CALIFORNIA HIGH-SPEED TRAIN

Program Environmental Impact Report/Environmental Impact Statement

Los Angeles to San Diego via Inland Empire

Section 4(f) and 6(f) 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

Task 2.4

Los Angeles to San Diego via Inland Empire

Section 4(f) and 6(f) Technical Evaluation

Prepared by:

HNTB

in association with

CH2MHILL

JANUARY 2004

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ACRONYMS

ARB	Air Reserve Base
Authority	California High-Speed Rail Authority
CDPR	California Department of Parks and Recreation
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
CNDDB	California Natural Diversity Database
CRHR	California Register of Historic Resources
DOI	Department of Interior
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GIS	Geographic Information System
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HST	high-speed train
HUD	Department of Housing and Urban Development
I	Interstate
IC	Information Center
km/h	kilometers per hour
LOSSAN	rail corridor from Los Angeles to San Diego through Orange County
mph	miles per hour
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory Database
RTP	Regional Transportation Plans

SANDAG	San Diego Association of Governments
SCAG	Southern California Association of Governments
SHPO	State Historic Preservation Officer
SR	State Route
STIP	State Transportation Improvement Program
U.S.	United States
UC	University of California
UP	Union Pacific Railroad
USACE	United States Army Corps of Engineers
USC	United State Code
USDA	[United States] Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

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 6 years to assess the feasibility of a high-speed train 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 high-speed train system as the logical next step in the development of transportation infrastructure in California. 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) high-speed train 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 high-speed train 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 high-speed train system is to satisfy the environmental review process required by federal and state laws, which in turn will 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 high-speed train system for speeds over 200 mph and for the potential shared use of rail corridors.

The Authority is 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 decisionmaking, 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 high-speed train 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 high-speed train 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 United Stated (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 that would be expected to follow any approval of a high-speed train system.

The statewide high-speed train 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 discipline-specific *Section 4(f) and 6(f) Technical Evaluation* for the Los Angeles to San Diego via the Inland Empire region is one of five such reports being prepared for each of the regions on the topic. It is 1 of 11 technical evaluations for this region. This evaluation will be summarized in the Program EIR/EIS, and it will be part of the administrative record supporting the environmental review of alternatives.

1.1 ALTERNATIVES

1.1.1 No-Project Alternative

The No-Project Alternative serves as the baseline for the comparison of Modal and High-Speed Train Alternatives. 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 (Figure 3.1-1). The No-Project Alternative addresses the geographic area serving the same intercity travel market as the proposed high-speed train (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 5- and 20-Year Plans)

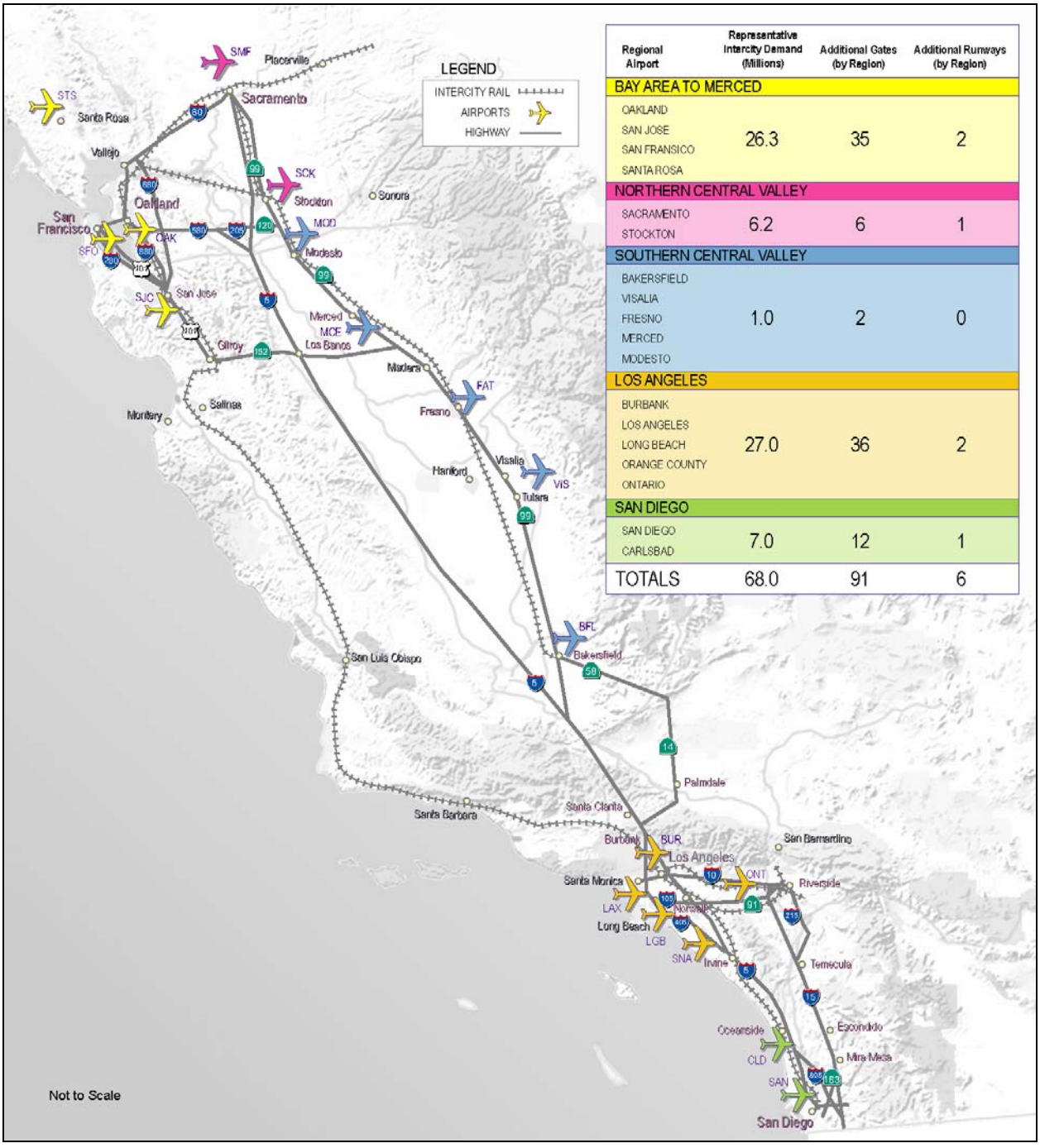
As with all of the alternatives, the No-Project Alternative will be assessed against the purpose and need topics/objectives for congestion, safety, air pollution, reliability, and travel times.

1.1.2 Modal Alternative

There are currently 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 Alternative consists of expansion of highways, airports, and intercity and commuter rail systems serving the markets identified for the High-Speed Train Alternative (Figures 1.2-1 and 1.2-2). The Modal Alternative uses the same intercity travel demand (not capacity) assumed under the high-end sensitivity analysis completed for the high-speed train ridership in 2020. This same travel demand is assigned to the highways, airports, and passenger rail described under the No-Project Alternative.

Figure 1.1-1 No-Project Alternative – California Transportation System

Figure 1.2-1 Modal Alternative – Highway Component



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

Figure 1.2-2 Modal Alternative – Aviation Component

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

The Modal Alternative for the Los Angeles to San Diego via the Inland Empire region consists of two major proposed improvements:

- 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 1.2-2). Within the study area corridor, these improvements, therefore, would occur along proposed portions of Interstates (I-) 10, 215, 15, and State Route (SR) 163. Table 1.2-1 lists the proposed highway improvements along the Los Angeles to San Diego via the Inland Empire corridor.

Table 1.2-1 Proposed Modal Alternative Highway Improvements
Los Angeles to San Diego via Inland Empire

Highway Corridor	Segment (From – To)	No. of Additional Lanes* (Total – Both Directions)	No. of Existing Lanes (Total – Both Directions)	Type of Improvement
I-10	I-5 to East San Gabriel Valley	2	10	widening
I-10	East San Gabriel Airport to Ontario Airport	2	8	widening
I-10	Ontario Airport to I-15	2	8	widening
I-10	I-15 to I-215	2	8	widening
I-15	I-10-I-215	2	8	widening
I-215	Riverside to I-15	2	4	widening
I-215	I-10 to Riverside	2	6	widening
I-15	I-215 to Temecula	2	10	widening
I-15	Temecula to Escondido	2	8	widening
I-15	Escondido to Mira Mesa	2	10	widening
I-15	Mira Mesa to SR-163	2	10	widening
SR-163	I-15 to I-8	2	8	widening

* 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

- 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 High-Speed Train (HST) Alternative. Within the study area corridor, these proposed improvements would occur at Ontario International Airport (ONT) and the San Diego International Airport (SAN) (Figure 1.2-3). Table 1.2-2 lists the airport improvements associated with the Ontario and San Diego airports.

Table 1.2-2 Proposed Modal Alternative Airport Improvements – Year 2020
Los Angeles to San Diego via Inland Empire

Airport Name	Additional Gates	Additional runways
Ontario International Airport	8	1
San Diego International Airport	12	1

Source: Parsons Brinckerhoff, November 2002

1.1.3 High-Speed Train Alternative

The Authority has defined a statewide high-speed train 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 1.3-1).

The High-Speed Train 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 "nonelectric" improvements are also being considered along the existing rail corridor from Los Angeles to San Diego through Orange County (LOSSAN). The train track would be 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 high-speed train corridors will be described from station to station within each region, except where a bypass option is considered when the point of departure from the corridor will define the end of the corridor segment.

As described in the introduction, the study area is broadly defined by the Los Angeles to San Diego via Inland Empire corridor segment, which may be broadly divided into three regional segments. Each segment has several alternative alignments for all or a portion of the length of the segment. For example, Segment 1 has three alternative alignments, listed as 1A, 1B, and 1C. Each segment is further subdivided into subsegments for analyzing and reporting potential impacts. The various segment options and subsegments, along with station locations, are described below and shown in Figure 1.3-2.

1.1.3.1 Regional Segment 1 – Union Station to March Air Reserve Base Segment

Segment 1A

Subsegment 1A1: Union Station to Pomona
Subsegment 1A2: Pomona to Ontario (beginning of Segment 1C)
Subsegment 1A3: Ontario (beginning of Segment 1C) to Colton (end of Segment 1C)
Subsegment 1A4: Colton to March Air Reserve Base (ARB)

Segment 1B

Subsegment 1B1: Union Station to Pomona

Segment 1C

Subsegment 1C1: Ontario (beginning of Segment 1C) to Colton (end of Segment 1C)

Station Locations: El Monte (1A1), Pomona (1A2), Ontario (1A2), Colton (1A3), University of California at Riverside (1A4), South El Monte (1B1), City of Industry (1B1), and San Bernardino (1C1)

1.1.3.2 Regional Segment 2 – March ARB to Mira Mesa Segment

Segment 2A

Subsegment 2A1: March ARB to Escondido (beginning of Segment 2B)
Subsegment 2A2: Within Escondido (beginning to end of Segment 2B)
Subsegment 2A3: Escondido to Mira Mesa

Figure 1.3-1 High-Speed Train Alternative – Corridors and Stations for Continued Investigation

Figure 1.3-2 Modal and HST Alternatives
Los Angeles to San Diego via Inland Empire

Segment 2B

Subsegment 2B1: Within Escondido (Beginning to end of Segment 2B)

Station Locations: March ARB (2A1), Temecula (2A2), Escondido (2A2), and Escondido Transit Center(2B1)

1.1.3.3 Regional Segment 3 – Mira Mesa to San Diego Segment

Segment 3A

Subsegment 3A1: Mira Mesa to Qualcomm Stadium

Segment 3B

Subsegment 3B1: Within Mira Mesa (beginning and end of Segment 3C)
Subsegment 3B2: Mira Mesa (end of Segment 3C) to Downtown San Diego

Segment 3C

Subsegment 3C1: Within Mira Mesa (end of Segment 3C)

Station Locations: Mira Mesa (3A1), Qualcomm Stadium (3A1), Transit Center (3B2), San Diego International Airport (3B2), and Downtown San Diego (3B2)

2.0 SECTION 4(f) AND 6(f) EVALUATION METHODOLOGY

The Sections 4(f) and 6(f) evaluation methodology for the program-level EIR/EIS focused on the identification of potential impacts to known publicly owned park and recreation land, wildlife and waterfowl refuges, Section 6(f) properties, and NRHP-listed or -eligible resources identified based existing information along corridors for the build alternatives (Modal and HST) and around the HST stations. The potential Sections 4(f) and 6(f) impacts for these alternatives are compared with the No-Project Alternative.

For this programmatic document, the primary goal of this analysis was the identification of resources and not the assessment of the severity of the use or constructive use of Sections 4(f)/6(f) resources. The resources were identified based on databases and study areas developed for technical evaluation for the land use (for publicly owned parks and recreation uses and for wildlife refuges) and for cultural resources. These study areas for the technical evaluations are listed in Table 4.0-1.

Table 2.0-1 Study Areas for Section 4(f) and 6(f) Analysis

Discipline	Section 4(f) and Section 6(f) Resources	HSR Study Area	No-Project/Modal Alternative
Cultural Resources. (NHRP-Listed and -Eligible Resources)	Historic, historical archeological, and prehistoric resources (Given the level of detail required for this programmatic document, these resources will be identified at an "area" level and not at the individual-resource level.)	Up to 500 feet from each side of centerline in non-urban areas. Up to 100 feet from centerline in urban areas	100 feet from existing highways and existing airport property boundaries
Land Use	Publicly Owned Parks, and Recreation Lands and Wildlife and Waterfowl Refuges	0.25-mile from centerline	0.25-mile from centerline

In these study areas, the regional analysis teams for Sections 4(f) and 6(f) performed the following activities:

- The teams identified Sections 4(f) and 6(f) resources that have the potential to be used by the alternatives. A use would occur if the physical features of a proposed alignment (i.e., track work) directly intersect with a portion or all of a Section 4(f) or 6(f) resource and require the use of property from that resource. Construction impacts also could use Sections 4(f) and 6(f) resources directly, if the temporary construction areas require the use of property from an identified Section 4(f) or 6(f) resource. For this programmatic document, any resource that is within 150 feet of the centerline will be considered to incur use by that alternative. This 150-foot distance from the centerline represents the most likely area that would constitute the permanent right-of-way and construction disturbance areas for the alternatives. Although this 150-foot-wide area may vary by alternative or along a segment, it is a sufficient representation for this analysis.
- The teams identified Sections 4(f) and 6(f) resources that have the potential to be indirectly impacted, which is defined as a constructive use. A constructive use would occur if a resource were

affected as a result of its proximity to the proposed alignment to the extent that the impacts substantially adversely affect the values that define the Sections 4(f) or 6(f) resource. Possible constructive use could occur as a result of increased noise, dust, or vibration at the Section 4(f)/6(f) resource or a substantial change in views from or within a Section 4(f)/6(f) resource. For this programmatic document, it is assumed that potential noise impacts will be the predominant determinant of a potential constructive use. Consequently, any resource that is between 150 and 900 feet from the centerline of an alternative will be considered to experience a constructive use as a result of that alternative. However, on roads, noise levels are a function of the number of vehicles and the speed at which those vehicles are traveling. As the numbers of vehicles increase and the speeds increase, noise levels increase. As a result, proposed improvements may not result in a substantial noise increase at a resource if the traffic volumes are low or travel speeds are low. For example, near stations, such as Los Angeles Union Station, the number of vehicles and their speeds would be lower than for a segment of I-5, which would have a larger volume of vehicles, traveling at greater speeds. In addition, the area of potential constructive use would not apply in tunnel sections if there are no surface features or surface construction on those sections that could result in adverse noise impacts on a Section 4(f) or 6(f) resource.

- The teams identified probable (obvious) measures to minimize harm or avoid a Section 4(f) or Section 6(f) resource.

The use and/or constructive use of a Section 4(f) and 6(f) resource would have the potential to be temporary (limited to the construction period) or permanent.

To assess whether an alternative potentially would result in use and/or constructive use of Section 4(f) or 6(f) resources, the rankings of potential for impacts listed in Table 2.0-2 were utilized.

Table 2.0-2 Rankings for Potential for Use and Construction Use Impacts on Sections 4(f) and 6(f) Resources

Distance of Resource from Centerline or Station Footprint	Ranking of Potential for Use and Constructive Use of Section 4(f)/6(f) Resource
0 to 150 feet	High potential for use of Section 4(f)/6(f) resource
150 to 450 feet	Medium potential for constructive use of Section 4(f)/6(f) resource.
450 to 900 feet	Low potential for constructive use of Section 4(f)/6(f) resource.

The following data were used in this evaluation:

- California High Speed Rail Authority (CHSRA). 2003a. *Draft Cultural Resources Technical Evaluation, Los Angeles to San Diego via Inland Empire.* The cultural resources evaluation study area was defined in consultation with the State Historic Preservation Officer (SHPO). The study area is defined as 500 feet from centerline of proposed rail routes in nonurban areas and 100 feet from centerline in urban areas. The study area for freeway routes and around airports is defined as 100 feet beyond existing freeway right-of-way and 100 feet beyond the existing airport property boundary. No study area was defined for individual structures. Sites identified as known NRHP- and CHRP-listed and -eligible resources were identified in this evaluation as potential Section 4(f) and Section 6(f) resources.

  Four primary data sources were used to identify known NRHP- and CHRP-listed and -eligible resources:

  - South Central Coastal Information Center, California Historical Resources Information System (CHRIS), California State University Fullerton (for Los Angeles County)

- San Bernardino Archeological Information (CHRIS), San Bernardino County Museum, Redlands (for San Bernardino County)
- Eastern Information Center (CHRIS), University of California, Riverside (for Riverside County)
- South Coastal Information Center (CHRIS), San Diego State University (for San Diego County).

- California High Speed Rail Authority (CHSRA). 2003b. *Draft Local Area Growth, Development, Planning, Land Use, Socioeconomics, and Environment Technical Evaluation, Los Angeles to San Diego via Inland Empire.* The land use within 0.25-mile of the alignments was summarized by segment. Additionally, each station location for the High-Speed Train Alternative was analyzed within a 0.25-mile radius of the station (for informational purposes only as the data was analyzed when the segment was evaluated).

  Existing land use data was derived from available GIS databases developed by Southern California Association of Governments (SCAG) for the Los Angeles, Riverside, and San Bernardino Counties planning regions and by San Diego Association of Governments (SANDAG) for the San Diego County planning region.

  Parcels identified in the SCAG GIS database as Open Space and Recreation and as Public Facilities and Institutions, and in the SANDAG GIS databases as Parks and Education, are identified in this evaluation as potential Section 4(f) and Section 6(f) resources. Public schools (Public Facilities – SCAG, Education – SANDAG) in the databases were included as potential Section 4(f) resources because many municipalities have associated public parks located adjacent to public schools. Data discrepancies are associated with one site, Marion Bear Regional Park; therefore, further evaluation may be required upon reconciliation of the discrepancy regarding its location.

- The Thomas Guides. 2003a, 2003b, and 2003c. Los Angeles and Orange Counties, Street Guide; San Bernardino and Riverside Counties; and San Diego County, including portions of Imperial County, Street Guide. The HST and Modal Alternatives alignments were buffered at 150 feet, 450 feet, and 900 feet from centerline for the Section 4(f)/Section 6(f) evaluation of publicly owned parks and recreation land and evaluation of wildlife and waterfowl refuges. Parcels identified as Open Space and Recreation and as Public Facilities and Institutions (schools) (SCAG data) or Parks and Education (schools) were located on maps to determine, where possible, the name of individual potential Section 4(f)/6(f) resources (SANDAG data). Additional potential Section 4(f) resources located on the maps during analysis, but not included in the SANDAG and/or SCAG databases, were noted as potential Section 4(f) resources within the alignments.

- California Department of Parks and Recreation (CDPR). 2003. Section 6(f) Properties as listed in the CDPR Grant Management System: Los Angeles, Riverside, San Bernardino, and San Diego Counties. Donna Arteago/CDPR to Elizabeth Cutler/CH2M HILL. Unpublished data. January 27, 2003. A list of projects/agencies in Los Angeles, Riverside, San Bernardino, and San Diego counties that were recipients of Section 6(f) funds was provided by CDPR. The data spanned fiscal years 1966 through 2003.

The results of this analysis for the Los Angeles to San Diego via Inland Empire region are summarized in the text and in detailed tables in Section 3.0 of this document.

3.0 LOS ANGELES TO SAN DIEGO VIA INLAND EMPIRE CORRIDOR SECTION 4(f) AND 6(f) ANALYSIS

Potential Section 4(f)/6(f) resources (known publicly owned park and recreation lands, wildlife and waterfowl refuges, and NRHP-listed and -eligible resources) for the Los Angeles to San Diego via Inland Empire portion of the California High-Speed Train Program are summarized in Table 3.1-1. The following sections outline the process that led to this table. This program-level evaluation is a component of the preliminary development process and is intended to ensure that a comprehensive and ongoing planning process is in place to minimize harm to Section 4(f) and Section 6(f) resources. It is not a substitute for project-level analysis.

3.1 SUMMARY OF POTENTIAL IMPACTS TO SECTION 4(F) AND SECTION 6(F) RESOURCES

Table 3.1-1 lists the segments of the No-Project, Modal, and HST alternatives and indicates the number of Sections 4(f) and 6(f) resources that potentially would be impacted adversely by these alternatives, as follows.

High potential: There is high potential for these resources to be used directly by the alternative. In addition, for the No-Project Alternative, there are Section 4(f)/6(f) resources that are immediately adjacent or close to existing rights-of-way on highways such as I-5. Although the No-Project Alternative would not result in the construction of any physical improvements, increased traffic volumes on these highways under this Alternative could result in increased noise levels that could affect the Section 4(f)/6(f) resources adversely. For the HST stations, there are resources immediately adjacent or close to the perimeters of the stations. Therefore, for those alternatives, there would be high potential for constructive uses for resources immediately adjacent to the existing highway facilities or the perimeters for the proposed HST stations.

Medium potential: There is medium potential for these resources to be used constructively by the alternative.

Low potential: There is low potential for these resources to be used constructively by the alternative.

No potential: There is no potential for these resources to be used or used constructively by the alternative.

Some resources were identified as within 150 feet of the centerline (or station perimeter) and also more than 150 feet from the centerline. Therefore, some resources were identified as having the potential to experience direct use impacts (located within 150 feet of the centerline) and constructive use impacts (located 150 feet to 900 feet from the centerline).

Table 3.1-1 Summary of Potential Impacts on Section 4(f) and Section 6(f) Resources

	Potential Impacts on Section 4(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Resources* (H, M, L, No Impact)	Potential Impacts on Section 6(f) Resources (H, M, L, No Impact)	Potential impacts on NRHP-Listed and -Eligible Resources (H, M, L, No Impact)
No-Project Alternative			
No Impact			
Modal Alternative			
Union Station/March ARB	Total Section 4(f) Recreation Resources: 46 Resources High Potential for Use: 18 Resources Medium Potential for Use: 16 Resources Low Potential for Use: 12 Resources		Archeological Impacts: Low Architectural Impacts: High
March ARB/Mira Mesa	Total Section 4(f) Recreation Resources: 39 Resources High Potential for Use: 13 Resources Medium Potential for Use: 16 Resources Low Potential for Use: 10 Resources		Archeological Impacts: High Architectural Impacts: Medium
Mira Mesa/San Diego	Total Section 4(f) Recreation Resources: 30 Resources High Potential for Use: 11 Resources Medium Potential for Use: 7 Resources Low Potential for Use: 12 Resources		Archeological Impacts: Medium Architectural Impacts: Medium

Table 3.1-1 Summary of Potential Impacts on Section 4(f) and Section 6(f) Resources

	Potential Impacts on Section 4(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Resources* (H, M, L, No Impact)	Potential Impacts on Section 6(f) Resources (H, M, L, No Impact)	Potential impacts on NRHP-Listed and -Eligible Resources (H, M, L, No Impact)
HST Corridor and Station Options			
Segment 1A			
Segment 1A1: From Union Station to Pomona			
1A1	Total Section 4(f) Recreation Resources: 29 Resources High Potential for Use: 3 Resources Medium Potential for Use: 11 Resources Low Potential for Use: 15 Resources	Total Section 6(f) Resource: 1 Resource High Potential for Use: 1 Resource	Archeological Impacts: Low Architectural Impacts: High
Segment 1A2: From Pomona to Ontario, Beginning of Alignment 1C			
1A2	Total Section 4(f) Recreation Resources: 1 Resource Medium Potential for Use: 1 Resource		Archeological Impacts: Low Architectural Impacts: High
Segment 1A3: Ontario, From Beginning of Alignment 1C, to Colton, End of 1C; but on the 1A Alignment			
1A3	Total Section 4(f) Recreation Resources: 2 Resources Medium Potential for Use: 1 Resource Low Potential for Use: 1 Resources		Archeological Impacts: Low Architectural Impacts: Low
Segment 1A4: Colton, From End of 1C, to March Air Reserve Base			
1A4	Total Section 4(f) Recreation Resources: 6 Resources High Potential for Use: 3 Resources Medium Potential for Use: 0 Resources Low Potential for Use: 3 Resources		Archeological Impacts: Low Architectural Impacts: Low

Table 3.1-1 Summary of Potential Impacts on Section 4(f) and Section 6(f) Resources

	Potential Impacts on Section 4(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Resources* (H, M, L, No Impact)	Potential Impacts on Section 6(f) Resources (H, M, L, No Impact)	Potential impacts on NRHP-Listed and -Eligible Resources (H, M, L, No Impact)
Stations			
El Monte	No Impact		Archeological Impacts: Low Architectural Impacts: Low
Pomona	Total Section 4(f) Recreation Resources: 1 Resource High Potential for Use: 1 Resource		Archeological Impacts: Low Architectural Impacts: Low
Ontario	No Impact		Archeological Impacts: Low Architectural Impacts: Low
Colton	Total Section 4(f) Recreation Resources: 1 Resource Low Potential for Use: 1 Resource		Archeological Impacts: Low Architectural Impacts: Low
UCR	Total Section 4(f) Recreation Resources: 1 Resource Low Potential for Use: 1 Resource		Archeological Impacts: Low Architectural Impacts: Low
March ARB	Total Section 4(f) Recreation Resources: 1 Resource High Potential for Use: 1 Resource		Archeological Impacts: Low Architectural Impacts: Low

Table 3.1-1 Summary of Potential Impacts on Section 4(f) and Section 6(f) Resources

	Potential Impacts on Section 4(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Resources* (H, M, L, No Impact)	Potential Impacts on Section 6(f) Resources (H, M, L, No Impact)	Potential impacts on NRHP-Listed and -Eligible Resources (H, M, L, No Impact)
Segment 1B			
Segment 1B: From Union Station to Pomona			
1B1	Total Section 4(f) Recreation Resources: 14 Resources High Potential for Use: 6 Resources Medium Potential for Use: 2 Resources Low Potential for Use: 6 Resources		Archeological Impacts: Low Architectural Impacts: Medium
Stations			
South El Monte	No Impact		Archeological Impacts: Low Architectural Impacts: Low
City of Industry	No Impact		Archeological Impacts: Low Architectural Impacts: Low
Segment 1C			
Segment 1C: Ontario, From Beginning of 1C, to Colton, End of 1C			
1C1	Total Section 4(f) Recreation Resources: 11 Resources High Potential for Use: 2 Resources Medium Potential for Use: 2 Resources Low Potential for Use: 7 Resources		Archeological Impacts: Low Architectural Impacts: Medium
Stations			
San Bernardino	No Impact		Archeological Impacts: Low Architectural Impacts: Low

Table 3.1-1 Summary of Potential Impacts on Section 4(f) and Section 6(f) Resources

	Potential Impacts on Section 4(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Resources* (H, M, L, No Impact)	Potential Impacts on Section 6(f) Resources (H, M, L, No Impact)	Potential impacts on NRHP-Listed and -Eligible Resources (H, M, L, No Impact)
Segment 2A			
Segment 2A1: From March AFB to Escondido, Beginning of Alignment 2B			
2A1	Total Section 4(f) Recreation Resources: 19 Resources High Potential for Use: 5 Resources Medium Potential for Use: 8 Resources Low Potential for Use: 6 Resources		Archeological Impacts: Medium/High Architectural Impacts: Medium
Stations			
Temecula	Section 4(f) Recreation Resources: 1 Resource High Potential for Use: 1 Resource		Archeological Impacts: Low Architectural Impacts: Low
Escondido	Total Section 4(f) Recreation Resources: 1 Resource Low Potential for Use: 1 Resource		Archeological Impacts: Low Architectural Impacts: Low
Mira Mesa	No Impact		Archeological Impacts: Low Architectural Impacts: Low
Segment 2A2: Within Escondido, Beginning of 2B to End of 2B			
2A2	Total Section 4(f) Recreation Resources: 1 Resource High Potential for Use: 1 Resource		Archeological Impacts: Low Architectural Impacts: Low

Table 3.1-1 Summary of Potential Impacts on Section 4(f) and Section 6(f) Resources

	Potential Impacts on Section 4(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Resources* (H, M, L, No Impact)	Potential Impacts on Section 6(f) Resources (H, M, L, No Impact)	Potential impacts on NRHP-Listed and -Eligible Resources (H, M, L, No Impact)
Segment 2A3: From Escondido, End of 2B, to Mira Mesa			
2A3	Total Section 4(f) Recreation Resources: 14 Resources High Potential for Use: 9 Resources Medium Potential for Use: 2 Resources Low Potential for Use: 3 Resources		Archeological Impacts: Low Architectural Impacts: Low
Segment 2B			
Segment 2B1: Within Escondido, Beginning of 2B to End of 2B			
2B1	Total Section 4(f) Recreation Resources: 5 Resources High Potential for Use: 2 Resources Medium Potential for Use: 2 Resources Low Potential for Use: 1 Resources		Archeological Impacts: Low Architectural Impacts: Medium
Stations			
Escondido Transit Center	No Impact		Archeological Impacts: Low Architectural Impacts: Low
Segment 3A			
Segment 3A1: From Mira Mesa to Qualcomm Station			
3A1	Total Section 4(f) Recreation Resources: 31 Resources High Potential for Use: 9 Resources Medium Potential for Use: 6 Resources Low Potential for Use: 16 Resources		Archeological Impacts: Low Architectural Impacts: Low

Table 3.1-1 Summary of Potential Impacts on Section 4(f) and Section 6(f) Resources

	Potential Impacts on Section 4(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Resources* (H, M, L, No Impact)	Potential Impacts on Section 6(f) Resources (H, M, L, No Impact)	Potential impacts on NRHP-Listed and -Eligible Resources (H, M, L, No Impact)
Stations			
Qualcomm	No Impact		Archeological Impacts: Low Architectural Impacts: Low
Segment 3B			
Segment 3B1: From Mira Mesa to End of Alignment 3C, via Carroll Canyon			
3B1	Total Section 4(f) Recreation Resources: 2 Resources High Potential for Use: 2 Resources		Archeological Impacts: Low Architectural Impacts: Low
Segment 3B2: End of Segment 3C to Downtown San Diego			
3B2	Total Section 4(f) Recreation Resources: 18 Resources High Potential for Use: 3 Resources Medium Potential for Use: 10 Resources Low Potential for Use: 5 Resources		Archeological Impacts: High Architectural Impacts: Medium
Stations			
Transit Center	Total Section 4(f) Recreation Resources: 1 Resource High Potential for Use: 1 Resource		Archeological Impacts: Low Architectural Impacts: Low
San Diego International Airport	Total Section 4(f) Recreation Resources: 1 Resource Low Potential for Use: 1 Resource		Archeological Impacts: Low Architectural Impacts: Low
Downtown San Diego	No Impact		Archeological Impacts: Low Architectural Impacts: Low

Table 3.1-1 Summary of Potential Impacts on Section 4(f) and Section 6(f) Resources

	Potential Impacts on Section 4(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Resources* (H, M, L, No Impact)	Potential Impacts on Section 6(f) Resources (H, M, L, No Impact)	Potential impacts on NRHP-Listed and -Eligible Resources (H, M, L, No Impact)
Segment 3C			
Segment 3C1: From Mira Mesa to End of 3C, South of Carroll Canyon			
3C1	Section 4(f) Recreation Resources: 2 Resources High Potential for Use: 2 Resources		Archeological Impacts: Low Architectural Impacts: Low

3.2 PUBLICLY OWNED PARKS, RECREATION LANDS, WILDLIFE AND WATERFOWL REFUGES, AND SECTION 6(F) PROPERTIES

Existing and planned publicly owned parks, recreation lands and wildlife and waterfowl refuges (collectively "recreation" resources) along the alignments of the alternatives in the Los Angeles to San Diego via Inland Empire study area were identified based on the following sources:

- SCAG land use GIS database (SCAG, 1993)
- SANDAG land use GIS database (SANDAG, 2000)
- Mapping available from the HST land use data files
- The 2003 Thomas Brothers Guides for Los Angeles and Orange Counties, Riverside and San Bernardino Counties, and San Diego County (Thomas Guide; 2003a, b, and c)

Sections 4(f) and 6(f) recreation resources in the Los Angeles to San Diego via Inland Empire study area include:

- Federally owned/managed property, including National Forests
- State-owned/managed property, including State Parks
- County-owned/managed property, including regional parks, trails, community centers, and other resources serving countywide needs
- Local jurisdiction (city) resources, including mini or pocket parks, neighborhood parks, community centers, and other publicly owned and operated recreation facilities and resources

Detailed maps showing the alternative alignments and the known potential Sections 4(f) and 6(f) recreation resources in the study area were used to identify resources within 150 feet, 450 feet, and 900 feet of the centerline. Table 3.2-1 lists the project segments and features, the Sections 4(f) and 6(f) recreation resources within 900 feet of those project components, and the potential for use or constructive use of those resources.

Appropriate mitigation to minimize impacts to Section 4(f) resources will need to be determined upon consultation and agreement with agencies and property owners. Ongoing project coordination will ensure that all possible planning to minimize harm to Section 4(f) resources will be employed.

Potential mitigation for impacts to land use are discussed in detail in the *Draft Local Area Growth, Development, Planning, Land Use, Socioeconomics, and Environment Technical Evaluation* (CHSRA, 2003b) and are incorporated herein by reference. Potential mitigation for use/constructive use of publicly owned parks and recreation lands, wildlife and waterfowl refuges, and Section 6(f) properties may include, but are not limited to, the following.

- Sound Walls (vegetative, constructed)
- Relocation of the alignment within the study area
- Land swap

3.2.1 Publicly Owned Park and Recreation Land

Based on the data sources and mapping, existing publicly owned parks and recreation lands along the alignments and in the vicinity of project features are summarized in Table 3.2-1.

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
No-Project Alternative						
No Impact						
Modal Alternative						
Union Station/ March ARB	State Street Rec Center		450 to 900		Low	Sound Wall Relocation within alignment
	Saint Hazard Park		450 to 900		Low	Sound Wall Relocation within alignment
	Ramona Gardens Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Tremont School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	School – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
	Monterey Park Golf Course		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Granada Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Keppel High School		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Saint Anthony School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Marshall School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Fletcher Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Arceo Park		450 to 900		Low	Sound Wall Relocation within alignment
	School – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Baker School		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
	Linda Vista School		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	School – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Roadside Park		150 to 450 ‘		Medium	Sound Wall Relocation within alignment
	Foster School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Sacred Heart School		450 to 900		Low	Sound Wall Relocation within alignment
	Local Park – Name Unknown Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Forest Lawn Memorial Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Frank Bonnelli Regional Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Ganesha Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
	Lincoln School		450 to 900		Low	Sound Wall Relocation within alignment
	North San Antonio School		450 to 900		Low	Sound Wall Relocation within alignment
	Pomona JC Community Park		Up to 150 150 to 450	High	Medium	Sound Wall Relocation within alignment
	Allison School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Wilderness Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Sertano Jr High		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Margarita School		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	MacArthur Park		Up to 150 150 to 450	High	Medium	Sound Wall Relocation within alignment
	School – Name Unknown		Up to 150 150 to 450	High	Medium	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
	Citrus School		450 to 900		Low	Sound Wall Relocation within alignment
	Edison School		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Berlyn Ave School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	John Galvin Park		450 to 900		Low	Sound Wall Relocation within alignment
	School – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Park – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Colton Golf Club		450 to 900		Low	Sound Wall Relocation within alignment
	Rich Dauer Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	School – Name Unknown		Up to 150 150 to 450	High	Medium	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
	School – Name Unknown		Up to 150 150 to 450	High	Medium	Sound Wall Relocation within alignment
	Park – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Grand Terrace School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Open Space – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Quail Run Open Space		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
March ARB/ Mira Mesa	Riverside National Cemetery		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	School – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Metz Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Foss Field Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
	Park – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Menifee Lakes Country Club		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Park – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Meadow Ridge Park		450 to 900		Low	Sound Wall Relocation within alignment
	Alta Murrieta Sports Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Cleveland National Forest		Up to 150 150 to 450 450 to 900/	High	Medium Low	Sound Wall Relocation within alignment
	Lake Elsinore State Park		450 to 900		Low	Sound Wall Relocation within alignment
	Rotary Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Temecula Cemetery		450 to 900		Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
	School – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Temecula Creek Inn Golf Course		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Santa Margarita Ecological Reserve		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Pala Mesa Resort		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Castle Creek Country Club		450 to 900		Low	Sound Wall Relocation within alignment
	Escondido Adventist Academy HS		450 to 900		Low	Sound Wall Relocation within alignment
	Open Space – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Open Space – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Open Space – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
	Open Space – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Open Space – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Open Space – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Open Space – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Open Space – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Rancho Bernardo Community Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Open Space – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Open Space – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Open Space – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
	Open Space – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Open Space – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Carmel Highland Golf		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Carmel Mountain Ranch Country Club		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Carmel Mountain Ranch Community Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Los Penasquitos Canyon Preserve		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
Mira Mesa/ San Diego	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450	High	Medium	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450	High	Medium	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		Up to 150	High		Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	School – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
	Open Space – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Riverwalk Golf Course		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
	Presidio Community Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
HST Alternative and Station Options						
Segment 1A						
Subsegment 1A1 From Union Station to Pomona						
1A1	Lincoln Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
1A1	Prospect Park		450 to 900		Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
1A1	Utah Street School		450 to 900		Low	Sound Wall Relocation within alignment
1A1	Northrop School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
1A1	Ann Street School		Up to 150 150 to 450	High	Medium	Sound Wall Relocation within alignment
1A1	Albion Street School		450 to 900		Low	Sound Wall Relocation within alignment
1A1	Our Lady Help Christian School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
1A1	Griffin Avenue School		450 to 900		Low	Sound Wall Relocation within alignment
1A1	Almansor Park	Yes	Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment Land Swap
1A1	San Gabriel Mission		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
1A1	Mission High School		450 to 900		Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
1A1	Elementary School – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
1A1	Smith Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
1A1	Roosevelt School		450 to 900		Low	Sound Wall Relocation within alignment
1A1	Local Park – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
1A1	Encinita School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
1A1	Rosemead Park		450 to 900		Low	Sound Wall Relocation within alignment
1A1	Shirper School		450 to 900		Low	Sound Wall Relocation within alignment
1A1	Nativity School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
1A1	Baker School		450 to 900		Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
1A1	Middle School – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
1A1	San Angelo County Park		450 to 900		Low	Sound Wall Relocation within alignment
1A1	Rorimer School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
1A1	Norman Ashley Park		Up to 150	High		Sound Wall Relocation within alignment
1A1	Del Paso High School		450 to 900		Low	Sound Wall Relocation within alignment
1A1	Kellogg School		450 to 900		Low	Sound Wall Relocation within alignment
1A1	Park West High School		150 450		Medium	Sound Wall Relocation within alignment
1A1	Pomona Alternative High School		150 450		Medium	Sound Wall Relocation within alignment
1A1	St. Joseph School		150 450		Medium	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
1A1	Central Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
Subsegment 1A2 From Pomona to Beginning of Alignment 1C						
1A2	Central Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
Subsegment 1A3 From Beginning of Alignment 1C to End of 1C, but on the 1A Alignment						
1A3	Local Park – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
1A3	Local Park – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
Subsegment 1A4 From End of 1C to March Air Force Base						
1A4	Local Park – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
1A4	Box Springs Mountain Reserve		450 to 900		Low	Sound Wall Relocation within alignment
1A4	Highland Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
1A4	School – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
1A4	University of California (UC) at Riverside Botanic Gardens		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
1A4	Hyatt School		450 to 900		Low	Sound Wall Relocation within alignment
Stations						
El Monte	No Impact	No Impact			None	No Impact
Pomona	Public Facilities – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
Ontario	No Impact	No Impact			None	No Impact
Colton	Public Facilities – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
UC Riverside	Hyatt School		450 to 900		Low	Sound Wall Relocation within alignment
March AFB	Public Facilities – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
Segment 1B						
Subsegment 1B1 From Union Station to Pomona						
1B1	Bristol Park		450 to 900		Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
1B1	School – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
1B1	Regional Park – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
1B1	Montebello Park		450 to 900		Low	Sound Wall Relocation within alignment
1B1	Morino Ranchito School		450 to 900		Low	Sound Wall Relocation within alignment
1B1	Local Park – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
1B1	Amigo County Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
1B1	Rose Hills Memorial Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
1B1	Regional Park – Name Unknown		Up to 150 150 to 450	High	Medium	Sound Wall Relocation within alignment
1B1	Continuation High School		150 to 450		Medium	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
1B1	School – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
1B1	Little League Field and Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
1B1	Spadra Cemetery		Up to 150 150 to 450	High	Medium	Sound Wall Relocation within alignment
1B1	St. Joseph School		450 to 900		Low	Sound Wall Relocation within alignment
Stations						
South El Monte	No Impact	No Impact			None	No Impact
City of Industry	No Impact	No Impact			None	No Impact
Segment 1C						
Subsegment 1C1 From Beginning of 1C to End of 1C						
1C1	Local Park – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
1C1	Oleander School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
1C1	Santa Fe Park		Up to 150 150 to 450	High	Medium	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
1C1	South Tamarino School		450 to 900		Low	Sound Wall Relocation within alignment
1C1	Kelley School		450 to 900		Low	Sound Wall Relocation within alignment
1C1	Nunez Regional Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
1C1	Our Lady of Guadalupe School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
1C1	Immaculate Conception School		450 to 900		Low	Sound Wall Relocation within alignment
1C1	Fleming Park		450 to 900		Low	Sound Wall Relocation within alignment
1C1	Wilson School		450 to 900		Low	Sound Wall Relocation within alignment
1C1	San Salvador School		450 to 900		Low	Sound Wall Relocation within alignment
Stations						
San Bernardino	No Impact	No Impact			None	No Impact
Segment 2A						
Subsegment 2A1 From March AFB to Beginning of Alignment 2B						

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
2A1	Riverside National Cemetery		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
2A1	School – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
2A1	Metz Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
2A1	Foss Field Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
2A1	Perris Valley Cemetery		450 to 900		Low	Sound Wall Relocation within alignment
2A1	Temple Christian High School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
2A1	Park – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
2A1	Menifee Lakes Country Club		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
2A1	Rancho Acacias Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
2A1	Alta Murietta Sports Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
2A1	Meadow Ridge Park		450 to 900		Low	Sound Wall Relocation within alignment
2A1	Sam Hicks Monument Park		450 to 900		Low	Sound Wall Relocation within alignment
2A1	Rotary Park		450 to 900		Low	Sound Wall Relocation within alignment
2A1	Temecula Cemetery		450 to 900		Low	Sound Wall Relocation within alignment
2A1	Santa Margarita Ecological Reserve		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment Land Swap
2A1	School – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
2A1	Temecula Creek Inn Golf Course		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
2A1	Pala Mesa Resort		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
2A1	Rancho Manserate Country Club		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
Stations						
Temecula	Open Space and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
Escondido	Education – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
Mira Mesa	No Impact	No Impact			None	No Impact
Subsegment 2A2 From Beginning of 2B to End of 2B						
2A2	Park – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
Subsegment 2A3 From End of 2B to Mira Mesa						
2A3	Lake Hodges		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
2A3	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
2A3	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
2A3	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
2A3	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
2A3	Rancho Bernardo Community Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
2A3	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
2A3	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
2A3	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
2A3	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
2A3	Carmel Mtn. Ranch Community Park		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
2A3	Los Penasquitos Canyon Preserve		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
2A3	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
2A3	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
Segment 2B						
Subsegment 2B1 from Beginning of 2B to End of 2B						
2B1	Local Park – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
2B1	Santa Margarita Ecological Reserve		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment Land Swap
2B1	Park – Name unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
2B1	Escondido Adventist Academy High School		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
2B1	Kit Carson Park	Yes	450 to 900		Low	Sound Wall Relocation within alignment Land Swap
Stations						
Escondido Transit Center	No Impact	No Impact			None	No Impact
Segment 3A						
Subsegment 3A1 From Mira Mesa to Qualcomm Station						
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		150 to 450		Medium	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		150 to 450		Medium	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
3A1	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		150 to 450		Medium	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		Up to 150	High		Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450	High	Medium	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
3A1	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
3A1	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
Stations						
Qualcomm	No Impact	No Impact			None	No Impact
Segment 3B						
Subsegment 3B1 From Mira Mesa to End of Alignment 3C						
3B1	Local Park and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
3B1	Rose Canyon Open Space		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
Stations						
Transit Center	SANDAG Parks and Education – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
San Diego International Airport	Parks – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
Downtown San Diego	No Impact	No Impact			None	No Impact
Subsegment 3B2 From End of 3C to Downtown San Diego						

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
3B2	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
3B2	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
3B2	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
3B2	Local Parks and Recreation – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3B2	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
3B2	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
3B2	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
3B2	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
3B2	Local Parks and Recreation – Name Unknown		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
3B2	Rose Canyon Open Space		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
3B2	City High School – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3B2	Nobel Athletic Area		450 to 900		Low	Sound Wall Relocation within alignment
3B2	Marian Bear Memorial National Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
3B2	Soledad Nat Park		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
3B2	Open Space – Name Unknown		450 to 900		Low	Sound Wall Relocation within alignment
3B2	Mission Bay Park		450 to 900		Low	Sound Wall Relocation within alignment
3B2	San Diego River Floodway		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment

Table 3.2-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Sections 4(f) and Section 6(f) Publicly Owned Parks and Recreation Land and Wildlife and Waterfowl Refuges Resources for Los Angeles to San Diego via Inland Empire

	Potential Section 4(f) Recreation Resource Within 900 Feet of Centerline	Potential Section 6(f) (Y,N)	Distance from Centerline (Up to 150 Feet, 150 to 450 Feet, 450 to 900 Feet)	Potential for Use (High)	Potential for Constructive Use (Medium, Low, None)	Probable Measures to Minimize Harm
3B2	Old Town San Diego		150 to 450 450 to 900		Medium Low	Sound Wall Relocation within alignment
Segment 3C						
Subsegment 3C1 From Mira Mesa to End of 3C						
3C1	Local Parks and Recreation – Name Unknown		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment
3C1	Miramar Memorial Golf Course		Up to 150 150 to 450 450 to 900	High	Medium Low	Sound Wall Relocation within alignment

3.2.2 Wildlife and Waterfowl Refuges

One potential wildlife and waterfowl refuge was identified within the Los Angeles to San Diego via Inland Empire alignment land use study area: Santa Margarita Ecological Reserve, Temecula, California (Table 3.2-1).

Identification of wildlife and waterfowl refuges may occur at the local and regional level during project-level evaluation prior to implementation of the Project and would, subsequently, require analysis under Section 4(f).

3.2.3 Section 6(f) Properties

Two Section 6(f) properties were identified within the Los Angeles to San Diego via Inland Empire alignment land use study area: Almansor Park, Alhambra, California; Kit Carson Park, Escondido, California (Table 3.2-1).

Section 6(f) properties preliminarily were identified through coordination with the State of California Department of Parks and Recreation. Identification of additional Section 6(f) properties may occur at the local and regional level during project-level evaluation prior to implementation of the HST Alternative and, subsequently, would require analysis under Section 4(f).

3.3 NHRP-Listed and - Eligible Areas

The cultural resources evaluation identified the potential for impacts on cultural resources based on:

- The number of known archeological sites within 100 feet of centerline.
- The number of known historic districts within 100 feet of centerline.
- Miles of alignment within historically developed areas.
- The number of direct takes of known cultural resources.

NRHP and California Register of Historic Resources (CRHR)-listed and -eligible cultural resources were identified in the cultural resources study. Although, Section 4(f) focuses only on NRHP-listed and -eligible resources, CRHR-listed and -eligible resources were included because these resources are considered to be potentially eligible for the NRHP. The cultural resources study provided a table that indicated the potential for cultural resources (including NRHP-listed and -eligible resources) occurrences by segment and the potential for impacts (low, medium, and high) based on the occurrences and the criteria listed above, and the professional judgment of the authors of the cultural resources technical evaluation report. No Traditional Cultural Properties are documented within or in the vicinity of the study area.

Table 3.3-1 provides a summary of the data from the cultural resources report by segment and the potential for impacts on cultural resources.

Appropriate mitigation to minimize impacts to Section 4(f) resources will need to be determined upon consultation and agreement with agencies. Ongoing project coordination will ensure that all possible planning to minimize harm to Section 4(f) resources will be employed.

Potential mitigation for impacts to NRHP-listed and -eligible resources are discussed in detail in the *Draft Cultural Resources Technical Evaluation* (CHSRA, 2003a) and are incorporated herein by reference. Potential mitigation for use/constructive use of NRHP-listed or -eligible structures, sites, or districts may include, but is not limited to, the following:

- Archeological Sites
  - Avoidance through rerouting
  - Data recovery
  - Reduction of construction/disturbance footprint
- Historic Properties
  - Avoidance through rerouting
  - Reduction of construction/disturbance footprint
  - Sound walls (vegetative, constructed)
  - Insulation
  - Documentation following standards of the Historic American Building Survey (HABS) or Historic American Engineering Record (HAER)

Table 3.3-1 Analysis/Comparison of Impacts to Cultural Resources, Los Angeles to San Diego via Inland Empire Region

	Archeological Sites Impact Ranking* (High/Med/Low)	Known Archeological Sites within 100 Feet	Miles of Alignment in Historically Developed Areas (Percent)	Historic Districts within 100 Feet* (Yes/No)	Direct Takes of Known Resources (Approximate Number)	Architectural Impact Ranking* (High, Med, Low)
No-Project						
Qualitative discussion						

Table 3.3-1 Analysis/Comparison of Impacts to Cultural Resources, Los Angeles to San Diego via Inland Empire Region

	Archeological Sites Impact Ranking* (High/Med/ Low)	Known Archeological Sites within 100 Feet	Miles of Alignment in Historically Developed Areas (Percent)	Historic Districts within 100 Feet* (Yes/No)	Direct Takes of Known Resources (Approximate Number)	Architectural Impact Ranking* (High, Med, Low)
Modal Alternative						
Union Station March ARB	Low	17	19.5/71 (27%)	No	0	High
March ARB Mira Mesa	High	44	0/118 (0%)	Yes	9	Medium
Mira Mesa San Diego	Medium	24	3/14 (21%)	Yes	6	Medium
HST Alternative and Station Options						
Segment 1A						
Subsegment 1A1 Union Station to Pomona						
1A1	Low	9	16/35 (46%)	Yes	4	High
Subsegment 1A2 From Pomona to beginning of 1C						
1A2	Low	1	5/12 (42%)	Yes	0	High
Subsegment 1A3: From Beginning of Segment 1C to End of 1C, but on 1A						
1A3	Low	13	1/15 (7%)	No	10	Low
Subsegment 1A4: From End of 1C to March ARB						
1A4	Low	1	0.2/8 (3%)	No	0	Low
Stations						
El Monte	Low	0	0	No	0	Low
Pomona	Low	0	0.10/0.10 (100%)	No	0	Low
Ontario	Low	0	0	No	0	Low
Colton	Low	0	0.10/0.10 (100%)	No	0	Low
UC Riverside	Low	0	0	No	0	Low
March ARB	Low	1	0	No	1	Low
Segment 1B						
Subsegment 1B1: From Union Station to Pomona						
1B1	Low	3	8 of 32 25%	No	0	Medium
Stations						
South El Monte	Low	0	0	No	0	Low
City of Industry	Low	0	0	No	0	Low

Table 3.3-1 Analysis/Comparison of Impacts to Cultural Resources, Los Angeles to San Diego via Inland Empire Region

	Archeological Sites Impact Ranking* (High/Med/ Low)	Known Archeological Sites within 100 Feet	Miles of Alignment in Historically Developed Areas (Percent)	Historic Districts within 100 Feet* (Yes/No)	Direct Takes of Known Resources (Approximate Number)	Architectural Impact Ranking* (High, Med, Low)
Segment 1C						
Subsegment 1C1: From Beginning of 1C to End of 1C						
1C1	Low	14	4/21 (19%)	Yes	8	Medium
Station						
San Bernardino	Low	0	0	0	0	Low
Segment 2A						
Subsegment 2A1: From March ARB to Beginning of 2B						
2A1	Medium/ High	40	0.3/56 (0%)	Yes	15	Medium
Stations						
Temecula	Low	1	0	No	0	Low
Escondido	Low	0	0	No	0	Low
Mira Mesa	Low	0	0	No	0	Low
Subsegment 2A2: From Beginning of 2B to End of 2B						
2A2	Low	9	0/8 (0%)	No	2	Low
Subsegment 2A3: From End of 2B to Mira Mesa						
2A3	Low	13	0/11 (0%)	No	2	Low
Segment 2B						
Subsegment 2B1: From Beginning of 2B to End of 2B						
2B1	Low	7	2.1/8 (26%)	No	0	Medium
Station						
Escondido Transit Center	Low	0	0	No	0	Low
Segment 3A						
Segment 3A1: From Mira Mesa to Qualcomm Stadium						
3A1	Low	5	0/9 (0%)	No	1	Low
Station						
Qualcomm	Low	0	0	No	0	Low
Segment 3B						
Subsegment 3B1: From Mira Mesa to End of 3C						
3B1	Low	1	0/5 (0%)	No	0	Low

Table 3.3-1 Analysis/Comparison of Impacts to Cultural Resources, Los Angeles to San Diego via Inland Empire Region

	Archeological Sites Impact Ranking* (High/Med/Low)	Known Archeological Sites within 100 Feet	Miles of Alignment in Historically Developed Areas (Percent)	Historic Districts within 100 Feet* (Yes/No)	Direct Takes of Known Resources (Approximate Number)	Architectural Impact Ranking* (High, Med, Low)
Stations						
Transit Center	Low	0	0	No	0	Low
San Diego International Airport	Low		0			Low
Downtown San Diego	Low	0	0.1/0.1 (100%)	No	0	Low
Subsegment 3B2: From End of 3C to Downtown San Diego						
3B2	High	46	4/14 (29%)	Yes	5	Medium
Segment 3C						
Subsegment 3C1: From Mira Mesa to End of 3C						
3C1	Low	3	0/5 (0%)	No	1	Low

* Reflects highest ranking of subsegments

3.3.1 Prehistoric Archeological Sites

Prehistoric archeological sites in California are places where Native Americans lived or carried out activities during the prehistoric period before A. D. 1769. Prehistoric sites contain artifacts and subsistence remains, and may contain human burials. Artifacts are objects made by people and include tools (e.g., projectile points, scrapers, and grinding implements), waste products from making flaked-stone tools (debitage), and nonutilitarian artifacts (e.g., beads, ornaments, ceremonial items, and rock art). Subsistence remains include nonedible portions of foods, such as animal bone and shell; and edible parts that were lost and not consumed (e.g., charred seeds).

3.3.2 Historic Archeological Sites

Historic archeological sites in California are places where human activities were carried out during the historic period between and A. D. 1769 and 50 years ago. Some of these sites may be the result of Native American activities during the historic period, but most are the result of Spanish, Mexican, or Anglo-American activities. Most historic archeological sites are places where houses formerly existed and contain ceramic, metal, and glass refuse resulting from the transport, preparation, and consumption of food. Such sites can also contain house foundations and structural remnants (e.g., windowpane glass, lumber, and nails). Historical archeological sites can also be nonresidential, resulting from ranching, farming, industrial, and other activities.

3.3.3 Structures from the Historic Period

The historic-built environment consists of structures from the historic period (more than 50 years ago). Structures include houses, outbuildings, stores, offices, factories, barns, corrals, mines, dams, bridges, roads, and other facilities that served residential, commercial, industrial, agricultural, transportation, and other functions during the historic period. The historic-built environment of the Los Angeles to San Diego

via Inland Empire region was divided into three historical periods (before 1900, 1900 to 1929, and 1930 to 1958). Prior to 1900, the region was characterized by broadly dispersed agricultural settlements and small towns that supported the agricultural economy of the region. The historic-built environment between 1900 and 1929 changed markedly with the advent of the automobile age. Not only did the region experience population growth, but also major improved road networks were constructed to accommodate increased numbers of automobiles and trucks. The time period between 1930 and 1958 witnessed a period of slowing growth (the Great Depression), followed by the World War II era and immediate "Post-War" period of rapid urban and suburban expansion.

3.4 Likelihood of Additional Resources Being Identified at Project Level (Data / Information Gaps)

Project-level Section 4(f) evaluation will ensure minimal harm to publicly owned parks and recreation lands, wildlife and waterfowl refuges, Section 6(f) properties, and individual NHRP-listed and -eligible properties and sites/districts. Further Section 4(f) analysis is warranted at a project-specific level prior to design, construction, and implementation of the project.

3.4.1 Publicly Owned Park and Recreation Lands

3.4.1.1 Existing Park and Wildlife Refuge Resources Not Currently Identified

There potentially are existing publicly owned recreation resources within 0.25-mile of the centerlines or project features such as stations that were not identified in this current study effort. These resources could include small neighborhood and pocket parks that are not documented in the general maps such as the Thomas Brothers maps that were used as data sources for this level of effort (Thomas Guide; 2003a, b, and c). There also may be publicly owned open space areas such as within planned communities that are intended to serve recreation and/or resource protection purposes and that may qualify as Section 4(f) resources. In addition, many public trails are not shown on general maps and, therefore, may not have been identified in this current effort. There may be public golf courses that are owned/operated by public agencies that were not identified in this study effort. In addition, there may be federal lands, such as lands owned/managed by the Bureau of Land Management, that are available for public recreation. Some public agencies, such as flood control districts, may manage publicly owned lands that have multiple purposes including flood control, trails and recreation resources.

Some public schools, including state colleges/universities, and high, middle, and elementary schools may have playing fields that are open for public use (unrestricted), which may qualify as Section 4(f) resources. However, not all school facilities provide for unrestricted public use and, therefore, may not qualify as Section 4(f) resources. Each school and its relevant policies would need to be researched.

Similarly, it is possible that there are publicly owned recreation lands and/or wildlife and waterfowl refuges in the study area that may not have been identified based on the general maps. In particular, there may be small mitigation areas that have been dedicated to public ownership but that are not clearly identified as publicly owned resources in the data sources used for this current effort.

In addition, there are a number of private recreation resources that serve recreation needs in Southern California. It is possible that, in the future, some of the many privately owned and operated recreation resources in this area could be purchased by a public agency and, therefore, qualify as a Section 4(f) resource. The future study should confirm the public/private ownership status of each recreation resource in the study area, to assess whether any previously privately owned facilities have become publicly owned.

3.4.1.2 Planned Resources Not Currently Identified for a Specific Site

The local jurisdictions along the alignments protect existing recreation resources and identify future recreation resources in their General Plans. It is likely by the time the project level environmental and

planning phases are underway that some previously planned recreation resources will have advanced through the planning and environmental processes and may have been constructed. It similarly is possible that federally protected lands such as the National Forest could have been expanded and/or their designations modified or new federally protected lands identified.

Therefore, it is expected that, during the project-level planning and environmental phases, the list of existing publicly owned recreation resources would be updated based on additional research. Section 3.6 describes in detail the consultations with the jurisdictions through which the project alignments pass or in which project components are located. Section 3.6 also identifies previously planned recreation resources that have advanced in planning and/or are operational.

3.4.2 Section 6(f) Resources

Section 4(f) and 6(f) data discrepancies were identified for publicly owned parks and recreation land. The following known data gaps currently exist: (1) identification of specific, local, publicly owned parks and recreation lands, and (2) identification of Section 6(f) properties.

Regional publicly owned parks and recreation lands are more likely to be found in areas of undeveloped land and local publicly owned parks and recreation lands are more likely to be identified in and around centers of higher population. Locations within designated open space or within or adjacent to bodies of water may be identified as wildlife or waterfowl refuges when project-level analysis is undertaken; therefore, close coordination with CDPR regarding recipients of Section 6(f) funds would need to be undertaken once project-level planning is initiated.

3.4.3 NRHP-Listed or - Eligible Resources

The more detailed analysis that will be conducted in the next phase of environmental study will include surveys and archival research to locate cultural resources, test them for significance, and identify measures to avoid or reduce adverse impacts on those resources. Part of these detailed studies will include assessment of resources to identify those already listed on the NRHP and to determine the eligibility of additional resources for listing on the NRHP. Based on the information collected and analyzed for this current effort, it appears likely that additional resources in the study area would be identified as potentially eligible for the NRHP, based on their age and their association with key prehistoric and historic periods, persons, and activities. Therefore, it is likely that the next study phase would identify additional cultural resources that will require assessment under Sections 4(f)/6(f), based on their potential eligibility for the NRHP.

3.5 Avoidance Alternatives or Reasons for No Prudent or Feasible Alternative for Section 4(f) and Section 6(f) Use

Project-level evaluations of Section 4(f) and Section 6(f) use would ensure that avoidance alternatives or reasons for no prudent or feasible alternative for Section 4(f) and Section 6(f) use are adequately documented.

There are a number of potential Sections 4(f)/6(f) recreation resources and cultural resources within or immediately adjacent to the proposed alignments of the improvements under the Modal and HRT Alternatives. Avoidance of use and/or constructive use of these resources is possible in many cases through minor redesign or narrowing of the disturbance limits, noise walls or visual screening. However, there may be cases where avoidance of use or constructive use cannot be achieved because:

- Shifting the centerline (and the whole facility) to one side or the other to avoid one or more resources could result in greater impacts on other resources. For example, segments of some highways include a number of very large Sections 4(f)/6(f) resources on both sides. It may not be possible to fully avoid use and/or constructive use of all of these resources under the Modal Alternative.

- The HST alignment cannot be shifted easily because of the large turning radii and other design considerations. A "minor" shift in one location along the HST alignment could result in a substantial shift further up or down the alignment, potentially resulting in use and/or constructive use impacts on other Sections 4(f)/6(f) resources.
- Measures to reduce harm for constructive use impacts, such as noise walls, could result in adverse visual impacts on Sections 4(f)/6(f) resources. The identification and implementation of measures to minimize harm at each resource need to be conducted in consultation with the owners of the resources to ensure that measures to minimize harm do not adversely affect the values of the resources.

The Sections 4(f)/6(f) resources most at risk for use and/or constructive use impacts that cannot be avoided are those resources closest to the proposed improvements. Table 3.5-1 lists those recreation resources, by alternative, that are within 150 feet of the centerline and that are potentially most at risk for use and/or constructive use impacts that cannot be avoided. Table 3.5-1 also identifies segments on which there is high potential for use and/or constructive use impacts on NRHP-listed and -eligible resources. The distance from the centerline for HRHP-listed and -eligible resources is not provided because this assessment is based on the number of recorded sites and on the ages of development along the segment, not on individual resources as explained in detail in the cultural resources technical evaluation report (Authority, 2003a).

Table 3-5.1 Section 4(f) and Section 6(f) Resources within 150 Feet of the Centerline and Most At Risk for Use and Constructive Use Impacts That Cannot Be Avoided

	Section 4(f) and Section 6(f) Recreation Resources Within 150 Feet of the Centerline and Segments with High Potential to Impact NRHP-Listed and -Eligible Resources
Modal Alternative	
Union Station/March ARB	18 Section 4(f) Resources – High Potential for Use Keppel High School Fletcher Park Baker School Linda Vista School Forest Lawn Memorial Park Frank Bonnelli Regional Park Pomona JC Community Park Wilderness Park Margarita School MacArthur Park School – Name Unknown Edison School School – Name Unknown Park – Name Unknown School – Name Unknown School – Name Unknown Open Space – Name Unknown Quail Run Open Space Architectural Resources – High Potential for Impact
March ARB/Mira Mesa	13 Section 4(f) Resources – High Potential for Use Riverside National Cemetery Alta Murrieta Sports Park Cleveland National Forest Santa Margarita Ecological Reserve

Table 3-5.1 Section 4(f) and Section 6(f) Resources within 150 Feet of the Centerline and Most At Risk for Use and Constructive Use Impacts That Cannot Be Avoided

	Section 4(f) and Section 6(f) Recreation Resources Within 150 Feet of the Centerline and Segments with High Potential to Impact NRHP-Listed and -Eligible Resources
	7 Open Spaces – Names Unknown Carmel Highland Golf Course Carmel Mountain Ranch Community Park Archaeological Resources – High Potential for Impact
Mira Mesa/San Diego	11 Section 4(f) Resources – High Potential for Use 9 Local Parks and Recreation – Names Unknown Riverwalk Golf Course Presidio Community Park
HST Alternative and Station Options	
Segment 1A	
1A1	4 Section 4(f) Resources – High Potential for Use Lincoln Park Ann St. School Almansor Park [Section 6(f)] Norman Ashley Park Architectural Resources: High Potential for Impact
1A2	Architectural Resources: High Potential for Impact
1A3	No Impact
1A4	3 Section 4(f) Resources – High Potential for Use Highland Park School – Name Unknown UC Riverside Botanic Gardens
Stations	
El Monte	No Impact
Pomona	1 Section 4(f) Resource – High Potential for Use Public Facilities – Name Unknown
Ontario	No Impact
Colton	No Impact
UCR	No Impact
March AFB	1 Section 4(f) Resource – High Potential for Use Public Facilities – Name Unknown
Segment 1B	
1B1	6 Section 4(f) Resources – High Potential for Use School – Name Unknown Amigo County Park Rose Hills Memorial Park Regional Park – Name Unknown Little League Field and Park Spadra Cemetery
Stations	

Table 3-5.1 Section 4(f) and Section 6(f) Resources within 150 Feet of the Centerline and Most At Risk for Use and Constructive Use Impacts That Cannot Be Avoided

	Section 4(f) and Section 6(f) Recreation Resources Within 150 Feet of the Centerline and Segments with High Potential to Impact NRHP-Listed and -Eligible Resources
South El Monte	No Impact
City of Industry	No Impact
Segment 1C	
1C1	2 Section 4(f) Resources – High Potential for Use Santa Fe Park Nunez Regional Park
Stations	
San Bernardino	No Impact
Segment 2A	
2A1	5 Section 4(f) Resources – High Potential for Use Riverside National Cemetery Foss Field Park Santa Margarita Ecological Reserve Temecula Creek Inn Golf Course Rancho Manserate Country Club Archaeological Resources – Medium/High Potential for Impact
Stations	
Temecula	1 Section 4(f) Resource – High Potential for Use Open Space and Recreation – Name Unknown
Escondido	No Impact
Mira Mesa	No Impact
2A2	1 Section 4(f) Resource – High Potential for Use Park – Name Unknown
2A3	9 Section 4(f) Resources – High Potential for Use Lake Hodges Rancho Bernardo Community Park Carmel Mtn. Ranch Community Park Los Penasquitos Canyon Preserve 5 SANDAG Local Parks and Recreation – Names Unknown
Segment 2B	
2B1	2 Section 4(f) Resources – High Potential for Use Local Park – Name Unknown Local Park – Name Unknown
Stations	
Escondido Transit Center	No Impact
Segment 3A	
3A1	9 Section 4(f) Resources – High Potential for Use 9 SANDAG Local Parks and Recreation – Names Unknown
Stations	

Table 3-5.1 Section 4(f) and Section 6(f) Resources within 150 Feet of the Centerline and Most At Risk for Use and Constructive Use Impacts That Cannot Be Avoided

	Section 4(f) and Section 6(f) Recreation Resources Within 150 Feet of the Centerline and Segments with High Potential to Impact NRHP-Listed and -Eligible Resources
Qualcomm	No Impact
Segment 3B	
3B1	2 Section 4(f) Resources – High Potential for Use Rose Canyon Open Space 1 SANDAG Local Parks and Recreation, Name Unknown
3B2	3 Section 4(f) Resources – High Potential for Use Rose Canyon Open Space San Diego River Floodway 1 SANDAG Local Parks and Recreation, Name Unknown Archaeological Resources –High Potential for Impact
Stations	
Transit Center	1 Section 4(f) Resources – High Potential for Use SANDAG Parks and Recreation – Name Unknown
San Diego International Airport	No Impact
Downtown San Diego	No Impact
Segment 3C	
3C1	2 Section 4(f) Resources – High Potential for Use Miramar Memorial Golf Course 1 SANDAG Local Parks and Recreation, Name Unknown

3.6 SUMMARY OF SECTION 4(F) AND 6(F) ANALYSIS

No fatal flaws were identified for the Modal or HST Alternatives during the program-level Section 4(f)/6(f) evaluation performed in this study. The Section 4(f)/6(f) evaluation was based on existing databases and maps, not on field investigations. Therefore, the comprehensiveness of the evaluation is limited to the completeness of the databases and maps used during the evaluation. The results of future project-level analysis may alter the conclusions drawn in this study. Additional Section 4(f) cultural resources may be identified for potential use and constructive use upon completion of project-level analysis.

Other than listing potential resources associated with the Modal and HST Alternatives, there are no other key findings in this study. National and regional resources identified in the study include the Riverside National Cemetery, Cleveland National Forest, Santa Margarita Ecological Reserve, and Old Town San Diego. However, these listings simply indicate that there was some degree of overlap with the buffer area of the Modal or HST Alternative. The amount of overlap or potential impact associated with this overlap was not assessed. The remainder of the potential resources identified were generally regional and local parks, recreation areas, schools, and many other areas that could not be identified by name. Because the individual resources were not assessed (an activity that would occur at the project-level analysis) no information beyond the anecdotal personal knowledge of the analyst was available for the analysis.

Construction associated with the No-Project Alternative compared to existing conditions would be substantial due to the extensive highway, rail, and airport improvements contained in the No-Project projects. This difference would be greater than the difference between the No-Project and the two build alternatives (Modal and HST). These build alternatives would result in relatively fewer improvements (based on a footprint of the improvements, not dollar value or complexity of the improvements) compared to the No-Project projects. Because potential Section 4(f)/6(f) impacts would be associated closely with the footprint of the alternatives, the difference between the No-Project Alternative and existing conditions likely would be greater than the difference between the No-Project and the two build alternatives (Modal and HST).

The difference in the number of identified Section 4(f) resources that potentially would be subject to use or constructive use as determined in this program-level document does not vary greatly between alignment options for the HST Alternative or between segments of the HST and Modal Alternatives. Until the known resources and resources identified during project-level surveys (e.g., archeological foot survey) are analyzed in further detail (e.g., if Section 4[f] impacts would occur to specific architectural resources within known historic districts) and mitigation identified for the specific resources, it would be premature to rank the potential for impacts among the HST alignment options or between segments of the HST and Modal Alternatives.

3.7 Outline of Future Project-Level Section 4(f) Evaluation

The Section 4(f) evaluation process will become more focused at the project-specific level. Given the broad level of analysis for the programmatic study, the primary goal for the Tier 2 detailed analysis would be to identify Section 4(f) resources and uses in greater detail, and the appropriate measures to minimize harm (i.e., mitigation measures). The more focused Section 4(f) evaluations at the project-specific level would include the following items.

- Description of the proposed action in its entirety (plans and profiles)
- Description of the Section 4(f)/6(f)-protected resources that would be used, including information regarding their sizes, uses, annual patronage, unique qualities, and relationships to other lands in the project vicinity; and an explanation of the significance of the properties as determined by the federal, state, or local officials having jurisdiction thereof
- Detailed description of the Section 4(f) use that the federal action proposes to have on the protected properties (temporary or permanent use) and the process followed to identify those uses
- Description, including location, routing or design, of every prudent and feasible alternative (to the one proposed), including the No-Project Alternative. Each description should analyze, as appropriate, the technical feasibility, cost estimates (with figures showing percentage of differences in total project costs), the possibility of community or ecosystem disruption, and other significant environmental impacts of each alternative, to show that the financial, social, or ecological costs or adverse environmental impacts of each alternative other than that proposed, would present unique problems or reach extraordinary magnitudes
- Appropriate number of maps to demonstrate the spatial relationship of the proposed alternative to the Section 4(f)/6(f) resources
- Description of all planning efforts undertaken to minimize harm to the Section 4(f)/6(f)-protected resources from the proposed action. This should include a description of actions which will be taken to mitigate adverse environmental impacts, such as beautification measures, replacement of land or structures or their equivalents on or near their existing site(s), tunneling, cut and cover, cut and fill, treatment of embankments, planting, screening, installation of noise barriers, or establishment of pedestrian or bicycle paths

- Evidence of concurrence or of efforts to obtain concurrence of the public official or officials having jurisdiction over the Section 4(f)/6(f)-protected resources regarding the proposed action and the planning to minimize its harm.

If the alignment and station footprint change as the EIR/EIS is under development, then the project sponsors will have to re-evaluate Section 4(f)/6(f) resources to ensure that the changes have not resulted in additional Section 4(f) uses. Any resources not listed in the HSRA database must be entered into the database and each listing must include name, address, city, owner, and type of facility.

3.8 SECTION 4(F) AND 6(F) CONSULTATION AND COORDINATION

Initial consultation has been done with public agencies at interagency meetings and meetings with Natural Conservancy and Coastal Conservancy to identify possible Section 4(f) and 6(f) resources. These meetings were appropriate for Tier 1 analysis; however, the subsequent Tier 2 analysis will include more formal Section 4(f) and 6(f) meetings with regional, county, and local agencies and with property owners.

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M.S, Geology, University of Wyoming; B.S., Geology, University of California at Los Angeles. 13 years of professional experience as an urban/environmental planner. Familiar with NEPA and CEQA and specializes in analyzing projects for compliance. Responsible for review and analysis of environmental impacts associated with the design and construction of major engineering projects. Experience providing and directing environmental communications, preparing environmental documentation, creating mitigation and monitoring plans, and preparing contract specifications.

- Section Author

Robert Miller Environmental Planner CH2M HILL	M.S., Environmental Resources/Forest Ecology, Pennsylvania State University; B.S., Natural Resources Management, Rutgers University. More than 15 years of experience in environmental documentation. Detailed knowledge of various environmental laws and regulations such as NEPA, Section 106 of the NHPA, Sections 404 and 401 of the Clean Water Act, the Farmland Protection Policy Act, the Environmental Justice provisions of EO 12898, and Section 7 of the Endangered Species Act. • Senior Review