-Project Alternative ..... 2
1.1.2 Modal Alternative ..... 3
1.1.3 High-Speed Train Alternative ..... 6
1.2 SITES POTENTIALLY AFFECTED BY HAZARDOUS MATERIALS/WASTES ..... 14

**2.0 BASELINE/AFFECTED ENVIRONMENT ..... 14**
2.1 STUDY AREA 250 FEET OF CENTERLINE ..... 14
2.2 DATABASE RESEARCH ..... 14
2.3 Hazardous Materials Used in Operation, Maintenance, and Construction of the Alternatives ... 15

**3.0 HAZARDOUS MATERIALS/WASTES ANALYSIS METHODOLOGY ..... 15**

**4.0 HAZARDOUS MATERIALS/WASTES IMPACTS ..... 16**
4.1 NO BUILD ALTERNATIVE ..... 19
4.2 MODAL ALTERNATIVE ..... 19
4.2.1 Superfund Sites ..... 19
4.2.2 State Priority List Sites ..... 19
4.2.3 Solid Waste Landfills ..... 19
4.3 HIGH SPEED TRAIN ALTERNATIVE ..... 19
4.3.1 Superfund Sites ..... 19
4.3.2 State Priority List Sites ..... 20
4.3.3 Solid Waste Landfills ..... 20

**5.0 REFERENCES ..... 21**

**6.0 REPORT PREPARERS ..... 22**

# LIST OF FIGURES

FIGURE 1 NO-PROJECT ALTERNATIVE ..... 4
FIGURE 2 MODAL ALTERNATIVE – BAY AREA-TO-MERCED REGION ..... 5
FIGURE 3 MODAL ALTERNATIVE – HIGHWAY COMPONENT ..... 8
FIGURE 4 MODAL ALTERNATIVE – AVIATION COMPONENT ..... 9
FIGURE 5 HIGH-SPEED TRAIN ALTERNATIVE ..... 10
FIGURE 6A HIGH SPEED RAIL ALTERNATIVE ..... 11
FIGURE 6B HIGH SPEED RAIL ALTERNATIVE ..... 12

# LIST OF TABLES

TABLE 1 PROPOSED MODAL ALTERNATIVE HIGHWAY IMPROVEMENTS ..... 7
TABLE 2 PROPOSED MODAL ALTERNATIVE AIRPORT IMPROVEMENTS – YEAR 2020 ..... 7
TABLE 3 DETAILED ANALYSIS/COMPARISON TABLE – HAZARDOUS MATERIALS/WASTES BAY AREA-MERCED..... 16

# ACRONYMS

| | |
|---|---|
| ADL | Aerially Deposited Lead |
| aka | also known as |
| ASTM | American Society of Testing and Materials |
| AUTHORITY | California High-Speed Rail Authority |
| Ave | Avenue |
| AWP | Annual Work Plan |
| CA | California |
| CEQA | California Environmental Quality Act |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CERCLIS | Comprehensive Environmental Response, Compensation, and Liability Information System |
| CHP | California Highway Patrol |
| EDR | Environmental Data Resources, Inc. |
| EIR | Environmental Impact Report |
| EIS | Environmental Impact Statement |
| EPA | Environmental Protection Agency |
| ESA | Environmental Site Assessment |
| FAA | Federal Aviation Administration |
| FHWA | Federal Highway Administration |
| FRA | Federal Railroad Administration |
| FTA | Federal Transit Administration |
| HST | High-Speed Train |
| km/h | kilometers per hour |
| LBP | Lead Based Paint |
| mph | miles per hour |
| NEPA | National Environmental Policy Act |
| NPL | National Priorities List |
| RTP | Regional Transportation Plan |
| SPL | State Priority List |
| St | Street |
| STIP | State Transportation Improvement Program |
| SWLF | Solid Waste Landfill |
| USACE | United States Army Corps of Engineers |
| USFWS | United States Fish and Wildlife Service |

# 1.0 INTRODUCTION

The California High-Speed Rail Authority (Authority) was created by the Legislature in 1996 to develop a plan for the construction, operation, and financing of a statewide, intercity high-speed passenger train system.[1] After completing a number of initial studies over the past six years to assess the feasibility of a high-speed train (HST) system in California and to evaluate the potential ridership for a variety of alternative corridors and station areas, the Authority recommended the evaluation of a proposed HST system as the logical next step in the development of California's transportation infrastructure. The Authority does not have responsibility for other intercity transportation systems or facilities, such as expanded highways, or improvements to airports or passenger rail or transit used for intercity trips.

The Authority adopted a *Final Business Plan* in June 2000, which reviewed the economic feasibility of a 1,127-kilometer-long (700-mile-long) HST system. This system would be capable of speeds in excess of 321.8 kilometers per hour (200 miles per hour [mph]) on a dedicated, fully grade-separated track with state-of-the-art safety, signaling, and automated train control systems. The system described would connect and serve the major metropolitan areas of California, extending from Sacramento and the San Francisco Bay Area, through the Central Valley, to Los Angeles and San Diego. The HST system is projected to carry a minimum of 42 million passengers annually (32 million intercity trips and 10 million commuter trips) by the year 2020.

Following the adoption of the Business Plan, the appropriate next step for the Authority to take in the pursuit of a HST system is to satisfy the environmental review process required by federal and state laws which will in turn enable public agencies to select and approve a high speed rail system, define mitigation strategies, obtain necessary approvals, and obtain financial assistance necessary to implement a high speed rail system. For example, the Federal Railroad Administration (FRA) may be requested by the Authority to issue a *Rule of Particular Applicability*, which establishes safety standards for the HST system for speeds over 200 mph, and for the potential shared use of rail corridors.

The Authority is both the project sponsor and the lead agency for purposes of the California Environmental Quality Act (CEQA) requirements. The Authority has determined that a Program Environmental Impact Report (EIR) is the appropriate CEQA document for the project at this conceptual stage of planning and decision-making, which would include selecting a preferred corridor and station locations for future right-of-way preservation and identifying potential phasing options. No permits are being sought for this phase of environmental review. Later stages of project development would include project-specific detailed environmental documents to assess the impacts of the alternative alignments and stations in those segments of the system that are ready for implementation.

The decisions of federal agencies, particularly the FRA related to HST systems, would constitute major federal actions regarding environmental review under the National Environmental Policy Act (NEPA). NEPA requires federal agencies to prepare an Environmental Impact Statement (EIS) if the proposed action has the potential to cause significant environmental impacts. The proposed action in California warrants the preparation of a Tier 1 Program-level EIS under NEPA, due to the nature and scope of the comprehensive HST system proposed by the Authority, the need to narrow the range of alternatives, and the need to protect/preserve right-of-way in the future. FRA is the federal lead agency for the preparation of the Program EIS, and the Federal Highway Administration (FHWA), the U.S. Environmental Protection Agency (EPA), the U.S. Army Corps of Engineers (USACE), the Federal Aviation Administration (FAA), the U.S. Fish and Wildlife Service (USFWS), and the Federal Transit Administration (FTA) are cooperating federal agencies for the EIS.

[1] Chapter 796 of the Statutes of 1996; SB 1420, Kopp and Costa

A combined Program EIR/EIS is to be prepared under the supervision and direction of the FRA and the Authority in conjunction with the federal cooperating agencies. It is intended that other federal, state, regional, and local agencies will use the Program EIR/EIS in reviewing the proposed program and developing feasible and practicable programmatic mitigation strategies and analysis expectations for the Tier 2 detailed environmental review process which would be expected to follow any approval of a high speed train system.

The statewide HST system has been divided into five regions for study: Bay Area-Merced, Sacramento-Bakersfield, Bakersfield-Los Angeles, Los Angeles-San Diego via the Inland Empire, and Los Angeles-Orange County-San Diego. This Hazardous Materials/Wastes Technical Evaluation for the Bay Area-Merced Region is one of five such reports being prepared for each of the regions on the topic, and it is one of fifteen technical reports for this region. This report will be summarized in the Program EIR/EIS and it will be part of the administrative record supporting the environmental review of alternatives.

The hazardous materials/wastes analysis for this program-level EIR/EIS is focused on a qualitative comparison of potential impacts to the public or the environment from hazardous materials or wastes. This analysis is limited to along corridors, as described later in this section, for each of the alternatives (HST and modal alternatives), including proposed station locations. The potential impacts for each of these alternatives are compared with the No-Project Alternative. Under the No-Project Alternative it is assumed that hazardous materials/waste impacts that would be associated with other projects that would be constructed regardless of whether the proposed project were constructed, would be mitigated as part of those projects. Thus the No-Project Alternative is assumed to have no hazardous materials/waste impacts.

The hazardous materials/waste analysis performed for the Program EIR/EIS consisted of a search of the following databases, as provided by Environmental Data Resources, Inc. (EDR), dated January 2003:

- Federal National Priorities List (NPL)/Superfund. This database lists those sites that pose an immediate public health hazard, and where an immediate response to the discovery was necessary. These listings are also found in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) database, also known as CERCLIS.

- State Priority List (SPL). Sites listed in this database are high-priority sites that were compiled from the Annual Work Plan (AWP). For the purpose of this program-level analysis only AWP sites were considered to comprise the SPL.

- State of California Solid Waste Landfills (SWLF). The sites listed in this database have generally been identified by the state as accepting solid wastes. The sites can be either active or closed.

For the Modal and High Speed Trail Alternatives, a buffer of 250 feet was reviewed along either side of the proposed rail locations. Based on these reviews, the number and location of the sites included in the database records were noted. Any sites located within this buffer area that were located in the vicinity of the proposed station locations (i.e., approximately 1,000 feet) were also noted. The results of these findings are listed in Table 4 and are further discussed in Sections 4.1 and 4.2.

## 1.1 ALTERNATIVES

### 1.1.1 No-Project Alternative

The No-Project Alternative serves as the baseline for the comparison of Modal and HST alternatives (Figure 1). The No-Project Alternative represents the state's transportation system (highway, air, and conventional rail) as it existed in 1999-2000 and as it would be after implementation of programs or projects currently programmed for implementation and projects that are expected to be funded by 2020.

The No-Project Alternative addresses the geographic area serving the same intercity travel market as the proposed HST (generally from Sacramento and the San Francisco Bay Area, through the Central Valley, to Los Angeles and San Diego). The No-Project Alternative satisfies the statutory requirements under CEQA and NEPA for an alternative that does not include any new action or project beyond what is already committed.

The No-Project Alternative defines the existing and future statewide intercity transportation system based on programmed and funded (already in funded programs/financially constrained plans) improvements to the intercity transportation system through 2020, according to the following sources of information:

- State Transportation Improvement Program (STIP)
- Regional Transportation Plans (RTPs) for all modes of travel
- Airport plans
- Intercity passenger rail plans (California Rail Plan 2001-2010, Amtrak Five- and Twenty-year Plans)

As with all of the alternatives, the No-Project Alternative will be assessed against the purpose and need topics/objectives for congestion, safety, air pollution, reliability, and travel times. The No-Project Alternative, however, was not quantified at this stage of analysis as there was no basis by which it could be quantified.

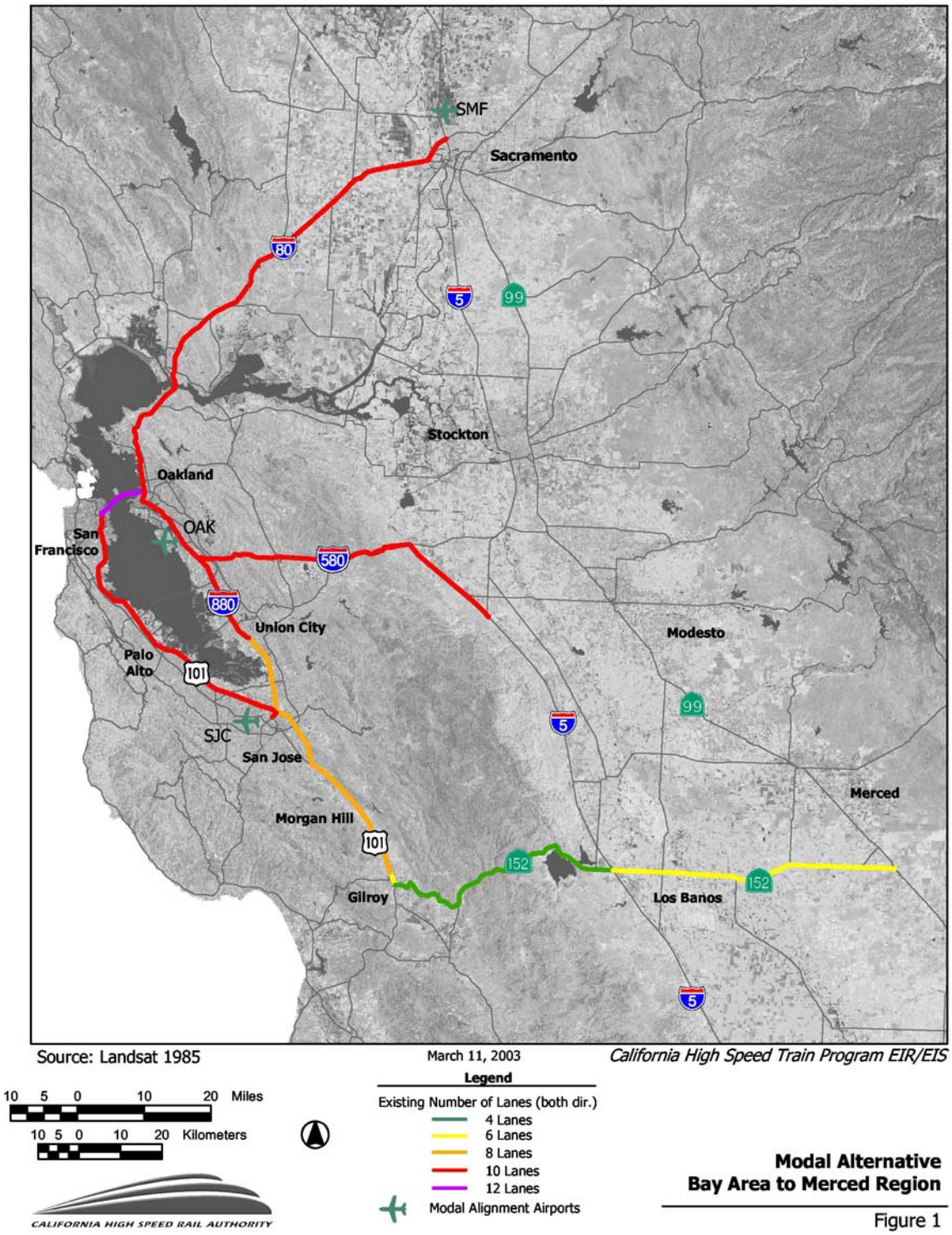
### 1.1.2 Modal Alternative

There are currently only three main options for intercity travel between the major urban areas of San Diego, Los Angeles, the Central Valley, San Jose, Oakland/San Francisco, and Sacramento: vehicles on the interstate highway system and state highways, commercial airlines serving airports between San Diego and Sacramento and the Bay Area, and conventional passenger trains (Amtrak) on freight and/or commuter rail tracks. The Modal/System Alternative consists of expansion of highways and airports serving the markets identified for the HST Alternative. Figure 2 shows the Modal Alternative for the Bay Area-to-Merced Corridor. The Modal Alternative uses the same inter-city travel demand (not capacity) assumed under the high-end sensitivity analysis completed for the HST ridership in 2020. This same travel demand is assigned to the highways and airports and passenger rail described under the No-Project Alternative, and the additional improvements or expansion of facilities is assumed to meet the demand, regardless of funding potential and without HST service as part of the system.

The additional improvements or expansion of facilities is assumed to meet the demand, regardless of funding potential and without high-speed train service as part of the system.

**Figure 1**
**No-Project Alternative - California Transportation System**

**Figure 2**
**Modal Alternative – Bay Area-to-Merced Region**



The Modal Alternative for the Bay Area-to-Merced region consists of two major sets of proposed improvements (see Figure 2):

- Improvements to Highways: Consisting of additional highway lanes to provide sufficient highway capacity and associated interchange reconfiguration, crossing bridge widening, ramp widening, cross street and intersection widening (Figure 3). Within the region, these improvements, therefore, would occur along proposed portions of Interstate (I) 5, I-880. I-580, I-80, and State Route (SR) 152. Table 1 lists the proposed highway improvements in the Bay Area-to-Merced region.
- Improvements to Airports: Primarily consisting of improvements to terminal gates and runways to provide sufficient landside and airside capacity and associated taxiways, ground access, parking, terminal and support facilities and airports that can serve the same geographic area and demand as the proposed HST Alternative. Within the study area corridor, these proposed improvements would occur at San José International Airport and Oakland International Airport (Figure 4). Table 2 lists the airport improvements associated with the airports.

### 1.1.3 High-Speed Train Alternative

The Authority has defined a statewide HST system capable of speeds in excess of 200 miles per hour (mph) (320 kilometers per hour [km/h]) on dedicated, fully grade-separated tracks, with state-of-the-art safety, signaling, and automated train control systems. State of the art high-speed steel-wheel-on-steel-rail technology is being considered for the system that would serve the major metropolitan centers of California, extending from Sacramento and the San Francisco Bay Area, through the Central Valley, to Los Angeles and San Diego. (Figure 5) Figures 6a and 6b show the HST Alternative for the Bay Area-to-Merced Corridor.

The HST Alternative includes several corridor and station options. A steel-wheel on steel-rail, electrified train, primarily on exclusive right-of-way with small portions of the route on shared track with other rail is planned. Conventional “non-electric” improvements are also being considered along the existing Caltrain rail corridor from San Jose to San Francisco. The train track would be either at-grade, in an open trench or tunnel, or on an elevated guideway, depending on terrain and physical constraints.

For purposes of comparative analysis, the HST corridors will be described from station-to-station within each region, except where a by-pass option is considered when the point of departure from the corridor will define the end of the corridor segment.

The Bay Area-to-Merced corridor can be broadly divided into three regional segments. Each segment has several alternative alignments for all or a portion of the length of the segment. Each segment may be further subdivided for analyzing and reporting potential impacts. The various segment options, along with station locations, are described below.

#### 1.1.3.1 Segment 1 – Merced to San José

In this segment, all alignments would be on an exclusive guideway with separate tracks for high-speed trains and would connect to the Sacramento-to-Bakersfield high-speed train corridor. Two separate corridors are being studied:

Corridor 1A. This corridor would run between Merced and San José, via Pacheco Pass and Gilroy. Two options for the alignment are being considered:

- Gilroy Option: This alignment would extend from Merced through the San Joaquin Valley and Pacheco Pass, through Gilroy, and then north along the Caltrain/Union Pacific Railroad (UPRR) rail corridor. Within this option, two suboptions are under consideration – the alignment of each is a reflection of the design speed.

**Table 1: Proposed Modal Alternative Highway Improvements**
**Bay Area to Merced**

| Highway Corridor | Segment (From – To) | No. of Additional Lanes[1] (Total – Both Directions) | No. of Existing Lanes (Total - Both Directions) | Type of Improvement |
|---|---|---|---|---|
| **Segment 1: Merced to San José** | | | | |
| SR 152 | SR 99 to I-5 | 2 | 1-2 | Widening |
| SR 152 | I-5 to US 101 | 2 | 1-2 | Widening |
| US 101 | SR 152 to Gilroy | 2 | 2-3 | Widening |
| US 101 | Gilroy to I-880 | 2 | 2-5 | widening |
| **Segment 2: San José to San Francisco** | | | | |
| US 101 | I-880 to Redwood City | 2 | 4-5 | widening |
| US 101 | Redwood City to SFO | 2 | 4-5 | widening |
| US 101 | San Francisco International Airport (SFO) to San Francisco | 2 | 4-6 | widening |
| **Segment 3: San José to Oakland** | | | | |
| I-880 | US 101 to Fremont/Newark | 2 | 3-4 | widening |
| I-880 | Fremont/Newark to I-238 | 2 | 3-4 | widening |
| I-880 | I-238 to I-80 | 2 | 2-4 | widening |
| **Segment 4: I-580 to I-5 (via I-238)** | | | | |
| I-580 | I-880 to I-5 (via I-238) | 2 | 4-6 | widening |
| **Segment 5: San Francisco to Sacramento** | | | | |
| I-80 | San Francisco to I-880 | 2 | 5-6 | widening |
| I-80 | I-880 to I-5 (Sacramento) | 2 | 4-6 | widening |

[1] Represents the number of through lanes in addition to the total number of existing lanes that approximate an equivalent level of capacity to serve the representative demand.

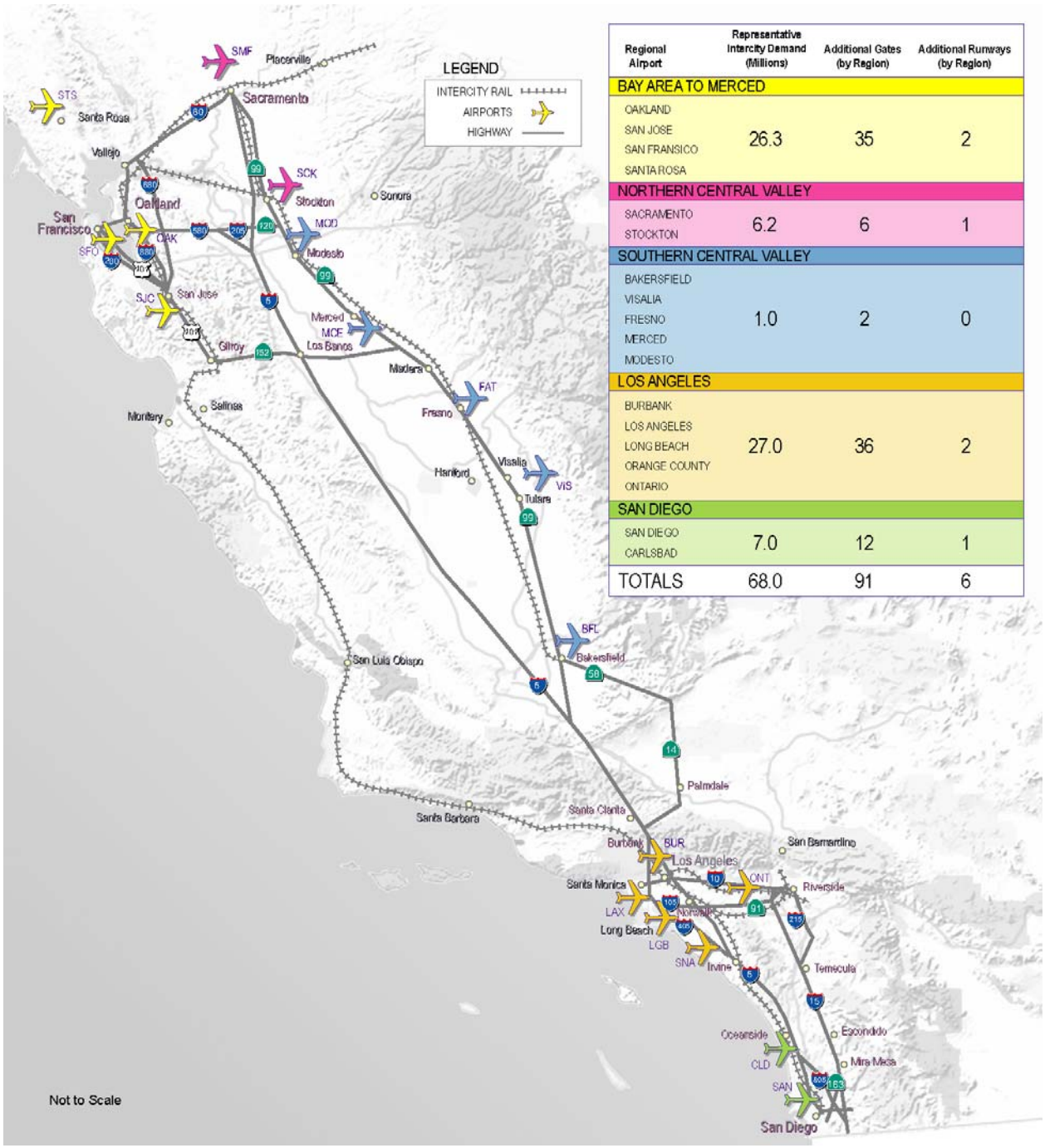
**Table 2: Proposed Modal Alternative Airport Improvements – Year 2020**
**Bay Area to Merced**

| Airport Name | Additional Gates | Additional Runways |
|---|---|---|
| San José International Airport | 14 | one |
| Oakland International Airport | 19 | one |

Source: Parsons Brinckerhoff, November 2002

**Figure 3**
**Modal Alternative - Highway Component**

**Figure 4**
**Modal Alternative - Aviation Component**




| Regional Airport | Representative Intercity Demand (Millions) | Additional Gates (by Region) | Additional Runways (by Region) |
|---|---|---|---|
| **BAY AREA TO MERCED** | | | |
| OAKLAND<br>SAN JOSE<br>SAN FRANSICO<br>SANTA ROSA | 26.3 | 35 | 2 |
| **NORTHERN CENTRAL VALLEY** | | | |
| SACRAMENTO<br>STOCKTON | 6.2 | 6 | 1 |
| **SOUTHERN CENTRAL VALLEY** | | | |
| BAKERSFIELD<br>VISALIA<br>FRESNO<br>MERCED<br>MODESTO | 1.0 | 2 | 0 |
| **LOS ANGELES** | | | |
| BURBANK<br>LOS ANGELES<br>LONG BEACH<br>ORANGE COUNTY<br>ONTARIO | 27.0 | 36 | 2 |
| **SAN DIEGO** | | | |
| SAN DIEGO<br>CARLSBAD | 7.0 | 12 | 1 |
| TOTALS | 68.0 | 91 | 6 |

**Figure 5**
**High-Speed Train Alternative –**
**Corridors and Stations for Continued Investigation**

**Figure 6a**
**High Speed Rail Alternative – Bay Area-to-Merced Region**

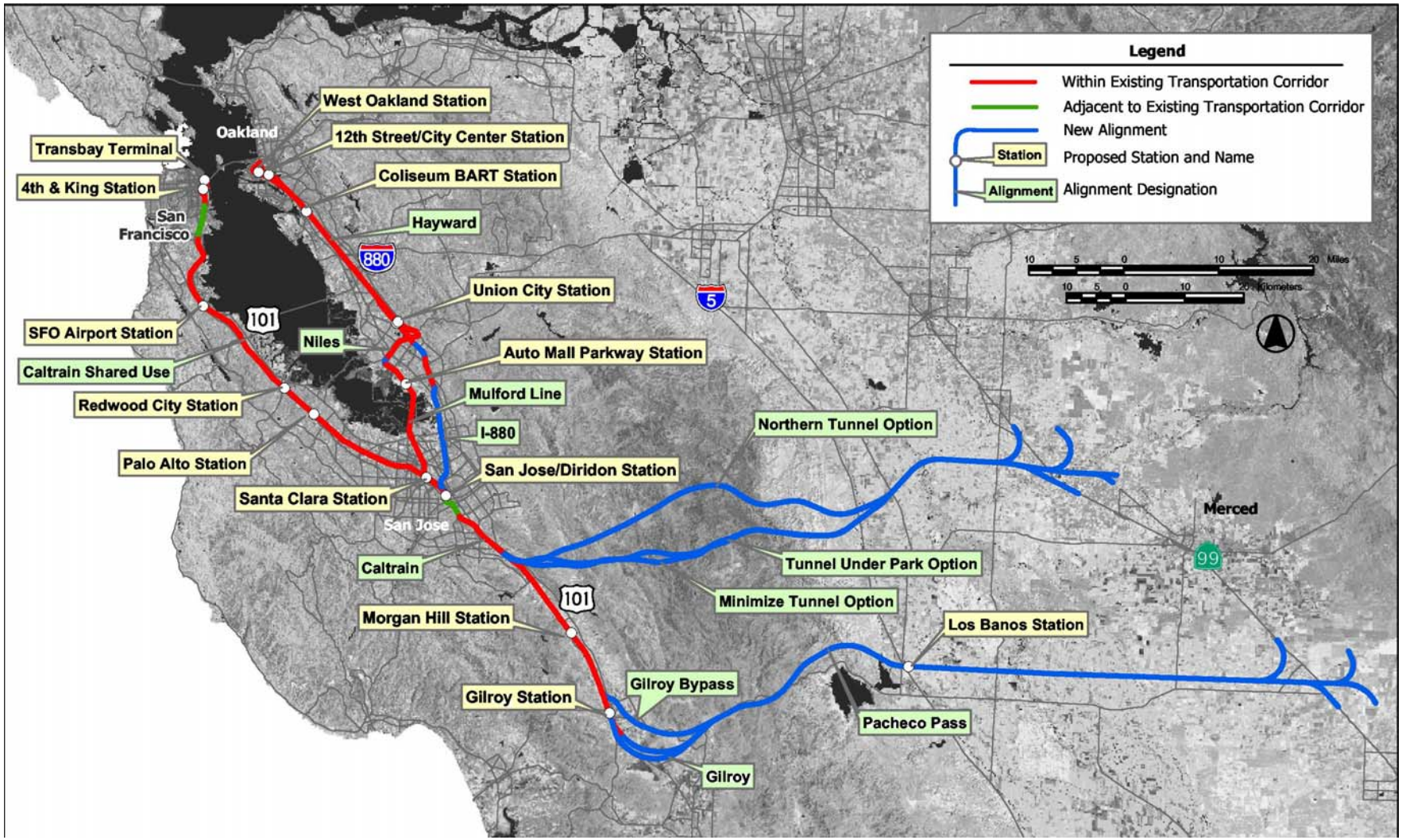
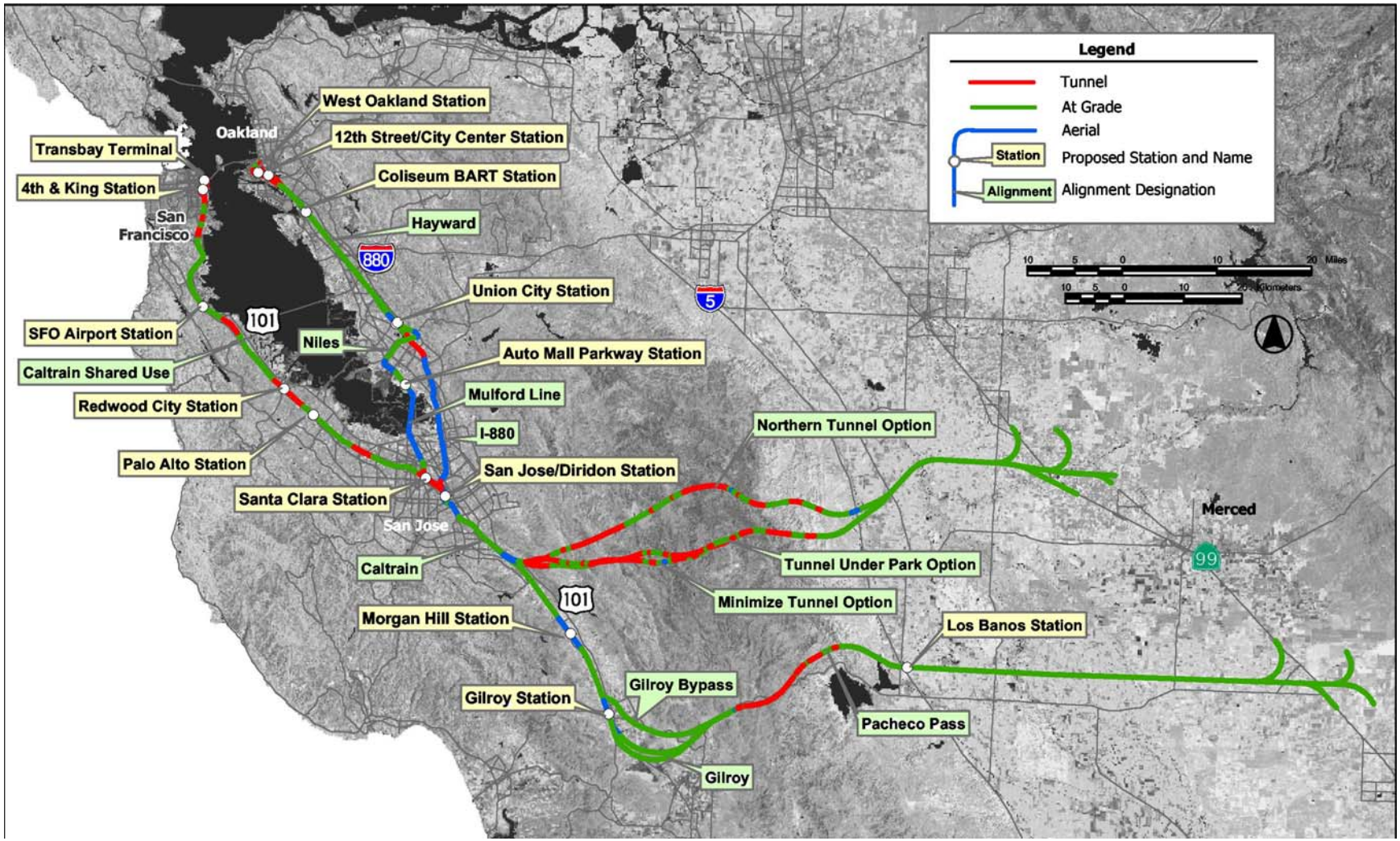


**Figure 6b**
**High Speed Rail Alternative – Bay Area-to-Merced Region**



Stations would include Los Baños (near I-5) in the San Joaquin Valley, Gilroy (near the existing Caltrain Station), and the existing San José (Diridon) Station.

- Gilroy Bypass Option: This alignment would extend from Merced through the San Joaquin Valley and Pacheco Pass and then north along the Caltrain/UPRR rail corridor.

  Stations would include Los Baños (near I-5) in the San Joaquin Valley, Morgan Hill (near the existing Caltrain Station), and the existing San José (Diridon) Station.

Corridor 1B. This corridor would run between Merced and San José, via Atwater and across the Diablo Mountain Range and would include one station – at the existing San José (Diridon) Caltrain Station. Three options for the alignment are being considered:

- Northern Tunnel Option: This alignment would emanate from the BNSF rail corridor or the UPRR corridor near the town of Atwater, north of Merced. The alignment would extend west across the San Joaquin Valley passing north of the town of Newman. The tracks would cross the Diablo Mountain Range in a series of tunnels, passing north of Henry Coe State Park. The alignment then would connect with the Caltrain/UPRR rail corridor north of SR 85.
- Tunnel Under Park Option: This alignment is similar to the Northern Tunnel Option except that the segment through the Diablo Mountain Range would cross Henry W. Coe State Park primarily in tunnel. The alignment then would connect with the Caltrain/UPRR rail corridor north of SR 85.
- Minimize Tunnel Option: This alignment is similar to the Tunnel Under Park Option except that the segment through the Diablo Mountain Range would cross Henry W. Coe State Park primarily at-grade. The alignment then would connect with the Caltrain/UPRR rail corridor north of SR 85.

#### 1.1.3.2 Segment 2 –San José to San Francisco

There is one alignment being considered in this segment; it would provide for high-speed trains sharing tracks with Caltrain commuter trains. The entire alignment would be grade-separated, and all Caltrain stations would have four tracks or by-pass tracks.

Stations would include an optional station at Santa Clara; a station in either Palo Alto or Redwood City; a station in Millbrae near the San Francisco International Airport; and in San Francisco, a station at Fourth and King streets and at the lower level of the proposed new Transbay Terminal.

#### 1.1.3.3 Segment 3 –San José to Oakland

There are two options under consideration for the alignment in this segment.

- I-880 Option: From San José, this alignment would follow north along I-880 and then transition to UPRR's Hayward rail line.

  Stations would include the planned Warm Springs Bay Area Rapid Transit (BART) Station in Fremont or the Union City BART Station; the Oakland Airport/Coliseum BART Station; and either the West Oakland Station or the 12th Street/City Center Station in Oakland.

- Mulford Line Option: From San José, this alignment would travel north along UPRR's Mulford rail line to the UPRR's Niles Line and then onto UPRR's Hayward line.

  Stations would include the Auto Mall Parkway Station or the Union City BART Station; the Oakland Airport/Coliseum BART Station; and in Oakland, either the West Oakland Station or the 12th Street/City Center Station.

### 1.2 SITES POTENTIALLY AFFECTED BY HAZARDOUS MATERIALS/WASTES

One Superfund site, no State Priority List sites, and five Solid Waste Landfill Facilities were identified within the 250-foot study area for the Modal Alternative. (Table 3, Figure 7 and Figure 8) These sites were associated with the highway component of the alternative; none of the sites is associated with the aviation components.

One Superfund site, three State Priority List sites, and seven Solid Waste Landfill Facilities were identified within the 250-foot study area for the HST Alternative. The Superfund site is located on the San Jose to San Francisco corridor. The State Priority List sites are located on the San Jose to Oakland corridor. Solid Waste Landfill Facilities are located on the San Jose to San Francisco corridor (two) and the San Jose to Oakland Corridor (two), and on the Gilroy Bypass Option (three) and Gilroy Option (one) of the Corridor 1A Alignment of the Merced to San Jose Corridor. No sites were identified for the Corridor 1B Alignment of the Merced to San Jose Corridor.

## 2.0 BASELINE/AFFECTED ENVIRONMENT

### 2.1 STUDY AREA 250 FEET OF CENTERLINE

The Study Area for hazardous materials/wastes is defined as 250 feet from the identified rail and highway corridors for each of the build alternatives (i.e., the Modal and HST Alternatives). The Study Area also includes a 250-foot perimeter around airport facilities that are located along or adjacent to the existing highway and proposed rail alignments that are included under the Modal and HST Alternatives. This is the area where it is assumed that a recorded hazardous materials or waste site could potentially affect the acquired right-of-way or safety of persons using the proposed alternatives.

### 2.2 DATABASE RESEARCH

The hazardous materials/waste analysis performed for the Program EIR/EIS consisted of a database search based on geospatial data provided by Environmental Data Resources, Inc. (EDR), dated January 2003. At this stage of analysis, in order to determine the number of potential hazardous materials sites in the vicinity of the proposed alternative alignments and stations, the databases for major potential hazardous materials risks were accessed. The database for solid waste landfills (SWLFs) was also accessed. These databases are described as follows:

- Federal National Priorities List (NPL)/Superfund. This database lists those sites that pose an immediate public health hazard, and where an immediate response to the discovery was necessary. These listings are also found in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) database, also known as CERCLIS.

- State Priority List (SPL). Sites listed in this database are high-priority sites that were compiled from the Annual Work Plan (AWP). For the purpose of this program-level analysis only AWP sites were considered to comprise the SPL. (NOTE: It is assumed that only AWP sites listed after 1990 were included in the data provided by EDR, since prior to 1990 these sites were listed under a different database name. Sites listed prior to 1990 will be identified and analyzed further during Tier 2 of the Program EIR.)

- State of California Solid Waste Landfills (SWLF). The sites listed in this database have generally been identified by the state as accepting solid wastes. The sites can be either active or closed.

### 2.3 HAZARDOUS MATERIALS USED IN OPERATION, MAINTENANCE, AND CONSTRUCTION OF THE ALTERNATIVES

A qualitative description of potential operation, maintenance, and construction impacts will be included in the Program EIR/EIS. For the hazardous waste/materials investigation, site-specific operational and construction impacts will be addressed, if applicable, during the project-specific environmental document stage. In addition, construction impacts will need to be evaluated in detail during the project-specific environmental document stage. In some specific instances, operational and construction impacts should be analyzed for the Project Level EIR/EIS, if such information is available.

## 3.0 HAZARDOUS MATERIALS/WASTES ANALYSIS METHODOLOGY

The hazardous materials/wastes analysis for this program-level EIR/EIS is focused on a qualitative comparison of potential impacts to the public or the environment from hazardous materials or wastes. This analysis is limited to along corridors, as described later in this section, for each of the alternatives (HST and modal alternatives), including proposed station locations. The potential impacts for each of these alternatives are compared with the No-Project Alternative. Under the No-Project Alternative it is assumed that hazardous materials/waste impacts that would be associated with other projects that would be constructed regardless of whether the proposed project were constructed, would be mitigated as part of those projects. Thus the No-Project Alternative is assumed to have no hazardous materials/waste impacts.

The hazardous materials/waste analysis performed for the Program EIR/EIS consisted of a search of the following databases, as provided by Environmental Data Resources, Inc. (EDR), dated January 2003:

- Federal National Priorities List (NPL)/Superfund. This database lists those sites that pose an immediate public health hazard, and where an immediate response to the discovery was necessary. These listings are also found in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) database, also known as CERCLIS.

- State Priority List (SPL). Sites listed in this database are high-priority sites that were compiled from the Annual Work Plan (AWP). For the purpose of this program-level analysis only AWP sites were considered to comprise the SPL.

- State of California Solid Waste Landfills (SWLF). The sites listed in this database have generally been identified by the state as accepting solid wastes. The sites can be either active or closed.

For the Modal and HST Alternatives, a study area of 250 feet along either side of the rail or highway corridors was reviewed for the occurrence of recorded NPL, SPL, and SWLF sites. Any sites located within the study area for the rail corridor that were also located in the vicinity of the proposed station locations (i.e., approximately 1,000 feet from either end of the stations) were also noted. A study area of 250 feet around airports, which are included as part of the Modal Alternative, was also reviewed. The number and location of NPL, SPL, and SWLF sites occurring within the study areas were noted. The results of these analyses are included in Sections 4.1 through 4.3 and Table 3.

# 4.0 HAZARDOUS MATERIALS/WASTES IMPACTS

The following table shows specific locations where NPL, SPL, and SWLF sites were identified based on the database search that was performed.

**TABLE 3**
**Detailed Analysis/Comparison Table**
**Hazardous Materials/Wastes**
**Bay Area-Merced**

| | NPL/ Superfund Listings | SPL Listings | SWLF Listings |
|---|---|---|---|
| **MODAL ALTERNATIVE** | | | |
| **Highways** | | | |
| -Highway 101 – San Francisco to San Jose | **National Semiconductor Corporation**<br>313 Fairchild Dr<br>Mountain View, CA 94039 | — | — |
| -Interstate 880 – Oakland to San Jose | — | — | **Ashby Point**<br>W. End of Ashby Ave<br>Emeryville, CA<br>**South Valley Organic Composting Facility**<br>3675 Pacheco Pass Rd<br>Gilroy, CA<br>**Norcal Waste Systems-Pacheco Pass**<br>3665 Pacheco Pass Rd<br>San Felipe (Lake), CA<br>**Highway 152 Waste Transfer Station, CHP Referral**<br>14480 Hwy 152<br>Chowchilla, CA |
| -Highway 152 – San Jose to Merced | — | — | **Highway 152 Waste Transfer Station, CHP Referral**<br>14480 Hwy 152<br>Chowchilla, CA |
| **Airports** | | | |
| -San Francisco | — | — | — |
| -Oakland | — | — | — |
| -San Jose | — | — | — |

| | NPL / Superfund Listings | SPL Listings | SWLF Listings |
|---|---|---|---|
| **HST CORRIDOR & STATION OPTIONS** | | | |
| **Segment 1<br>Merced to San Jose** | | | |
| **Alignments** | | | |
| -Corridor 1A, Gilroy Option | — | — | **Highway 152 Waste Transfer Station, CHP Referral**<br>14480 Hwy 152<br>Chowchilla, CA |
| -Corridor 1A, Gilroy Bypass Option | — | — | **South Valley Organic Composting Facility**<br>3675 Pacheco Pass Rd<br>Gilroy, CA<br>**Norcal Waste Systems-Pacheco Pass**<br>3665 Pacheco Pass Rd<br>San Felipe (Lake), CA<br>**Highway 152 Waste Transfer Station, CHP Referral**<br>14480 Hwy 152<br>Chowchilla, CA |
| -Corridor 1B, Northern Tunnel Option | — | — | — |
| -Corridor 1B, Tunnel Under Park Option | — | — | — |
| -Corridor 1B, Minimize Tunnel Under Park Option | — | — | — |
| **Stations** | | | |
| -Los Banos | — | — | — |
| -Gilroy | — | — | — |
| -Morgan Hill | — | — | — |
| -San Jose Diridon | — | — | — |
| **Segment 2<br>San Jose to San Francisco** | | | |
| **Alignments** | | | |
| -San Francisco to San Jose | **Northrop Grumman Marine System (aka Westinghouse Electric Corporation, Sunnyvale Plant)**<br>401 E. Hendy Ave<br>Sunnyvale, CA 94086 | — | **San Francisco Household Hazardous Waste Facility**<br>501 Tunnel Ave<br>San Francisco, CA 94134<br>**San Bruno Transfer Station**<br>1271 Montgomery Ave<br>San Bruno, CA |

| | NPL/ Superfund Listings | SPL Listings | SWLF Listings |
|---|---|---|---|
| **Stations** | | | |
| -Santa Clara (Optional) | — | — | — |
| -Palo Alto | — | — | — |
| -Redwood City | — | — | — |
| -San Francisco International Airport | — | — | — |
| -Transbay Terminal (Downtown San Francisco) | — | — | — |
| -4th and King Streets (San Francisco Mission Bay) | — | — | — |
| **Segment 3 San Jose to Oakland** | | | |
| **Alignments** | | | |
| -Mulford Line Option | — | **Union Pacific Oakland Coliseum**<br>700 73rd St<br>Oakland, CA 94621<br>**Aero Quality Plating**<br>710 73rd St<br>Oakland, CA 94621<br>**K&L Plating-Pearman**<br>10319/10323 Pearman St<br>Oakland, CA 94603 | **Santos**<br>E. Gold St north of Hwy 237<br>Alviso, CA<br>**Route 237 Lincoln Technology Park**<br>Route 237 and Gold St<br>Alviso, CA |
| -I-880 Option | — | **Union Pacific Oakland Coliseum**<br>700 73rd St<br>Oakland, CA 94621<br>**Aero Quality Plating**<br>710 73rd St<br>Oakland, CA 94621<br>**K&L Plating-Pearman**<br>10319/10323 Pearman St<br>Oakland, CA 94603 | — |
| **Stations** | | | |
| -Auto Mall Parkway | — | — | — |
| -Union City | — | — | — |
| -Coliseum/Airport | — | **Union Pacific Oakland Coliseum**<br>700 73rd St<br>Oakland, CA 94621<br>**Aero Quality Plating**<br>710 73rd St<br>Oakland, CA 94621 | — |
| -West Oakland | — | — | — |
| -12th Street/City Center | — | — | — |

Source: EDR, January 2003.

## 4.1 NO BUILD ALTERNATIVE

The No Build Alternative assumes that others would complete projects including local, state, and interstate transportation system and airport improvements designated in existing plans and programs. It is assumed that no additional hazardous materials/wastes impacts would occur beyond those addressed in the environmental documents for those projects and that any hazardous materials/waste impacts would be mitigated as part of those projects. Therefore, the No Build Alternative is assumed to have no hazardous materials/waste impacts.

## 4.2 MODAL ALTERNATIVE

### 4.2.1 Superfund Sites

One Superfund site (National Semiconductor Corporation) is located within the study area in Santa Clara County adjacent to Highway 101. The National Semiconductor Corporation site is one of 28 Superfund sites in the South Bay Area of San Francisco (EPA 2003). According to the EPA website, National Semiconductor Corporation manufactures electronic equipment at this 50-acre site. Underground storage tanks, sumps, and pipes are suspected to be the source of contaminated groundwater and soil. National Semiconductor has taken leaking tanks out of service, instituted a program of pumping and treating the groundwater, and removed contaminated soil from selected areas of the facility (EPA 2003).

### 4.2.2 State Priority List Sites

No State Priority List sites were identified for the highway or airport components of the Modal Alternative within the Bay Area-Merced Region.

### 4.2.3 Solid Waste Landfills

Four landfill sites are located along the I-80 corridor Emeryville (Ashby Point); in southern Santa Clara County (South Valley Organic Composting Facility and Norcal Waste Systems Pacheco Pass); and near the intersection of Highway 152 and Highway 99 in Merced County (Highway 152 Waste Transfer Station, CHP Referral).

## 4.3 HIGH-SPEED TRAIN ALTERNATIVE

### 4.3.1 Superfund Sites

One Superfund site (Northrop Grumman Marine System, aka Westinghouse Electric Corporation, Sunnyvale Plant) is located in Santa Clara County adjacent to the Caltrain corridor. No Superfund sites were identified within the study area for train stations in the Bay Area-Merced Region. However, plans for the stations have not been finalized and station infrastructure (e.g., buildings, parking lots, and roadways) may extend beyond the 250-foot study area. Potential impacts to the proposed station locations from hazardous materials incidences will be further evaluated when the project level environmental site assessments are prepared.

The site reported as “Northrop Grumman Marine System” appears to be the Superfund site referred to as “Westinghouse Electric Corporation (Sunnyvale Plant)” on the EPA’s Superfund website based on the EPA Identification Number provided in the database search (CAD001864081) (EPA 2003). It is one of 28 Superfund sites in the South Bay Area of San Francisco (EPA 2003). The 75-acre Westinghouse Electric Corporation (Sunnyvale Plant) site was formerly used to manufacture electrical transformers. It is currently used to manufacture steam generators, marine propulsion systems, and missile launching systems for the Department of Defense. Groundwater contamination is believed to have resulted from a

leaking polychlorinated biphenyls (PCBs) storage tank and from localized spills. Most of the contaminated areas on site have been removed or have been paved over. Access to the site is restricted (EPA 2003).

### 4.3.2 State Priority List Sites

Three State Priority List sites (Union Pacific Oakland Coliseum, Aero Quality Plating, and K&L Plating-Pearman) are located in Oakland within the study area for the Union Pacific Railroad / Capitol Corridor tracks. No State Priority List sites were identified within the study area for train stations in the Bay Area-Merced Region. However, plans for the stations have not been finalized and station infrastructure (e.g., buildings, parking lots, and roadways) may extend beyond the 250-foot study area. Potential impacts to the proposed station locations from hazardous materials incidences will be further evaluated when the project level environmental site assessments are prepared.

### 4.3.3 Solid Waste Landfills

Seven landfill sites are located along the Caltrain corridor in San Francisco (San Francisco Household Hazardous Waste Facility) or San Bruno (San Bruno Transfer Station); in northern Santa Clara County (Santos and Route 237 Lincoln Technology Park, which have similar addresses and may be the same site); in southern Santa Clara County (South Valley Organic Composting Facility and Norcal Waste Systems Pacheco Pass); and near the intersection of Highway 152 and Highway 99 in Merced County (Highway 152 Waste Transfer Station, CHP Referral). No landfill facilities were identified within the study area for train stations in the Bay Area-Merced Region. However, plans for the stations have not been finalized and station infrastructure (e.g., buildings, parking lots, and roadways) may extend beyond the 250-foot study area. Potential impacts to the proposed station locations from hazardous materials incidences will be further evaluated when the project level environmental site assessments are prepared.

# 5.0 REFERENCES

American Society of Testing and Materials (ASTM). *Standard Practice for Environmental Site Assessments – Phase I Environmental Site Assessment Process (E1527-00)*. 2000.

American Society of Testing and Materials (ASTM). *Standards Related to the Phase II Environmental Site Assessment Process (E1903-01)*. 2001.

Environmental Data Resources, Inc. (EDR). *Environmental Geodata*. January 2003

United States Environmental Protection Agency (EPA). Office of Solid Waste and Emergency Response (OSWER), Superfund website. http://www.epa.gov/superfund/sites/index.htm. February 2003.

Parsons-Brinckerhoff. *Screening Report.* Prepared for California High-Speed Rail Authority, April 2002.

Parsons-Brinckerhoff. *Plans and Profiles.* Prepared for California High-Speed Rail Authority, November 2002.

Parsons-Brinckerhoff. *Final Draft Environmental Analysis Methodologies*. Prepared for California High-Speed Rail Authority, November 7, 2002.

# 6.0 REPORT PREPARERS

| | |
|---|---|
| Dennis J. Brown, Ph.D.<br>Principal Scientist | Ph.D. Biology<br>17 Years Experience<br>• Hazardous Materials Analyst |