

1 Program Purpose and Need

1.1 Introduction and Lead Agencies

As part of its mission to provide a safe, efficient, cost-effective transportation system, the Federal Railroad Administration (FRA), California Department of Transportation (Caltrans) Division of Rail and Mass Transportation, and Riverside County Transportation Commission (RCTC) have been studying ways to serve commuter and intercity travel needs and enhance travel opportunities within Los Angeles, Orange, Riverside, and San Bernardino Counties. Statewide and regional transportation planning efforts undertaken from 1991 to 2016 have recommended implementing passenger rail service to add travel capacity to what highways already provide. For this reason, FRA, Caltrans, and RCTC are studying passenger rail service options between Los Angeles Union Station (LAUS) in Los Angeles, California and the City of Coachella to provide more travel choices in the 144-mile-long Coachella Valley-San Gorgonio Pass Rail Corridor (Program Corridor).

The Program Corridor, which connects the Los Angeles metropolitan area with the Coachella Valley through the San Gorgonio Pass, currently has no daily intercity passenger rail service. The proposed implementation of intercity passenger rail service in the Program Corridor, including the planning and construction of rail infrastructure improvements required to establish the service, are collectively known as the Coachella Valley-San Gorgonio Pass Rail Corridor Service Program (Program).¹

FRA and Caltrans are the joint lead agencies for the environmental review under the National Environmental Policy Act (NEPA), and RCTC is the lead agency under the California Environmental Quality Act (CEQA). FRA, Caltrans, and RCTC have prepared this Tier 1/Program Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) in compliance with:

- NEPA (42 United States Code [USC] Section 4321, et seq.) and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500–1508)
- CEQA (California Public Resource Code [PRC], Section 21000, et seq.)
- California Code of Regulations (CCR), Title 14, Division 6, Chapter 3 Sections 15000-15387
- FRA's Procedures for Considering Environmental Impacts (64 *Federal Register* [FR] 28545, May 26, 1999), and

¹ For California Environmental Quality Act (CEQA) purposes, this is the proposed Project.

- 23 USC Section 139.

1.1.1 Cooperating and Participating Agencies

There are no cooperating agencies for the environmental review of the Program. The Federal Transit Administration (FTA), Southern California Regional Rail Authority (SCRRA), and Southern California Association of Governments (SCAG) are participating agencies for the Program. Additionally, the following agencies/jurisdictions requested to be consulting parties pursuant to Section 106 of the NHPA (Section 3.13, Cultural Resources, of the Tier 1/Program EIS/EIR): State Historic Preservation Officer (SHPO), City of Desert Springs, and City of Indio.

1.2 Intended Uses of the Tier 1/Program EIS/EIR

FRA, Caltrans, and RCTC are using a tiered NEPA/CEQA process to complete the environmental review of the Program, under 40 CFR Part 1508.28 and CEQA Guideline Sections 15168 and 15170. Tiering is a staged environmental review process often applied to environmental review for complex transportation projects. This Tier 1/Program EIS/EIR complies with NEPA and CEQA, which requires that federal and state agencies analyze a range of reasonable alternatives in an EIS (42 USC Section 4332(c)(iii)) and EIR (CEQA Guidelines Section 15126.6(a)).

To meet this requirement, this Tier 1/Program EIS/EIR evaluates potential environmental impacts of the Build Alternative Options broadly within the Program Corridor, as shown on Figure 2-4 through Figure 2-6. The Program Corridor provides a flexible regional context for the best location of a passenger rail system while providing opportunities for the Build Alternative Options within the Program Corridor to account for engineering and environmental constraints, as well as public input when Tier 2/Project-level studies examine the Program Corridor in greater detail.

Additional public input and more refined engineering studies would be undertaken as part of NEPA/CEQA Tier 2/Project-level review. The Tier 2/Project-level NEPA/CEQA review would identify and analyze the potential impacts of the Build Alternative Option selected at the end of the Tier 1/Program EIS/EIR process.

1.3 Organization of the Tier 1/Program EIS/EIR

This Tier 1/Program EIS/EIR is comprised of ten chapters with supporting appendices. The Program Purpose and Need is outlined in this chapter. The definition of alternatives considered, along with those not carried forward for further environmental evaluation, and the No Build Alternative and Build Alternative Options are discussed in Chapter 2. Chapter 3 provides an environmental evaluation organized by environmental issue area. Chapter 4 provides an evaluation of potential effects on

environmental justice (EJ) populations. Chapter 5 provides an evaluation of potential effects on resources protected by Section 4(f) of the Department of Transportation Act and Section 6(f) of the Land and Water Conservation Fund (LWCF). Chapter 6 provides a discussion of the other CEQA statutory considerations. Chapter 7 provides a summary and evaluation of the alternatives and Chapter 8 outlines the public and agency outreach efforts by FRA, Caltrans, and RCTC. Chapters 9 and 10 include the references and list of preparers.

Appendices to the Tier 1/Program EIS/EIR include public outreach and notification materials and the eight technical studies/memoranda used in support of the environmental evaluation.

1.4 Program Background, Location, and Overview

1.4.1 Program Background

This Tier 1/Program EIS/EIR is preceded by several years of preliminary Program development activities. In 1991, RCTC completed the first in a series of studies evaluating the feasibility of operating one or two daily intercity passenger rail round trips between Los Angeles and Indio. From 1991 to 2013, RCTC completed additional feasibility studies on the Corridor. In July 2016, RCTC, in coordination with Caltrans and FRA, prepared and completed the 2016 Alternatives Analysis (AA) Report (summarized in Chapter 2 of this Tier 1/Program EIS/EIR) that evaluated a reasonable range of alternatives for implementation of daily intercity passenger rail service between Los Angeles and Indio. The purpose of the 2016 AA Report was to identify a reasonable range of preliminary alternative(s) that could be evaluated in a subsequent Service Development Plan (SDP) and Tier 1/Program EIS/EIR.

On October 11, 2016, the Notice of Intent (NOI)/Notice of Preparation (NOP) was issued for the Program (Appendix A of this Tier 1/Program EIS/EIR). The NOI indicated the Tier 1/Program EIS/EIR would include a programmatic environmental evaluation for provision of “intercity passenger rail service between the Cities of Los Angeles and Indio, California also known as the Coachella Valley-San Geronimo Pass Corridor.” Subsequent to the close of the formal Tier 1/Program EIS/EIR scoping period, comments received from agencies, other stakeholders, and the public were assessed and incorporated into the SDP and Tier 1/Program EIS/EIR. Subsequent to issuance of the NOI/NOP, FRA, Caltrans, and RCTC elected to carry two eastern terminus service options into the Tier 1/Program EIS/EIR: one that retained the originally proposed eastern terminus at Indio and one that extends the Program Corridor eastward for approximately 3 miles beyond Indio to Coachella, with station stops in both cities.

1.4.2 Program Location and Alternatives Analysis Study Area

The Program Corridor extends from a western terminus at LAUS to an eastern terminus in the City of Coachella and consists of two sections: the Western Section and the Eastern Section. The boundary between Western and Eastern Sections is in the City of Colton, at the intersection of existing railroad lines owned by Union Pacific Railroad (UP) and BNSF. The study areas used to identify alternative(s) in the 2016 AA Report are shown on Figure 1-1.

This map illustrates the Western and Eastern Section Study Areas, which are defined by dashed blue lines. The Western Section Study Area (shaded in light blue) covers parts of Los Angeles, San Bernardino, and Orange counties, including the Los Angeles Union Station and LAX. The Eastern Section Study Area (shaded in light orange) covers parts of San Bernardino, San Geronimo Pass, Riverside, and Coachella Valley counties, including the San Geronimo Pass and Coachella. The map also shows major highways (Interstates 5, 10, 15, 210, 78, 76, 74, 70, 60, 52, 50, 40, 30, 210, 15, 10, 5, 2, 1) and various cities and towns. A legend in the top right corner identifies the study areas. A north arrow and a 10-mile scale bar are located in the bottom left corner.

Source: RCTC 2016

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1.4.3 Program Overview

Passenger train frequencies proposed as part of the Program would consist of two daily round-trip intercity passenger trains operating the entire length of the Program Corridor between Los Angeles and the Cities of Indio or Coachella, with one morning departure and one afternoon departure from each end of the Program Corridor.

The proposed western terminus is LAUS, which is located in downtown Los Angeles and is the hub station for Amtrak's intercity and long-distance passenger rail services and much of Los Angeles's Metrolink commuter rail service. The station is also served by Los Angeles County Metropolitan Transportation Authority's (Metro) heavy rail and light rail rapid-transit system, Metro's bus system, other municipal bus operators, and a direct link to Los Angeles International Airport via the FlyAway Express Bus. LAUS is also a proposed station for the California high-speed rail system.

As described in Section 1.4.1, there are two proposed eastern terminus options: one in the City of Indio and one in the City of Coachella. Both proposed eastern terminus options would require construction of a new station, as neither the City of Indio nor the City of Coachella has existing stations to accommodate the proposed service.

1.5 Program Purpose and Objectives

The Program's Purpose is to implement a safe, reliable, and convenient intercity passenger rail service in the Program Corridor with the capability to meet the future mobility needs of residents, businesses, and visitors and meet the following objectives:

1. Provides travelers between the Los Angeles Basin and the Coachella Valley with a public transportation service that offers more convenient, reliable, and competitive trip times, better station access, and more frequency than currently available public transportation services
2. Provides travelers between the Los Angeles Basin and the Coachella Valley with an alternative to driving that offers reliable travel schedules
3. Provides travelers between the Los Angeles Basin and the Coachella Valley with an affordable transportation service
4. Serves a range of trip purposes traveling between the Los Angeles Basin and the Coachella Valley, particularly including business and personal trips
5. Improves regional travel opportunities between the Los Angeles Basin and the Coachella Valley for individuals without private vehicles
6. Serves the expected population growth in the Los Angeles Basin and the Coachella Valley

7. Assists regional agencies in meeting air pollution and greenhouse gas (GHG) emission reduction targets as mandated in state and federal regulations

The frequency of the Program's proposed passenger rail service was established as two daily round trips based on a ridership forecasting model service optimization analysis, which found that two round trips per day would attract the greatest number of riders per train while providing an opportunity for passengers to make a limited round trip in 1 day (RCTC 2016). The Program could result in scheduled one-way travel times between Los Angeles and Coachella of approximately 180 to 200 minutes.

The passenger rail service would be designed to achieve an endpoint on-time performance of 90 percent and an all-stations on time performance of 90 percent, in compliance with on-time performance metrics established by FRA under the Passenger Rail Investment and Improvement Act of 2008, as well as the Uniform Performance Standards for intercity passenger trains established by the California State Transportation Agency on July 1, 2014. Under these metrics, intercity passenger trains in the Program Corridor would have an endpoint on-time performance variance (late tolerance) of 10 minutes and an all-stations on-time performance variance of 15 minutes.

1.6 Program Need

The Program is needed to address the absence of effective transportation alternatives to personal automobile travel between coastal regions of Southern California (e.g., Los Angeles and Orange Counties) and cities in the Inland Empire (e.g., City of Riverside) and the Coachella Valley (e.g., Cities of Coachella, Indio, Palm Springs), the projected increase in travel demand in the Program Corridor resulting from population and employment growth, and the increasing unreliability of existing transportation systems within the Program Corridor.

Based on a market analysis of the Program Corridor (RCTC 2016), the two primary transportation and mobility challenges include the following:

1. For interregional travel between the Los Angeles Basin and the Coachella Valley, travelers are required to drive through Interstate (I) 10 through the San Gorgonio Pass. There are limited public transportation options; therefore, people who cannot afford to own and operate a private vehicle, or choose not to, have limited ability to travel between the regions, and people who might prefer not to drive do not have a viable alternative. The lack of available transportation options leaves the Program Corridor underserved, yet travel demand is expected to increase in the future.

2. Congested highway conditions in the Los Angeles Basin cause delays and highway travel unreliability for longer-distance corridor driving trips. Emergency closures of I-10 through San Gorgonio Pass further undermine the reliability of the Program Corridor's transportation system. Future growth will result in more congestion and even longer travel times, causing more highway travel unreliability; thus, driving is an increasingly unattractive and inconvenient mode of travel through the Program Corridor.

According to the market analysis, the Program Corridor currently faces substantial mobility challenges that are likely to continue. Based on population and travel forecasts, as well as the amount of available open land within the Program Corridor, population, employment, and tourism activity is expected to continue to grow in the future; however, opportunities to increase the carrying capacity of the region's roadway network are limited.

1.6.1 Limited and Constrained Travel Options

While the Program Corridor is served by a transportation system that includes air, highway, transit, and rail modes, few of these alternatives provide regular intercity transportation within the Program Corridor between the Coachella Valley, Inland Empire, and coastal regions of Southern California. In addition, the existing transportation system is constrained due to the limited travel alternatives to driving a private vehicle. Currently, the only existing passenger rail service in the Program Corridor that provides service from Los Angeles to Coachella Valley is Amtrak's Sunset Limited, a long-distance train that operates 3 days per week in each direction, connecting Los Angeles, Tucson, San Antonio, and New Orleans. Amtrak makes intermediate stops at Pomona, Ontario, and Palm Springs; however, its arrival and departure is scheduled during the middle of the night. Air travel access is also a limited option for many residents of the Los Angeles Basin because of the distance from residences to major airports and the infrequency and high cost of flights between Los Angeles and the Coachella Valley.

As a result, virtually all of the intercity travel between these regions is by personal automobiles, primarily on I-10 through the San Gorgonio Pass. However, even travel by personal automobile is constrained by recurring highway congestion and the lack of alternative routes to I-10.

Limited Alternatives to Personal Automobile Travel

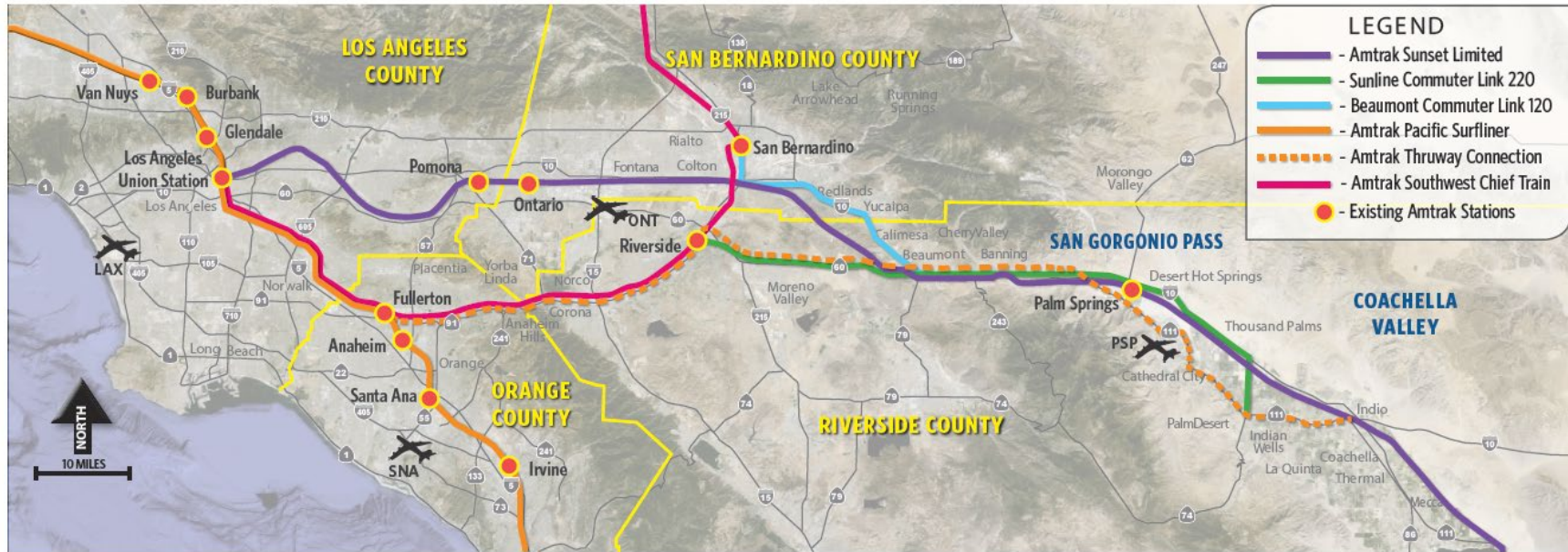
Travel opportunities in the Program Corridor between regions by rail, bus, or air are limited and consist of the following services:

- Amtrak Sunset Limited long-distance passenger train, stopping in Los Angeles, Pomona, Ontario, and Palm Springs with three trips per week each way in the middle of the night

- Amtrak Southwest Chief long-distance passenger train, stopping in Los Angeles, Fullerton, Riverside, and San Bernardino with daily service
- Amtrak Thruway bus service connects the Coachella Valley to Amtrak Pacific Surfliner trains at Fullerton, consisting of one daily trip each way between Fullerton and the Palm Springs Airport (making intermediate stops in Riverside, Cabazon, and downtown Palm Springs) and one daily trip each way between Fullerton and Indio (making intermediate stops at Riverside, Cabazon, downtown Palm Springs, Palm Springs Airport, Palm Desert, and La Quinta)
- Amtrak Thruway bus service connects Indio to Amtrak San Joaquin trains at Bakersfield, consisting of two daily trips each way (making intermediate stops at La Crescenta, Pasadena, Claremont, Ontario, Riverside, San Bernardino, Cabazon, downtown Palm Springs, Palm Springs Airport, Palm Desert, and La Quinta)
- SunLine Route 220 commuter bus service with two weekday peak trips each way between Riverside and the Coachella Valley
- Beaumont Commuter Link 120 bus service, with seven weekday round trips between the San Bernardino Metrolink Station, Loma Linda, and Beaumont
- Greyhound private intercity bus service, with seven daily trips between Los Angeles and the Coachella Valley
- Metrolink commuter rail service operating:
 - One route daily from Los Angeles to Riverside via Fullerton, with nine weekday one-way trips (five eastbound, four westbound) and four weekend one-way trips (two each way)
 - One route weekdays from Los Angeles to Riverside via Pomona, with 12 weekday one-way trips (six each way)
 - One route daily from San Bernardino and Riverside to Laguna Niguel and Oceanside, with 8 weekday one-way trips (four each way) to/from San Bernardino and 16 weekday one-way trips (eight each way) to/from Riverside, as well as 4 weekend one-way trips (two each way) to/from San Bernardino
- Scheduled air passenger service connecting the Los Angeles Basin with the Coachella Valley provided through daily flights (ranging from 9 to 13.5 daily flights at different times of the year) between Los Angeles International Airport and Palm Springs International Airport

Figure 1-2 and Figure 1-3 illustrate the existing intercity passenger rail and bus services connecting the Coachella Valley and Los Angeles Basin, as well as the cities connected by Greyhound service.

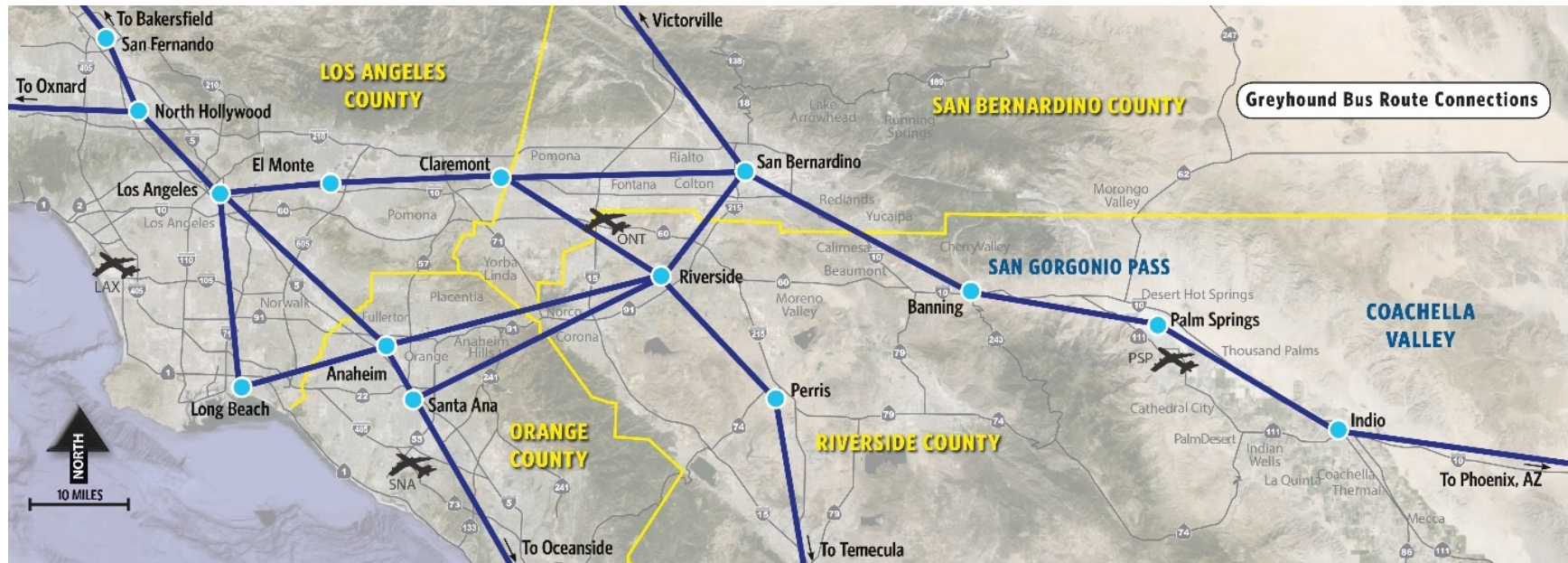
Figure 1-2. Existing Intercity Rail and Regional Bus Services Connecting the Los Angeles Basin and Coachella Valley



Source: RCTC 2016

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Figure 1-3. Existing Intercity Bus Service Connecting the Los Angeles Basin and Coachella Valley



Source: RCTC 2016

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Existing and Projected Highway Volumes

The Los Angeles Basin and Coachella Valley are separated by major mountain ranges, and virtually all travel between these geographic areas flows through the San Gorgonio Pass, the only direct route between the two areas. I-10 is the only roadway that traverses the San Gorgonio Pass to connect the Los Angeles Basin with the Coachella Valley and is a major artery for transcontinental freight and passenger transportation. I-10 is the southernmost transcontinental highway in the United States (U.S.) Interstate Highway System and stretches from Santa Monica, California on the Pacific Coast to Jacksonville, Florida near the Atlantic Coast. Connecting state highways diverge from I-10 on each side of the pass for travel westward to Los Angeles or eastward to the Coachella Valley. Other local roads through the mountains only carry a small volume of travelers. Figure 1-4 shows the key regional highways serving the Program Corridor and the lack of alternate highway options to I-10 through the San Gorgonio Pass area.

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Figure 1-4. Existing Key Program Corridor Highways Connecting the Los Angeles Basin and Coachella Valley



Source: RCTC 2016

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On a typical weekday, 130,000 people travel through the San Gorgonio Pass (SCAG 2016); over half (55 percent) of these trips have their eastern terminus in the Coachella Valley. The remaining trips have their eastern terminus in the high desert areas of Yucca Valley and Twentynine Palms (14 percent) or travel east to Blythe and Phoenix (27 percent) or south to the Imperial Valley (4 percent) (Caltrans 2012). The region's existing travel market is substantial, with more than 58 million daily person trips (individual travel trips that occur daily) in the four-county area (Los Angeles, San Bernardino, Riverside, and Orange Counties) with projections to increase 47 percent by 2035 (SCAG 2016).

Personal trips increase these travel flows on weekends, with 45 percent more trips being made through the San Gorgonio Pass on a typical Friday than a typical midweek day. This number increases when major festivals and events are held. During the highest travel weekend of the year, which in 2014 included both Easter and the Coachella Music Festival, 125 percent more trips traveled through the San Gorgonio Pass than on a typical midweek day (SCAG 2016).

Chronic Highway Congestion

Population growth is expected to increase demand on already constrained highways resulting in increased congestion. Figure 1-5 illustrates the areas of existing weekday highway congestion (in either the eastbound or westbound directions) on I-10 and other regional freeways. Daily traffic volumes regularly exceed the design capacity of I-10 in certain locations.

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Figure 1-5. Existing Areas of Recurring Weekday Road Congestion within Program Corridor



Source: RCTC 2016

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Congestion primarily occurs in the Western Section of the Program Corridor, while the Eastern Section is relatively congestion-free unless an incident closes highway lanes. Data obtained from Caltrans Performance Measurement System (PeMS) analyzing highway congestion in the Program Corridor for a period from April 20, 2014, through May 14, 2014, indicate that eastbound I-10 has congested areas between Alhambra and Pomona during typical weekday afternoons, with longer durations and slower speeds on Friday afternoons. The Eastern Section of the Program Corridor has minimal areas with reduced speeds throughout the day on typical weekdays and Fridays. Saturdays show some congested areas in the Western Section of the Program Corridor and no congestion in the Eastern Section. In the Western Section of the Program Corridor, westbound I-10 exhibits typical commute congestion between Pomona and Alhambra in the morning hours, as well as periodic slowing in several areas at different times throughout the afternoon.

Much of State Route (SR) 60 is congested from East Los Angeles to Rowland Heights, from Pomona to East Ontario, and from Rubidoux to Moreno Valley on normal weekday afternoons. On normal Fridays, the congestion through these areas intensifies. The eastbound SR 91 is congested for much of its length from North Long Beach to Anaheim and from Orange to Riverside during most of the afternoon on normal weekdays and Fridays (Caltrans 2014).

Table 1-1 shows the wide variance in typical driving times between Coachella and four cities in the Los Angeles Basin: Los Angeles, Fullerton, Chino, and Claremont. These cities are sample locations near the Program Corridor's three key highways: I-10, SR 60, and SR 91. The data indicate substantial variability in travel times depending on day of week, time of day, and direction of travel. Data was obtained from three sources: Caltrans PeMS, Google Maps, and TomTom. Caltrans PeMS collects traffic data from more than 39,000 detectors across California and archives the information for 10 years. Google Maps calculates driving times based on a variety of data including official and recommended speed limits, historical average speed data, actual travel times from previous users, and real-time traffic information. TomTom operates a database of more than 9 trillion anonymously collected data points that allow the software to predict driving behavior across the road network.

Table 1-1. Existing Typical Driving Times for Selected Trips within Program Corridor

Origin	Destination	Source	Weekday AM Peak (7:00 a.m.) (Minutes)	Weekday PM Peak (5:00 p.m.) (Minutes)	Friday AM Peak (7:00 a.m.) (Minutes)	Friday PM Peak (5:00 p.m.) (Minutes)	Saturday Midday (Noon) (Minutes)
Los Angeles	Indio	PeMS	114	139	112	165	119
Los Angeles	Indio	Google Maps	120-150	120-200	120-150	120-200	120-150

Origin	Destination	Source	Weekday AM Peak (7:00 a.m.) (Minutes)	Weekday PM Peak (5:00 p.m.) (Minutes)	Friday AM Peak (7:00 a.m.) (Minutes)	Friday PM Peak (5:00 p.m.) (Minutes)	Saturday Midday (Noon) (Minutes)
Los Angeles	Indio	TomTom	120	142	120	146	118
Indio	Los Angeles	PeMS	141	114	130	119	116
Indio	Los Angeles	Google Maps	120-200	120-150	120-160	120-150	120-160
Indio	Los Angeles	TomTom	127	120	121	121	117
Fullerton	Indio	PeMS	89	110	90	116	98
Fullerton	Indio	Google Maps	110-140	110-180	110-130	110-190	110-130
Fullerton	Indio	TomTom	112	128	112	130	110
Indio	Fullerton	PeMS	114	94	124	95	103
Indio	Fullerton	Google Maps	110-160	110-130	110-140	110-130	110-140
Indio	Fullerton	TomTom	116	113	112	113	109
Chino	Indio	PeMS	75	81	75	85	77
Chino	Indio	Google Maps	85-110	85-150	85-110	85-150	85-110
Chino	Indio	TomTom	89	100	90	102	88
Indio	Chino	PeMS	82	76	80	76	76
Indio	Chino	Google Maps	85-120	85-110	85-110	85-110	85-110
Indio	Chino	TomTom	93	90	91	91	87
Claremont	Indio	PeMS	85	88	84	96	85

Origin	Destination	Source	Weekday AM Peak (7:00 a.m.) (Minutes)	Weekday PM Peak (5:00 p.m.) (Minutes)	Friday AM Peak (7:00 a.m.) (Minutes)	Friday PM Peak (5:00 p.m.) (Minutes)	Saturday Midday (Noon) (Minutes)
Claremont	Indio	Google Maps	90-110	90-140	90-110	90-150	90-110
Claremont	Indio	TomTom	92	99	92	104	99
Indio	Claremont	PeMS	89	86	85	88	84
Indio	Claremont	Google Maps	90-120	90-110	90-110	90-110	90-110
Indio	Claremont	TomTom	94	93	92	93	99

Source: RCTC 2016

Notes:

PeMS=performance measurement system

Existing travel times using rail and transit can be even longer than highway travel because the trip is indirect, involves intermediate stops, and may require mode transfers. Table 1-2 illustrates each existing service's current travel time between Los Angeles and the Coachella Valley/San Gorgonio Pass area. Trip times were calculated assuming that Metrolink service is used for the portion of the SunLine and Beaumont trips between downtown Los Angeles and the respective eastern bus route terminus.

Table 1-2. Existing Travel Times Using Rail and Transit Connecting the Los Angeles Basin and Coachella Valley

Rail/Transit Line	Western Terminus	Eastern Terminus	Travel Time (Minutes)
Sunset Limited	Los Angeles	Palm Springs	156
Amtrak Thruway	Los Angeles	Indio	240
SunLine Commuter Link 220 + Metrolink	Los Angeles	Palm Desert	234
Beaumont Commuter Link 120 + Metrolink	Los Angeles	Beaumont	145

Rail/Transit Line	Western Terminus	Eastern Terminus	Travel Time (Minutes)
Greyhound	Los Angeles	Indio	240

Source: RCTC 2016

Notes:

The SunLine + Metrolink and Beaumont + Metrolink travel times include transfer and waiting time.

The wide variations of highway travel times and travel unreliability caused by highway congestion require travelers to allow for extra travel time to ensure they will arrive at their destinations on time.

Emergency Highway Closures

Since I-10 is the only road through the San Gorgonio Pass, Program Corridor travel is susceptible to substantial disruption during an emergency closure. Five separate incidents in the San Gorgonio Pass have disrupted travel for several hours or more since 2005, as reported in the *Los Angeles Times* (Los Angeles Times 2014), *Banning Patch* (Banning Patch 2014), and *Desert Sun* (Desert Sun 2016):

- **June 2005:** A high-speed pursuit of a homicide suspect led to gunfire and a 12-hour shutdown of the freeway near Cabazon. Stranded drivers slept in their cars while others needed medical attention because of the heat (Los Angeles Times 2014).
- **December 2010:** A fatal collision involving a big rig and a spill of fertilizer and diesel oil near Whitewater closed I-10 for 6 hours (Los Angeles Times 2014).
- **February 2012:** A broken computer system led to a delay in concrete slabs needed for lanes that were ground up during repaving. Three of the four westbound lanes were closed for almost 1 full day, leading to a 25-mile backup in Banning, with traffic spilling into Palm Springs (Los Angeles Times 2014).
- **September 2014:** A fiery big rig crash shut down westbound I-10 east of Cabazon at 6:45 a.m. The four westbound affected lanes were closed for almost 12 hours before resuming service at 6:00 p.m. (Banning Patch 2014).
- **October 2016:** A tour bus slammed into the back of a big rig killing 13 and injuring 31 people. The crash occurred just west of Palm Springs at 5:00 a.m. and shut down all westbound lanes of I-10 until 4:00 p.m. (Desert Sun 2016).

Figure 1-6 illustrates the reliance of drivers on I-10 through the San Gorgonio Pass, as no parallel highways exist to I-10 through Beaumont, Banning, and Cabazon; the only alternative routes involve lengthy detours and longer travel times. For example, facing an I-10 closure between Banning and Cabazon, a driver bound for Indio could detour south to SR 74, through the mountains and reach Indio in approximately 2 hours, travelling 80 miles. The direct route via I-10 is typically 46 minutes and 50 miles.

Figure 1-6. Interstate 10 Corridor San Gorgonio Pass Detour Alternatives



Source: RCTC 2016

1.6.2 Regional Population and Employment Growth

Population and Employment Growth

Between 1970 and 2010, the Program Corridor's four-county region of Los Angeles, Orange, Riverside, and San Bernardino Counties grew by more than 7.4 million people. In 2010, approximately 46 percent of the population of California resided in the region (RCTC 2016). Los Angeles County has the largest population in the four-county region, followed by Orange County.

Historical growth patterns between 1970 and 2010 show that Riverside and San Bernardino Counties grew at a faster rate than Los Angeles and Orange Counties; Riverside County and San Bernardino County grew at an average annual rate of 4.0 percent and 2.8 percent, respectively, while Los Angeles County and Orange County grew annually by 0.8 percent and 1.9 percent. Population projections prepared by the California Department of Finance forecast that the population within the four-county region will continue to grow between 2018 and 2050. The annual growth rate is anticipated to slow to 0.5 percent annually for the four-county region as a whole, with higher annual growth rates forecast for San Bernardino County (1.0 percent) and Riverside County (1.1 percent) compared with Los Angeles County (0.3 percent) and Orange County (0.4 percent), consistent with historical trends (RCTC 2016).

In 2016, the Coachella Valley had a full-time population of approximately 376,000, which increases substantially during winter months with part-time residents from colder climates (Inland Empire Center for Economics and Public Policy 2016). The San Gorgonio Pass area, which is comprised of the Cities of Banning, Beaumont, and Calimesa, as well as the unincorporated community of Cabazon, had a population of more than 77,600 and employment of more than 14,500 including a major resort/casino and outlet mall (SCAG 2016).

The Coachella Valley is projected to be one of the fastest-growing areas in the state by 2040, with the permanent population projected to exceed 595,100 and employment growing by 94 percent to more than 253,700 (SCAG 2016). The San Gorgonio Pass area population is projected to almost double to 143,000, with employment more than doubling to 38,100 (SCAG 2016). These projected increases in population and employment will increase demand for reliable and safe travel options for people living and working in the Program Corridor.

Tourism Industry

The Coachella Valley is home to a large tourism industry that attracts millions of visitors annually from Southern California and around the world. In addition to providing a large base of employment in the Coachella Valley, the tourism industry also affects transportation demand in the Program Corridor. In 2017, Joshua Tree National Park received 2.8 million visitors, and the Palm Spring Aerial Tramway drew 630,000 visitors (Greater Palm Springs Convention and Visitors Bureau [GPSCVB] 2017). In addition, the regional economic benefit of the Coachella and Stagecoach Festivals alone exceeded the \$403 million projected by GPSCVB (GPSCVB 2017). In 2017, GPSCVB reported nearly 13 million visitors spent a total of \$5.5 billion in the Coachella Valley, of which overnight visitors accounted for 45 percent of volume and 62.3 percent of total visitor spending. A sample of the larger events is listed in Table 1-3.

Table 1-3. Major Events in Coachella Valley

Event	Month	Location	Duration	2017 Attendance
Career Builder Challenge	January	La Quinta	5 days	50,000
All Nippon Airways Inspiration Ladies Professional Golf Association Tournament	March/April	Rancho Mirage	4 days	50,000
Palm Springs International Film Festival	January	Palm Desert	12 days	135,000
Palm Springs Modernism Week	February	Palm Springs	10 days	97,000
BNP Paribas Open Tennis Tournament	March	Indian Wells	14 days	439,261
El Paseo Fashion Week	March	Palm Desert	7 days	13,200
La Quinta Arts Festival	April	La Quinta	4 days	20,000
The Dinah Shore Weekend Festival	April	Palm Springs	2 days	20,000
Coachella Valley Music and Arts Festival	April	Indio	6 days (2 weekends)	250,000
Stagecoach Country Music Festival	April	Indio	2 days	75,000
Palm Springs International ShortFest	June	Palm Springs	7 days	22,000
Comic Con Palm Springs	August	Palm Springs	3 days	15,000

Source: GPSCVB 2017

1.6.3 Disadvantaged Communities

The Tier 1/Program EIS/EIR Study Area includes a number of communities classified as disadvantaged communities by the California Environmental Protection Agency (CalEPA) per Senate Bill (SB) 535. These communities are specifically targeted for investment of proceeds from the state's cap-and-trade program for the purpose of improving public health, quality of life, and economic opportunity in California's most burdened communities while reducing pollution that causes climate change. Within the Tier 1/Program EIS/EIR Study Area, disadvantaged communities

are concentrated in the Los Angeles area, San Bernardino County, and parts of the Cities of Beaumont, Indio, and Coachella.

Five of the nine incorporated cities in the Coachella Valley, containing over 40 percent of the valley's population, have poverty rates exceeding 15 percent, which is the federal average poverty rate. Two of the nine incorporated cities have poverty rates that exceed 25 percent. In addition, two of the unincorporated communities of the Coachella Valley have poverty rates approaching 50 percent (Mecca and Oasis). Two of the three San Gorgonio Pass area cities (Beaumont and Banning), containing 85 percent of the San Gorgonio Pass area population, have poverty rates exceeding 15 percent; the poverty rate exceeds 21 percent in Beaumont. The unincorporated community of Cabazon also has a poverty rate that exceeds 30 percent (U.S. Census Bureau 2016a).

In addition, a substantial portion within these disadvantaged communities does not own personal vehicles and rely on alternative transportation services. East of Colton, the lack of available alternative transportation options leaves the I-10 corridor underserved for these populations. In addition, existing bus service by SunLine and Greyhound operates almost entirely on the freeway system with a limited number of intermediate stops; thus, only limited connections to transit are available to these communities along the I-10 corridor.