

1.0 Purpose and Need

1.1 INTRODUCTION

This environmental impact statement (EIS) addresses the proposal by DesertXpress Enterprises, LLC, (Applicant or DesertXpress) to construct and operate a high-speed passenger railroad between Victorville, California, and Las Vegas, Nevada (the proposed action). The Federal Railroad Administration (FRA) is the lead agency for the environmental review process for the DesertXpress High-Speed Passenger Train Project. The Applicant would finance and own the system and be responsible for the project's development, construction, operation, and maintenance. Approvals by several federal agencies, including the FRA, Bureau of Land Management (BLM), Surface Transportation Board (STB), Federal Highway Administration (FHWA), and the National Parks Service (NPS) would be necessary to implement the project including the granting of permission to use public lands and/or highway rights-of-way.

The FRA has authority to regulate the safety of railroads, including the proposed project under 49 U.S.C. 20101 et seq. FRA also manages financial assistance programs for rail capital investments, for which this project would be eligible. The BLM has approval authority over the use of public lands under their control under 43 U.S.C. 1761, the Federal Land Policy and Management Act (FLPMA). The STB has jurisdiction, pursuant to 49 U.S.C. 10501(b), over the construction, acquisition, operation, and abandonment of rail lines, railroad rates and services, and rail carrier consolidations and mergers. The FHWA has jurisdiction over the use of and/or modification of Interstate highway right of way under 23 CFR 1.23. The NPS has authority over the management and use of the Mojave National Preserve under 16 U.S.C. 2.

The construction and operation of the proposed project is subject to STB's approval authority under 49 U.S.C. 10901. On June 25, 2007, the STB issued a declaratory order in Finance Docket No. 34914 (incorporated herein by reference) finding that the proposed construction and operation of the interstate high-speed passenger rail system is not subject to state and local environmental review and land use and other permitting requirements because of the Federal preemption authority in 49 U.S.C. 10501(b).

Additional detail regarding STB's application of Federal preemption authority in this case

is discussed in Section 1.4 below.¹

This EIS has been prepared to satisfy the requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.), and Council on Environmental Quality (CEQ) NEPA regulations (40 CFR 1500-1508). This EIS is being prepared by the FRA in cooperation with STB, BLM, FHWA, and NPS. The California Department of Transportation (Caltrans) and the Nevada Department of Transportation (NDOT) are also participating in evaluating the impacts of the DesertXpress proposal.

This chapter of the EIS describes the purpose and need for high-speed interstate passenger rail transportation between Southern California and Las Vegas, Nevada. The purpose and need provides the basis for evaluating and comparing alternatives, and is one of the factors considered in selecting a preferred alternative. In addition to the purpose and need for the project, this chapter identifies major authorizing laws and regulations, discusses the relationship of the proposal to statutes, regulations, policies, programs and plans, and lists federal permits, licenses, and other requirements for project implementation. An overview map of the proposed project is shown in Figure 1.1, Project Location.

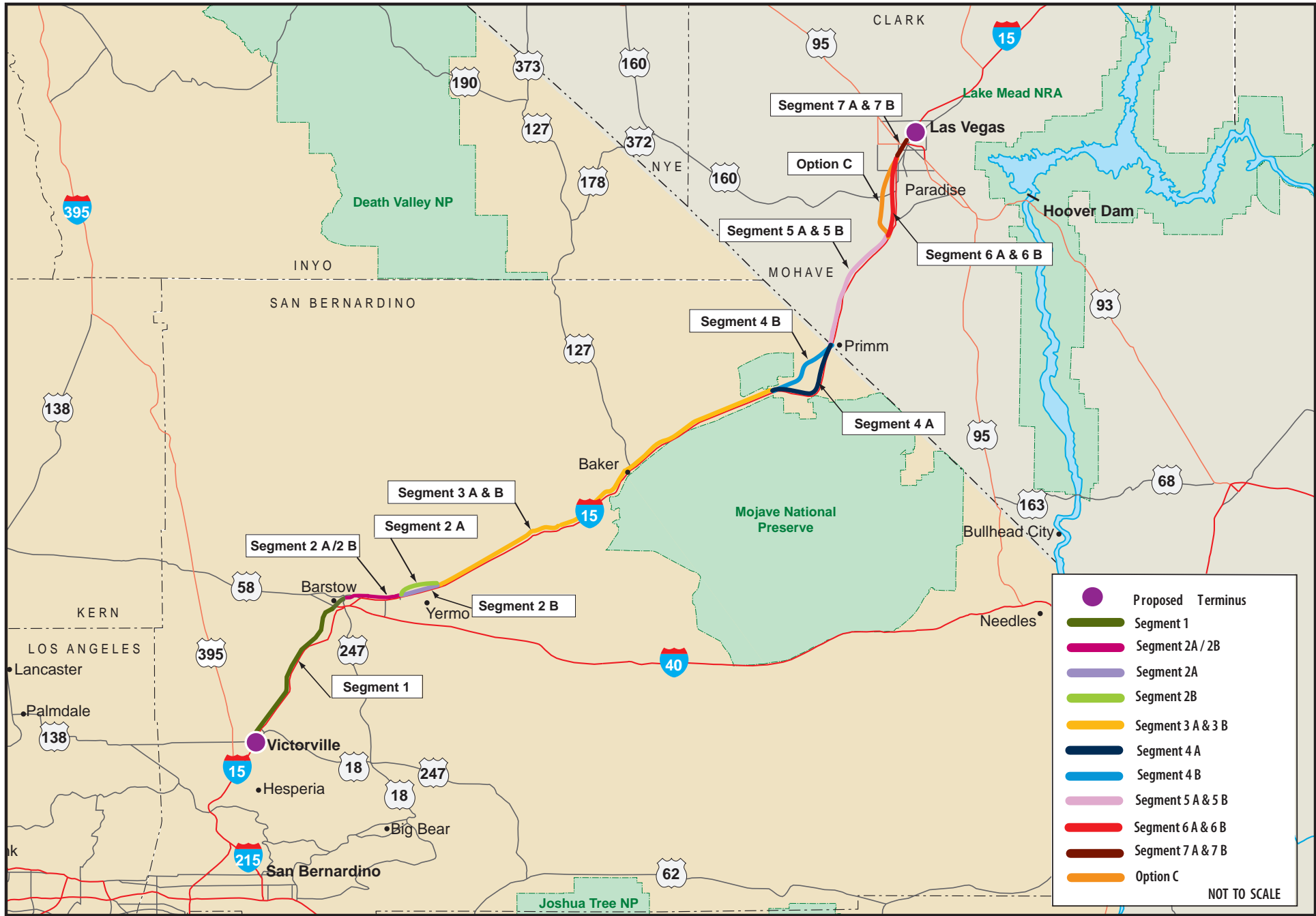
1.2 PURPOSE OF THE PROPOSED PROJECT

The purpose of the privately financed project is to provide reliable and safe passenger rail transportation using proven high-speed rail technology between Southern California (Victorville) and Las Vegas that is a convenient alternative to automobile travel on the Interstate-15 freeway (I-15), or air travel to and from Las Vegas, and that adds transportation capacity in the I-15 corridor.

1.2.1 RELIABLE, SAFE, CONVENIENT MODE OF TRAVEL USING PROVEN HIGH SPEED RAIL TECHNOLOGY

Depending on the selected alignment, DesertXpress would extend approximately 183 to 200 miles on a new, high-speed double track with no at-grade crossings, providing trains departing both ends of the line at least hourly and as frequently as every 20 minutes on Fridays and Sundays. DesertXpress would travel at speeds up to 150 mph. The 183- to 200-mile trip would take between 1 hour and 40 minutes and 2 hours depending on the selected technology, and would operate every day of the year. The trains would be based on high-speed trains used in Europe and customized for the unique setting of the high

¹ STB's preemption authority precludes any requirement for an environmental review under the California Environmental Quality Act (CEQA). However, this document includes environmental analyses that would also satisfy CEQA requirements. Moreover, CEQA-related noticing procedures have been followed, including issuance of a Notice of Preparation to the California State Clearinghouse in July 2006.



desert. Each car would be self-propelled to provide the high power-to-weight ratio needed to follow the alignment and negotiate its relatively steep grades as it travels through two desert mountain passes.

1.2.2 INCREASING THE CAPACITY OF THE I-15 CORRIDOR

In its 2006 Regional Transportation Improvement Program (RTIP), the Southern California Association of Governments (SCAG) has programmed funding for several projects within and/or near the study corridor that will increase capacity and improve operation of I-15.² The construction and operation of DesertXpress trains would further increase capacity and improve operation of the I-15 corridor, potentially reducing the need for programmed and/or planned but unfunded improvements.

The train tracks would utilize (to the extent feasible) existing highway and railroad rights-of-way along the corridor. The approximate 60-foot right-of-way width required for the project would be narrower than the width of additional highway lanes that would be needed to carry a comparable number of people in automobiles on the I-15 corridor.

DesertXpress commissioned a ridership study in 2005, which was independently reviewed by qualified specialists under the exclusive direction of the FRA. The original study and FRA's review are included in the EIS as Appendix B. Also refer to Section 2.2.1 of Chapter 2.0, Alternatives, for a discussion of the DesertXpress ridership projections.

The applicant's study incorporated a comprehensive travel demand model that divided the Southern California area into zones (by postal zip codes), computed travel times and costs from those zones for the automobile and air travel modes, and then compared those modes to the time and cost of DesertXpress. The study also utilized an internet-based stated preference survey of selected Southern California residents (carried out in July 2005) to estimate how many existing auto and air trips to Las Vegas could potentially be diverted to DesertXpress. According to the study, the projected travel demand from Southern California to Las Vegas in the year 2012 will be 18.2 million trips.

The applicant's study assessed the sensitivity of high-speed train ridership to various fare levels (\$50 and \$55 one-way fares), travel time (100- and 116-minute one-way trips), and service frequency. Ridership was also projected based on the use of proposed diesel and electric train technology options. The proposed electric train set would employ longer and wider trains with significantly greater passenger capacity. As shown in the ridership

² I-15 capacity and/or operational improvements programmed in SCAG's 2006 RTIP are identified below:

- Barstow: new interchange at I-15 at Old Route SR 58;
- Near Baker, from 5.9 km north of Afton Road to 2.3 km south of Basin Road: add truck climbing lane

For a comprehensive list of anticipated capacity improvements in the project area, see Section 2.0 of the Traffic Impact Study, included as Appendix E.

review and original ridership study, DesertXpress could divert 20-25 percent of private automobile trips from I-15, and would have a passenger capacity at least equal to a full freeway lane.

During a typical peak hour in its first full year of operation, DesertXpress would carry approximately 1,350 passengers. Over time, as passenger demand increases, DesertXpress would have the capacity to operate trains as frequently as every five minutes in each direction, thereby achieving a peak hour capacity of approximately 5,000 passengers per hour per direction, which is roughly equivalent to two lanes of freeway traffic. With this capacity, the DesertXpress Project could potentially reduce the need to expand I-15, thus allowing Caltrans and NDOT to defer major expansion of I-15 and allocate future funding instead to other highway and transportation improvements in the two states. The DesertXpress Project would also maximize transit and ground transportation connections at the proposed station alternatives and would provide adequate parking facilities per the ridership projections.

The applicant's study also states that DesertXpress is expected to divert an estimated 3.04 million annual auto trips from I-15, reducing auto emissions and saving fuel. Increased demand for DesertXpress would be accommodated by adding more trains as demand increases. DesertXpress would have the capacity to quadruple its projected initial ridership over roughly a 30-year period.

The ridership review conducted for FRA examined and evaluated the methodologies employed in the applicant's ridership study. The ridership review noted that numerous factors could alter the findings of the ridership study in both positive and negative directions. Following consideration of all of these factors and their relative potential to alter the findings, FRA's ridership review adjusted downwards by a factor of 10 percent the passengers forecast in the applicant's study. These adjusted numbers are utilized in this EIS.

1.3 NEED FOR THE PROPOSED PROJECT

The need for a high-speed rail service stems from several factors: high and increasing travel demand amidst lagging capacity on the I-15 corridor and constraints to expansion of air travel, and frequent accidents in the I-15 corridor.

1.3.1 TRAVEL DEMAND AND CAPACITY CONSTRAINTS

The rapid increase in travel demand between Southern California and Las Vegas, coupled with the growth in population in the areas surrounding Victorville, Barstow, and Las Vegas has placed increasing pressures on the highways and airports serving the region. For example, for the highway segment between Victorville and Barstow, the Average Daily

Traffic (ADT) on I-15 grew from 50,000 to 60,000 between 1998 and 2005 and is estimated to increase to 75,000 by 2015 and to 100,000 by 2025.³

The 2005 ridership study estimated that one-third of the 38 million annual Las Vegas visitors and business travelers come from Southern California, and an estimated 72 percent of them drive to Las Vegas on I-15.⁴ In 2005, the total average person trips on a Friday to Las Vegas from California was 56,700 trips, which generates an estimated annual volume of 11.77 million passenger trips by automobile. In addition, the ridership study estimates that there are 1.57 million annual trips by air and 0.9 million by bus.⁵ Travel delays on I-15 during peak days (Friday and Sunday) range from 35 to 75 minutes or more. As the only roadway directly linking metropolitan Southern California to Las Vegas, I-15 conditions are often congested.

Typical lane capacity for home-to-work commuter traffic on a freeway is between 1,600 to 2,000 cars per hour or higher under ideal conditions, which assumes 100 percent automobile traffic on flat terrain, with no trucks, buses, or slower recreational vehicles. However, I-15 is also a major truck route with steep grades (Caltrans reports 15 percent of the average daily traffic on I-15 between Victorville and Barstow as truck traffic) and is also a popular recreational vehicle route. This diversity of traffic and terrain leads to greater speed differentials, more space occupied per vehicle, and larger gaps between vehicles than normal commuter traffic. These factors lead to decreased lane capacity of below 1,600 vehicles per hour per lane.

Under free flow travel conditions, the trip on I-15 from Victorville to Las Vegas is 192 miles and takes about 3 hours to drive if driving at a constant, posted speed limit. Because of the estimated annual volume of passenger trips made by automobiles and the two-lanes per direction capacity of I-15 over the majority of its length, congestion is a growing and serious problem.

The single worst hour to drive from Las Vegas to Southern California is Sunday at 2 p.m. Recently conducted traffic studies⁶ estimates the congestion delay on I-15 will grow from 1.25 hours in the summer of 2002 to 3.19 hours in 2012, to 7.03 hours in 2022, and to 5.78 hours in 2032 even with planned improvements in place.⁷ The study also assumes that drivers will not modify their travel pattern or departure time. The study further concludes

³ Initial Study/Environmental Assessment, Victorville to Barstow-Add Southbound Mixed-Flow Lane, Caltrans, FHWA, County of San Bernardino, May 2001.

⁴ URS Corporation, 2005.

⁵ The 2004 air travel estimate is derived from commercial travel originating at one of the five major Los Angeles metropolitan area passenger airports: Los Angeles International (LAX), Bob Hope (BUR), John Wayne/Orange County (SNA), Ontario (ONT), and Long Beach (LGB). Air travel from San Diego International (SAN) is not included in the estimate.

⁶ See Desert Xpress Updated Ridership and Revenue Study, URS 2005 and Appendix E, the Draft Final Report Traffic Impact Analysis, DesertXpress, DMJM Harris/AECOM, 2008.

⁷ Ibid.

that by the summer of 2022, 78 percent of the drivers will find the congestion delay intolerable on Sunday and will leave a day earlier (or not travel at all). With no funds currently programmed by Caltrans to widen this aging highway over the majority of its length (which has only two general traffic lanes in each direction in most places), the situation can be expected to worsen in the future. On the Nevada side, between Primm and Las Vegas, I-15 experienced a 31.5 percent increase in vehicle volumes in each direction for the ten year period between 1993 and 2003. Were there no capacity constraints, current estimates are that 52 million vehicle trips would be traversing this corridor annually by the year 2015; however, the highways serving this market have an estimated annual capacity of only 38 million. However, State transportation agencies have expressed concern that the DesertXpress project, if configured in a side-running location to I-15, would limit or alter the future expansion of the I-15 right-of-way.

Air travel between Southern California and Las Vegas is also constrained, which causes travel delays and inconvenience to both business and leisure travelers. Major commercial Airports in the Los Angeles Metropolitan area, Los Angeles International Airport (LAX), John Wayne Airport (SNA), Long Beach Airport (LGB) and Bob Hope Airport (BUR), are located within densely populated urban areas, where the ability to expand runways and/or airport facilities has been severely limited for more than two decades. Los Angeles World Airports (LAWA), which operates both LAX and LA/Ontario International Airport (ONT), has focused recent expansion efforts on new facilities at the Palmdale Airport in northern Los Angeles County. The Southern California Association of Governments (SCAG) has proposed a rail link from LAX to Palmdale as a means of easing congestion at LAX. SNA will be adding six additional gates as part of an airport expansion project. However, SNA will continue to operate within a stringent aircraft noise abatement area, which strictly regulates take off and landing protocols, while also limiting airport hours of operation. The number of daily flights at LGB is fixed by the City of Long Beach's noise ordinance. In 2009, work is expected to begin on a new passenger terminal, but rather than increase the capacity of this airport, the work is proposed to relocate currently outdoor passenger gate areas to enclosed spaces. Potential expansions at BUR have been set aside in the face of strong local opposition and insufficient distance between runways and the present passenger terminal.

In the Las Vegas area, McCarran International Airport (LAS) accommodated about 48 million passengers in 2007. The Clark County Department of Aviation (CCDOA) has planned for the further expansion of LAS to accommodate increased demand, including the opening of additional gates in the D-Concourse and construction of Terminal 3. These improvements would increase the practical capacity of the airport to 53 million passengers, which is about 10 percent greater than actual capacity experienced in 2007. CCDOA anticipates that LAS will reach its practical capacity by 2017. While some general aviation flights are accommodated at nearby North Las Vegas Airport, LAS is the only large commercial airport that serves Las Vegas. LAS is surrounded on all sides by development, making significant expansion of the airfield much more difficult and impedes capacity expansion. CCDOA is thus proposing to construct the Ivanpah Valley Airport (also known as the Southern Nevada Supplemental Airport), as a supplemental

commercial service airport. The airport is proposed to be built in the Ivanpah Valley, approximately 30 miles south of Las Vegas between Jean and Primm. CCDOA anticipates the airport to be operational by 2018. An EIS is being prepared for this project by the Federal Aviation Administration (FAA) and the BLM, pursuant to the Ivanpah Valley Airport Lands Transfer Act of 2000. A subsequent act of Congress in 2002 established a 2,640 foot wide corridor between the Las Vegas Valley and the proposed Ivanpah Airport, in which to-be-determined transportation and utility infrastructure could be located.⁸

In addition to personal automobile and air travel between Southern California and Las Vegas, both public and private bus transportation is also available. In regards to public bus transportation, the Greyhound Bus Line serves areas throughout Southern California and provides both direct and stopover service between Southern California and Las Vegas, including stops in Victorville and Barstow. Private charter buses also provide transportation between Southern California and Las Vegas. While these charter buses are private rented, they provide service for groups of individuals traveling to and from Southern California and Las Vegas. These bus services would, however, experience similar traffic congestion as the private automobiles, as I-15 would remain the primary route for service.

Additional surface passenger transportation capacity between Victorville and Las Vegas is needed and the project would provide capacity and would add connections between different transportation modes.

The DesertXpress Project would pass by the site of the proposed new airport, allowing for a potential airport rail link to be constructed.⁹ To serve the proposed airport in the future, DesertXpress would need to construct a spur track off the mainline into the terminal area and operate trains dedicated to airport service directly from the new airport to Las Vegas over the mainline DesertXpress tracks. The Applicant, airport officials, and Clark County may consider this possibility.¹⁰

The project would also be in close proximity to the Las Vegas Monorail, which could be extended by the Las Vegas Monorail Company to the proposed DesertXpress station to provide a direct connection to visitor attractions and destinations in Las Vegas.

The project could also be extended in the future to Palmdale, California (about 50 miles west of Victorville) to connect to the planned state-wide California High Speed Train. Finally, the project could be connected to the Los Angeles Basin initially by extending

⁸ Title V, Section 501(b), Clark County Conservation of Public Land and Natural Resources Act of 2002, Public Law 107-282, enacted November 6, 2002.

⁹ Construction of a link to the proposed Southern Nevada Supplemental Airport is not part of the current DesertXpress proposal and is not evaluated in this EIS. Construction and operations of such a link would require separate environmental review.

¹⁰ Studies of the economic viability of the DesertXpress Project do not incorporate or rely upon an airport shuttle and other forms of transportation linking to the proposed Ivanpah Valley Airport.

Metrolink Commuter Rail service from its present terminus in the City of San Bernardino to Victorville, or alternatively, DesertXpress itself could be extended to Ontario International Airport, San Bernardino station, and/or other communities in the Los Angeles Basin. None of these possibilities, as outlined in the preceding paragraphs, are proposed as part of the project being evaluated in this EIS.

1.3.2 SAFETY

Alternatives to automobile travel would likely provide improved safety conditions in the I-15 corridor.

On a national level, comparing miles traveled via commercial aircraft, train, and automobiles on highways, auto travel on highways has by far the highest rate of passenger fatalities per mile traveled. For the years 2000 through 2005, the average rate of passenger fatalities per 100 million miles traveled by highway was more than 25 times the comparable rate for travel by air and rail.¹¹

Along the California portion of the I-15 corridor between 2003 and 2005, the fatal accident rate has exceeded statewide averages for highway facilities, particularly for the portion of I-15 between Barstow and the Nevada state line.¹² Given the relatively low resident population in this portion of the corridor, the data suggest that a disproportionate number of fatalities are related to longer-distance travel between Southern California and the Las Vegas Area.

In Nevada, traffic accident data gathered from 2003 through 2006 suggests that congestion is a key factor in the number and type of accidents. In the stretch of I-15 between the Nevada state line and Spring Mountain Road, nearly 50 percent of the traffic accidents in between 2003 and 2006 were rear-end collisions. Congestion can be a key factor in increasing the rate of rear-end collisions. On a more lightly traveled freeway, a vehicle would more likely pass another rather than follow too closely.¹³

¹¹ Air: Internet site www.nts.gov/aviation (April 2007). Bureau of Transportation Statistics, Internet site http://www.bts.gov/xml/air_traffic/src/datadisp.xml (April 2007).

Highway: Fatality Analysis Reporting System (FARS), National Center for Statistics Analysis (April 2007). 1975-2004: Ibid., *Traffic Safety Facts 2004*, DOT HS 809 775 (Washington, DC: 2005), table 4, Internet site <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSFAnn/TSF2003F.pdf> (February 16, 2006).

Railroad: Federal Railroad Administration, Office of Safety Analysis, Internet site <http://safetydata.fra.dot.gov> (March 2007).

¹² Korve Engineering, 2006.

¹³ Ibid.

1.4 MAJOR AUTHORIZING LAWS AND REGULATIONS

Several laws are pertinent to the proposed project.

Under 49 U.S.C. 20101 et seq., the FRA has authority over the safety of railroads. Under 45 U.S.C. 821 et seq., the Secretary of Transportation has authority to provide direct loans and loan guarantees to State and local governments, government sponsored authorities and corporations, railroads, and joint ventures that include at least one railroad. The Secretary's authority has been delegated to the FRA. Additionally, under 49 U.S.C. 24402, the FRA has authority to administer grants for capital investment grants to support intercity passenger rail service.

Under 43 U.S.C. 1761 (FLPMA), the BLM has approval authority over rights-of-way and use of public lands under their control, including for rail transportation purposes, as outlined under the right-of-way regulations at 43 CFR 2801.9 et seq.

Under 49 U.S.C. 10501(b), the STB has jurisdiction over the construction, acquisition, operation, and abandonment of rail lines, railroad rates and services, and rail carrier consolidations and mergers.

Under 23 U.S.C. 111, for the portions of the proposed rail line that would be within the existing highway right-of-way under the jurisdiction of FHWA, the implementing regulations in 23 CFR 1.23 provide FHWA authority over approval of temporary or permanent occupancy or use within the boundaries of federal-aid highways.

1.4.1 PERMITS AND LICENSES

The federal agencies responsible for approval of the project may be responding to multiple needs based on their mandates, but the purpose is consistent across all federal agencies. Approvals by the FRA, BLM, STB, and FHWA would be necessary to implement the project.

The proponents of the project, under the guidance of the FRA, will also be responsible for the following permits:

- An encroachment permit from Caltrans to ensure minimal impacts to the operation of I-15;
- A Section 404 permit from the U. S. Army Corps of Engineers to ensure compliance with the Clean Water Act; and

- Section 7 Consultation with the U. S. Fish and Wildlife service to satisfy Endangered Species Act Requirements¹⁴.

These permits will be obtained following the issuance Record of Decision in accordance with the procedures and policies of the issuing agencies. The ROD will select a preferred alternative and the location of associated facilities and structures.

1.4.1.1 STB Preemption Authority

In response to a declaratory order filed by DesertXpress, STB issued a decision in DesertXpress Enterprises, LLC-Petition for Declaratory Order, STB Finance Docket No. 34914 (STB served June 27, 2007) (June 2007 Dec. Order) stating that the project is not subject to state and local land use and environmental review and permitting.

In its June 2007 Dec. Order, STB confirmed that the Federal preemption provision contained in 49 U.S.C. 10501(b), as broadened by the ICC Termination Act of 1995, Pub. L. No. 104-88, 109 Stat. 803 (1995) (ICCTA), shields railroad operations that are subject to the STB's jurisdiction from the application of most state and local laws.¹⁵ Section 10501(b) expressly provides that the "jurisdiction of the STB over transportation by rail carriers" over any track that is part of the interstate rail network "is exclusive." Section 10501(b) also expressly provides that the remedies provided under 49 U.S.C. 10101-11908 are exclusive and preempt the remedies provided under State law.¹⁶ STB also examined whether the particular activities contemplated by DesertXpress constitute transportation by a rail carrier under section 10501, and clarified the kinds of laws that are and are not preempted involving this project.

¹⁴ The USFWS has received a draft Biological Assessment (BA) for the Project as part of the Section 7 Consultation Process.

¹⁵ STB explained in its June 2007 Declaratory Order that courts have found two broad categories of state and local actions to be preempted regardless of the context or rationale for the action: any form of state or local permitting or preclearance that, by its nature, could be used to deny the railroad the ability to conduct its operations or to proceed with activities that the Board has authorized, and state or local regulation of matters directly regulated by the Board (such as the construction, operation, and abandonment of rail lines). Otherwise the section 10501(b) preemption analysis requires a factual assessment of whether a particular action would have the effect of preventing or unreasonably interfering with railroad transportation. *See, e.g., City of Auburn v. STB*, 154 F.3d 1025, 1029-31 (9th Cir. 1998) (City of Auburn) (state and local environmental and land use permitting are preempted); Joint Petition for Declaratory Order—Boston and Maine Corporation and Town of Ayer, MA, STB Finance Docket No. 33971 (STB served May 1, 2001), *aff'd. Boston & Maine Corp. v. Town of Ayer*, 206 F. Supp. 2d 128 (D. Mass. 2002) (state and local permit requirements and environmental review of construction and operation of railroad intermodal facility preempted); N. San Diego County Transit Dev. Bd.—Pet. For Decl. Order, STB Finance Docket No. 34111 (STB served Nov. 9, 2001) (City cannot unilaterally prevent a railroad from reactivating and operating over a line that the Board has not authorized for abandonment).

¹⁶ As the ICCTA legislative history makes clear, the states' police powers are not entirely preempted by section 10501(b). Thus, for example, railroads can be required to comply with some health and safety rules, such as fire and electric codes. *Flynn v. Burlington N. Santa Fe Corp.*, 98 F. Supp. 2d 1186, 1189-90 (E.D. Wash. 2000).

As noted, STB has jurisdiction over “transportation by rail carrier,” 49 U.S.C.10501(b). Accordingly, to be subject to STB’s jurisdiction and qualify for federal preemption under section 10501(b), there must be transportation, and that transportation must be provided by a rail carrier, which is defined as “a person providing common carrier railroad transportation for compensation,” 49 U.S.C. 10102(5).¹⁷

In its June 2007 Dec. Order, STB concluded that the project is subject to its preemption authority because DesertXpress intends to carry passengers by rail in interstate transportation. STB also found that DesertXpress will be providing this transportation as a common carrier, offering service to the general public. Thus, STB found that the project clearly involves transportation by a rail carrier. See American Orient Express Railway Company v. STB, No. 06-1077, slip op. at 4, 6 (D.C. Cir. Apr. 20, 2007), aff’g American Orient Express Railway Company, LLC—Petition For Declaratory Order, STB Finance Docket No. 34502 (STB served Dec. 27, 2005) (rail carrier may provide railroad transportation by transporting passengers over its own tracks). Accordingly, STB determined that it has exclusive jurisdiction over the planned new track, facilities, and operations and that its Federal preemption authority under section 10501(b) applies. Therefore, state permitting and land use requirements such as the California Environmental Quality Act (CEQA), will be preempted.¹⁸

Federal environmental statutes, such as NEPA, the Clean Air Act, and the Clean Water Act, as well as the National Historic Preservation Act, and the regulation of railroad safety under the Federal Railroad Safety Act, will apply and are not subject to STB’s preemption authority. (See e.g., City of Auburn, 154 F.3d at 1031-33; Friends of the Aquifer, et al., STB Finance Docket No. 33966, slip op. at 4-6 (STB served Aug. 15, 2001).

Required permits and approvals are listed in the following table.

Table 1.4-1: Federal Permits or Approvals Anticipated for Action Alternatives

Agency	Permit/Approval
Federal Railroad Administration (FRA)	<i>Waiver or Rule of Particular Applicability</i>

¹⁷ See also 49 U.S.C. 10102(9) (“Transportation” defined expansively to embrace “a locomotive, car, vehicle, vessel, warehouse, wharf, pier, dock, yard, property, facility, instrumentality, or equipment of any kind related to the movement of passengers or property, or both, by rail . . .,” as well as “services related to that movement”).

¹⁸ Although the DesertXpress Project does not require a CEQA discussion, the EIS includes the analysis that would have been conducted under the regulations and guidance of CEQA. See City of Auburn, 154 F.3d at 1031. Moreover, state and local agencies and concerned citizens will have ample opportunity to participate in the ongoing EIS process under NEPA and related laws. A number of state agencies have been engaged in the ongoing EIS process, including Caltrans and NDOT.

Agency	Permit/Approval
Bureau of Land Management (BLM)	<i>Right-of-Way* (ROW)</i>
Surface Transportation Board (STB)	<i>Authority to Construct and Operate Railroad</i>
Federal Highway Administration (FHWA)	<i>Letter of Concurrence for Highway ROW Encroachment</i>
U.S. Army Corps of Engineers (ACOE)	<i>Sec. 404 Permit (waters of the U.S.)</i>
U.S. Fish and Wildlife Service	<i>Section 7 Biological Opinion</i>
National Park Service	<i>Right-of-Way Easement if Segment 4a through Mojave National Preserve is selected</i>

*The BLM can only grant this right of way if it can conclude that the project would not interfere with highway operation purposes.

In addition to these federal agencies, the FRA also consulted with the Native American Heritage Commission and the Advisory Council on Historic Preservation. Separately, the FRA and BLM consulted with representatives of Native American tribes (sovereign nations) in the region of the project area. As noted, the project is exempt from state and local land use and environmental laws. However, the FRA and Cooperating Agencies consulted extensively with state and local entities in the project area during development of the Draft EIS. Table 1.4-2 below includes agencies consulted in the Draft EIS process.

Table 1.4-2 State, Regional, and Local Agencies Consulted in EIS Process

State Environmental Resource Agencies	California Department of Fish and Game (CDFG); Nevada Department of Wildlife; California Air Resources Board (CARB); Southern California Air Quality Management District (AQMD); Nevada Department of Environmental Quality; California Regional Water Quality Control Board, Lahontan Region
Historic Resources Agencies	State Historic Preservation Officers in California and Nevada
Transportation Agencies	California Department of Transportation (Caltrans); Nevada Department of Transportation (NDOT); Regional Transportation Commission of Southern Nevada (RTC)
Councils of Governments	Southern California Association of Governments (SCAG); San Bernardino County Association of Governments (SANBAG)
State and Local Governments	City of Victorville, City of Barstow, City of Las Vegas, San Bernardino County, Clark County

Portions of the project that propose to utilize rights-of-way owned by private railroads would require the applicant to obtain easements or agreements with the railroads to construct and operate the railroad in such rights-of-way. Portions of Segments 1A would

utilize a right-of-way owned by the Burlington Northern and Santa Fe Railroad (BNSF); portions of Option C within Segments 6 and 7 would be constructed within a corridor owned by the Union Pacific Railroad (UPRR). STB's preemption authority is not construed to force any private railroad to sell, lease, or otherwise allow DesertXpress to use the right-of-way of an existing railroad.

1.5 RELATIONSHIP TO OTHER FEDERAL AGENCY POLICIES, PLANS, AND PROGRAMS

1.5.1 FEDERAL RAILROAD ADMINISTRATION

The proposed project would use trains and other features that do not comply with current FRA safety regulations, including track and locomotive safety regulations. However, this inconsistency with the FRA safety regulations would be made consistent through promulgation of a rule of particular applicability or a waiver process that would set safety standards specifically for the project. As such, the DesertXpress Project would not establish an adverse safety condition.

The FRA is lead Federal agency for the environmental review of other high-speed ground transportation proposals in the project area and in Southern California. While FRA has provided planning funds to other passenger rail projects in California and Nevada, no construction funding has been committed to any high-speed ground transportation project that could conflict with the project. While there is no Amtrak service that exists along the entire corridor, the Southwest Chief Amtrak route between Los Angeles and Chicago would partially serve the project corridor between Victorville and Barstow. While the DesertXpress proposal does not include plans to seek financing from the FRA, the project would be eligible for financial assistance through the Railroad Rehabilitation and Investment Financing Program (RRIF), which is administered by FRA and offers various loan enhancements, or through the capital investment grant program to support intercity passenger rail service.

1.5.2 BUREAU OF LAND MANAGEMENT

The FLPMA governs the way in which the public lands administered by the Bureau of Land Management (BLM) are managed. The FLPMA recognizes the value of the public lands, declaring that these lands would remain in public ownership. As stated in Title V, Section 501 of the FLPMA,¹⁹ "the Secretary, with respect to public lands...are authorized to grant, issue, or renew right-of-way over, upon, under, or through such lands for...roads, trails, highways, railroads...or other means of transportation, except where such facilities are constructed and maintained in connect with commercial recreation facilities on lands in the National Forest System, or such other necessary transportation or other systems or

¹⁹ 43 U.S.C. 1761

facilities which are in the public interest and which require rights-of-way over, upon, under, or through such lands.”

The public lands identified for the proposed rail line in Nevada are covered in the Las Vegas Field Office Resource Management Plan (1998) and other resource management plans, such as the California Desert Conservation Area (CDCA) Plan (1980), two CDCA Plan bioregional amendments including the West Mojave Plan (2006) and the Northern and Eastern Mojave Plan (2002), and the Sloan Canyon National Conservation Area Resource Management Plan. Specifically, objective RW-1 of the Field Office Resource Management Plan Record of Decision is to "Meet public demand and reduce impacts to sensitive resources by providing an orderly system of development for transportation, including legal access to private in-holdings, communications, flood control, major utility transmission lines, and related facilities." Further, management direction at RW-1-h states that, "All public land within the planning area, except as stated in RW-1-c through RW-1-g, are available at the discretion of the agency for rights-of-way under the authority of the Federal Land Policy Management Act." The constraints at RW-1-c through RW-1-g do not affect the proposed project or any of the alternatives moved forward for consideration.

Similarly, the California Desert Conservation Area Plan (CDCA Plan) provides a regulatory framework for public lands in southeastern California. The plan sets forth goals, specific actions, and management needs for each resource in the desert. The CDCA Plan mandates a high degree of protection and restricts access. Two bioregional management plans amend and implement the CDCA, including the West Mojave Plan and the Northern and Eastern Mojave Plan. Both plans are intended to manage land containing habitat for sensitive species. Pursuant to the CDCA Plan, the BLM establishes areas of critical environmental concern (ACEC) in order to protect areas with significant paleontological, archaeological, and biological resources. The project would not use any ACEC directly but five ACECs are located within one mile of the proposed alignments. Within each of these planning areas are desert wildlife management areas (DWMAs) which have been established to manage habitat conservation. The DWMAs, managed by the BLM, are also considered ACECs. Section 4.1, Land Use and Community Impacts, provides a detailed discussion of the DWMAs and Figure 3-1.2 shows BLM RMP areas and DWMAs relative to the study area.

1.5.3 SURFACE TRANSPORTATION BOARD

As an economic regulatory agency, STB has jurisdiction over many railroad transactions, including line construction, operation, mergers, and rates. In addition, STB has the authority to declare that the construction and operation of an interstate rail project is exempted from most state and local laws, which it has done for this project through a declaratory order issued on June 25, 2007, in Finance Docket No. 34914.

1.5.4 FEDERAL HIGHWAY ADMINISTRATION

FHWA is charged by Congress with improving mobility and serving as a steward of national highways. FHWA approval is required for any project within the Interstate highway system right-of-way. FHWA's formal role in project approval is to ensure that any use other than the Interstate highway use does not interfere with the free flow of traffic on the Interstate system.²⁰ FHWA's primary focus in the approval process is the evaluation of the proposed project's impacts on the operation, maintenance, and safety of the Interstate highway system.

1.5.5 NATIONAL PARK SERVICE

Several statutory authorities provide the regulatory framework for operations of the NPS. The NPS was established and its original mission was defined within the Organic Act of 1916 (16 U.S.C. 1-4). Since that time, numerous other laws have been enacted that together comprise the agency's regulatory framework. An optional alignment for the DesertXpress Project (Segment 4A) would traverse a 1.55 mile portion of the Mojave National Preserve, a unit of the NPS, south of the Clark Mountains and I-15, near Mountain Pass, California. As of January 2009, regulations specific to the Preserve do not include any ability for the NPS to grant a private transportation right-of-way through the Preserve. Nevertheless, this Segment is being carried through the environmental review process while various legislative/land exchange options are being considered by the NPS, BLM, and other key agencies.

1.6 RELATIONSHIP TO OTHER TRANSPORTATION PROJECTS AND PLANS IN THE STUDY AREA

This section discusses several transportation projects and plans in the study area. This section distinguishes between funded or otherwise reasonably foreseeable projects (such as are included in a state's transportation improvement program (STIP)) and plans which comprises proposed transportation improvements that are not funded or otherwise not deemed reasonably foreseeable at this time.

1.6.1 CALIFORNIA-NEVADA INTERSTATE MAGLEV TRAIN

Since its inception in 1987, the California-Nevada Super Speed Train Commission has been pursuing development of the California-Nevada Interstate Maglev project, employing magnetic levitation train technology over a 268-mile alignment between Anaheim, California, and Las Vegas, Nevada. Proposed stops include Downtown Las Vegas and Primm in Nevada and Ontario, Victorville, Barstow, and Anaheim in southern California.

²⁰ 23 U.S.C 111 and 23 CFR 1.23; personal communication, Edward Kussy, Deputy Chief Counsel FHWA and Harold Aiken, Assistant Chief Counsel FHWA, March 1, 2007.

Express service from Anaheim to Las Vegas would have a travel time of approximately 87 minutes. The proposed project could ultimately provide high-speed maglev service at speeds of up to 310 mph. For the portion between Ontario, California and Las Vegas, Nevada, the proposed maglev project is envisioned to operate in the I-15 corridor, similar to DesertXpress. From Ontario to Anaheim the project would continue through existing transportation corridors. Portions of the alignment would be elevated and gradients would reach up to 10 percent. Maintenance facilities would be located at either end of the alignment and in Barstow. Intermodal transportation features would be included at all proposed station locations.

Most of the planning funds for the maglev project have been provided by congressional appropriations through the FRA and sponsors have sought to secure additional Federal funding for planning, permitting, design, and construction. At present, the California-Nevada Super Speed Train Commission exists only as a Nevada state entity, thus limiting their implementation authority to Nevada.

The maglev project is currently undergoing separate Federally funded environmental review under the direction of the FRA, NDOT, and Caltrans. On May 20, 2004, FRA published a Notice of Intent (NOI) in the Federal Register to prepare an EIS for the maglev project. Public and agency scoping for the maglev EIS was completed in 2005. As of the date of this publication, limited Federal funding and a lack of state or local funds have delayed progress on the maglev EIS. Recent allocation of approximately \$1 million in Federal funds allowed for further studies of an initial Las Vegas to Primm phase of the maglev project. Implementation of the maglev project is speculative due to uncertainty in public financing sources. No private financing has been committed to the maglev project as of the date of this publication, although the financial plan for the first segment includes private sector bond financing. Section 102 of the SAFETEA-LU Technical Corrections Act of 2008 made \$45 million available to the Nevada maglev project, which may be used to support further planning for this proposal. Allocation of the \$45 million is subject to a 20 percent local match which as of the date of this publication has not been committed.

If Commission authority is extended into California in the future, the maglev project and DesertXpress Project could be considered competitive proposals in that they would both share right-of-way with I-15 and are proposed to serve a similar travel corridor. For the purposes of this EIS, the maglev project is not considered a foreseeable project; it is not included in the discussion of cumulative projects in Section 3.16, Cumulative Impacts.

FRA is analyzing only the DesertXpress project in this EIS and only the California-Nevada Interstate Maglev project in the separate EIS pertaining to it because FRA believes there is no realistic scenario under which both proposed projects would be advanced and built. The two projects would serve similar markets and it is not reasonably foreseeable that the market would be large enough to support operations of both systems simultaneously. FRA also finds it appropriate to address each proposed project in a separate EIS because the projects are not interchangeable and are not two alternatives for the same Federal action. The DesertXpress project is a project sponsored by a private entity and the action required

by the FRA is currently limited to safety regulations, while the California-Nevada Interstate Maglev project is a federally-funded project administered by the FRA. Similarly, because each project proposes a substantially different technology, the safety regime and project development time needed to implement each project is significantly different. This would involve unique federal actions over varying time periods.

1.6.2 CALIFORNIA HIGH-SPEED RAIL

The California High-Speed Rail Authority, established in 1996, has studied and proposes to implement high-speed rail service that would run from the San Diego, Orange County, and Los Angeles metropolitan areas north through California's Central Valley to the San Francisco Bay Area and Sacramento regions. Studies have been prepared with support from the FRA, the lead Federal agency for environmental review of the proposal. As the California High-Speed Train Project would serve only California cities, the DesertXpress Project would serve a different market and ridership. The easternmost proposed California High-Speed Rail station would be near the Ontario Airport (ONT), about 47 miles southwest of the proposed DesertXpress terminus in Victorville. Another relatively close California High-Speed Rail proposed station is at Palmdale, some 49 miles west of Victorville. An extended DesertXpress could connect with the California High-Speed Train at either location; such an extension, however, would have utility independent of either project and is not part of either the DesertXpress Project or the California High-Speed Rail project.

1.6.3 REGIONAL TRANSPORTATION COMMISSION OF SOUTHERN NEVADA RAIL CORRIDOR STUDY

The Regional Transportation Commission (RTC) of Southern Nevada, supported by Federal funding provided by the FRA, has prepared a study of potential rail corridor improvements between Las Vegas and Los Angeles to support conventional passenger rail service. This study has considered the existing rail lines between Victorville and Las Vegas (which do not follow the I-15 corridor but instead follow a southern route, through the Mojave National Preserve) and concluded that even with \$1 to \$3 billion of improvements, the conventional rail trip time between Las Vegas and Victorville would be approximately 3 hours and 30 minutes, with an additional 2-hour ride to Union Station in Los Angeles. This type of service could not likely be privately financed and would probably require an operating subsidy. Many aspects of this study limit its comparability to the DesertXpress proposal. Most critically, the study examined potential shared use of the Union Pacific Railroad with freight trains; DesertXpress would use a new and exclusive double track system. These elements, in addition to the location of the DesertXpress alignment generally paralleling the existing I-15, would allow the DesertXpress Project to provide higher frequency service, shorter travel time, and a more reliable service in comparison to the service contemplated in the RTC study.

1.6.4 VICTORVILLE I-15 INTERCHANGE IMPROVEMENTS

Caltrans and FHWA are planning a project that would add a third mixed-flow lane on southbound I-15 and construct interchange improvements at six interchanges in Victorville, including the Stoddard Wells interchanges and those at D Street and E Street/SR 18. The interchange improvements would restore standards and improve operation characteristics and safety. These improvements would be compatible with the proposed project, which would include a passenger station in the immediate vicinity.

1.6.5 I-15 CORRIDOR PLANNED IMPROVEMENTS

In addition to the improvements at the Stoddard Wells Road interchanges discussed above, a number of other projects are under consideration to improve capacity and/or operations of the I-15 corridor. These include:

Reversible carpool lanes between I-210 (Ontario) and U.S. 395 (Victorville)

Northbound truck climbing lane between Bailey Road and Yates Road

1.6.6 HIGH DESERT CORRIDOR PROJECT

The City of Victorville is the lead agency for this project, which is considering the construction and operation of a link between the Victor Valley and the Antelope Valley. The first phase of this project involves the realignment of State Route 18. The new alignment would stretch from Joshua Road in the Town of Apple Valley to U.S. 395 in the City of Adelanto. The new facility would be a four lane expressway between SR 18 and I-15 and a six-lane freeway between I-15 and U.S. 395.

1.6.7 US 395 REALIGNMENT AND WIDENING

A realignment and widening is under consideration for a portion of US 395 between I-15 and Farmington Road, approximately 6 miles west of the proposed Victorville station sites. Local and state agencies are studying several alternatives; no preferred alternative has been selected as of January 2007. This project will be tracked as the DesertXpress Project DEIS moves forward. The DesertXpress Project would not conflict with this highway project that would increase local area highway capacity.

1.6.8 SOUTHERN NEVADA SUPPLEMENTAL AIRPORT

The Clark County Department of Aviation (CCDOA) is proposing to construct a new supplemental commercial service airport in the Ivanpah Valley of southern Nevada. The new Southern Nevada Supplemental Airport would provide additional capacity to serve the residents of the Las Vegas area and Clark County, Nevada area. It would not replace McCarran International Airport. The airport, if approved, is anticipated to be constructed

by 2018 or 2019.²¹ As noted in section 1.3.1 above, Congress has allowed for a transportation and utility corridor to be established between the Las Vegas Valley and the proposed Ivanpah Airport. The location of any roadway, utilities, or other related infrastructure within this corridor had not been established as of January 2009.

The DesertXpress Project could potentially serve the proposed new airport. DesertXpress would pass by the site of the proposed new airport, allowing for a potential airport rail link to be constructed.²² To serve the proposed airport in the future, a spur track would need to be constructed off the mainline into the terminal area that would allow trains dedicated to airport service to be operated directly from the new airport to Las Vegas over the mainline DesertXpress tracks. DesertXpress Enterprises, LLC., airport officials, and Clark County may consider this possibility at some future date.²³

1.6.9 RESORT CORRIDOR FIXED GUIDEWAY MONORAIL EXTENSION

The Las Vegas Monorail Company (LVMC) is proposing an extension to the Resort Corridor Fixed Guideway Monorail System (Monorail), which is an automated (driverless) and elevated rail system, running along side streets east of the Las Vegas Strip (Las Vegas Boulevard). The 4-mile long route opened in 2004 and runs roughly north-south. The system has a total of 7 stations, associated with major hotels along the Las Vegas Strip.²⁴

The RTC included the extension of the monorail south to McCarran International Airport, in its Regional Transportation Plan 2009-2030, Draft for Consultation, September 2008 (Project #4200). The DesertXpress Project has the potential to be complementary to the Monorail if Monorail service were extended to the selected Las Vegas area DesertXpress station.

1.6.10 ACE RAPID TRANSIT SYSTEM

In 2004, the RTC added the first Metropolitan Area Express (MAX) line to its transit system. Then in October 2005, the Deuce double-deck bus service began running on the Las Vegas Strip and in 2009 the RTC will launch the ACE Rapid Transit system starting with the ACE Downtown Connector. The ACE Downtown Connector project will provide a

²¹ Deutsche Bank Industry Alert, May 2008.

²² Construction of a link to the proposed Southern Nevada Supplemental Airport is not part of the current DesertXpress proposal and is not evaluated in this EIS. Construction and operations of such a link would require separate environmental review.

²³ The economic viability of the DesertXpress Project does not rely upon an airport shuttle or other forms of transportation linking to the proposed Supplemental Airport.

²⁴ Available at <http://www.lvmonorail.com/>.

high-grade rapid transit link between downtown Las Vegas and the southern resort corridor. Project components will include dedicated transit lanes along a portion of the alignment along with passenger stations with station canopies, lighting, ticket vending machines and displays announcing vehicle arrival times. The stations will have unique artistic displays created by local artists as well as refurbished historic neon signs.

The city of Las Vegas in partnership with the RTC have begun work on the project, which includes roadway and station platform improvements along Grand Central Parkway, Casino Center Boulevard, 3rd Street, and Paradise Road. ²⁵

1.6.11 REGIONAL TRANSPORTATION COMMISSION OF SOUTHERN NEVADA

The Regional Transportation Commission of Southern Nevada (RTC) is the regional transportation planning agency for southern Nevada and functions as the Metropolitan Planning Organization (MPO) for the region. The RTC prepares the Regional Transportation Plan (RTP) which is a comprehensive and long-range plan for the transportation system in the Las Vegas metropolitan area. It details the transportation investment needed between now and the year 2030. The RTP is also the guiding document for making the best use of federal transportation funds. The transportation analysis conducted for this EIS (see Chapter 3.5 Traffic and Transportation) utilizes traffic projections and transportation system network assumptions from the 2030 RTP. The EIS also assumes that the proposed DesertXpress project would be constructed primarily on elevated structure within the existing I-15 freeway right of way within the Las Vegas metropolitan area.

The RTC is working on an update to the RTP (the 2040 RTP), which includes further widening of the I-15 freeway in the metropolitan Las Vegas area to meet future travel demand. If the 2040 RTP is adopted, the DesertXpress project could be considered to be in conflict with current planned use of the I-15 freeway right of way. DesertXpress Enterprises has tried to minimize conflict with I-15 through the use of elevated structures and the DEIS includes alignment Option C that would avoid I-15 in the Las Vegas urban area. If, as a result of the NEPA process, the I-15 freeway alignment is selected as the agency preferred alternative, such potential conflict would need to be resolved.

1.7 ISSUES RAISED DURING SCOPING

The Federal Railroad Administration (FRA) initiated the formal scoping process by publishing a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) in the Federal Register on July 14, 2006.

Three public scoping meetings were held as part of the public scoping process:

²⁵ Available at :<http://www.rtcsonthernnevada.com/mpo/downtownconnector/>

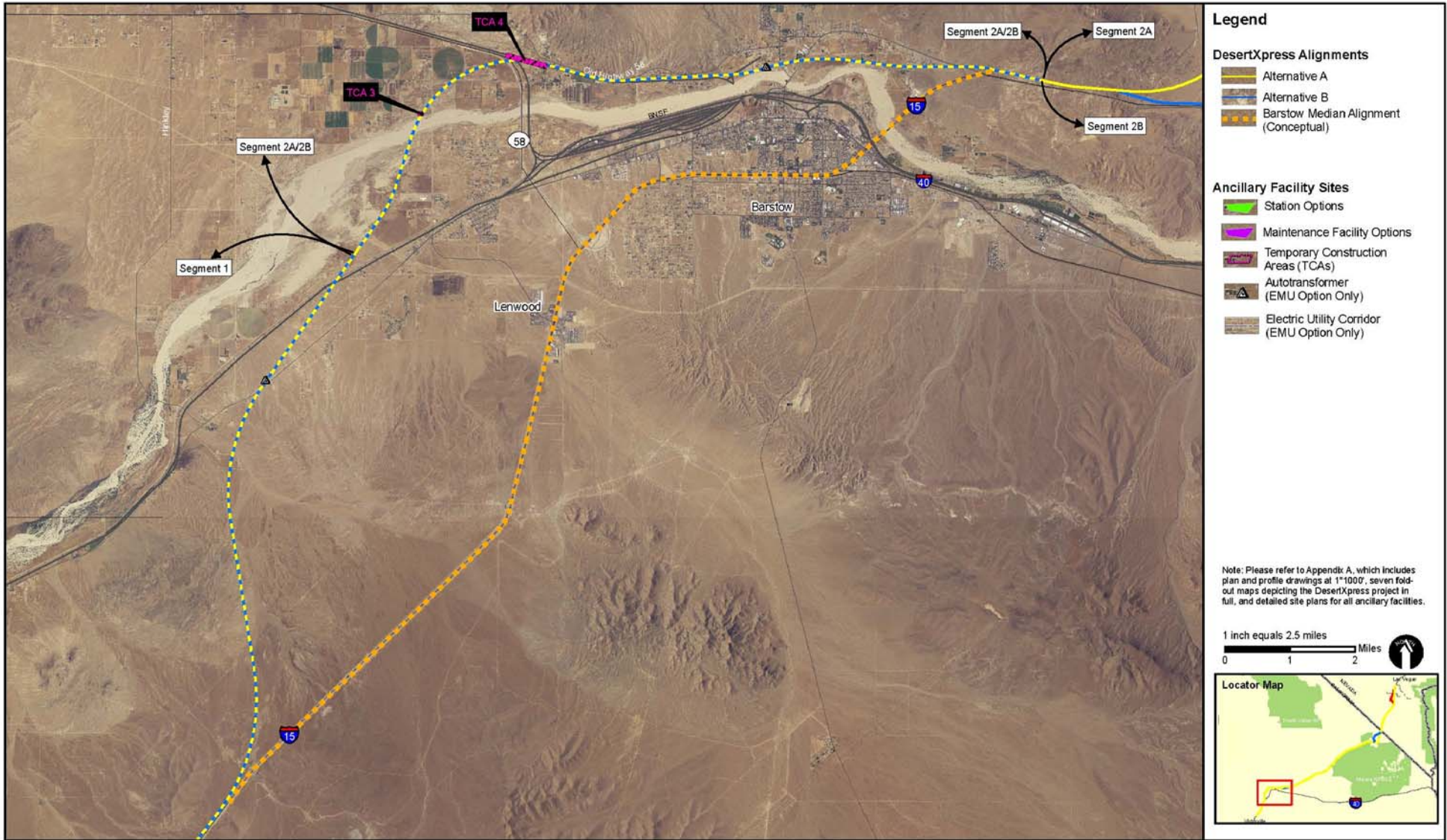
Las Vegas	Barstow	Victorville
The White House	Ramada Inn	San Bernardino County Fair Grounds
3260 Joe Brown Drive	1571 E Main Street	14800 Seventh Street, Building 3
July 25, 2006	July 26, 2006	July 26, 2006
5:00 p.m. – 8:00 p.m.	12:00 p.m. – 2:00 p.m.	5:00 p.m. – 8:00 p.m.

These meetings provided an opportunity for the public and agencies to comment on the scope of environmental topics that will be analyzed in the EIS. Approximately 60 members of the public attended the scoping meetings. The comments received during scoping are summarized along with the disposition of the comments are summarized in the Scoping Summary Report contained in Appendix P.

1.7.1 PROVISION OF A BARSTOW PASSENGER STATION

The City of Barstow raised a concern during scoping that the project did not include a passenger station located in the City of Barstow. At the time of publication, this issue has not been fully resolved.

Ridership studies conducted for the DesertXpress project by the applicant did not project significant ridership generation from the Barstow area that warranted construction of a separate station. The proposed station sites in Victorville are approximately 25 miles south of the City of Barstow, close enough to provide relatively convenient access for Barstow residents. Notwithstanding this, in response to a request from the City of Barstow, the applicant is studying the feasibility of constructing an alternative alignment that would follow the I-15 freeway through Barstow and include a passenger station located at the Barstow Outlet Mall located at the Lenwood Road/I-15 interchange. The alignment being studied would follow the I-15 median through Barstow, cross over the Mojave River and rejoin the current alignment being studied in the vicinity of the Highway 58/I-15 Interchange. The alignment would be approximately 30 miles. The feasibility analysis and detailed plans for this alignment and station have not advanced far enough for inclusion in this Draft EIS and FRA did not want to delay issuance of the DEIS while this option is further analyzed, since its feasibility has yet to be determined. If the analysis determines that this alignment and station are feasible, the FRA will assess the environmental effects of this alignment and station and include the analysis in a supplemental document or in the Final EIS, depending upon the nature and extent of identified impacts. Because of the possibility that an alignment along the I-15 freeway through Barstow may be determined feasible in the future, FRA has notified property owners and residents along this corridor in an effort to seek comment and input about such an alternative if it is determined feasible.

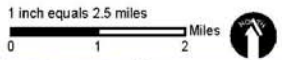


Legend

- DesertXpress Alignments**
- Alternative A
 - Alternative B
 - Barstow Median Alignment (Conceptual)

- Ancillary Facility Sites**
- Station Options
 - Maintenance Facility Options
 - Temporary Construction Areas (TCAs)
 - Autotransformer (EMU Option Only)
 - Electric Utility Corridor (EMU Option Only)

Note: Please refer to Appendix A, which includes plan and profile drawings at 1"=1000', seven fold-out maps depicting the DesertXpress project in full, and detailed site plans for all ancillary facilities.



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