

2015

# Interregional Transportation Strategic Plan



Division of Transportation Planning  
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## Mission

Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.

## Vision

A performance-driven, transparent, and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation, and teamwork.

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## *Executive Summary*

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## Executive Summary

California is vast, a place of superlatives. Only the expanses of Alaska and Texas exceed the State's geographic extent. California's population is by far the largest of any in the nation, with 12 million more people than the next most populous state. As the seventh largest economy in the world<sup>1</sup>, the State is among the global elite, ahead of Russia and India. Each of the Los Angeles and Long Beach seaports handles more international containerized freight than any other seaport in North or South America. This robust international trade helps support Southern California's massive manufacturing sector that is growing even stronger through expanding trade with Mexico. The San Francisco Bay Area is the global hub of technological innovation and is one of numerous, compelling California tourist destinations. Due to its unique climate and superb growing conditions, California hosts the most productive agricultural regions in the world, exporting high-value crops to every state and nearly every country. Most important, California leads in identifying pathways to sustainability that provide for both a prosperous future and a healthy environment.

As a result of continuous efforts to strengthen requirements for cleaner-burning fuels, better engines, and more effective emission control technologies, California's air quality has improved dramatically over the past few decades. Most recently, to help address the threat of climate change and its tremendous risk to the State's population, agriculture, economy, infrastructure, and the environment, California Governor Edmund G. Brown Jr. issued Executive Order B-30-15, which establishes greenhouse gas emissions (GHG) reduction target goals 40 percent below 1990 levels by 2030, with a longer-term goal of reducing emissions to 80 percent below 1990 levels by 2050. The Order requires actions by agencies across the State and encourages others to act, as well. The selection and implementation of transportation projects and activities across all modes and throughout the State must address these air pollution and GHG reduction goals.

This remarkable State is knitted together by a complex transportation system that serves the movement of people, goods, and services. The system is comprised of roads, highways, railways, regional transit services, seaports, airports, and the more community-level components of sidewalks, bikeways, and local public transit services. Critical to this tapestry is the interregional transportation system that connects California's many destinations and enables interregional interactions that support the State's larger economy. It is through the combined strength of its many regions that California has become the preeminent global economic leader among all US states. The connections provided by the interregional transportation system enable people living in densely populated urban areas, working the State's expansive farmlands, or serving the tourist industry in rural mountain communities, to access to essential services and opportunities and contribute to the State's larger economy. This intermodal system not only connects California's re-

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<sup>1</sup> <http://sanfrancisco.cbslocal.com/2015/06/10/california-world-7th-largest-economy-larger-than-brazil/>

gions but provides essential connectivity to neighboring states and Mexico. Formal partnerships have been formed between California and these neighbors to cooperatively plan, fund, and, in several cases, operate interstate and international facilities.

Among the transportation facilities that link the State's regions are a subset of important highway and railroad corridors that provide primary connectivity between the most populous and economically productive areas, such as the Los Angeles Basin and the San Francisco Bay Area; major agricultural regions, such as the San Joaquin and Imperial Valleys; and the coastal regions in Central and Northern California. The California State Legislature recognized the importance of interregional travel and the need for the State to target investment in key corridors through the designation of the Interregional Road System (IRRS) – 93 routes of interregionally important highways. Further, Senate Bill 45 (1997) dedicates 25 percent of State Transportation Improvement Program (STIP) funding to interregional highway and interregional passenger rail facilities. The Caltrans's controlled portion of interregional improvement funds is programmed in the Interregional Transportation Improvement Program (ITIP).

California has demonstrated longstanding leadership in identifying and implementing sustainable practices within the transportation sector and continues to do so as the State builds upon decades of success in reducing pollutants emitted by automotive and truck fleets and the fuels they use. In addition to directly addressing air quality through regulations and incentive programs administered by the California Air Resources Board, the California Energy Commission, and regional air quality control boards, the State is striving to address the impacts of the transportation system and strengthen linkages to land use decisions through several legislative and policy initiatives (SB 375, AB 32, SB 391) that require regional and State agencies to implement transportation system projects and management programs that support urban in-fill rather than sprawl, implement complete streets and smart mobility principles and projects, reduce greenhouse gas and criteria pollutant emissions. Summaries of recent related statutory requirements, including transportation and land-use-related legislation, are included in Chapter 1, Section 1.4.

This document, the Interregional Transportation Strategic Plan (ITSP), identifies 11 Strategic Interregional Corridors. These corridors are typically characterized by high volumes of freight movement and significant recreational tourism. These corridors have been identified as the most significant interregional travel corridors in California.

Within these corridors, the facilities most critical in supporting interregional transportation have been identified and are called Priority Interregional Corridors. They form a subset of the IRRS routes and the major intercity passenger rail corridors, including the California High-Speed Rail System. Critical capacity and design modernization improvements for these facilities, shown in Figure 2, are the responsibility of multiple agencies and should be funded through a variety of funding sources. Each of the intercity passenger rail corridors included in the Strategic Interregional Corridors is partially funded for both operations and capital improvements through State revenues. The ITSP identifies significant expansion of passenger rail services for these corridors.

Corridor improvement projects supporting interregional travel vary considerably in size and scope. Projects are scoped to address a wide spectrum of facility components, such as truck climbing lanes, passing lanes, expressway-to-freeway conversion, shoulder widening, bicycle lanes, limited new highway lanes, interchange improvements, increased rail capacity, new passenger rail service and passenger rail stations. The needs served by these projects include improving highway capacity consistency between logical end points, improving the efficiency of goods movement, eliminating at-grade crossings to improve corridor safety and reduce delay and vehicle emissions, improving safety and bicycle access by expanding shoulders, and increasing the frequency and reliability of intercity passenger travel. Such projects address a variety of goals, such as safety, sustainability, and increased multimodal options. Combined with local and interregional improvements from other fund sources, these projects help achieve a complete transportation system that meets local, regional, and interregional needs.

### Prioritization and Funding

The ITSP recommends priorities for improvements of greatest interregional merit for each of the 11 Strategic Interregional Corridors. Several of these corridors traverse urbanized areas as well as extensive rural areas with very low population densities, while other corridors connect a series of distinct small-to-medium-sized urban communities along a lengthy corridor. Within the urbanized areas, the existing facilities are usually larger in scale, yet the ability to traverse these areas is often impacted by commuter traffic congestion, reducing long-distance travel efficiency. Outside the urbanized areas many facilities remain unchanged in scale since their initial construction many decades ago, yet population and mobility demands continue to grow.

The performance of the Strategic Interregional Corridors is affected by the regions surrounding the transportation facilities. Interregional and regional transportation facilities link together and create the complete statewide transportation system. Caltrans, as the State's Department of Transportation, has a significant role in the development and management of the interregional transportation system, while cities and counties have assumed lead responsibility for managing their local networks and effectively linking to the interregional system. Capacity expansion of urban area highway system segments are the responsibility of regional and local agencies using Regional Improvement Program, voter approved transportation measure, and other funds.

Within the Strategic Interregional Corridors, Priority Interregional Facilities have been identified as being the most significant intercity passenger rail and highways that serve interregional travel. These facilities are expected to be the focus of ITIP investment in the future based on direction provided in Chapter 5.

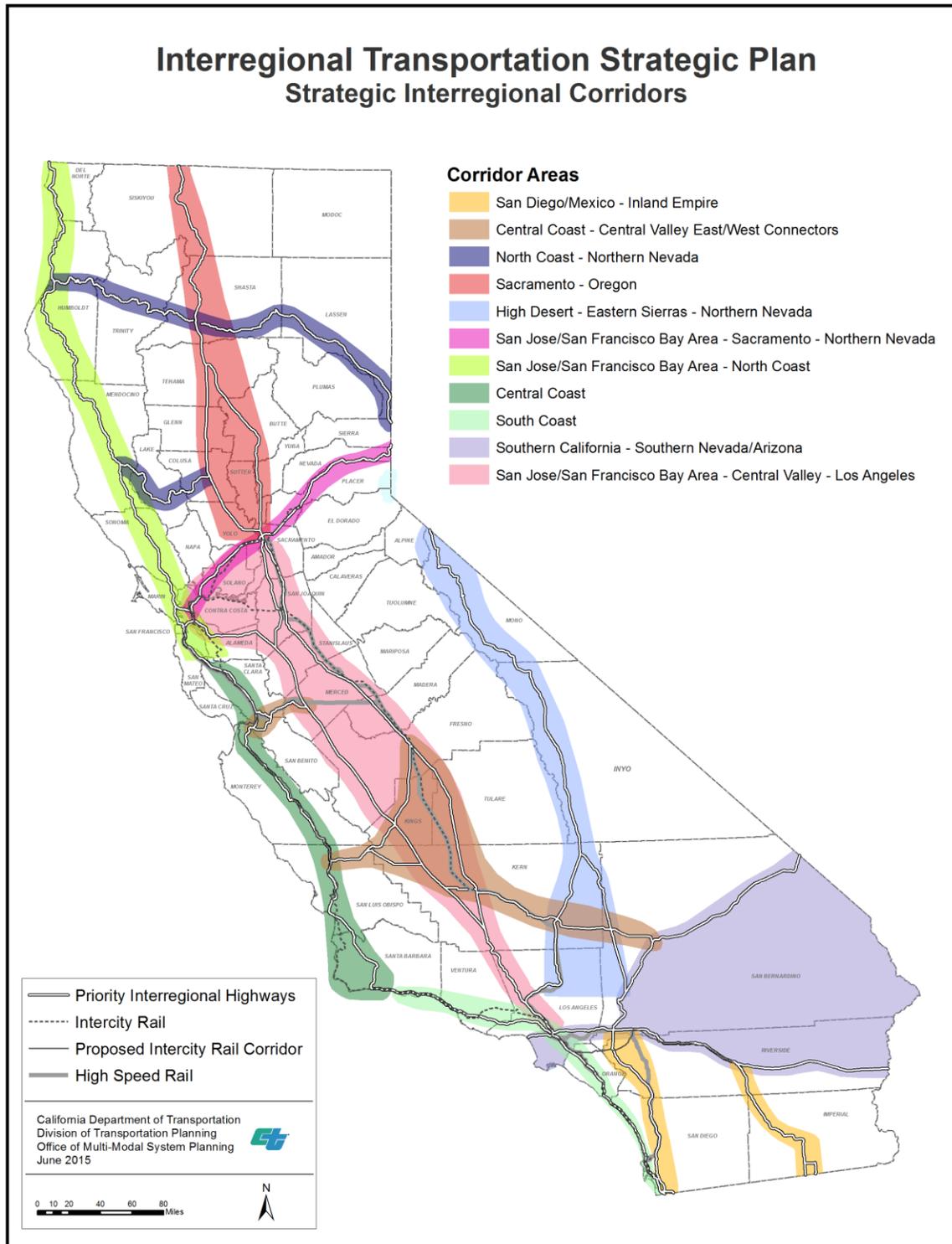


Figure 1: Strategic Interregional Corridors



Funding to address these needs is a real and significant challenge. The level of STIP funding has not kept pace with the costs of meeting growth demands. A preliminary sketch estimate of costs to improve selected locations on the highway system in most of the 11 Strategic Interregional Corridors outside the urbanized areas is in excess of \$10 billion. This figure includes completing the conversion of existing four-lane segments on State Route 99 between Stockton and Bakersfield to six lanes, widening portions of I-5 to six lanes in the San Joaquin Valley, selected freeway conversions on Route 101, and some other improvements to facilitate freight movement and safety. This tally is in no way comprehensive nor fiscally precise. It does not include costs for full development of the three intercity rail lines and proposed expansion of the Capitol Corridor down to the Los Angeles–San Diego–San Luis Obispo Corridor (LOSSAN Corridor).

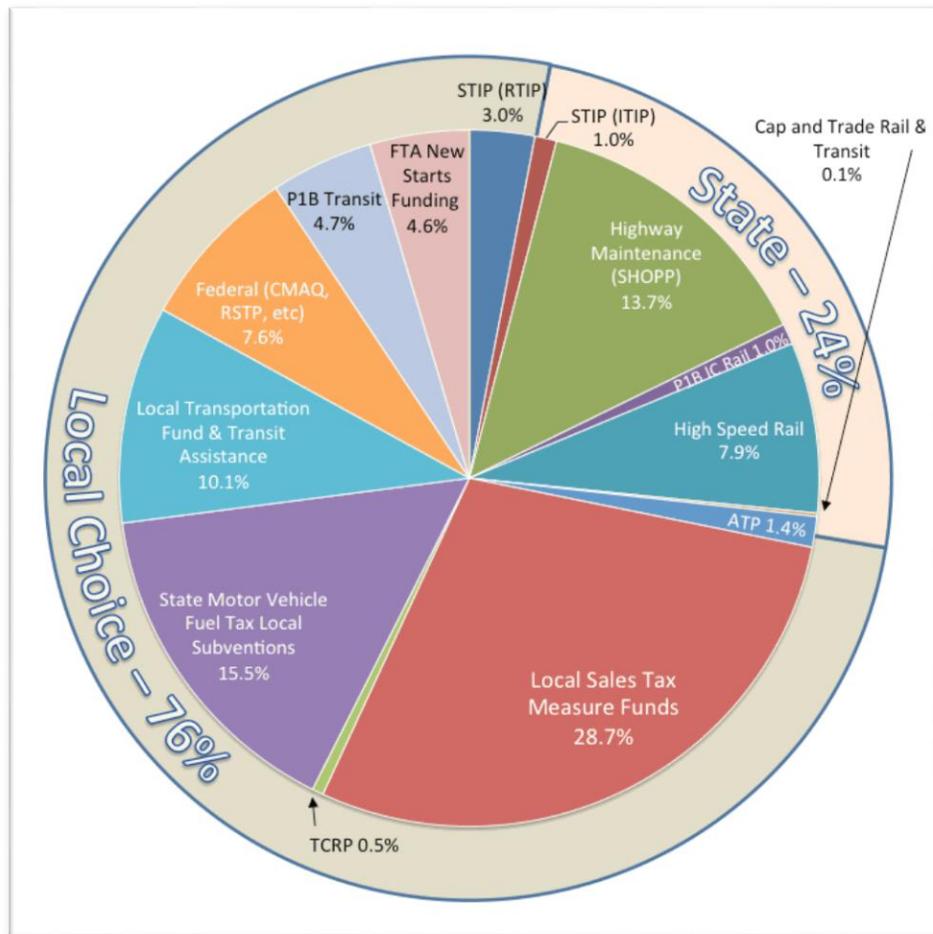


Figure 3: Major Transportation Funding Allocations for FY 2014/15

Figure 3 illustrates the significance and contribution of the typical funding sources for the State’s entire transportation system. This chart shows the STIP contributed only four percent of the funds spent on transportation in fiscal year 2014/2015; the ITIP comprised only a quarter of that amount. New to the potential funding mix for interregional

projects, particularly high-speed rail and intercity passenger rail, are “cap and trade” proceeds that may be applied to projects that meet air quality improvement and greenhouse gas reduction specifications.

A complete interregional transportation system that meets local, regional, and interregional needs will have to be funded from a variety of sources, where appropriate funds are applied to improvements of shared purpose within and outside urbanized areas. Common funding sources other than Interregional Improvement Program funds that could be utilized to address unmet interregional needs include but are not limited to:

- Regional Improvement Programs
- Active Transportation Program
- State Highway Operation and Protection Program
- Local sales tax measures and other local sources
- Future Trade Corridors Improvement Fund programs
- Cap and trade proceeds
- Other funds

#### Interregional Transportation Improvement Program (ITIP) Prioritization

State statute, Government Code 14524.4 regarding the Interregional Transportation Strategic Plan, states: “(a) On or before June 30, 2015, the department (Caltrans) shall submit to the commission (California Transportation Commission) for approval an interregional transportation strategic plan directed at achieving a high functioning and balanced interregional transportation system. The plan shall be action oriented and pragmatic, considering both the short-term and long-term future, and shall present clear, concise policy guidance to the department for managing the State’s transportation system.” It further states that “(b) The interregional transportation strategic plan shall be consistent with the California Transportation Plan as updated pursuant to Section 65071.”

Government Code 14526 (a) state that “Not later than October 15 of each odd-numbered year, based on the guidelines established pursuant to Section 14530.1, and after consulting with the transportation planning agencies, county transportation commissions, and transportation authorities, the department shall submit to the commission the draft five-year interregional transportation improvement program consisting of all of the following:

- (1) Projects to improve state highways, pursuant to subdivision (b) of Section 164 of the Streets and Highways Code.
- (2) Projects to improve the intercity passenger rail system.
- (3) Projects to improve interregional movement of people, vehicles, and goods.

The statute continues, “(b) Projects included in the interregional transportation improvement program (ITIP) shall be consistent with the state interregional transportation strategic plan prepared pursuant to Section 14524.4.

As noted previously, the costs of the improvements needed to maintain economic competitiveness are very high. With many interregional needs it is necessary to prioritize projects so that the limited ITIP funding can be allocated to projects that meet the most important needs most effectively while meeting statute requirements. To maximize the benefits of from limited ITIP funding and do so in a manner consistent with Caltrans’ updated mission statement, the following focus for ITIP investments are:

- For the movement of people, ITIP revenues should be used to improve and expand the state’s intercity passenger rail system and implement operational improvements and strategic capacity increases on the Interregional Road System along the Strategic Interregional Corridors outlined within this document, consistent with the state’s economic development and environmental objectives.
- For the movement of goods, ITIP revenues should be used to improve interregional facilities (typically roads) in the freight network detailed in the California Freight Mobility Plan, with particular emphasis on the interregional portions of the Tier 1 network components.

Every two years during the development of the ITIP, Caltrans’ Division of Transportation Programming will work closely with the districts, which coordinate with their regional partners to identify potential interregional improvement projects. The identified projects must have an approved Project Initiation Document, improve interregional travel, implement the ITSP, and meet legislative requirements. The projects that qualify will meet the ITIP short term focus and will be assessed based on, but not limited to, the project evaluation criteria (both summarized in Chapter 5).

### Interregional Freight Movement

Looking closely at the movement of freight as representative of interregional travel, each of the State highway facilities within the Strategic Interregional Corridors of the ITSP was examined for its annual average truck and automobile volumes to identify areas with the greatest freight truck impact. The results are charted for each Strategic Interregional Corridor later in this document. The data was then normalized to a per-lane basis and

charted for the length of the corridor under study. In several cases it was from the beginning to end of the route, but within the limits of the Strategic Interregional Corridor. The segments of greatest truck volumes per physical lane were identified within each highway facility. These “priority” segments were then averaged and compared.

The result shows that SR 99 and I-5 in the San Joaquin Valley, and I-10 between Palm Springs and Arizona, bear the greatest load of interregional freight trips (five-axle trucks) per facility than any other in the State outside of the major urban areas. The analysis illustrated that, on routes where the average number of trucks-per-lane-per-day exceeds 2,000, congestion characterized by large, long-haul trucks using all lanes for travel and passing, which creates potential safety and capacity problems for interregional automobile travelers, occurs more frequently. It is worth noting that large time frame analysis did not capture seasonal agricultural travel demands. This is particularly acute in the Salinas and San Joaquin valleys. Further analysis to account for this factor should be conducted as time permits and reported in future updates.

### Short-term Focus

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Priority should be given to projects on the statutorily defined IRRS and intercity rail system outside urbanized areas. By law, a minimum of 60 percent of ITIP funding must be allocated in the manner described above. To ensure compliance with statute, Caltrans should target the highest percentage to the IRRS/Intercity Rail System, since interregional projects often traverse smaller urbanized areas or partially overlap other urbanized areas. ITIP investment should be prioritized as follows:

- **Strategic Interregional Corridors:** As mentioned earlier, the cost of meeting all needs far outweighs revenues. Funding should be constrained to projects within the corridors as described in the ITSP.
- **Greatest interregional merit:** Generally measured by the potential for passenger growth in an intercity rail line, greatest relative truck (goods) movement on an existing highway, and benefits to interregional automobile travel between regions.

The ITSP includes analysis to identify the greatest areas of concentration of heavy, five-axle-plus long-haul trucks. A summary of the results is shown in Figure 56 in Chapter 5. This table also illustrates the concentration of automobiles within the same interregional segments. The ITIP investment should focus on projects that improve freight movement along these facilities, support tourism and its economic benefits, and on other projects that offer modal choice within corridors.

Recommended strategies include:

- Investments in intercity rail corridors that affordably increase opportunity for additional long-distance passenger rail trips per day while strengthening an integrated rail network that leverages high-speed rail investments and enables rapid, statewide travel by rail with improved connections to regional and local transit systems, creating more travel options for auto dependent communities.

- Investments to create capacity consistency between logical end points, particularly for the purpose of improving freight-carrying capacity and efficiency and reducing auto/truck conflict points.
- Investments to convert critical highway facilities to expressways or freeways to improve cross-median and cross-roadway agricultural equipment movement safety, reduce congestion, improve interregional automobile travel between regions, or improve freight movement.

Example outcomes from the strategies above may include:

- Improving the intercity passenger rail system in a manner consistent with service development plans and plans for integrating the statewide passenger rail network.
- Constructing and operating the nation's first high-speed rail system, which is seamlessly connected to, and augmented by, the full transit/passenger rail system.
- Improving highways to ensure consistent facility capacity between major regions to facilitate freight movement and passenger vehicle interregional travel.
- Upgrading highway facilities to improve cross roadway agricultural equipment movement safety and freight movement, particularly in the Salinas Valley.
- Improving interchanges to reduce collisions and improve freight movement.

To the extent possible, partnerships to jointly fund projects of high interregional merit should be encouraged. It would be optimal to prioritize partnered projects ahead of non-partnered projects where all else is equal and projects are consistent with the priorities noted previously.

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# *Introduction*

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## Introduction

The Interregional Transportation Strategic Plan (ITSP) is a California Department of Transportation (Caltrans) planning document that provides guidance for the identification and prioritization of interregional transportation projects identified on the State's Interregional Transportation System.

Caltrans prepared the first ITSP in 1998 in response to Senate Bill (SB) 45 passed in 1997, which altered the priorities and processes for programming and expenditure of State transportation funds. Those funding priorities have not changed; however, significant new statewide policies and goals have emerged since then. The Interregional Transportation Improvement Program is still required to fund improvements to the interregional transportation system and, specifically, to the 93 Interregional Road System (IRRS) routes and State-run intercity rail corridors. The ITSP remains the planning document that will be used in the identification and selection of projects for Interregional Transportation Improvement Program (ITIP) funding.

While the initial ITSP focused on the State Highway System (SHS) and intercity rail, the 2015 ITSP has expanded its interregional scope to better reflect how local, regional, State, and national transportation needs are interconnected to the interregional transportation system. For purposes of the ITSP, interregional travel or movement for automobiles and trucks is simply defined as a long-distance, non-commute-related trips. Interregional rail routes are generally longer than 100 miles.

Caltrans continues to renew its commitment with regional agencies and other transportation partners to communicate its approach and vision for the interregional transportation system and ongoing long-range planning to improve interregional mobility and accessibility for people, goods, and services throughout the State. Transportation decisions are ineffective when made in isolation; all plans, including the ITSP, must take into account a variety of planning considerations, such as land-use decisions, the economy, environmental impacts, energy policies, and public health.

The Caltrans' California Transportation Plan (CTP), Regional Transportation Plans, and Metropolitan Transportation Plans created by Regional Transportation Planning Agencies (RTPAs) and Metropolitan Planning Organizations (MPOs) provide a comprehensive look at specific transportation systems and networks while considering the greater social elements as previously mentioned. The CTP provides a statewide view of the transportation system and its larger impacts, while the Regional Transportation Plans (RTPs) focus on interregional, regional, and local issues, including local commuter bus and rail services, highway and freeway improvements addressing commute congestion, and specific active transportation needs. Each MPO is required to develop a Sustainable Communities Strategy (SCS) and must demonstrate, using performance measures, how it meets identified sustainability targets while managing its local transportation system. The ITSP draws from these plans to build upon and enhance California's existing interregional transportation system.

At its core, the ITSP continues to provide direction on the investment of funding for interregional improvement projects. The ITSP will continue to inform and be informed by the following agencies, policies, documents, and legislation, among others:

- California Transportation Commission (Commission)
- Governor Brown's Executive Orders
- Statewide Goals and Legislative Policies
  - Assembly Bill 32 (2006)
  - Senate Bill 375 (2008)
  - Senate Bill 391 (2013)
  - Senate Bill 743 (2013)
  - Senate Bill 486 (2013)
- Assembly Bill 32 Scoping Plan
- California Transportation Plan 2040
- California Freight Mobility Plan
- California State Rail Plan
- California State Bicycle and Pedestrian Plan
- California High-Speed Rail Business Plan
- Strategic Highway Safety Plan
- Regional Transportation Plans prepared by the MPOs and RTPAs in California
- Caltrans Strategic Management Plan
- Smart Mobility Framework
- Complete Streets Implementation Action Plan
- Safeguarding California

Consistency between the ITSP and the aforementioned plans is important and will help Caltrans move forward to meet policies that have emerged since 1998. A seminal law was Assembly Bill (AB) 32, which required that California reduce its greenhouse gas emissions to 1990 levels by 2020 through the adoption of regulations and planning policies and strategies. In 2008, the California Senate passed SB 375, also known as the Sustainable Communities and Climate Protection Act, which supports the State's climate action goals to reduce greenhouse gases (GHG) through coordinated transportation and land-use planning, with the goal of making communities more sustainable. Additional targets were established for reducing GHG emissions, and the bill required that the State's 18 MPOs prepare Sustainable Community Strategies.

The 2013 ITSP Status Update identified many of the policies that emerged since 1998, including the sustainability and livability policies mentioned above. However, the purpose of the 2013 ITSP Status Update was to assess the progress Caltrans and its partners made in achieving the goals of the original ITSP. It discussed many of the above concepts but did not change any of the interregional improvement priorities. The ITSP is the first update since 1998 of California's interregional transportation improvement strategies.

The ITSP continues to provide a recommended course of action and considerations for improving the interregional transportation system by identifying all available transportation funding sources in addition to the ITIP funds. These other sources include the Regional Transportation Improvement Program (RTIP), Active Transportation Program (ATP), State Highway Operation and Protection Program (SHOPP), and cap and trade proceeds, as well as other State and federal funding sources. The system assessment will consider the entire interregional transportation system and prioritize the portion that Caltrans expects to improve through the ITIP, which comprises 25 percent of the STIP that Caltrans oversees.

The 2015 ITSP has been organized to provide an overview of the entire transportation system and explain how priorities were developed. The following five chapters will:

- Explain the purpose and history of the plan and identify policies and planning considerations that impacted the final product.
- Provide an overview of Caltrans' long-range planning process and its role with RTPAs and the State's 18 MPOs.
- Describe the major elements of the interregional transportation system.
- Identify the Strategic Interregional Corridors and summarize the corridor analysis.
- Establish interregional funding priorities, including the short-term focus and project selection criteria for the ITIP.

Analysis of the interregional transportation system will continue and will be used in the development of the ITIP and the next ITSP, which will be updated regularly to maintain consistency with the CTP 2040.



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*Chapter 1*  
*Purpose, Background, and Planning*  
*Considerations*

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## Chapter 1: Purpose, Background, and Planning Considerations

The interregional transportation system and related facilities are impacted by a variety of federal and State laws, policies and goals. This plan was developed to address the intent and the requirements of the major statewide policies that are outlined in this section. It also provides an overview of the history of the ITSP; summarizes policies, regulations, and requirements for the plan; and explains where the document fits within the overall transportation planning process.

### Section 1.1: Purpose of the ITSP

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By the year 2040, the State is projected to grow to around 48 million people.<sup>2</sup> The ITSP is an integral component in shaping Caltrans efforts to connect not only the regions with the largest populations but also those experiencing the fastest growth. The plan evaluates the basic connectivity and accessibility of the interregional transportation system to ensure all major regions in the State can be reliably accessed.

Several legislative bills and policies have been enacted since the initial 1998 ITSP, including AB 32, SB 375, and SB 391. These legislative policies require a new assessment of investment strategies to improve interregional travel throughout the State while meeting GHG reduction targets. In addition, Caltrans has identified a new mission, vision, and goals. Still, the basic purpose of the ITSP has not changed:

- Communicating an approach and vision for investing in California’s interregional transportation system.
- Improving the interregional movement of people and goods.
- Providing a framework that guides investment for the ITIP.

The 2015 ITSP provides an overview of the interregional transportation system, including identification of the Priority Interregional Corridors. Concepts have been created for each Strategic Interregional Corridor that will be used by a variety of agencies to plan and program transportation improvements.

### Section 1.2: Background

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In 1997, SB 45 made significant changes to the priorities and processes for programming and expenditure of State transportation funds, known as the STIP. Those funds were further refined into two categories: the Regional Improvement Program and the Interregional Improvement Program, allocating control to the regions and Caltrans, respectively. The California Streets and Highways Code Sections 163-164.56 established parameters for the types of transportation projects on which the RTIP and the ITIP funds could be spent.

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<sup>2</sup> California grew by 356,000 residents in 2013,” California Department of Finance, press release, April 30, 2014. California DOF website, [http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/documents/E-1\\_2014\\_Press\\_Release.pdf](http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/documents/E-1_2014_Press_Release.pdf) (accessed [May 12, 2014]).

In response to SB 45, Caltrans prepared the 1998 ITSP to communicate its new visions, strategies, principles, objectives, and criteria for operating, developing, and improving interregional transportation facilities and services. The ITSP provided the framework that guided the investment of the ITIP to achieve strategic transportation objectives for improving the interregional movement of people and goods. The 1998 ITSP identified ten strategic routes as the highest priority for ITIP funding.

These ten routes, known as “Focus Routes,” are a system of high-volume, primary arteries to which lower-volume and facility-standard State highway routes would connect for purposes of longer interregional trips and access to statewide gateways. Additionally, the 1998 ITSP identified the State’s three intercity rail corridors for ITIP investment: Capitol Corridor, Pacific Surfliner, and the San Joaquin intercity rail lines. Investments in these three intercity rail lines would address any infrastructure needs, increase operational efficiency, and increase the number of service trips for each line.

In 2013, Caltrans finalized the ITSP Status Update which summarized the accomplishments of the interregional transportation program in the 15 years since the passage of SB 45. The results showed progress has been made toward meeting the interregional transportation goals, but considerable investment is still necessary. Intercity passenger rail services have more than doubled since 1998, and roughly 32 percent of identified state highway deficiencies have been addressed.

This document identifies 11 Strategic Interregional Corridors in the State and establishes new objectives consistent with the State’s sustainability policies, as well as Caltrans’ new mission, vision, and goals. Ultimately, the ITSP will continue to help guide funding decisions for the ITIP, but the plan highlights that a transportation project often uses funds from multiple sources. A goal of this ITSP is to develop a more realistic interregional investment strategy that better matches current funding levels and restrictions.

### [Section 1.3: Statewide Challenges](#)

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Planning and improving the interregional transportation system to accommodate significant population growth and reduce GHG emissions is challenging for a state as large and diverse as California. Regardless of the challenge, California must evolve the entire transportation system, including the interregional elements, to meet the needs of the growing population in an economical, sustainable, and multimodal manner.

The large distances between major urbanized areas also impacts the modal alternatives available for travelers. Other than travel by air or auto, alternative travel modes between Northern and Southern California, for example, are few and run infrequently, making them an unrealistic choice when compared to the existing modal options. The California High-Speed Rail System is currently under construction, and enhancements are planned for the State’s existing intercity passenger rail systems. Together, these rail systems provide vital interregional travel service. Integration of the California HSR with existing rail, transit, and bus services is built into the design with the goal of providing viable interregional modal options. Further multimodality is achieved through the expansion of interregional bus services, connecting transit systems, and appropriate accommodations for pedestrians and bicyclists.

Significant freight movement to and through California also impacts the interregional transportation system. Robust ports, local streets and roads, State highways and interstates, and freight and passenger rail systems form a comprehensive interregional transportation system allowing transport of freight and people to different parts of the State and to other states and nations.

The identification of Strategic Interregional Corridors helps provide guidance on transportation investment for Caltrans and its partners. Both the CTP 2040 and ITSP have identified short-term and long-term transportation priorities.

One element of transportation funding unique to California is the requirement to develop the STIP. The division of the STIP into discrete shares for regional RTIP and State ITIP programs requires the establishment of partnerships between levels of government to ensure system needs are addressed. The separate roles makes it more challenging to come to statewide consensus, but it does ensure regional and statewide partnerships are made, which should lead to the development of a transportation system that addresses a diversity of needs.

The key for both urban and rural areas is to develop the transportation system in a manner that fits both regional and interregional needs. The highways and intercity rail lines must support economic activities, including freight movement, recreational tourism, and emergency response and recovery, as well as provide basic connectivity to the major population centers throughout the State.

#### Section 1.4: Statewide Policies

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The planning and implementation of interregional transportation improvements requires balancing multiple goals. The system must:

- Be multimodal, including bicycle and pedestrian modes.
- Serve a variety of travel purposes (i.e., “complete streets”), including freight movement, tourism, and active travel.
- Improve livability, sustainability, environmental health, and transportation options.

#### Statewide Goals and Policies

There are many laws, statutes, policies, and statewide goals that must be considered in the development and implementation of the ITSP. These requirements were considered during the development of this ITSP and are outlined next.

#### *Assembly Bill 32*

AB 32, known as the California Global Warming Solutions Act of 2006, is a law that requires the State to reduce its GHG to 1990 levels by 2020 – approximately 15 percent below emissions expected under a “business as usual” scenario. The California Air Resources Board (CARB) must adopt regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. Former Governor Schwarzenegger

signed Executive Order S-3-05 that set GHG emission reduction targets for the State of California. Governor Edmund G. Brown Jr. added a 2030 GHG reduction target through Executive Order B-30-15. These targets are shown in Table 1.

**Table 1: GHG Emissions Reduction Targets**

Executive Orders S-3-05 and B-30-15: Statewide GHG Emissions Reduction Targets	
By 2010	Reduce GHG emissions to 2000 levels
By 2020	Reduce GHG emissions to 1990 levels
By 2030	Reduce GHG emissions 40 percent below 1990 levels
By 2050	Reduce GHG emissions to 80 percent below 1990 levels

### *Senate Bill 375*

SB 375, known as the Sustainable Communities and Climate Protection Act of 2008, supports the State's climate action goals to reduce GHG emissions through coordinated transportation and land-use planning with the goal of making communities more sustainable. Under SB 375, CARB sets regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established these targets for 2020 and 2035 for each region covered by one of the State's MPOs (MPO).

Each MPO must prepare a SCS as an integral part of its RTP. The SCS contains land-use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction goals.

### *Senate Bill 391*

SB 391 requires Caltrans to update the California Transportation Plan (CTP) every five years. It also requires the CTP to show how the State will achieve statewide GHG emissions reduction to meet the goals of AB 32 and EO-S-3-05. Additionally, it notes that Caltrans shall consider "the use of fuels, new vehicle technology, tailpipe emissions reductions, and expansion of public transit, commuter rail, intercity rail, bicycling, and walking." Last, it requires the CTP to identify the statewide integrated multimodal transportation system needed to achieve these results. In response, Caltrans developed the California Interregional Blueprint (CIB), which laid the foundation for the CTP 2040.

### *Senate Bill 743*

SB 743 requires the Office of Planning and Research (OPR) to revise the California Environmental Quality Act (CEQA) guidelines and establishes criteria for determining transportation impacts of projects within transit priority areas (TPA). The criteria emphasize reduction of GHG emissions, development of multimodal transportation networks, and diversity of land uses. Upon certification of the guidelines, the delay of automobile traffic

(as described by level of service (LOS) or similar measures of traffic congestion) may not be considered a significant impact except in locations identified in the guidelines.

#### *Executive Order B-30-15*

This executive order provides direction to California and State agencies on GHG reduction requirements. Beyond the 2030 GHG reduction target (Table 1), a number of other requirements for all State agencies including taking climate change into account in their planning and investment decisions, and employing full life-cycle cost accounting to evaluate and compare infrastructure investments and alternatives. State agencies' planning and investment shall be guided by the following principles:

- Priority should be given to actions that both build climate preparedness and reduce greenhouse gas emissions;
- Where possible, flexible and adaptive approaches should be taken to prepare for uncertain climate impacts;
- Actions should protect the state's most vulnerable populations; and
- Natural infrastructure solutions should be prioritized.

Also, the state's Five-Year Infrastructure Plan will take current and future climate change impacts into account in all infrastructure projects



Figure 4. California Electric Vehicle Fast Charging Stations Courtesy of CEC

### *Executive Order B-16-2012 in regard to Electric Vehicles*

Governor Edmund G. Brown Jr. signed an executive order in March 2012 directing State government to accelerate the market for zero-emission vehicles (ZEVs) in California. The executive order established several milestones on a path toward 1.5 million ZEVs in California by the year 2025. The executive order also directs State government to begin purchasing ZEVs. In 2015, 10 percent of State departments' light-duty fleet purchases must be ZEVs, climbing to 25 percent of light-duty purchases by 2020.

**Table 2: ZEV Milestones**

Zero-Emission Vehicle Milestones <sup>3</sup>	
By 2015	<ul style="list-style-type: none"> <li>• The State's major metropolitan areas will be able to accommodate ZEVs through infrastructure plans and streamlined permitting</li> <li>• Private investment and manufacturing in the ZEV sector will be growing</li> <li>• The State's academic and research institutions will contribute to ZEV market expansion by building understanding of how ZEVs are used</li> </ul>
By 2020	<ul style="list-style-type: none"> <li>• The State's ZEV infrastructure will be able to support up to 1 million vehicles.</li> <li>• The costs of ZEVs will be competitive with conventional combustion vehicles</li> <li>• ZEVs will be accessible to mainstream consumers</li> <li>• There will be widespread use of ZEVs for public transportation and freight transport</li> </ul>
By 2025	<ul style="list-style-type: none"> <li>• Over 1.5 million ZEVs will be on California roadways and their market share will be expanding</li> <li>• Californians will have easy access to ZEV infrastructure</li> <li>• The ZEV industry will be a strong and sustainable part of California's economy</li> <li>• California's clean, efficient ZEVs will annually displace at least 1.5 billion gallons of petroleum fuels</li> </ul>

### *West Coast Green Highway*

The West Coast Green Highway is an initiative to promote the use of cleaner fuels. By increasing the market demand for high-efficiency, zero- and low-carbon-emitting vehicles, this initiative aims to reduce the transportation sector's impact upon the environment and dependency on foreign oil.

<sup>3</sup> [http://opr.ca.gov/docs/Governor percent27s\\_Office\\_ZEV\\_Action\\_Plan\\_ percent2802-13 percent29.pdf](http://opr.ca.gov/docs/Governor%20s_Office_ZEV_Action_Plan_%202012-13%20.pdf)

The West Coast Green Highway is the 1,350 miles of I-5 stretching from the US –Canadian border in the north, down through Washington, Oregon, and California, to the US–Mexico border in the south. Designated a “Corridor of the Future” by US DOT, I-5 could soon become the nation’s cleanest, greenest, and smartest highway. <sup>4</sup>

Caltrans supports the further development of the I-5 and SR 99 corridors to establish infrastructure for fueling stations for alternatively fueled vehicles, including electric, hydrogen, natural gas, and biofuel vehicles. The CEC and Caltrans have been working together to identify how both agencies can help support the deployment and use of alternative-fuel vehicles on the interregional transportation system.

### Section 1.5: Statewide Planning Considerations

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The following are a few of the key policies that provide guidance for Caltrans and other planning agencies during the development of long-range plans and the construction of funded projects. The purpose of these policies is to lead transportation planning agencies, including Caltrans, toward an effective, sustainable, and efficient transportation system.

#### *Smart Mobility Framework*

In order to better integrate transportation and land-use decisions, Caltrans developed *Smart Mobility 2010: A Call to Action for the New Decade*. The plan was prepared in partnership with the US EPA, and in collaboration with OPR and the California Department of Housing and Community Development. Smart Mobility 2010 incorporates current innovative practices, such as smart growth, livable communities, context-sensitive design, transit-oriented development, complete streets, and sustainability.

Smart Mobility 2010 defines the Caltrans “mobility” mission as follows: “Smart Mobility moves people and freight while enhancing California’s economic, environmental, and human resources by emphasizing convenient and safe multimodal travel, speed suitability, accessibility, management of the circulation network, and efficient use of land.” It establishes six Smart Mobility principles to be assessed using specific land-use place-types and performance measures. The six principles are Location Efficiency, Reliable Mobility, Health and Safety, Environmental Stewardship, Social Equity, and Robust Economy.

California must meet ambitious environmental and sustainability goals included in the AB 32, SB 375, and SB 391. The Smart Mobility Framework is seen as an important planning tool to help meet these regulatory requirements.

#### *Complete Streets*

The intent of the Complete Streets Implementation Action Plan 2.0 (CSIAP 2.0) is to successfully implement Deputy Directive (DD) 64-R2, which is an administrative update of the State’s Complete Streets policy signed in October 2014. The policy content remains

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<sup>4</sup> Washington State Department of Transportation “West Coast Green Highway” [<http://www.westcoast-greenhighway.com/about.htm>] accessed March 14, 2015.

the same as DD-64-R1 from 2008 and reaffirms Caltrans' commitment. This policy directs Caltrans to provide for the needs of all travelers of all ages and abilities in all planning, programming, design, construction, operations, maintenance activities, and products on the SHS.

Complete Streets recognizes bicyclists, pedestrians, motorists, freight, and transit modes as integral components of the transportation system. It views all transportation improvements as opportunities to create a safer, more accessible transportation system while enhancing mobility for all travelers in the most appropriate context. For example, a complete street facility in a rural environment may look significantly different from one in an urban or suburban environment.

No specific design prescription makes a street "complete," but shoulders, sidewalks, convenient bus stop placement, traffic speed reduction, accessible pedestrian signal timing, and landscaped medians are elements that can be present in a complete street. Developing a network of complete streets requires collaboration among all Caltrans functional units and stakeholders, beginning early in system planning and continuing through project delivery, maintenance, and operations. Complete streets can help enhance first-and-last-mile connections, particularly at transit stations that serve as modal hubs.

#### *Intercity Passenger Rail - Network Integration Strategic Service Plan*

The California High-Speed Rail Authority (CHSRA) is responsible for planning, designing, building and operating the first high-speed rail system in the nation, which is discussed in more detail in Chapter 3. In directing the development and implementation of intercity high-speed rail service, the CHSRA is required to fully integrate its high-speed rail system with the "State's existing intercity rail and bus network, consisting of interlinked, conventional and high-speed rail lines and associated feeder buses." (Public Utilities Code 185030). The intercity network in turn is required to be "fully coordinated and connected with commuter rail lines and urban rail transit lines developed by local agencies, as well as other transit services, through the use of common station facilities whenever possible."

To that end, the California State Transportation Agency (CalSTA) initiated a long range planning process in 2014 to integrate the State's high-speed rail system, as described in the latest Business Plan, with California's intercity rail and commuter rail systems. The expected outcome of this planning process will be a Network Integration Strategic Service Plan (NISSP) that builds consensus around a vision for passenger rail in the State. The NISSP analyzes market opportunities for rail with high-speed rail as part of the statewide network, as well as infrastructure constraints in serving those opportunities with best-in-class rail service. The NISSP will identify a set of statewide infrastructure improvements targeted at integrating the State's rail networks in a manner that optimizes performance and ridership across the entire system, while also providing connections to regional transit systems. Detailed ridership modeling and infrastructure analysis to support the integration of the network as the high-speed rail system develops is expected to be completed as part of the California State Rail Plan (CSRP) process.

Recommendations made in the NISSP for infrastructure investments supporting the State's intercity passenger rail system will be reflected in updates to the ITSP.

### *Planning for Operations*

Caltrans, through its Transportation System Management and Operations (TSM&O) policy, has developed strategic concepts and measures to provide a safe, sustainable, integrated and efficient transportation system that improves system performance and makes effective use of its assets, partnerships, technology and information. Moving forward, specific investment strategies and business practices, which integrate both safety and mobility to achieve performance outcomes, will be required. These include:

- Integration of performance needs and goals in all major processes
- Reduction of fatal and serious injury collisions
- Reduction of recurrent and non-recurrent congestion

TSM&O strategies efficiently and effectively improve the operation of the transportation network and commit transportation agencies within California to a philosophy of system management. This is the mindset that we cannot build our way out of congestion and should therefore invest in operational strategies that optimize system performance and provide benefit to the transportation system with less environmental impact when compared to physical capacity expansion.

System management concepts and strategies, a crucial tool in meeting Caltrans' mission to provide a safe, sustainable, integrated and efficient transportation system, embrace Integrated Corridor Management (ICM) and the utilization of Intelligent Transportation Systems (ITS). TSM&O and ICM strategies, deployed in concert with our regional and local transportation partners, enhance the existing transportation system through the investment of operational strategies.

Operational strategies consist of a mix of technological infrastructure and corridor-based system management concepts of operation and they facilitate the active and efficient management of California's multimodal transportation network. ITS strategies include, but are not limited to: ramp metering, real-time traveler information, traffic signal synchronization, incident and special event management, commercial vehicle operations, and traffic monitoring systems

System monitoring and performance evaluation, Planning for Operations, and inter-agency collaboration are three important components of TSM&O. Performance monitoring provides a comprehensive picture of roadway performance and corridor throughput that often extends beyond jurisdictional and modal boundaries. Coupling performance data with TSM&O strategies enable decision makers to focus investments on specific areas where improved access needs exist. Planning for Operations is the promotion of system management and operations strategies within the multimodal planning processes of our local, regional, State, and Federal partners. The overarching goal is to provide seamless access to people, jobs, services, and goods and to improve safety, security, reliability,

the economy and livability with sustainability for all modes. Both TSM&O and ICM strategies hinge on effective interagency collaboration and the proactive integration of multi-modal and multi-jurisdictional transportation systems statewide.

The most effective transportation system operations require partnerships to:

- Identify, prioritize and implement strategies to improve the State's performance challenges
- Share maintenance and operational responsibilities and liability between partner agencies
- Improve the return on the transportation investment through collaborative effort

Successful integration of multi-modal and multi-jurisdictional systems, services, and projects through a performance-based decision making process will aid in achieving the national performance goals set forth in Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21) and Caltrans' mission/vision/goals and will in turn maximize the public's return on investment in California's transportation infrastructure.

### *Livability*

Each planning document and policy related to transportation planning and land use is aimed at enhancing the livability of communities, from urban to suburban and rural. Livability, as defined by the Federal Highways Administration (FHWA):

...is about tying the quality and location of transportation facilities to broader opportunities such as access to good jobs, affordable housing, quality schools, and safer streets and roads.<sup>5</sup>

The US Department of Transportation (DOT), US EPA, and US Department of Housing and Urban Development (HUD) identified six livability principles, which are:

- Provide more transportation choices to decrease household transportation costs, reduce our dependence on oil, improve air quality and promote public health.
- Expand location- and energy-efficient housing choices for people of all ages, incomes, races and ethnicities to increase mobility and lower the combined cost of housing and transportation.
- Improve economic competitiveness of neighborhoods by giving people reliable access to employment centers, educational opportunities, services and other basic needs.
- Target federal funding toward existing communities – through transit-oriented and land recycling–to revitalize communities, reduce public works costs, and safeguard rural landscapes.

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<sup>5</sup>Federal Highway Administration [<http://www.fhwa.dot.gov/livability/>] accessed March 13, 2015

- Align federal policies and funding to remove barriers to collaboration, leverage funding and increase the effectiveness of programs to plan for future growth.
- Enhance the unique characteristics of all communities by investing in healthy, safe and walkable neighborhoods, whether rural, urban or suburban.<sup>6</sup>

### *Emergency Response and Deployment Centers*

Emergency preparedness is another key component of a comprehensive interregional transportation system. The ability to move first responders, emergency support, and people efficiently between communities in times of need is a priority consideration of the State. Equally important, the ability of a region to bounce back quickly from an incident is partially linked to interregional transportation.

All modes of transportation, including surface, air, rail, and maritime, contribute to response and recovery efforts. In many cases, the movement of people and/or materials requires the use multiple modes to complete the journey from a resource center through several regions before finally reaching the area of need. Ensuring that interregional connections are not reliant on just one or two modes is uppermost in the minds of emergency logistic managers. System redundancy, alternative routes, and mode selection choices are factors weighed hourly as the demands of incidents escalate and deescalate over time. The ability to adapt to changing situations can be substantially improved with a sound and diverse interregional transportation system.

Future improvements to sustain a resilient emergency highway and road system would benefit from continual exploration in technological enhancements. Portable and self-illuminating message signs that can be deployed throughout a region can facilitate the movement of traffic around hazard areas or direct traffic to resource centers. Enhanced communication systems that can report road conditions to emergency operations centers in real time are essential to minimize time delays during lifesaving missions. Also, reporting of roadside weather information can be essential during emergency medical response. In short, some highway and road improvements that seem routine actually play a critical role in the efficiency of emergency response. Consideration is encouraged for those improvements that not only support daily operations, but also play a significant role in emergency management.

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<sup>6</sup>United State DOT [<http://www.dot.gov/livability/101>] accessed March 13, 2015

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## *Chapter 2: Caltrans Long-Range Planning Process*

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## Chapter 2: Caltrans Long-Range Planning Process

The interregional transportation system is one element of the overall transportation system and must fit within goals and strategies defined by other plans prepared by Caltrans, the RTPAs and MPOs. Linking Caltrans' mission and goals to the CTP and the other modal plans, one of which is the ITSP, was vital to ensuring a consistent approach to system management and investment. Divergent implementation strategies across the plans and programs would lead to inconsistent system investment, which would be counterproductive to developing a comprehensive and efficient transportation system. The following section illustrates how the ITSP and other statewide plans work in coordination.

### Section 2.1: ITSP Priorities

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The statewide areas of emphasis previously mentioned were incorporated into the vision and objectives of the ITSP. Information from the ITSP public outreach helped to better inform the vision and objectives, along with the more detailed goals identified later in the plan.

Caltrans conducted five public workshops throughout the State, a webinar, as well as a Native American Tribal webinar to receive feedback from the public on what were deemed to be the most important corridors for interregional movement, the type of investment, and their preferred mode of transportation.

#### ITSP Vision and Objectives

Through discussions with internal functional areas, partner agencies, and public outreach, common goals were identified and developed into a vision that informed and inspired every step of the Plan's development:

*A well-developed, high-quality, multimodal interregional State highway and inter-city passenger rail network that serves as the backbone for the movement of people and goods throughout California.*

Consistent with the CTP, the ITSP vision speaks to the responsibilities of Caltrans in managing the interregional transportation system and ties directly to Caltrans' mission and goals. It also shows that the interregional transportation system must link regions together, urbanized and rural, to ensure a comprehensive transportation system.

All analyses of the interregional transportation system must consider not only the vision and the objectives of the ITSP, but also how they link to the CTP and the mission and goals of Caltrans.

**Table 3: ITSP Objectives**

Interregional Transportation Strategic Plan’s Objectives	
Accessibility	Provide access for people and goods to and through all regions of California
Reliability	Ensure that the interregional transportation system is reliable and efficient for the movement of people, goods, services, and emergency response
Safety	Develop and operate a safe interregional transportation system for all travelers
Integration	Optimize multimodal connectivity throughout the interregional transportation system
Economy	Improve interregional connectivity to enhance California’s diverse economy
Sustainability	Improve and manage California’s interregional transportation system in an environmentally sensitive, economical, and equitable manner

**Table 4: Goals Comparison Chart**

Caltrans	CTP 2040	2015 ITSP
<b>Goals</b>	<b>Goals</b>	<b>Objectives</b>
<b>System Performance</b>	Improve Multimodal Mobility and Accessibility for All People	Accessibility - Provide access for people and goods to and through all regions of California.
		Reliability - Ensure that the interregional transportation network is reliable and efficient for the movement of people, goods, services, and for emergency response.
<b>Sustainability, Livability, and Economy</b>	Support a Vibrant Economy	Economy - Improve interregional connectivity to enhance California’s diverse economy.
	Preserve the Multimodal Transportation System	Sustainability - Improve and manage California’s interregional transportation network in an environmentally sensitive, economical, and equitable manner.
	Practice Environmental Stewardship	
<b>Safety and Health</b>	Improve Public Safety and Security	Safety - Develop and operate a safe interregional transportation network for all travelers.
<b>Stewardship and Efficiency</b>	Foster Livable and Healthy Communities and Promote Social Equity	Integration - Optimize multimodal connectivity throughout the interregional transportation network.

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## Section 2.2: Statewide Planning

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Long-range statewide planning is necessary to establish strategies for managing the transportation system. It is vital that those strategies tie directly to the mission and goals of Caltrans to ensure the system is comprehensively maintained and improved. These long-range planning activities provide guidance to districts and regional agencies in the development of interregional transportation improvements.

### Caltrans Mission and Goals

In 2014, Caltrans adopted a new mission and five new goals. The mission is clear and simple:

*Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.*

Caltrans' five goals are: Safety and Health; Stewardship and Efficiency; Sustainability, Livability, and Economy; System Performance; and Organizational Excellence. These goals were used to guide development of the ITSP. The ITSP outlines how the interregional transportation system will meet Caltrans' mission and goals.

### California Transportation Plan and Other Long-Range Plans

The CTP is the overarching long-range planning document for Caltrans and transportation agencies across the State. The CTP provides a long-range policy framework to meet our future mobility needs and reduce greenhouse gas emissions. It defines goals, performance-based policies, and strategies to achieve our collective vision for California's future statewide, integrated, multimodal transportation system. The CTP envisions a sustainable system that improves mobility and enhances our quality of life.

CTP 2025, the current plan, was approved in 2006 and updated by a 2030 Addendum in 2007. In response to SB 391, CTP 2040 was initiated in early 2010 with the development of the CIB. The CIB is a state-level transportation blueprint that articulates the State's vision for an integrated multimodal transportation system that complements regional transportation plans and land-use visions. The CIB provided the foundation for development of CTP 2040, which is expected to receive approval by the Secretary of the CalSTA in December 2015.

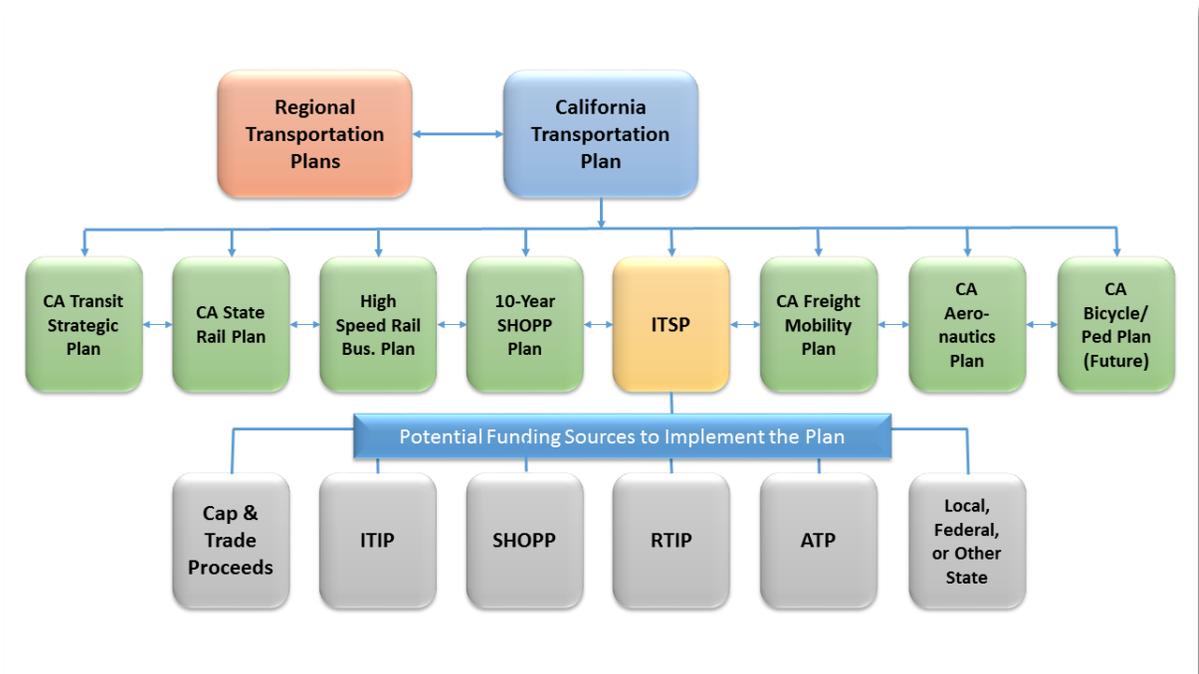


Figure 5: Long-Range Transportation Plans and Funding Sources

The CTP articulates a high-level policy framework for Caltrans and all transportation planning agencies in California. This framework is meant to be integrated into other planning efforts including the ITSP. Figure 5 shows the relationship between the CTP, the multimodal ITSP, and the five mode-specific plans: the California Freight Mobility Plan, the High-Speed Rail Business Plan, the California State Rail Plan, the California Aviation System Plan, and the California Transit Strategic Plan. Caltrans recently announced development of a sixth modal plan: the California Statewide Bicycle and Pedestrian Plan.

Consistency of various modal plans with the CTP is critical for the sake of efficiency and unity of purpose. It was therefore important to coordinate with a variety of stakeholders. The ITSP must also be consistent with other Caltrans plans and other agencies, such as the California Strategic Highway Safety Plan and the California High-Speed Rail Business Plan. The ITSP is a multimodal plan that incorporates all transportation modes into one interregional transportation system. Policies and plans within the other modal plans are incorporated into the vision of the ITSP and the identified multimodal corridor concepts.

As Figure 5 illustrates, the potential funding that supports interregional improvements includes not only the ITIP, but also a variety of other funding sources. Partnerships are the key to developing and maintaining a world-class interregional transportation system that supports California.

## District System Planning

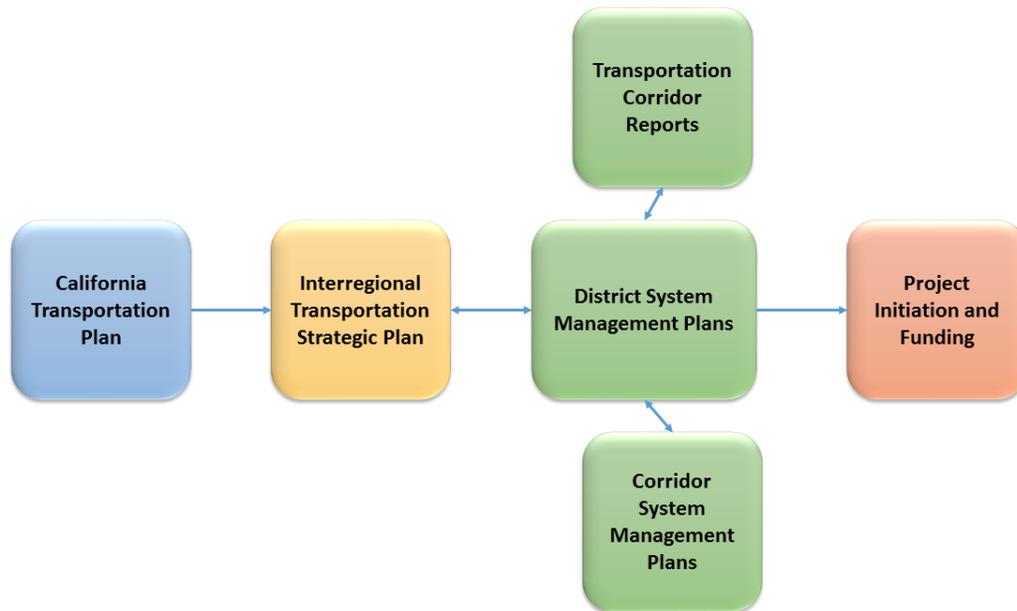


Figure 6: Transportation Planning Process

System Planning is Caltrans' long-range (20-25 year) transportation planning process that evaluates existing and future operating conditions on the SHS and recommends enhancements to improve system operations and mobility. California Government Code 65086 states that Caltrans, in consultation with transportation planning agencies, county transportation commissions, counties, and cities, shall carry out long-term SHS planning to identify future highway improvements. In compliance with California Government Code 65086, the purpose of system planning is to provide a long-term assessment of the SHS to identify current and future improvement. It is a continuous, cooperative, and comprehensive process that considers the entire transportation system, including all transportation modes and facilities.

The core system planning documents include the ITSP, District System Management Plans (DSMP), DSMP Project List, Corridor System Management Plans (CSMP), and Transportation Concept Reports (TCR), as seen in Figure 6. Caltrans has a vital role in the development and management of California's transportation system by providing valuable planning and analysis from the statewide interregional perspective. This perspective ensures that essential multiregional access continues to support California's vibrant economy.

- The statewide ITSP guides investments on high-priority interregional routes.
- The District-based DSMP is a long-range strategic policy and planning document that focuses on maintaining, operating, managing, and developing the transportation system.

- The DSMP Project List is a long-range list of conceptual, planned, and partially programmed SHS transportation projects used to recommend projects for funding.
- The CSMP is a complex, multijurisdictional planning document that identifies future needs within corridors experiencing or expected to experience high levels of congestion.
- The TCR is a long-range (20-25 years) planning document developed by each district for each route on the SHS within the district.

### Regional Planning

RTPAs and MPOs conduct regional planning, which is coordinated with the Caltrans' System Planning process. Caltrans and the RTPAs and MPOs must coordinate transportation activities to ensure improvements seamlessly benefit the entire system and do not lead to unanticipated negative impacts. The purpose of regional transportation planning is to prepare and provide for the region's mobility in a fiscally and environmentally responsible manner, consistent with the needs, preferences, and sensibilities of the community.

Regional Transportation Planning for Native American Tribal Governments is also long range (20+ years) and area-wide. It is developed through formal consultation with tribal governments and the combined efforts of federal, State, regional, and local agencies; public entities; private and community-based organizations; and individuals.

The RTP, also sometimes referred to as a Metropolitan Transportation Plan (MTP) or Long-Range Transportation Plan, is the mechanism used in California by both MPOs and RTPAs to conduct long-range planning in their regions. The purpose of RTPs is to encourage and promote the safe and efficient management, operation and development of a regional intermodal transportation system that, when linked with appropriate land-use planning, will move people to destinations and goods to market.

### Section 2.3: Native American Tribes and the State of California

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As a result of federal policies implemented in the 1970s to relocate Indians from reservations to urban centers, California has the largest Native American population of any state in the nation. California's Native Americans are strongly concentrated in major cities, such as San Francisco, San Jose, and Los Angeles. From 2000 to 2010, the Native American population increased at a faster rate (18.4 percent) than the State's population as a whole (9.7 percent). In accordance with Governor Edmund G. Brown Jr.'s EO B-10-11, the State engages with Native American groups in consultation with, and for advancement of, environmental justice goals. The State is also required to engage in government-to-government consultation with federally recognized tribes on State actions that may impact tribes. The State engages in consultation with individual tribal governments on matters affecting their respective lands, cultural heritage sites, and other matters particular to their interests.

Tribal consultation is a vital step in the transportation planning process. Federally recognized tribes are held to be sovereign nations. As such, they possess a right to self-governance—to make and be governed by their own laws. Each tribal government administers essential programs and provides services to both the tribal and non-tribal members of its community. Once a tribe achieves federal recognition status, the US, by law, must engage with it in a formal, government-to-government relationship. The US government has a fiduciary obligation to protect tribal lands, assets, resources, and treaty rights for the benefit of tribes and their members.

In addition to supporting federal laws, such as Section 106 of the National Historic Preservation Act, which mandates consultation with tribal governments, Caltrans upholds several additional requirements imposed by the State. Caltrans also complies with CalSTA's Tribal Consultation Policy, which obligates it to respect tribal sovereignty and pursue good-faith relations with tribes. In addition, Caltrans upholds Director's Policy 19, "Working with Native American Communities," which requires the Department to "recognize and respect important California Native American rights, sites, traditions and practices."

### Tribal Communities

There are 110 federally recognized Native American Tribes throughout California, each with its own tribal government and whose communities have a variety of unique transportation needs. Most communities are in rural areas, and most have tribal lands on a State highway or very near one. To ensure that Native American tribes receive equal access to the transportation system, it is critical that State and local government agencies collaborate with tribal agencies during the transportation planning process. Tribal communities consist of tribal members, non-member Native Americans, and non-Native Americans who may be California citizens. Partnerships between tribes and the State are vital to the provision of safe, consistent, high-quality transportation facilities to all Californians. Native American communities rely on an efficient and productive transportation system.

### Consultation, Coordination, and Engagement

Cooperation between non-tribal and tribal governments has resulted in many beneficial transportation projects. For example, collaboration in Sonoma County's Alexander Valley between the County and the Dry Creek Rancheria produced a program for multimodal transportation improvements. Strong working relationships between regional agencies are particularly important because the MPOs and RTPAs control most transportation funds. Regional agencies have a responsibility to include tribal governments as sovereign governments and land-use authorities in the transportation planning process. The San Diego Association of Governments (SANDAG) has successfully worked to respect and include tribes in the planning process. The SANDAG-Tribal Transportation Working Group is a model for Tribal-MPO partnership. In pursuing these partnerships, it is important to ensure that all government agencies involved in transportation, such as the Bureau of Indian Affairs (BIA) and Federal Highway Administration (FHWA), are included.

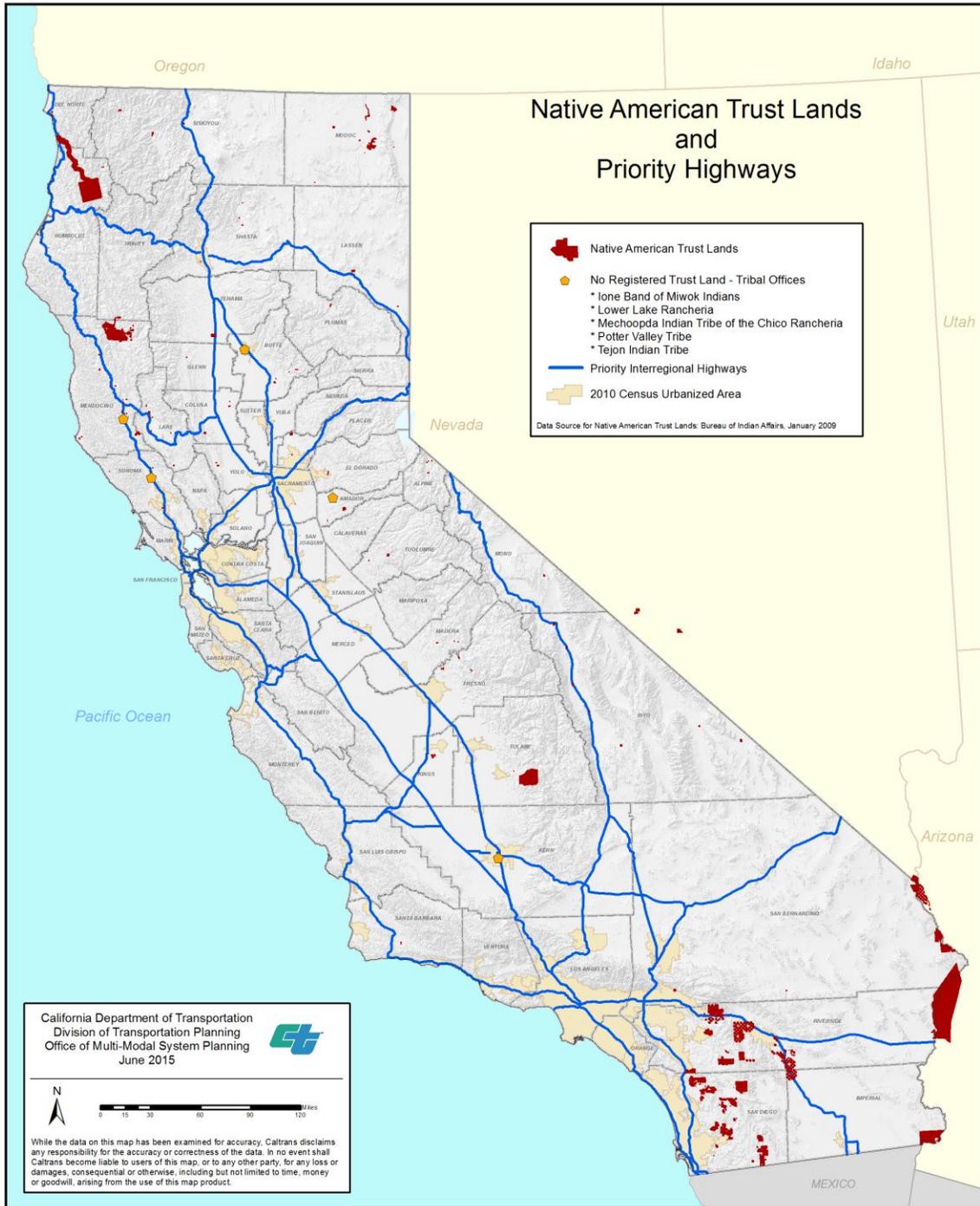


Figure 7: Native American Trust Lands and Priority Highway Facilities in California

### Tribal Lands and the Transportation System

Tribal governments provided essential tribal input to guide the direction of the 2015 ITSP. Through ongoing coordination, tribal governments helped draft policies and practices that will ensure tribal transportation goals and needs are considered and addressed throughout all of the State's long-range plans. Engagement efforts during the development of the CTP 2040, in conjunction with the development of the CFMP and ITSP, included a series of tribal listening sessions.

At the State level, consistency in consultation processes across all California modal plans provides greater clarity and transparency in the planning process. Consultation also empowers tribal governments to help shape the transportation system for the benefit of their tribes and to preserve tribal sacred sites in advance of construction. At the planning stages, it is necessary to coordinate with tribes and provide information about upcoming projects that affect them. During the consultation process, it is important to respect the diversity among California tribal governments and to avoid a one-size-fits-all approach.

Great expanses of California are considered sacred or spiritually significant to the State's Native American populations because they contain burial grounds, traditional foods and materials, or cultural resources. The federal government holds some of these lands in federal trust, and trust lands are located throughout the State but are heavily concentrated in the areas east and south of Los Angeles and along the Northern California coast. In general, most are situated in rural areas. Many tribal members live on these lands, but not all tribes have reservations or rancherias. Some tribal members from acknowledged or unacknowledged tribes live on allotment lands that the federal government holds in trust for individual allotment owners.

The State's transportation system provides tribal lands with vital connectivity and access to services. However, given the rural location of most reservations and rancherias, tribal populations often have difficulty accessing the transportation system. This difficulty exists despite the proximity of many tribes to the SHS. About 91 percent of federally recognized tribes occupy trust land within five miles of a State Route. Of the 110 federally recognized tribes, 86 (78 percent) occupy tribal land within two miles of State Routes, and 39 tribal governments (35 percent) have trust land that actually intersects with the SHS.

Many tribal members rely on transit services for access to employment, medical services, socializing, and shopping. To meet the demand, tribes have established a variety of transit, paratransit, and other public transportation programs. The Chemehuevi Tribe, which occupies tribal lands straddling the Colorado River in Southern California, operates a ferry service across the river. Tribes have received federal grants to support transit. In federal fiscal year 2013, five California tribes received \$651,000 in discretionary funds (12.9 percent of the national total for discretionary funds). In federal fiscal year 2014, eight tribes received \$531,845 in formula funds (2.1 percent of national total for formula funds).

Partnership opportunities also exist to enhance interregional transportation system access through expanded transit service. Caltrans can also partner with tribes to construct

bicycle and pedestrian improvements on conventional highways through tribal lands. This would be in accordance with the Caltrans guidance on Complete Streets.<sup>5</sup> More funding is necessary to ensure the continued growth and viability of tribal transit services.

### Transportation and Economic Development

Native American tribes can reduce unemployment through Tribal Employment Rights Ordinances (TEROs), which are legislative acts of the governing body of a federally recognized tribe. Employment policies and programs pursuant to a TERO create opportunities for Native Americans. TEROs especially benefit Native Americans in rural counties and in regions with limited economic opportunities, high unemployment rates, and poverty. Hiring preferences, job skills banks, and training are examples of policies and programs that could be instituted by TEROs. Caltrans supports these policies and programs and related implementation guidelines.<sup>6</sup> These guidelines mandate that when constructing a project on tribal lands, Caltrans will work with a tribe to implement its TERO ordinance through a Memorandum of Understanding (MOU) with the tribe. This policy ensures that Caltrans partner with tribes to promote their economic development.

Tribal gaming has become a popular way to generate revenue and job opportunities. As of July 2014 the California Gambling Control Commission identified 60 active tribal casino gaming sites throughout the State. These gaming facilities, with their complementary amenities, generate significant freight activities, such as shipment of food, supplies, building materials, and waste disposal. In 2010, tribal gaming generated over \$7.5 billion through operations, with more than half (\$3.9 billion) from direct spending at gaming operations and off-reservation trade.<sup>7</sup> In addition, tribal gaming has created over 52,000 jobs, generating over \$2.7 billion in annual tribal and non-tribal employment income.

Many tribal gaming sites are clustered in Southern California and in northern portions of the State, with several scattered throughout the Central Valley. Due to their rural locations, many of these facilities possess only one route for ingress and egress, which is shared by freight, customers, emergency services, and employee traffic. Transportation is thus a vital component of gaming tribes' economic development and contributes to their well-being.

### Diversity of California Tribal Communities and Transportation Needs

California tribal communities are scattered throughout the State and their transportation needs vary. A majority of the tribes are located in rural settings where members must travel far for goods and services. Others are located in urban areas with more convenient transit, bicycle, road, and pedestrian services. When working with tribal governments, it is important to recognize that each tribe has unique needs that may change over time.

For example, the Agua Caliente Band of Cahuilla Indians are located in the urban Coachella Valley. Their transportation needs, which include improving bike lanes and supporting existing local transit services, are similar to those of other urban communities. The Yurok Tribe is located in rural Northern California, and much of their land lacks convenient local and interregional transportation access. The Yurok Tribe is therefore

developing innovative water taxi services to suit their particular needs. Throughout the State, tribal governments are customizing transportation solutions that meet their communities' needs, and Caltrans supports these efforts.



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## *Chapter 3: Elements of the Interregional Transportation System*

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## Chapter 3: Elements of the Interregional Transportation System

The interregional transportation system is a multifunctional network of transportation infrastructure and operational systems that support travel to, through, and between geographical regions. For the purpose of the ITSP, interregional travel, is identified as long-distance, non-commute-related trips between regions. Interregional travel primarily involves the transportation of people and freight and may involve a variety of travel modes for different purposes.

### Section 3.1: Overview of the Interregional Transportation System

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The majority of interregional movements take place on either rail corridors or freeways and highways, with the highest volume of trips made by automobiles, freight trucks, and freight and passenger trains. Active transportation modes, like bicycling and walking, along with bus and light rail transit, are significant regional elements of California's transportation network that feed into the interregional system and help to complete and interregional trip. Thus, the complete statewide transportation system comprises both long-distance interregional facilities and short-distance regional nodes.

The interregional transportation system in California includes the following major components:

- California High-Speed Rail
- The network of existing intercity passenger rail services (Capitol, Pacific Surfliner, and San Joaquin Corridors), as well as new routes proposed in the Coast Corridor and Coachella Valley
- Freight Rail
- The SHS, which includes interstates and highways

These routes and facilities create the backbone of an interregional transportation system that provides basic long-distance connection between regions for movement of people and goods. The entire system is managed and maintained by a variety of agencies.

Passenger rail services are maintained through a partnership between the California High-Speed Rail Authority, Caltrans, Amtrak, Joint Power Authorities (JPAs) for the individual routes, and private freight moving companies (Union Pacific and BNSF). All three intercity passenger rail routes operate on track that is owned by the freight rail industry. A significant amount of coordination is required between passenger rail operators, local and regional governments, and the private freight rail industry to balance and share the two types of rail service.

The SHS, combined with local and regional transportation networks, supports a variety of transportation modes. Automobiles and freight trucks both use the SHS and the local networks at a high level, constantly traveling considerable miles through the system. Non-motorized modes, such as bicycles and pedestrians, use some of the same facilities, although the majority of those trips are local and regional. Transit services provide local

service as well as linkages to interregional travel. Transit services that impact interregional travel include local services within communities and true interregional services connecting towns and regions across the State. Regional and local agencies have assumed lead responsibility for completing short-distance linkages to the interregional transportation system. Such linkages include, but are not limited to, local pedestrian, bicycle, and transit facilities, along with local arterials and roads that support commute travel and other daily activities.

Many of the first-and-last-mile connections are located in local and regional transportation networks. These connections provide critical access to local and regional destination centers for business or recreation, ports of entry, or multimodal, importation transportation hubs. Local and regional transportation networks also play an important role in the interregional transportation system. These networks link local communities, ports and freight rail stations, businesses and recreational activities, and bicycle and pedestrian facilities with the backbone interregional facilities. Local and regional networks and the traditional interregional rail and highway facilities are codependent systems that form the complete statewide transportation system.

Many individual elements affect the performance of the interregional transportation system as a whole, thus, the system must be developed holistically. Identifying the appropriate size and context for any transportation facility enhances the efficiency and safety of the system for all the users, including bicyclists, pedestrians, transit riders, truck drivers, and automobile drivers. Equally important but more complex considerations include land-use patterns within communities, job-housing distribution, development of alternate fuel infrastructure, and many others that shape the effectiveness and sustainability of the entire transportation system. In essence, all transportation decisions, regardless of level, impact interregional transportation.

### Section 3.2: State Highways System

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Caltrans is responsible for developing, operating, and maintaining the SHS in coordination with regional and local agencies. The system is fundamentally important to the economy and well-being of the State and its population. California's position on the Pacific Rim and within the North American trade corridors is a key consideration in the strategic planning of SHS improvements.

The people of California are the owners and operators of the SHS. The California State Legislature assigns responsibility for the SHS to Caltrans. Caltrans is responsible for the long-range planning, design, construction, operations, and maintenance of the system. Safety, maintenance, rehabilitation, and operation of the system are the top priorities for expenditure of State highway funds. As trustees of the system, Caltrans administers the SHOPP for safety, rehabilitation, and operational improvements. Caltrans carries out its responsibilities in cooperation, collaboration, and coordination with regional and local agencies. Caltrans also engages in formal consultations with Native American tribal governments on these same issues and other matters.

### State Highway System

The SHS comprises approximately 51,326 lane-miles of roadway. A vast majority of conventional highways in the State do not restrict access.



Most conventional highway route-miles are in rural areas. Conventional highways provide reasonable service for most areas, especially for rural and lower-volume routes. Some conventional highways also serve as high-traffic-volume arterial roadways in large urban areas. Significant growth in California's population is expected to create a need for greater capacity on many conventional routes.

Almost all of the freeway system in the largest urbanized areas was completed two decades ago, but some gaps remain. The system was designed to accommodate projected population and traffic growth for the 1970s and 1980s. Current traffic volumes on most urban freeways far exceed those projected "design" volumes. Advances in traffic management and operational improvements, such as ramp metering, high-occupancy-vehicle-lane networks, and other managed lanes, equip urban freeways to better handle these higher traffic volumes in peak periods. However, travel demand on some routes regularly exceeds the capacity of the highway. Regional efforts to manage congestion through transportation demand strategies, bus, and guideway construction, as well as investments on passenger rail service for metropolitan area trips, are all necessary components of a complete transportation system.

#### Interregional Road System (IRRS)

The IRRS was first identified by statute in 1989 as part of the Blueprint Legislation (a ten-year transportation funding package that created by AB 471, SB 300, and AB 973). The IRRS, a subset of the 265 SHS routes, provides connectivity between California's major regions. There are currently 93 statutory IRRS routes, with many interstates among them. The IRRS was conceived as part of the larger effort to address the State's critical transportation system funding and development needs. The implementation of IRRS improvements is dependent on prioritization of State transportation revenues. In addition, SB 45 requires that the ITIP include a specific allocation of funds to be programmed on IRRS routes in non-urbanized areas.



Figure 9: 2013 California State Rail Plan Passenger Rail Corridors

### Section 3.3: Intercity Passenger Rail

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Intercity passenger rail in California is one of the key elements of the statewide interregional transportation system. The intercity passenger rail network includes multiple routes that connect California's metropolitan regions and cities, provides access to the State's rural areas, and provides travel options within the interregional corridors identified in this ITSP. State investments in the intercity passenger rail system are important for integrating the intercity network with other high-speed rail, commuter rail, and regional transit systems; optimizing performance of the entire statewide rail network; expanding ridership; and providing convenient, seamless interregional travel options.

State investment in expansion of the passenger rail network yields benefits that support the goals and objectives outlined in Chapter 2. Intercity passenger rail is a viable modal alternative to the automobile, positioned to address environmental, economic, and population growth challenges, such as increased travel demand, traffic congestion, and GHG emissions. For instance, the 2013 CSRP estimates that long-term, statewide investments in passenger rail will benefit interregional travel through:

- **Economic benefits:** Implementation of improvements assumed in the 2013 CSRP is estimated to result in over \$7.1 billion in rail user and non-user economic benefits over the life of the plan, which is associated with shifts from auto to rail. Some of the economic benefits include reduced congestion levels, shortened travel times, accident reductions, and reduced pollution emissions.
- **Population growth challenges:** Expansion of the passenger rail system is necessary to serve long-term interregional travel needs associated with projected population growth in California. Passenger rail system improvements will serve these travel needs more efficiently and cost-effectively than strategies that prioritize highway and airport expansion.
- **Environmental benefits:** Implementation of passenger rail service will reduce GHG and air pollutant emissions.

Strategic Interregional Corridors included in the ITSP are based on planning by both Caltrans and the CHSRA for integrated conventional and high-speed intercity passenger rail, and planning efforts by the CalSTA, which oversees these respective efforts, to integrate these and other regional rail systems.

#### California Intercity Passenger Rail Network

Intercity passenger rail provides transportation in the form of both traditional and High-Speed Rail through daily services between metropolitan areas, to rural areas, and to points beyond California's borders. The intercity passenger rail network in California includes the traditional intercity rail corridors supported by Caltrans, as well as planned high-speed rail service being developed by the CHSRA. These corridors also accommodate or provide connections to commuter rail corridors and public transit systems across the State, all of which are administered by different regional entities. Given Caltrans and

CalSTA network integration focus, the entire intercity and commuter passenger rail system, as currently administered and planned, is described in this Chapter. Passenger rail corridors in California are shown in Figure 9 and are described in more detail below.

The intercity passenger rail services provided in California include both State-supported routes that connect the major metropolitan areas within the State and long-distance routes to destinations outside of the State. The planned California high-speed-rail network is included as an integral part of this system.

### *California High-Speed Rail*

The CHSRA is responsible for planning, designing, building and operating the first high-speed rail system in the nation. The CHSRA was created in 1996 by the State Legislature to prepare a plan and design for construction of a high-speed rail system to connect the State's major metropolitan areas. High-Speed Rail in California is defined in the Public Utilities Code as intercity passenger rail service utilizing an alignment and technology that make it capable of sustained speeds of at least 200 miles per hour. The authority for planning, constructing, and operating intercity passenger rail service in excess of 125 mph is exclusively assigned to the High-Speed Rail Authority (PUC 185032(a)). The Federal Railroad Administration (FRA) 2009 High-Speed Rail Strategic Plan also describes the type of high-speed rail service being planned by the CHSRA as frequent, express service intended to relieve highway capacity constraints between major population centers 200–600 miles apart, with few intermediate stops, and top speeds of at least 150 miles per hour on completely grade-separated, dedicated rights-of-way.

In November 2008, California voters approved Proposition 1A, authorizing the sale of State bonds as the major financing mechanism for planning, designing and constructing the nation's first high-speed rail system. The State subsequently secured \$3.3 billion in federal funds through the American Recovery and Reinvestment Act (Recovery Act) and other sources. These funds were to be used for planning and environmental work and to construct the first section of high-speed rail track in the Central Valley.

The Authority's most recent business plan, adopted in 2014, identifies a high-speed rail network to be implemented in phases. This phased implementation strategy assumes construction of the system in the following stages:

1. **Initial Operating Segment (2022):** An initial operating segment between the Central Valley and the San Fernando Valley with connections to intercity rail services at end points.
2. **Early Regional Bookend Investments and Bay to Basin Expansion (2026):** Early investment in projects on the Caltrain and Metrolink corridors to accommodate future high-speed rail service, and extension of high-speed rail service between the Central Valley and San Francisco through blended high-speed rail and Caltrain operations on the electrified Caltrain Corridor.
3. **Phase 1 Blended Service (2028):** The first phase of high-speed rail service on the network will be completed between San Francisco and Los Angeles through

blended Caltrain Corridor service, dedicated high-speed rail tracks between San Jose and Los Angeles Union Station, and service on an upgraded Metrolink Corridor between Los Angeles and Anaheim.

4. **Phase 2 Expansion:** Expansion of the California High-Speed Rail System from Merced to Sacramento and from Los Angeles to San Diego.

The California High-Speed Rail System will provide a new means of transporting people between major markets. Construction is underway in the Central Valley, which is part of the Initial Operating Segment. As additional investments are made and the system is delivered, connections will be made with the existing network, providing better service and more options for users.

The completed system will yield many benefits, including:

- New service to intercity passenger rail markets in the State over new infrastructure transcending current capacity constraints.
- Improvements in highway operations for freight and personal travel due to mode shift to rail.
- Improved and integrated regional passenger rail services connecting to the high-speed rail system.

#### *State-supported Intercity Passenger Rail*

The FRA 2009 High-Speed Rail Strategic Plan defines the type of intercity passenger rail service supported by the State as traditional service of more than 100 miles with as few as 1 to as many as 7-12 daily frequencies. Federal statutes also exclude commuter rail from the definition of intercity rail passenger transportation. For the purposes of this Plan, interregional rail service is defined as daily service between regions, and between metropolitan and rural areas, at intervals throughout the day. Interregional rail routes are generally longer than 100 miles.

Caltrans provides funding for three intercity passenger rail routes, which are operated under contract by Amtrak as the *Amtrak California* system. This system includes a connecting *Amtrak California Thruway* bus feeder system which is important for accessing statewide travel markets and supporting interregional ridership on the passenger rail routes. Initially, all three routes were administered by the State. As of 2015–16 the routes will be administered by separate Joint Powers Authorities.

State-supported intercity passenger rail service in California includes the following three routes:

- **Pacific Surfliner:** State-supported service began in 1976, with four round trips from Los Angeles to San Diego. Service as of spring 2015 includes 11 daily round trips from San Diego to Los Angeles, with five trips extending to Santa Barbara and two of those continuing to San Luis Obispo. Responsibility for administering the Pacific Surfliner route will be transferred to the LOSSAN Rail Corridor Agency

in 2015–16. This route provides service to 29 station stops between San Luis Obispo and San Diego, with major intermediate stops in Santa Barbara and Los Angeles. At 2.68 million annual passengers (in federal fiscal year 2014), this route is the second busiest in the national Amtrak system.

- **Capitol Corridor:** State-supported service began in 1991 with three round trips from San Jose to Oakland and Sacramento, including one extending to Roseville. Today there are 15 weekday round trips (11 on weekends) from Oakland to Sacramento, with one extending to Auburn, and seven daily round trips from Oakland to San Jose. Major intermediate stops are made in Sacramento and Oakland, with connections to San Francisco via Amtrak Thruway bus at Emeryville and San Francisco Bay Area Rapid Transit (BART) transfer opportunities at Richmond and the Oakland Coliseum station. Since 1998, the route has been administered by the Capital Corridor JPA. The Capitol Corridor is currently the third busiest route in the Amtrak system, having carried 1.42 million passengers in federal fiscal year 2014.
- **San Joaquin:** State-supported service began in 1979 with one round trip from Oakland to Bakersfield. Service as of spring 2015 includes four daily round trips from Oakland to Bakersfield and two daily round trips from Sacramento to Bakersfield. All trains have dedicated feeder bus connections to Los Angeles. The corridor serves 13 intermediate stops, with major stops in Stockton, Modesto, and Fresno. The Governor’s 2015–16 budget proposes a seventh roundtrip from Bakersfield to Oakland (the capital projects necessary for the expansion were partially funded with ITIP funds). This service carried 1.2 million passengers in federal fiscal year 2014, making it the fifth busiest route in the Amtrak system. Responsibility for administering the San Joaquin route will be transferred to the San Joaquin Joint Powers Authority in 2015–2016.

Amtrak Thruway connecting bus service extends the reach of intercity rail services by providing guaranteed connections to Amtrak trains. These dedicated buses connect passengers of the Pacific Surfliner, Capitol Corridor, and San Joaquin routes to a variety of locations across the State. A map of the routes can be found on the Amtrak website.<sup>7</sup>

There are two emerging intercity rail corridors identified in the CSRP. One will be located in Southern California, and the other will provide service along the Central Coast:

- **Coachella Valley Corridor:** Up to two daily round trips between Los Angeles and Indio are included in the 2013 CSRP for the new Coachella Valley Corridor.
- **Coast Corridor (Coast Daylight):** Up to two daily round trips between San Francisco and Los Angeles are included in the 2013 CSRP as part of the proposed Coast Daylight service. Implementation of the Coast Daylight will extend the Pacific Surfliner route from its existing northernmost endpoint in San Luis Obispo to downtown San Francisco.

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<sup>7</sup> <http://www.amtrak.com/ccurl/158/578/California-Thruway-Map-2012.pdf>

### *Amtrak Long-distance Routes*

The National Railroad Passenger Corporation (Amtrak) has been responsible for operating long-distance passenger rail service to California as part of its basic national system since 1971. Amtrak long-distance services currently provide the only passenger rail service to certain parts of the State and are operated without State support. These services include the following:

- **Coast Starlight:** Amtrak operates once-daily roundtrip service on the Coast Starlight route between downtown Los Angeles and Seattle, with major stops in San Jose, Oakland, and Sacramento.
- **California Zephyr:** The California Zephyr operates as a daily round trip between Emeryville in the San Francisco Bay Area and Chicago, with a major stop in Sacramento.
- **Southwest Chief:** The Southwest Chief provides daily roundtrip service between Los Angeles and Chicago, with major stops in Albuquerque, and Kansas City.
- **Sunset Limited:** The Sunset Limited provides roundtrip service three days a week between Los Angeles and New Orleans, with major stops in Tucson, El Paso, San Antonio (connection to Chicago via through cars carried to and from the Sunset Limited on the Texas Eagle), and Houston.

### *Commuter Rail*

Commuter rail service provides service within regions, and occasionally between regions, with more frequent service provided during peak weekday commute periods. Commuter rail provides regional connections to intercity passenger rail services in the State. Commuter rail operators in the State include Caltrain, Altamont Corridor Express (ACE), Metrolink, Coaster, and the planned Sonoma–Marin Area Rail Transit (SMART).

### *Interregional Rail Ridership*

Annual ridership for the three intercity rail services has grown from 2.7 million to 5.3 million since 1998, a 96 percent increase. The period from 1998 to 2008 saw an increase of 105 percent, which coincided with the Great Recession. Since then, ridership has consistently remained high, with more than 5 million riders every year. Investment by Caltrans and regional agencies to enhance intercity rail service should focus on improvements that increase ridership.

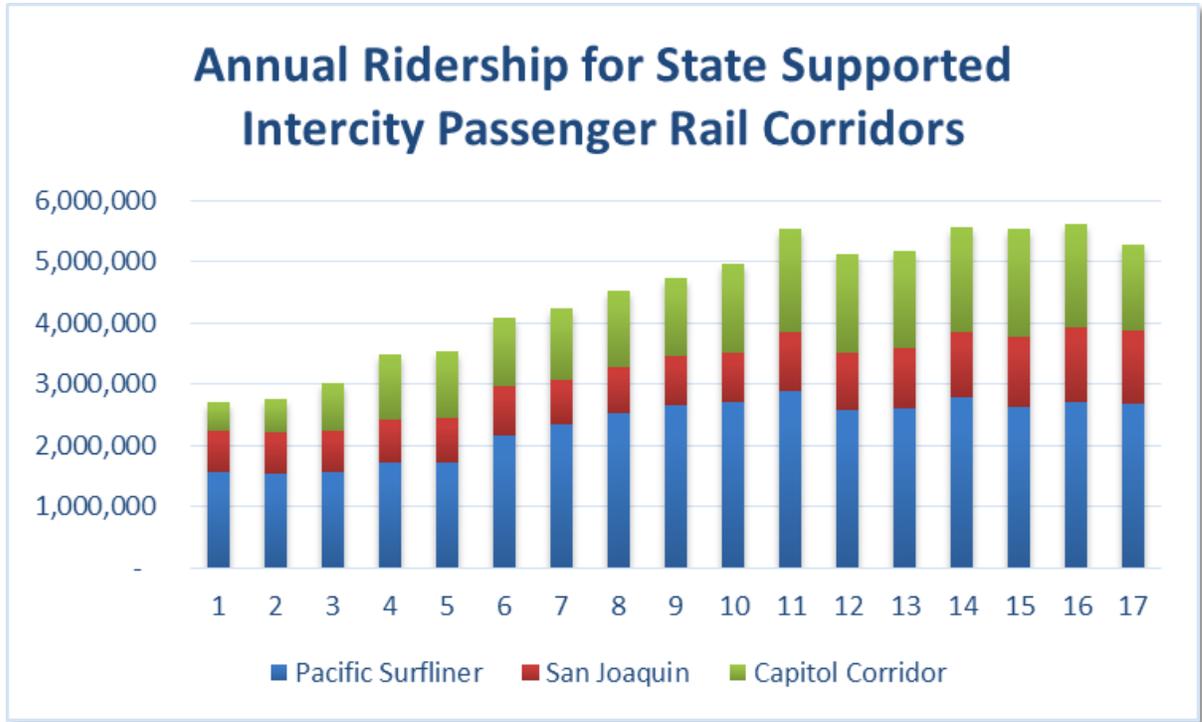


Figure 10: Ridership for State-supported Intercity Passenger Rail Corridors

### Section 3.4: California Freight Mobility

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The central pillar of the State's economy, California's freight transportation system provides core support for a wide array of industries and commercial activities. California's freight transportation industry helps create and grow vibrant communities, directly supports over 1.3 million freight-specific jobs in the State,<sup>8</sup> and has far-reaching impacts on national and international trade. It is the strongest freight transportation system in the nation, a position that is being competitively challenged by systems in other states and countries and by changing technology. To continue to successfully engage the global market, California will need to strengthen its position through strategic investment and maintenance of a sustainable freight system.

The State, its public agency partners, and the private sector have invested in California's freight system for more than 150 years, resulting in the nation's most diverse, highest capacity freight network, which not only links the State to the national and global economies but also serves as the nation's primary gateway to the Pacific Rim. This freight system has served California exceedingly well, enabling California to become the seventh largest economy in the world as of 2013. The State is committed to a broader long-term vision for accelerating the transition of California's robust multimodal freight system to one that's safer, less polluting, and more efficient and reliable.

#### Gateways, Corridors, Connectors, Hubs, and Initiatives

The freight system is generally comprised of: 1) gateways, 2) corridors, 3) last-mile connectors, 4) hubs, and 5) broad initiatives, as well as the vast fleet of vehicles, equipment and technologies that utilize the infrastructure. Focusing and prioritizing the hundreds of projects contained in the Freight Project List on these five focus areas can garner the most benefits to the State by concentrating resources in the areas of greatest freight activity and need.

#### Gateways

The national and international freight gateways for California are the State's seaports, airports, international border ports of entry, and major highway border points with neighboring states. Most of the goods and services that enter or leave the State pass through these nodes. Each gateway needs to function efficiently, minimize delay, ensure safety and security, and keep transaction costs to a minimum, all without creating impacts on neighbors. Each gateway requires specific actions and projects to address its unique needs.

#### Corridors

Connecting to each gateway are one or more highway or rail corridors that provide regional, State, intraregional, intrastate, and national connectivity. For the highway system,

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Footnote #7 missing.

the corridors are part of the proposed federal Primary Freight Network or are on the State Freight Network. As with the gateways, all of the goals can be applied to the corridors and all require focused investment and collaboration among jurisdictions, communities, and the freight industry, to make the needed improvements.

### *Last-mile Connectors*

Linking many of the gateways and corridors are “last-mile” connectors, which provide the final segment of the delivery stream. These roadways to sea and land ports, commercial airports, ships, and pipelines are essential, often-overlooked components of the freight system that require investment.

### *Hubs*

Freight hubs vary widely in scale and attributes. Generally, a hub is a place where freight modes intersect and freight is transferred between modes. Intermodal rail yards, transloading centers, and areas surrounding air cargo facilities and seaports are examples of freight hubs. Hubs may also serve as gateways. Freight projects at such hubs may be specifically identified to improve transaction speed, reduce impacts, improve safety, increase efficiency, expand capacity, and a range of additional actions.

### *Broad Initiatives*

Broad initiatives are actions, projects or programs that are implemented across a wide geographic area. Real-time truck driver information services, statewide safety programs, and energy conservation incentive programs are examples of broad initiatives. As mentioned frequently throughout the CFMP, air quality and energy transition objectives are among the highest priorities for the CFMP and are examples of broad initiatives.

### *The California Freight Mobility Plan*

The history of investing in California’s freight system by both the public and private sectors is most recently exemplified by the very successful TCIF program. This program is investing \$2 billion in voter-approved transportation infrastructure bonds to make capital improvements to key facilities and corridors that link the State and the nation to the global trade market. Passed in 2006, the measure has garnered approximately \$5.2 billion in additional matching funds from federal, State, regional, local, and private sources to deliver and construct 81 high-priority seaport, railroad, and highway projects for a total program investment of \$7.2 billion. The TCIF program is rapidly approaching the full allocation of available funding and most of the program’s projects are already under construction or have been completed. State legislation enacted in 2014 extends the TCIF program indefinitely and makes it eligible to receive and allocate non-bond funds, such as federal freight funding or new state-sourced funding. The program has been and will continue to be managed by the Commission in cooperation with an array of public agencies and the freight industry.

The CFMP builds upon the success of the TCIF in targeting infrastructure investments along the highest-volume freight corridors and at the busiest freight gateways. While the

CFMP recognizes the need to invest broadly in the State's widely distributed freight system in order to serve the freight needs of every region, the CFMP also recognizes the need for the preponderance of freight system investments to be applied where the freight volume demand is the highest and the need is the greatest, which is similar to the implementation of the TCIF. The CFMP divides the State's designated freight highway network into three tiers, with Tier 1 representing highways having the highest truck volumes and providing essential connectivity to and between key freight gateways and regions. The freight rail network is also divided into three tiers. The Tier 1 designations closely align with, but extend no further than, the corridors and facilities reflected in the TCIF Program. The CFAC and other freight stakeholders will collaborate to refine the tiered freight network, prioritizing the 700+ projects included in the CFMP. Priority will be given to those projects that meet the goals of this document. It is expected that the project list will be regularly updated to respond to the dynamic needs of the freight industry, emerging State and federal policies, and the regional planning process that includes freight projects in Regional Transportation Plans.

The CFMP improvement strategy is multi-tiered to comprehensively address the needs of the State's multimodal, integrated freight system, and to respond to the goals stated in the CFMP and their corresponding federal freight goals. This strategy allows freight projects the opportunity to seek a wide variety of funding sources and to accommodate the unique needs of California's diverse regions.

Six broad strategies have been identified to address the CFMP Vision and Goals as summarized below.

- Maintain and enhance existing assets
- Apply new technologies and system operations practices
- Address negative impacts of freight movement
- Strategically add new capacity
- Strengthen the collaborative approach
- Create dedicated, reliable, long-term freight funding programs



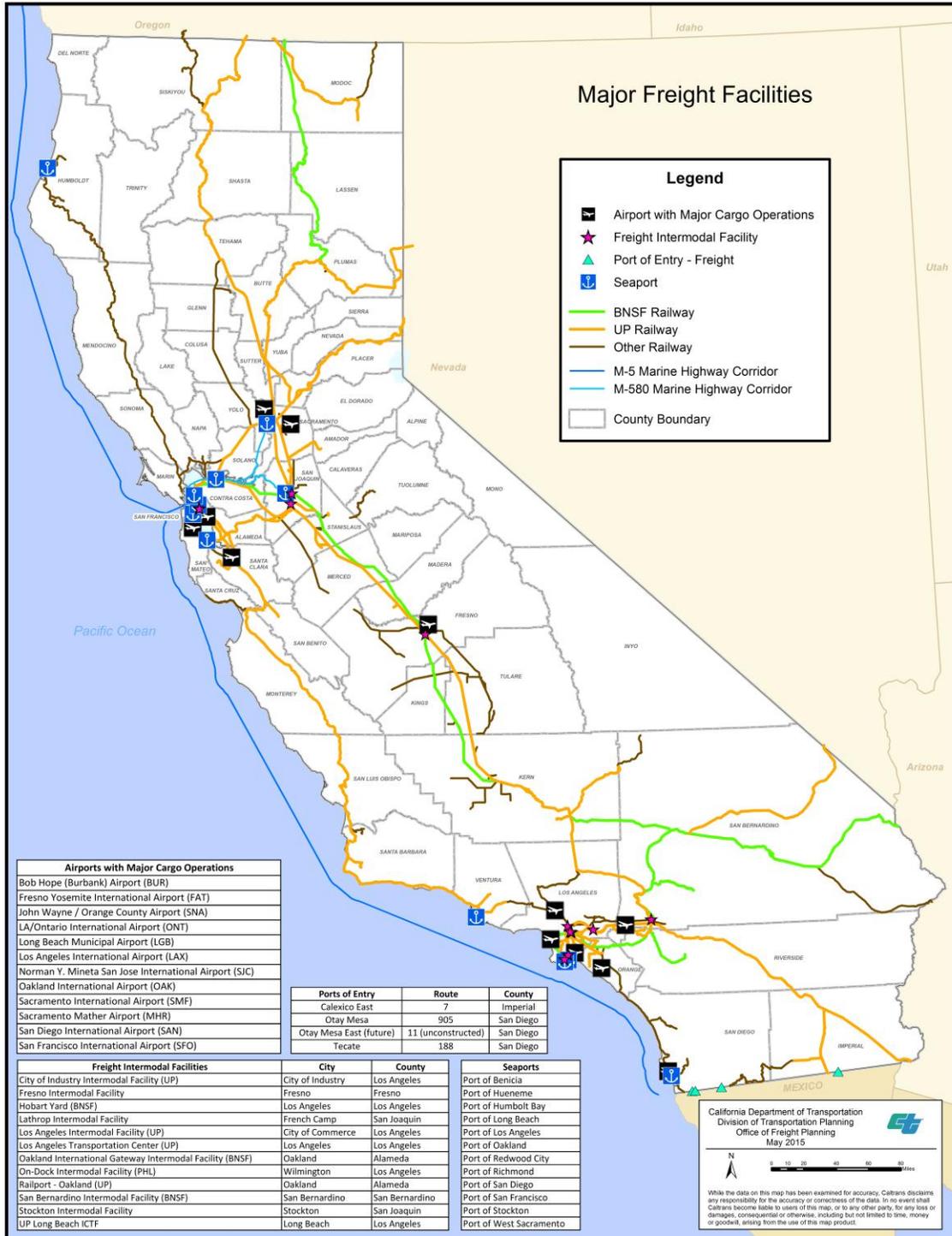


Figure 12: Major Freight Facilities

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### Section 3.5: Bicycle and Pedestrian Transportation

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Bicycle and pedestrian facilities are integral components of the statewide transportation system. Bicycling and walking for transportation purposes have both experienced a dramatic increase in popularity, with each doubling its mode share since 2000.<sup>9</sup> One such example is the ongoing multi-agency effort to complete the California Coastal Trail, which runs the entire length of the State's Pacific coast.

Over five million Californians, 13 percent of the State's population, live in rural areas.<sup>10</sup> Providing sustainable transportation services and active transportation options to a sparsely and widely distributed population presents special challenges when planning for a balanced, interconnected transportation system. Many State highways act as main streets in rural towns, providing important bicycle and pedestrian access for residents within the community. Connecting local bicycle and pedestrian facilities to the interregional transportation system should be a regional objective.

Multimodal commuting has grown nationwide. Many cities offer enhanced subway or rail service connectivity to major urban airports and regional employment centers. While this provides substantial benefits, it introduces the "first-and-last-mile" issue for interregional travelers. Frequently, this can be addressed by providing increased access to active transportation modes, such as bicycling. Additionally, simple, low-tech improvements, such as the increasing the visibility of signage at transit hubs and bus and rail stations, can cost-effectively connect interregional active transportation users with other transit services.

"Complete streets" is a "best practice" that has proven its worth in ensuring multimodal accessibility. A complete street is a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and context of the facility. The result is a transportation system that is more balanced and equitable for all modes of travel.

The integration of complete streets into all Caltrans work is consistent with Caltrans' mission, vision, and goals. We can create a safe, sustainable, integrated, and efficient transportation system only if we work to improve all modes of travel. This must be done through a performance-driven, transparent, and accountable approach, with strong leadership, innovation, teamwork, and collaboration with our partners. It is crucial that the elements of complete streets be considered on all interregional transportation projects at every step of the project process, from planning to implementation and maintenance.

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### Section 3.6: Interregional Mass Transit

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Interregional mass transit encompasses multiple modes of service, including high-speed rail, intercity rail, and interregional bus services that carry people long distances and

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<sup>9</sup> <http://www.dot.ca.gov/hq/paffairs/news/pressrel/14pr021.htm>

<sup>10</sup> <http://ruralhealth.stanford.edu/health-pros/factsheets/>

provide connections between regions. Effective mass transit is important because it increases the diversity of options available to serve various needs.

In addition to intercity rail previously discussed, interregional bus services, such as Amtrak Thruway, Greyhound, and Megabus, offer an important interregional mass transit mode using the existing interregional system. Intercity bus service provides critical links from rural areas to urban centers and other transportation facilities, such as intercity rail stations or local transit hubs.

Interregional bus services include but are not limited to:

- **Amtrak Thruway Bus Service**—This service is a component of the State-supported intercity passenger rail system operated by Amtrak, which provides connections to cities that do not have passenger rail service. Access to these services is limited to individuals who have purchased an Amtrak train ticket.
- **Private Companies**—Private companies, such as Greyhound, provide regular, long-distance bus service between cities and regions within and outside of California.
- **Coordinated Services**—Many local and regional transit providers coordinate their schedules so that the public can make interregional trips using multiple transit systems. The transit providers coordinate services to limit the wait time between connections.

Interregional bus services utilize the existing interregional system—not only freeways and highways, but also local streets and roads, which are generally used for the first and last miles of trips. It is important for roadways to be designed in a manner that accommodates interregional bus service. The travel lanes must be wide enough for the buses to maneuver safely, including the intersections and interchanges. Also, roads and highways must be designed to ensure all transit stations provide sufficient area for the safe transfer of passengers. Interregional bus services also provide important connections to and from intercity passenger rail, including high-speed rail.

Funding for transit services comes from a variety of sources, including many locally controlled funds, such as sales tax measures, local transportation funds, State motor vehicle fuel taxes, and operations revenues. Two major federal sources for interregional services are Federal Transit Administration 5309 New Starts program, which provides funding to establish new services, and FTA 5311(f) Continued Operations Program, a competitive program that funds transit projects that develop and support intercity bus transportation to rural areas of the State.

### Section 3.7: Aviation

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Aviation travel is inherently interregional. California's system of airports includes commercial, general aviation, military, special-use airports, heliports, and seaplane bases. Their contribution to mobility is speed and global access through their interregional, interstate, and international connectivity to airports throughout the world. Eleven of the nation's busiest airports are located in California, with a passenger boarding of 87.6 million—13.4 percent of the national total—for the year 2012. Nine airports netted the State

9.1 percent of the US total landed weight of 12.1 million pounds of air cargo, with 94.8 percent of that total going to four California airports: Los Angeles, Oakland, San Francisco, and Ontario. The value of air cargo handled from, to, and within California totaled \$198.9 billion in 2010.

Surface transportation is vital to the air cargo industry, providing essential connecting modes for the movement of goods. Goods that are relatively lightweight, time-sensitive, and/or of high value are often transported by air. High-tech industry items, such as computers and electronic equipment, are common air shipments. In addition, air shipment is an important option for agricultural perishables that demand just-in-time delivery and distribution. Nearly all air freight is intermodal because pickup and delivery services are provided by truck. Like other modes, ground access is critical to the efficient transportation of cargo to and from airports via freight vehicles.

Of the 245 State's public-use airports, 216 are general aviation (GA) and accounted for nearly 75 percent of statewide aircraft operations in 2011. Of the 216 GA airports, only 29 provide commercial service. In recognition of their contribution to regional connectivity, the CTP includes the 91 priority GA airports identified in the Caltrans California Aviation System Plan (CASP). These priority airports are the aviation equivalent to Strategic Interregional Corridors identified in the ITSP.

The 23 military airfields in the State also play a critical role in national defense. These military airfields provide global cargo and troop transport, medical airlift, disaster relief, aerial training, reconnaissance, presidential support, air refueling capability, and ground support training for the nation's ground forces. Included in this Department of Defense (DoD) mix of aviation facilities are the California Test and Training Ranges, Space Programs, and special airspace designated for drones, where a new breed of ground-based pilots are trained to operate these unmanned aircraft. Military expenditures in California for 2009 totaled more than \$56 billion. (*Source DoD In California brochure*). Military airfields and installations are reliant upon access to the IRRS to complete their missions and connect to their local neighboring communities.

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## *Chapter 4: Interregional Corridor Concepts*

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## Chapter 4: Strategic Interregional Corridor Concepts

An important element of the ITSP is the prioritization of interregional corridor improvement needs to ensure limited transportation funding is allocated in a manner to best serve California. The first step in this process is the identification of the main corridors that serve interregional movements of freight, recreational tourism, and business travel in a manner that addresses sustainability, social equity, the economy, and provide basic access to major regions across the State.

A major goal of these interregional corridors is to analyze and improve the transportation connections between the major regions of the State. For the purpose of interregional transportation and this plan, eight regions were identified. They are: North State, North Coast, Sacramento Area, San Francisco Bay Area, Eastern California, Central Valley, Central Coast, and Southern California (see Figure 13).

Travel patterns in the State were assessed to determine how people and goods move interregionally between the major regions. These travel patterns, focused on the starting and end points, along with the destinations in between, were the basis of the Strategic Interregional Corridors identified in this chapter.

A key step in the corridor analysis was to determine the facilities that best serve interregional travel within these corridors. These facilities, called Priority Interregional Facilities (Figure 16), were derived from the Interregional Road System identified in California Streets and Highways Code, Section 164 (see Figure 14) and the California State Rail Plan.

The performance of the Strategic Interregional Corridors and the Priority Interregional Facilities is impacted by the regions surrounding the transportation facilities. Interregional and regional transportation facilities link together to create the complete statewide transportation system. Caltrans, as the State's Department of Transportation, has a significant role in the development and management of the interregional transportation system, while regional agencies have assumed lead responsibility for managing their local networks and effectively linking to the interregional system.

### Section 4.1: Strategic Interregional Corridors and Priority Interregional Facilities

The 11 Strategic Interregional Corridors identified provide varying levels of freight and recreational travel, while providing communities access to local and interregional markets and recreational facilities, support emergency response and disaster recovery activities, and provide access to vital medical and social services. These are the transportation corridors that link the major regions of the State and support our diverse economic and social needs. The Strategic Interregional Corridors are shown in Table 5 and Figure 14.

Within each of the Strategic Interregional Corridors, Priority Interregional Facilities have been identified. These facilities are the highest priority facilities for interregional investment. More specifically, these facilities are the priority for funding through the ITIP, which are shown in Figure 15. These facilities can serve regional and interregional travel. For example, interregional highways travel through local communities and regions with the different types of travel impacting each other. These facilities emphasize the need

for partnerships between agencies and coordination between fund sources to address multiple needs.

It is important to note these are not the only travel corridors in California. There are many other corridors that are important to local, regional, and interregional travel that are not included in this list. However, the purpose of the ITSP is to identify priorities for limited transportation funds, not to provide an exhaustive list of every travel corridor need.

Each corridor has multiple highway and/or rail facilities that support a variety of transportation modes, including, automobiles, transit, rail, freight movement, bicycles, and pedestrians. These corridors provide modal options and will need to become more sustainable in the future. The corridors are critical to the State's economy and the nation, and are vital to ensuring appropriate regional access.

#### Section 4.2: Interregional Transportation Priorities

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The corridor concept addresses all of the interregional needs, regardless of funding source. Improvements can be addressed through a variety of funding sources, including, but not limited to the ITIP, RTIP, ATP, SHOPP, cap and trade proceeds, and other local, regional, State, and federal funds.

Section 5.2: ITIP Prioritization will identify and prioritize the key interregional transportation facilities and list the recommended funding sources for improvements. The facilities include highway, rail, transit, and waterways routes. The facilities, identified as Priority Interregional Facilities, are priorities for ITIP funding are identified in Figure 16:

The State is fiscally constrained by the limited amount of funds available for making strategic capital improvements on the interregional transportation system. Identifying the highest-priority facilities within the Strategic Interregional Corridors, the Priority Interregional Facilities, ensures funds will be applied to projects that improve the movement of people, goods, and services across the State. The IRRS facilities not identified still hold interregional significance for cities, counties, regional agencies, and the State, and are still eligible for funding through a variety of sources, including the ITIP. Projects on non-Priority Interregional Facilities can be funded through the ITIP, but must show significant statewide interregional value and meet the identified ITIP funding goals.

Table 5: Index to Strategic Interregional Corridors

Strategic Interregional Corridors		
COLOR KEY*	NORTH-SOUTH CORRIDORS	PAGE
	San Diego – Mexico Border – Inland Empire Connections	71
	South Coast – Central Coast	79
	Central Coast – San Jose/San Francisco Bay Area	89
	San Jose/San Francisco Bay Area – North Coast	99
	San Jose/San Francisco Bay Area – Central Valley – Los Angeles	107
	Sacramento Valley – Oregon	119
	High Desert – Eastern Sierra – Northern Nevada	127
EAST-WEST CORRIDORS		
	Southern California – Southern Nevada/Arizona	133
	Central Coast and San Joaquin Valley East-West Connections	143
	San Jose/San Francisco Bay Area – Sacramento – Northern Nevada	152
	North Coast – Northern Nevada Connections	161

\* Corresponds to mapped areas in Figure 15.

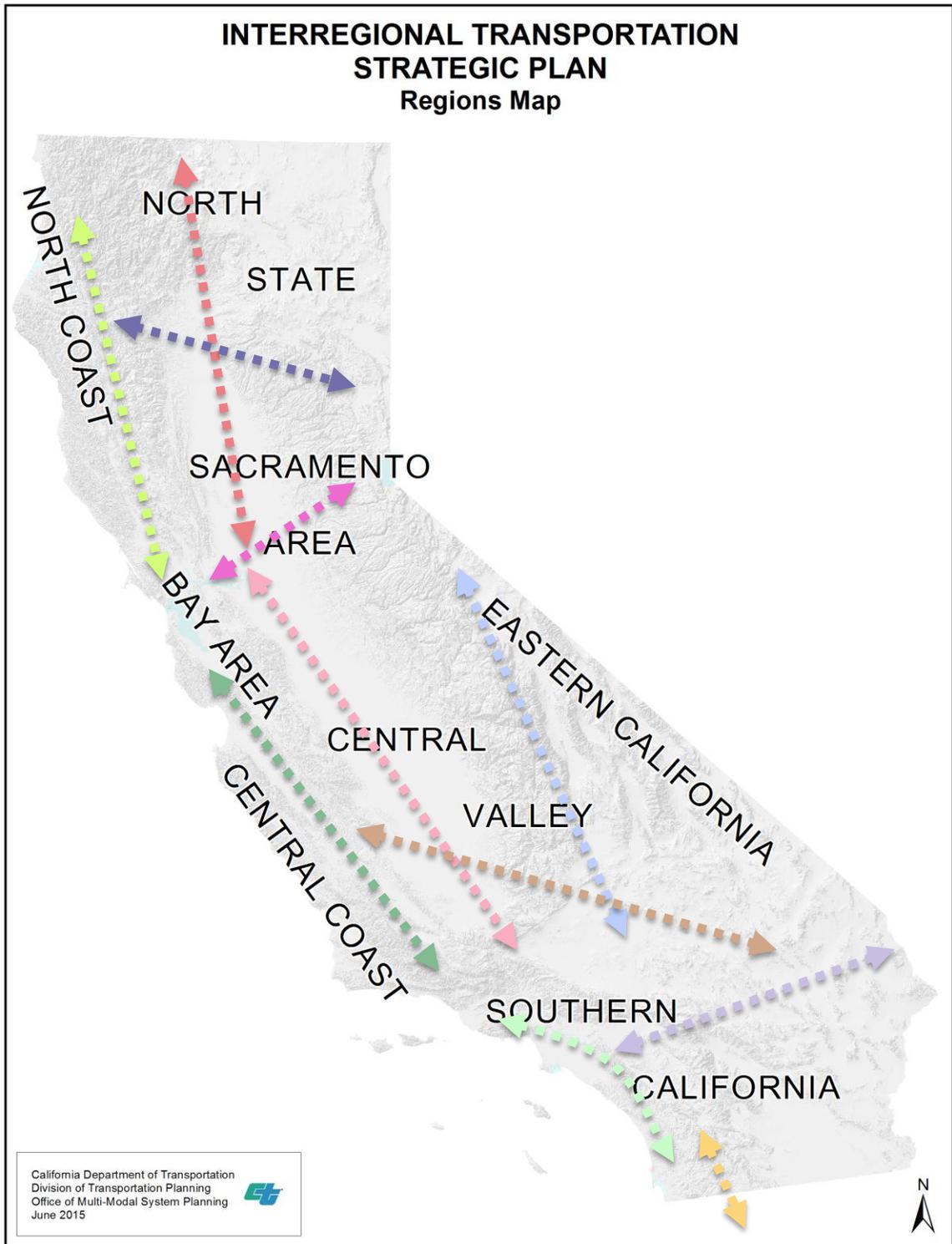


Figure 13: Major Regions in California for Interregional Connections

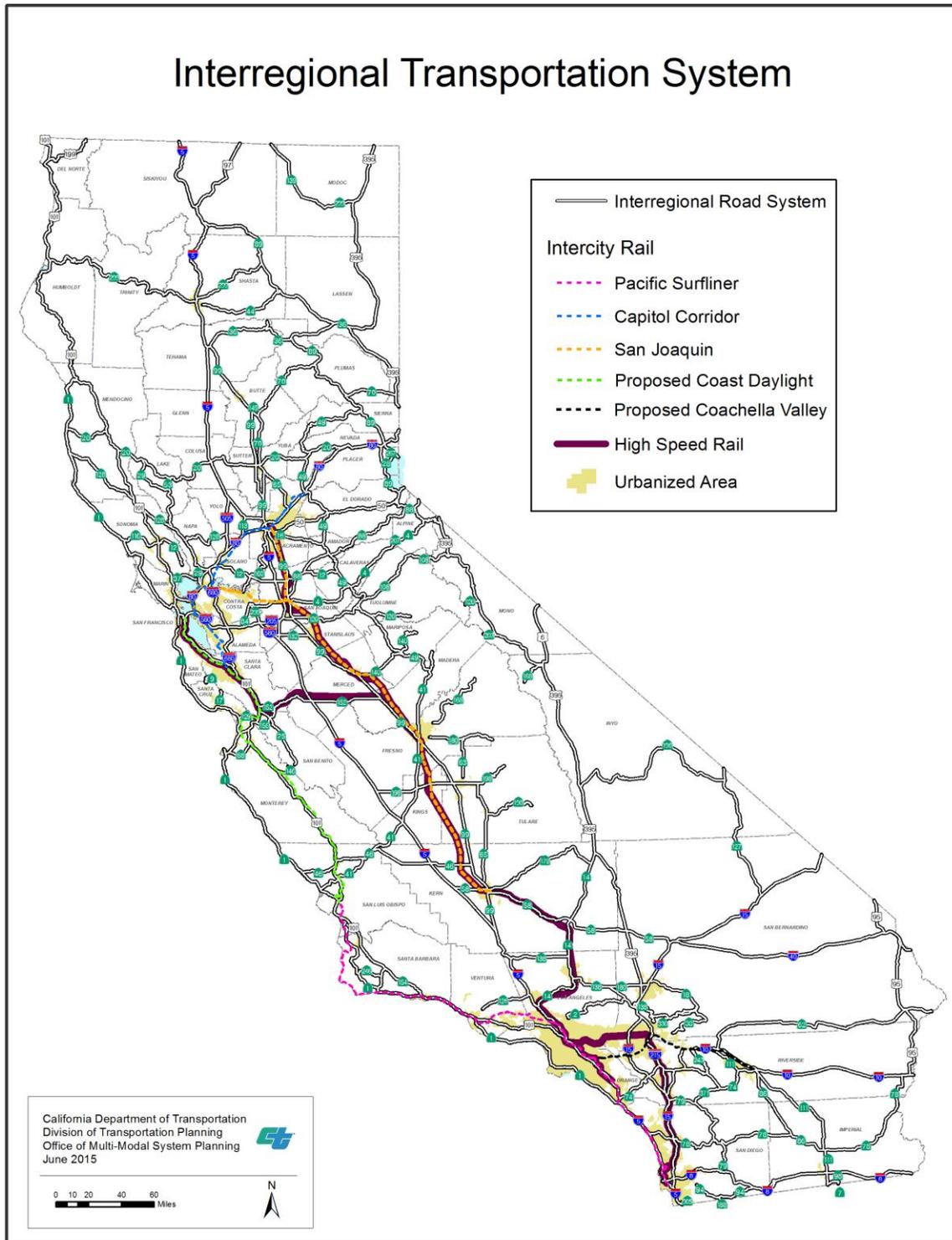


Figure 14: California's Interregional Transportation System

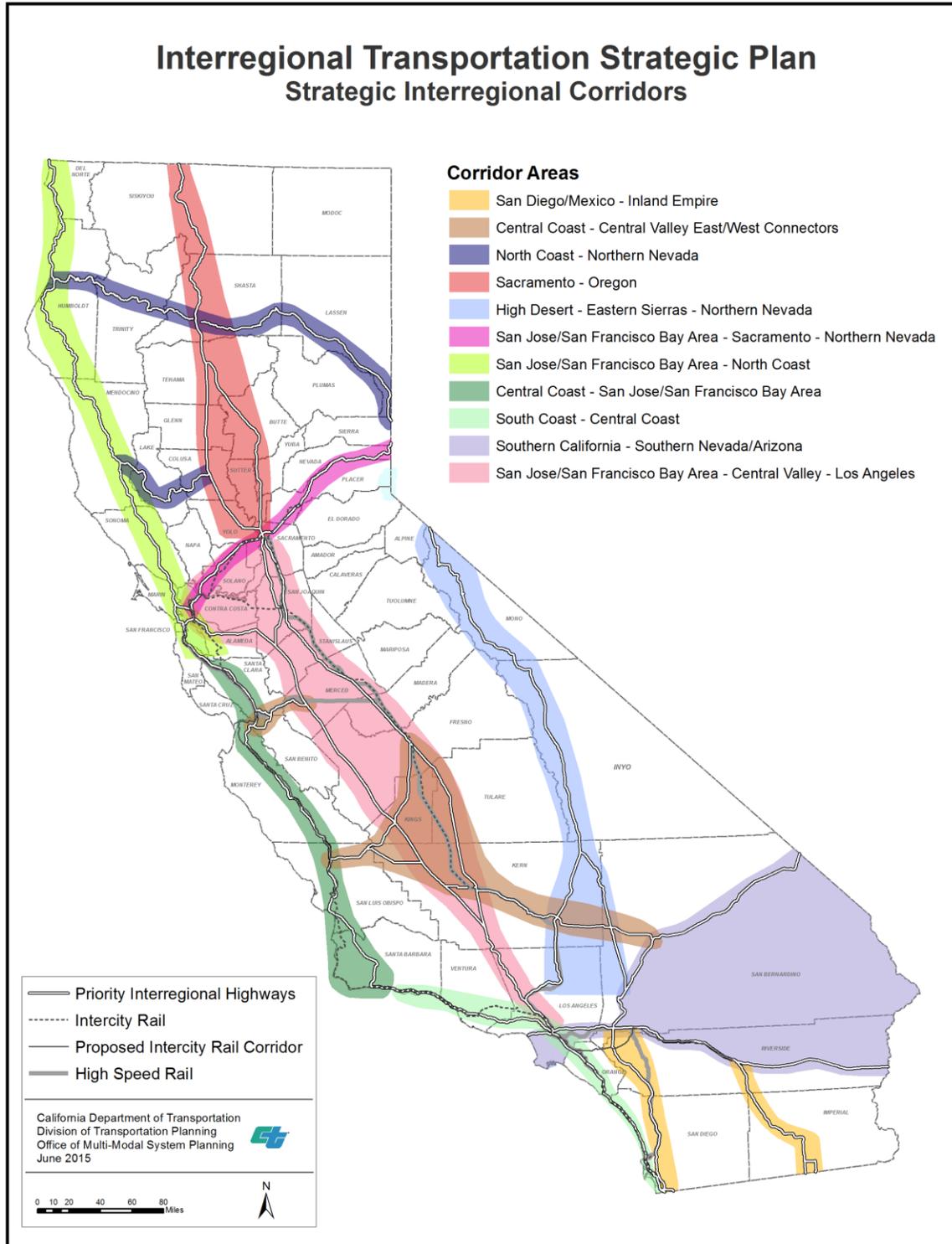


Figure 15: Strategic Interregional Corridors

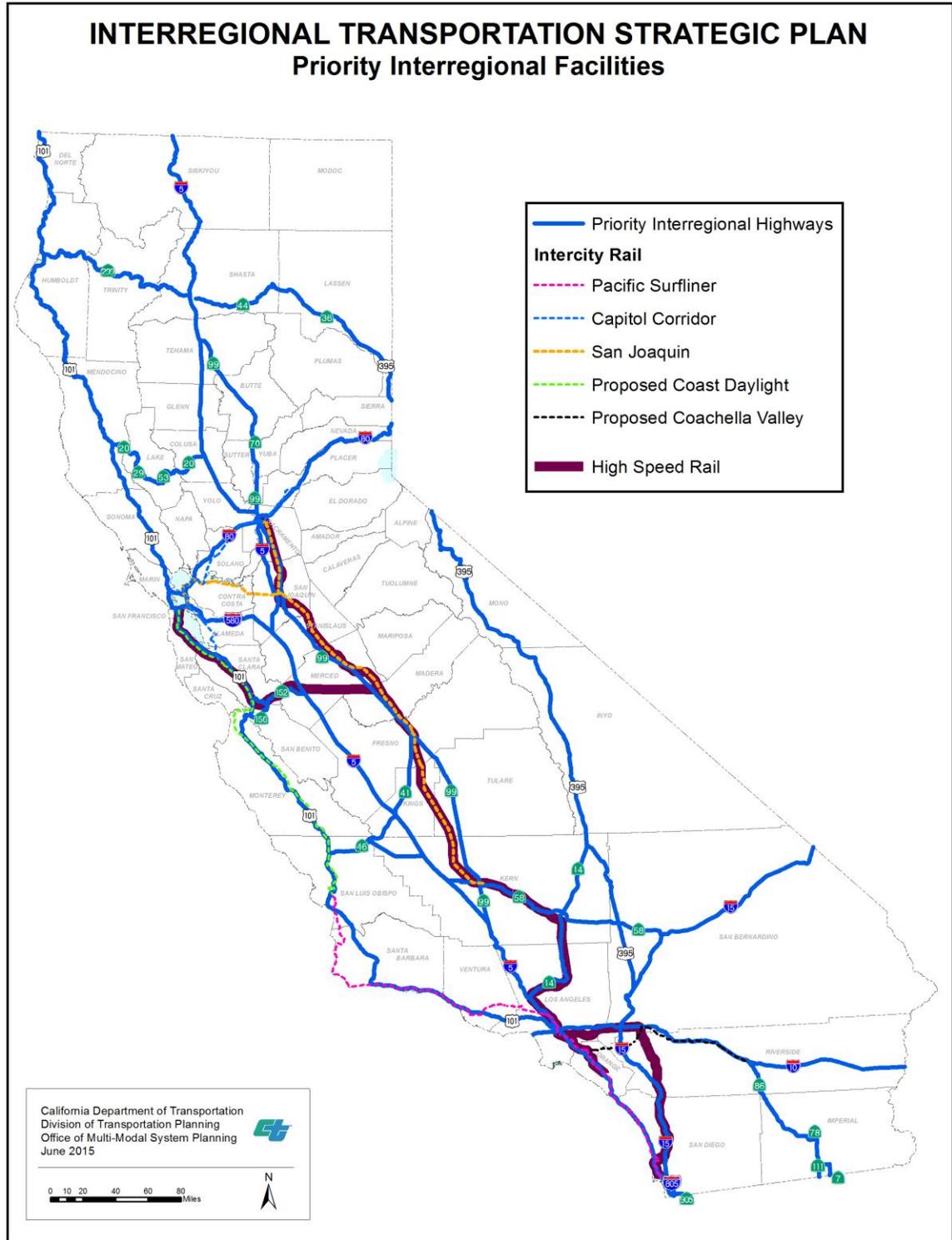


Figure 16: Priority Interregional Facilities

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### Section 4.3: Corridor Concepts

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The following corridor concepts provide an overview of each of the 11 strategic interregional corridors or connections (collections of corridors). The concepts will include information on the entire corridor, including growth projects, modal descriptions, historical funding amounts, and ITIP priorities. Facility service profiles and intercity rail ridership charts will be included in some corridor concepts to describe some of the priority interregional facilities. These profiles and other information will be used in future interregional corridor analysis.

For each Strategic Interregional Corridor (or collection of corridors, called “connections”), a corridor concept has been created that summarizes the basic travel patterns, identifies the multimodal system elements, and shows funding expenditures since 1998. The concepts also identify potential funding sources for key facilities that will be used to guide the development of interregional transportation improvements. The concepts are high-level overviews that are informed by the DSMPs, TCRs, and CSMPs created by the individual districts. The funding section, which is later in the ITSP, will provide funding direction for investment in the facilities that are a priority for the ITIP.

Each corridor is visually described with a map that includes a general study area, which will be refined over time as a more comprehensive interregional corridor analysis is completed in the future. The corridor maps include the major transportation facilities, each with a buffer to emphasize the interaction between highway or intercity passenger rail lines with the local and regional transportation facilities in the study area.

The historical corridor investment section provides a breakdown of the major sources of funds invested in the corridor. These funds are used for the major interregional facilities included in the ITIP funding priorities section. The following are the funding sources and abbreviations. They will be further explained in the last section of the ITSP.

- **STIP**–State Transportation Improvement Program
- **RTIP**–Regional Transportation Improvement Program
- **ITIP**–Interregional Transportation Improvement Program
- **P1B**–Proposition 1B
- **Local**–All locally controlled transportation funds
- **TCRP**–Traffic Congestion Relief Fund
- **Other State**–Other State Transportation Funds not otherwise identified
- **FRA/ FTA**–Federal Railroad Administration/ Federal Transit Administration
- **SHOPP**–State Highway Operation Protection Program

Data for the corridor analysis was sourced as follows:

- **Population projections**–California Department of Finance.

- **Vehicle Miles Traveled (VMT) projections**–California State Travel Demand Model.
- **Freight projections**–Freight Analysis Framework Date (FAF3).
- **Intercity rail projections**–2013 California State Rail Plan.
- **Capitol Corridor intercity rail ridership**–Caltrans Division of Rail and Mass Transportation.
- **Service profile data**–Caltrans Division of Traffic Operations (<http://traffic-counts.dot.ca.gov/>)
- **Corridor investment totals from 1998-2014**–Caltrans.



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## San Diego – Mexico Border – Inland Empire Connections

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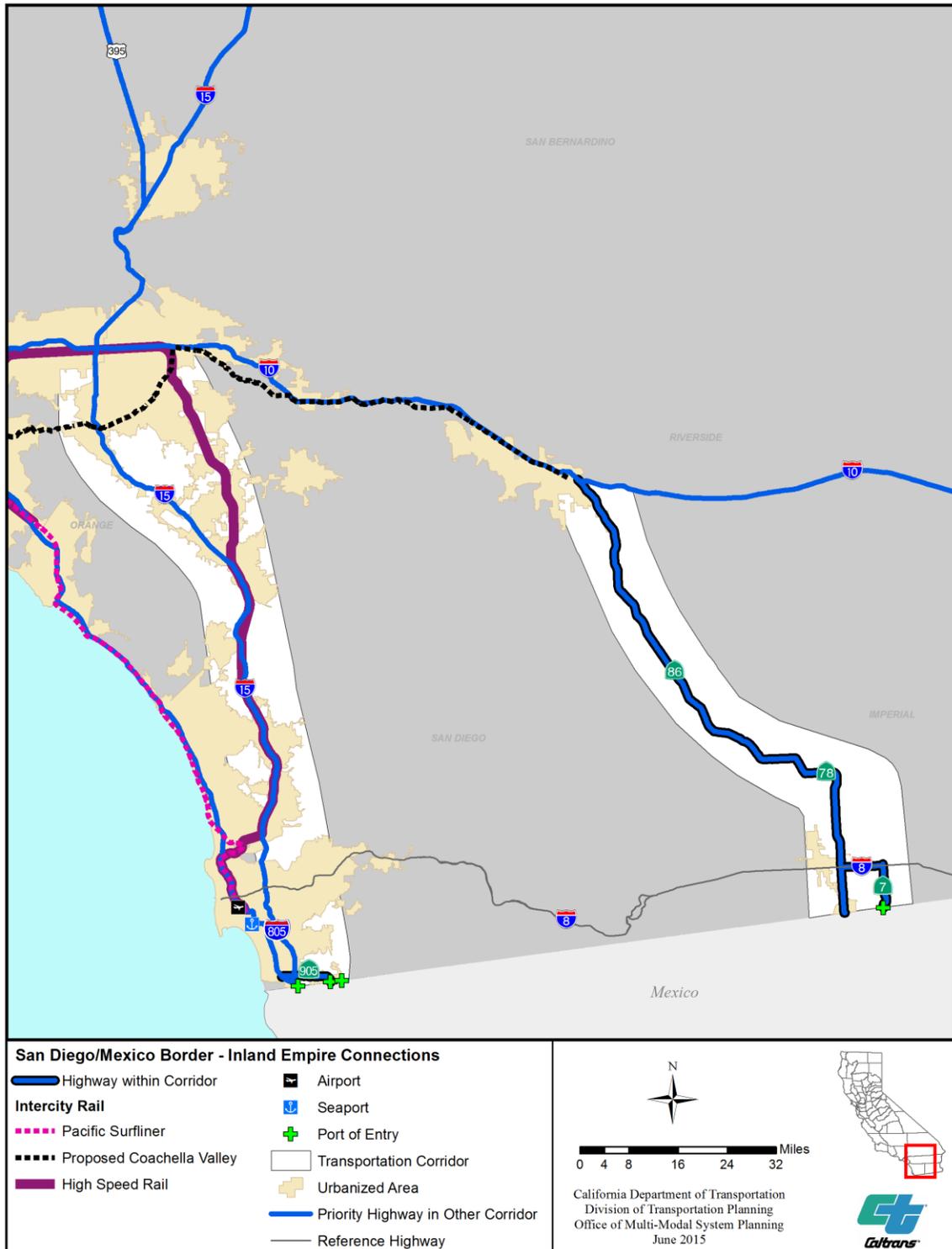


Figure 17: San Diego/Mexico Border - Inland Empire

## San Diego – Mexico Border – Inland Empire Connections

*San Diego – Mexico Border – Inland Empire Connections* form the main link between Mexico and Southern California through two separate connections. Its primary purpose is to accommodate the flow of goods and people moving between the US and Mexico. The two connections serve interregional and intraregional trips, providing access to local, recreational, and freight facilities. The connections are not large in size compared to other interregional corridors within California, but they are important and unique because they are the largest direct international connections in the State.

California and Mexico share over 130 miles of international border. The region adjacent to the border in California covers approximately 8,383 square miles, and has an estimated population of 3.35 million with an employment base of roughly 1.3 million jobs. The San Diego area is home to approximately 8.8 percent of the State's total population. In 2014, total trade with Mexico reached over \$66 billion. In the same year, Mexico was California's top export market at \$25.4 billion. However, economic trade through California gateways places pressure on the SHS, which carries the majority of freight.

There are six land ports of entry (POE) located along the California–Mexico Border: San Ysidro, Otay Mesa, Tecate, Calexico West, Calexico East, and Andrade. The Otay Mesa POE in San Diego County and the Calexico East POE in Imperial County are the two primary California–Mexico freight gateways for trucks. The Otay Mesa POE is the third-highest in commercial vehicle entry along the US Mexican border, and third-busiest in number of commercial vehicle (truck) crossings. It is also the busiest commercial vehicle land port in California, with approximately 1.6 million truck crossings in 2014. The Calexico East POE serves nearly all of the international truck traffic crossings in Imperial County, with a total trade value of over \$14 billion in 2014. Additionally, the Calexico West POE in Imperial County serves as a freight gateway for rail operations. The San Ysidro POE is considered the busiest pedestrian and passenger vehicle gateway in the western hemisphere, and the Calexico West POE is the most important non-commercial POE in Imperial County, with significant auto and pedestrian activity.

The following are summaries of the major interregional transportation modes within the corridor.

**Freight**—Two main Mexico border connections are Otay Mesa in San Diego County and Calexico East in Imperial County. The Otay Mesa POE on SR 905 and SR 11 (under construction), which connects to the future Otay Mesa East POE, connects to I-5 and I-805, which links to I-15. The Calexico East POE links to I-10 through the network of SR 7, SR 78, SR 86, and SR 111. The Calexico West POE is being moved west of its current location to accommodate expansion needs. This project will divert traffic from SR 111 to Cesar Chavez Boulevard until SR 98. The improvements will connect to a planned Intermodal Transit Center, to provide needed multimodal facilities.

SR 905 (along with I-805 and I-15) is a Tier 1 Freight Network Facility in the CFMP. The SR 7, I-8, SR 78, SR 86, and SR 111 corridor is a Tier 2 Freight Network Facility that links to I-10, which is a Tier 1 facility. UPRR freight lines travel north from the Mexico border. The Port of San Diego serves as one of 17 “strategic ports” across the country, designated

by the Department of Defense to load and offload military equipment. This port is the busiest strategic port on the west coast. BNSF provides rail service from the port along the coast, primarily for the transport of automobiles.

I-5, which parallels I-15 in San Diego County, is designated as part of the FHWA Primary Freight Network, and has been identified in the CFMP as a Tier 2 freight facility for the State. In San Diego County, I-5 provides freight connectivity between the Otay Mesa POE, via SR 905, to the Port of San Diego and San Diego International Airport.

**Intercity Rail**—There is no intercity rail service within the corridor, but in San Diego County, connections to adjacent regions further north are provided by the Pacific Surfliner, which runs from San Diego to San Luis Obispo through six counties.

**Transit**—For Imperial County, connections to adjacent regions are provided by Greyhound bus service from El Centro and Calexico to San Diego, Indio, and points north, as well as from Yuma onward to Phoenix and points east. Yuma County Area Transit (YCAT) bus service also connects El Centro to Yuma. The Metrolink commuter rail service operates from Oceanside to the counties of Orange, Riverside, San Bernardino, Los Angeles, and Ventura. *Rapid* bus service operated by Metropolitan Transit System (MTS) connects the Escondido Transit Center in the City of Escondido to both downtown San Diego and the University Town Center/UC San Diego areas.

**Airports**—The San Diego International Airport is the large hub airport in the corridor. There are multiple regional, non-hub, and community airports also within the corridor, along with a few military airports.

**Active Transportation**—The border crossings have significant international pedestrian crossings. There are a variety of bicycle facilities along the corridor including local streets, freeway shoulder access, and multi-use paths.

**Highway**—The two main interregional highway facilities in the corridor are the previously identified SR 905 and SR 11 (under construction) and the SR 7, I-8, SR 78, SR 86, and SR 111 facilities. I-8 is an east-west Interstate that runs north of, and roughly parallel to, the Mexico border, and connects to the Port of San Diego in the west. These routes are heavily used by freight, with the Imperial County routes also serving vehicle and pedestrian border crossings. The San Ysidro POE has the highest volume of passenger vehicle border crossings in the US. In 2014, close to 30 million northbound travelers and 7.76 million northbound vehicles used the POE facility. I-5 provides the vital interregional link between major Southern California cities and Mexico for commuting, commerce, tourism, and recreation.

### *Corridor Analysis*

Substantial growth is expected within the corridor and the greater region, which must be addressed through the cooperation of local, regional, State, and federal authorities.

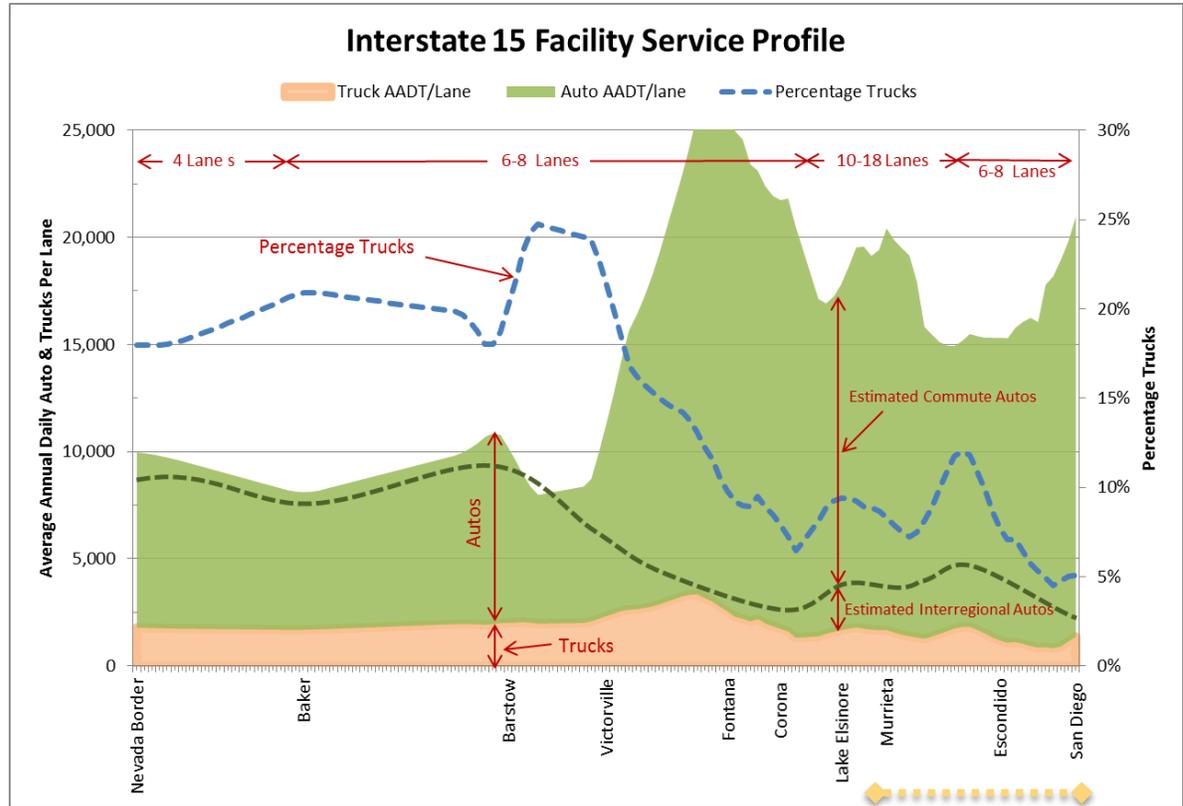


Figure 18: I-15 Facility Service Profile

In the above figure, the Average Annual Daily Traffic (AADT) volumes are normalized by roadway lane and separated by trucks and autos. The dashed blue line is the percentage of the total volume attributable to trucks. The black dashed line is an estimate of the interregional traffic. The yellow dashed line is the portion of I-15 within this corridor.

- The majority of the trips on I-15 within the corridor are automobiles and most likely regional travel, with truck percent spiking at 12% and dropping down to less than 5 percent.
- Population within the counties of San Diego, Imperial, Orange, and Riverside is expected to increase from around 8.9 million in 2010 to 10.7 million in 2040, a 26 percent increase.
- I-15 was designated a “Corridor of the Future” by the US DOT in 2007 because of its regional significance for transportation of goods and people. The southern terminus of I-15 begins in San Diego, California, and ends in northern Utah. The Nevada Department of Transportation is the lead for this multistate coalition to manage I-15.
- The 20-mile, state-of-the-art express lanes facility between SR 163 and SR 78 was completed in January 2012. The I-15 facility features four express lanes with a moveable barrier for maximum flexibility, multiple access points to the general-purpose highway lanes, and direct-access ramps for high-frequency BRT service.

*Historical Corridor Investment*

Table 6 highlights that over \$2.1 billion that has been invested on the major interregional facilities in the corridor since 1998.

**Table 6: San Diego/Mexico Border - Inland Empire Connections Historical Investment**

Facility	Investment 1998-2014 (in millions)							Total
	STIP	P1B	Local	TCRP	Other State	FRA/FTA	SHOPP	
I-15 (SD)	\$383	\$307	\$162	\$108	\$0	\$0	\$969	\$2,887
SR 805	\$2	\$99	\$198	\$0	\$0	\$0	\$74	\$373
SR 7	\$62	\$0	\$6	\$0	\$0	\$0	\$16	\$84
SR 78	\$175	\$43	\$20	\$0	\$0	\$0	\$11	\$248
SR 86	\$17	\$0	\$0	\$0	\$48	\$0	\$40	\$105
SR 111	\$118	\$0	\$0	\$0	\$0	\$0	\$12	\$130
CA HSR Phase II	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$756</b>	<b>\$449</b>	<b>\$385</b>	<b>\$108</b>	<b>\$48</b>	<b>\$0</b>	<b>\$379</b>	<b>\$2,126</b>

Figure 19 illustrates the variety of revenue sources that have been used to fund improvements on the major interregional facilities within the corridors. The STIP is the main funding source, with P1B, SHOPP, and local funds also being significant.

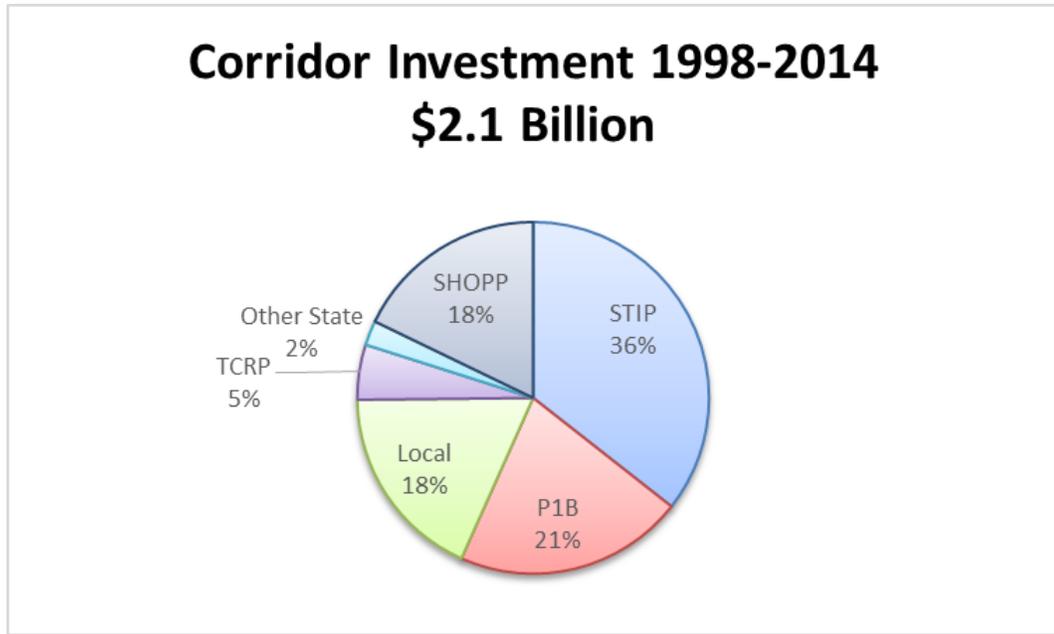


Figure 19: San Diego/Mexico Border - Inland Empire Historical Corridor Investment

#### *Interregional Transportation Priorities*

Priority investments for the *San Diego – Mexico Border – Inland Empire Connections* over the next two decades will primarily focus on identifying and developing appropriate border crossing facilities for people and freight. A longer-term priority is the completion of Phase II of the California High-Speed Rail System.

Table 7: San Diego/Mexico - Inland Empire Interregional Transportation Priorities

Major Transportation Facilities	Priority	Short-term (ST) or Long-term (LT)	Funding Options	Comments
Interregional Border Crossings and Connecting Highways (I-8, I-15, SR 905, SR 7, SR 78, SR 86, and SR 111)	Medium	Short-term	RTIP, ITIP, Local, Pricing	High-Speed Rail is the highest priority for this corridor
High-Speed Rail, Phase II	Medium	Long-term	Proposition 1A, GHG Reduction	Expand to 8 daily round trip trains
Freight Corridor Maintenance and Preservation (I-15)	High	Short-term	SHOPP	Preservation of these facilities, including operational improvements, is a top priority
Freight Corridor Expansion	Medium	Short-term/Long-term	RTIP, ITIP, Local, Pricing	Facility expansion to support the economy
Regional Connectors to Major Intermodal Freight Facilities	Medium	Short-term/Long-term	RTIP, SHOPP, Local	Local and regional connectors between intermodal facilities, including seaports and airports, to Priority Interregional Facilities
Local and Regional Commuter Systems	Medium	Short-term and Long-term	Local, RTIP, Pricing, FTA, Cap and Trade	Local, RTIP, and Pricing for expansion; FTA for transit

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## South Coast – Central Coast Corridor

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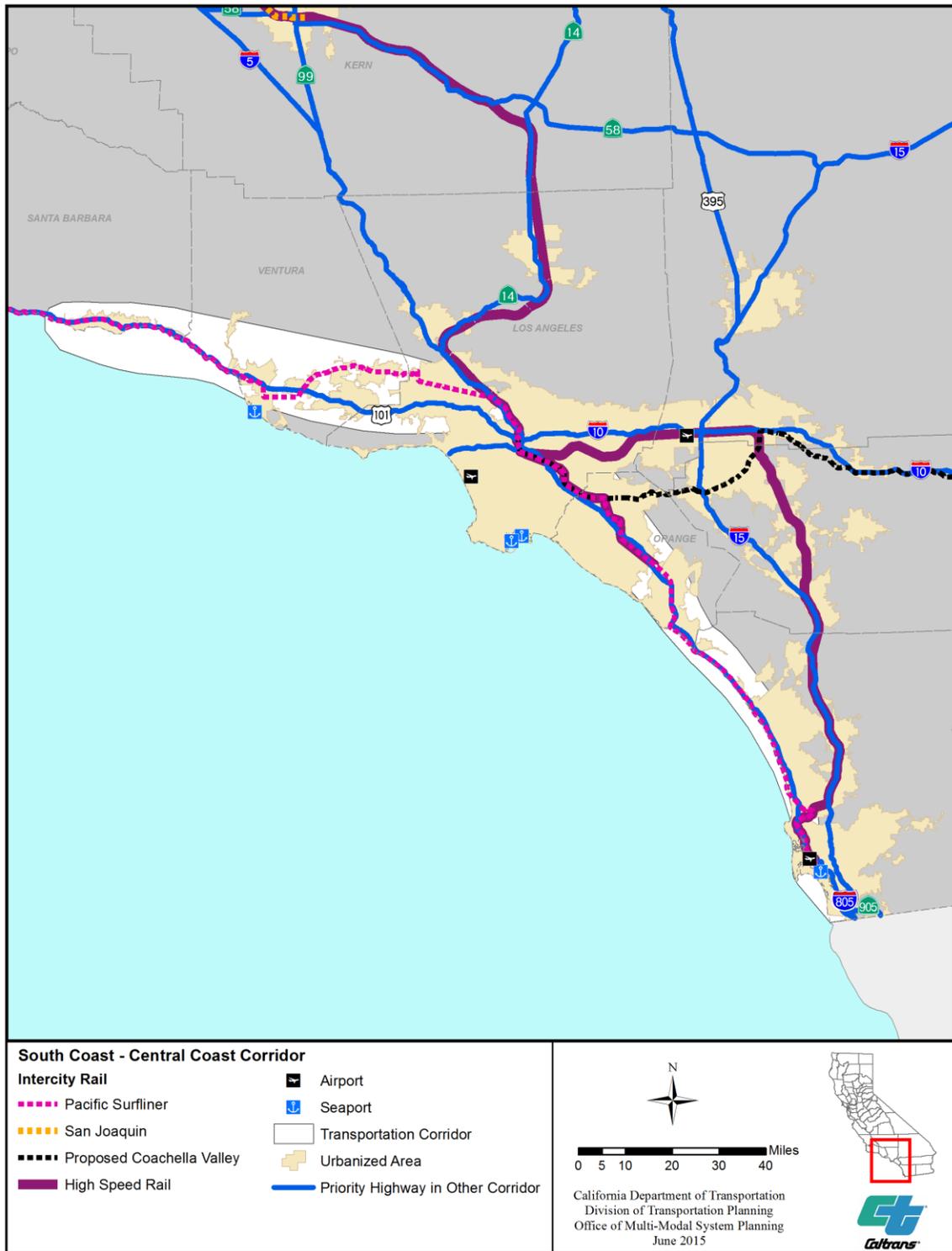


Figure 20: South Coast to Central Coast Corridor Concept

## South Coast – Central Coast Corridor

The *South Coast Corridor–Central Coast Corridor* connects the Central Coast to Southern California, linking the heavily urbanized southern California with the more rural counties further north. The major travel patterns along the corridor include freight movement, recreational tourism, and local commuter traffic. The major interregional transportation facilities are US 101, I-5, and the Pacific Surfliner intercity rail corridor.

The majority of the corridor is within urbanized areas, with a limited rural segment in the northern portion in Santa Barbara County. The corridor accommodates goods movement via highway and railroad. The California State rail system includes the Pacific Surfliner Intercity Rail, commuter, and freight rail services, along with the infrastructure to operate them. All three systems frequently share the same infrastructure, which is generally owned by private railroads. The following are summaries of the major interregional transportation modes within the corridor.

**Freight**–The South Coast Corridor is an essential component of the very complex goods movement system in Southern California. Every mode of freight is prevalent in the corridor. Almost the entire freeway system in the Los Angeles region has been identified by the FHWA as a component of the National Primary Freight Network, and the CFMP identifies all of the highways, railways, seaports, and commercial airports as vital components of the State’s designated freight network. Challenges for freight movement are endemic to the region due to competition for space on the transportation system by passenger modes.

The region’s air quality rates as among the worst in the nation, with freight movement substantially contributing to the problem. A multi-agency effort to transition Southern California’s freight industry to near-zero or zero-emissions equipment and vehicles is being led by the Air Resources Board in cooperation with other State agencies, including Caltrans, GoBiz, and the CEC, as well as regional partners and the freight industry. This work will directly affect the further development of freight facilities in this corridor within the planning horizon of this document. The specifics are not yet known.

I-5, I-10, I-605, I-710, SR 60, SR 91, SR 47, and SR 57 are Tier 1 freight facilities identified in the CFMP (see Figure 11 for the major California freight facilities). UPRR and BNSF have freight rail lines in the corridor. The South Coast corridor is essential to the economy of California and is an element of the overall interregional transportation system linking the region to international and domestic markets. The major seaports in the corridor (Port Hueneme, Port of Los Angeles, Port of Long Beach, and Port of San Diego) handle approximately 40 percent of the nation’s containerized international trade.

**Intercity Rail**–The corridor has multiple intercity rail options including:

- The Pacific Surfliner intercity rail corridor links Los Angeles to San Diego and San Luis Obispo. Amtrak Thruway Bus Service connects train passengers to the Coachella Valley, Central Coast, and the San Francisco Bay Area.
- The Amtrak Coast Starlight links Los Angeles to San Luis Obispo, continuing north to the San Francisco Bay Area and Seattle.

- The emerging Coast Daylight corridor would provide additional service between the South Coast, Central Coast, and the San Francisco Bay Area.
- Efforts are progressing to support rail line infrastructure to accommodate peak period passenger rail service between East Ventura and Goleta<sup>11</sup>

**Transit**–The corridor has multiple interregional transit options including:

- Southern California Regional Rail Authority (Metrolink) trains link Los Angeles to East Ventura and Oceanside.
- North County Transportation District (Coaster) trains link Oceanside and San Diego.
- Private bus services, such as Greyhound Lines, Crucero and Transportes Intercalifornias utilize the US 101 and I-5 corridors linking the Central Coast, Southern California, and the US/Mexico International Border.
- Many local, regional, and inter-county services also offer local and regional shuttle services within the South County Corridor.

**Airports**–Commercial airlines along the corridor include Los Angeles International Airport (LAX), Bob Hope Burbank Airport, Long Beach Airport, Ontario International Airport, John Wayne Orange County Airport, and San Diego International Airport. LAX and Ontario have major cargo operations, with Los Angeles being by far the largest handler of international air cargo.

**Active Transportation**–Bicyclists have access to some segments of US 101. Where the route is closed to bicycle access, alternate bicycle travel options are available on the local network. Along the Gaviota Coast in Santa Barbara County from the intersection of US 101/SR 1 to Hollister Avenue, US 101 coincides with SR 1 and is part of the Pacific Coast Bicycle Route. It is among the most heavily used areas by bicyclists on US 101. Efforts are currently underway by Santa Barbara County through the Gaviota Coast Plan to identify future alternative bicycle and pedestrian trail route improvements in this area.

The Pacific Coast Bike Route extends the length of the West Coast and traverses along US 101 and SR 1 within the Central Coast. Within the *South Coast–Central Coast Corridor*, the route travels through Santa Barbara County and links to San Luis Obispo County and *Central Coast-San Jose/San Francisco Bay Area Corridor*, with parallel/direct facilities on US 101. The Pacific Coast Bike Route brings many visiting cycle tourists into and through the Corridor.

The California Coastal Trail is a partially developed, 1,300-mile hiking trail that traverses the entire California coastline. A plan for completing the California Coastal Trail was developed as a result of SB 908 (2001).<sup>12</sup>

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<sup>11</sup> 2006 SBCAG *101 in Motion* study

<sup>12</sup> <http://www.californiacoastaltrail.info/cms/pages/trail/done.html>

**Highway**—An extensive, interconnected freeway system that includes several variations of managed high-occupancy lanes serves the *South Coast–Central Coast Corridor*, particularly south of Santa Barbara County. Due to the dense network of freeways experiencing frequent traffic congestion, freight and auto travelers may take alternate routes when the corridor experiences a significant traffic incident or other event that creates unacceptable levels of delay. Improvements to the highway system for the corridor will focus on implementing a managed lane(s) network; maximizing traffic operations and management efficiencies; and making strategic investments in the freight network to improve efficiency, reduce impacts, and add capacity where necessary.

Caltrans, in partnership with SANDAG, completed the environmental documents for the I-5 North Coast Corridor (NCC). The NCC is a 27-mile project that will add rail, bicycle and pedestrian access, transit, highway lanes, and operational improvements. This section of I-5 within the San Diego region is a major transportation facility for commuting and commerce. Additionally, I-5 has been identified as a Tier 2 freight facility in the CFMP and is one of the highway facilities that provides connectivity to Mexico.

### *Corridor Analysis*

Population and travel within the corridors is expected to increase between, placing further demand on the transportation system and spurring more robust development of transit.

- Population within the counties of Santa Barbara, Ventura, Los Angeles, Orange County, and San Diego is expected to increase from around 17 million in 2010 to 20 million in 2040, a 16 percent increase.
- The Pacific Surfliner Intercity Rail Service is expected to increase from 2.7 million passengers in 2013 to over 5 million passengers in 2040, an 87 percent increase.
- The VMT for US 101 (Santa Barbara, Ventura, and Los Angeles) is expected to increase by more than 1 million miles between 2010 and 2040 – a 9 percent increase—for a total exceeding 16 million miles, with 15 percent truck traffic.

Figure 21 details truck and auto traffic volumes along the entire US 101 corridor between Oregon to the north and the termination of US 101 in Los Angeles. The AADT volumes are normalized by roadway lane and separated by trucks and autos. The dashed blue line is the percentage of the total volume attributable to trucks. The black dashed line is an estimate of the interregional traffic. The green dashed line is the portion of US 101 within this corridor. Looking more closely at the *South Coast–Central Coast Corridor*:

- The ratio of trucks to automobiles, an indicator of interregional movement, averages about 8 percent within this corridor. This implies the bulk of traffic volume is commute related.
- The section of US 101 from Santa Barbara to the end of the *South Coast – Central Coast Corridor*, which connects the *Central Coast–San Jose/San Francisco Bay Area*

Corridor and extends to Santa Maria, appears to have the greatest interregional characteristics in the corridor.

The analysis of the I-5 section within the corridor (the chart is in the section discussing the *San Francisco Bay Area – Central Valley–Los Angeles Corridor*) implies a similar conclusion regarding the southern portion of US 101—that the bulk of the traffic volume is commute related.

Figure 22 details the change in ridership for the Pacific Surfliner Intercity Rail Corridor since 1998, with an increase of 71 percent, from 1.6 million to 2.7 million, during that time. Between 1998 and 2008, ridership substantially increased, and in recent years the numbers have remained relatively consistent and always above 2.5 million riders. Future improvements to the Pacific Surfliner service will target greater ridership increases.

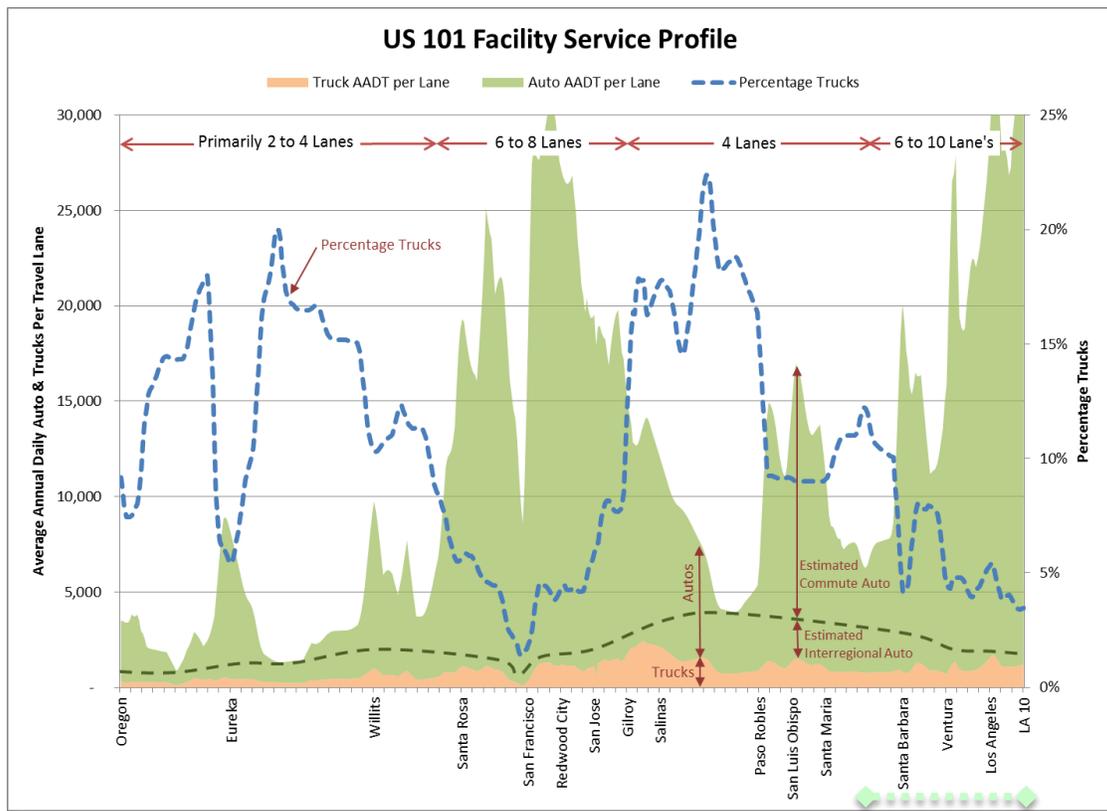


Figure 21: US 101 Facility Service Profile: South Coast – Central Coast

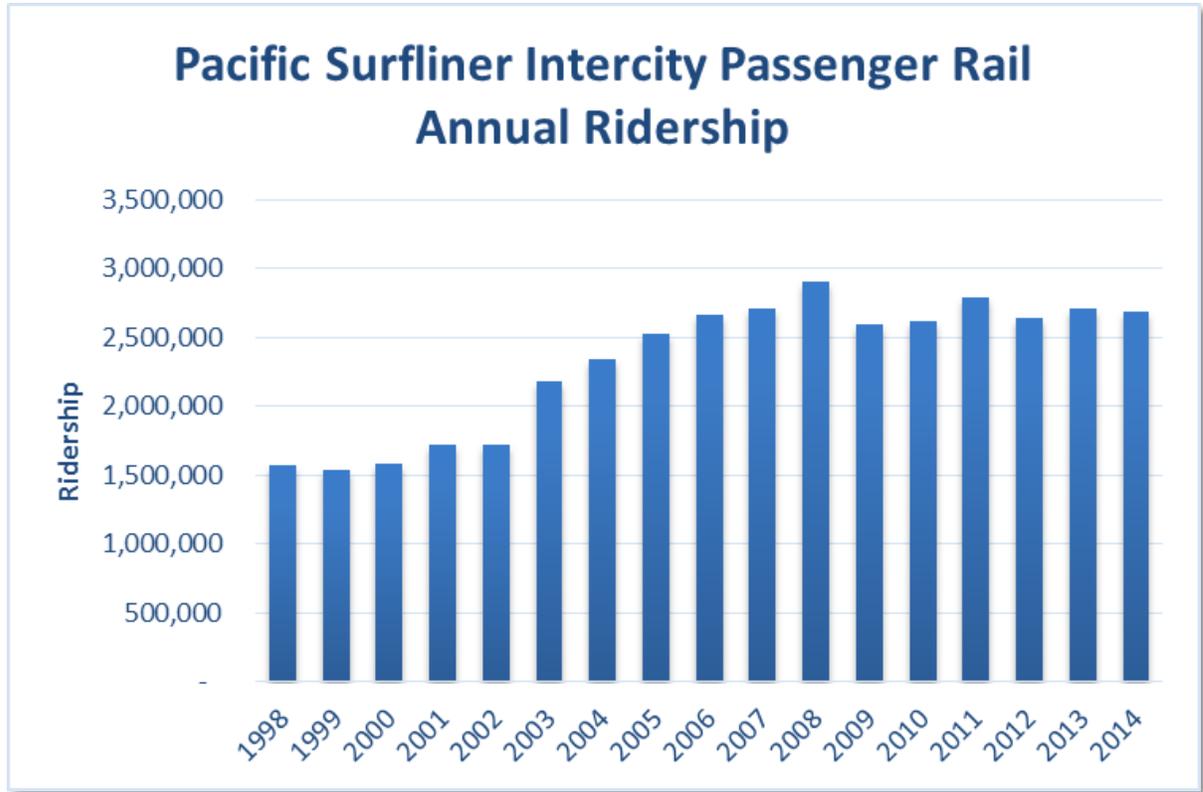


Figure 22: Pacific Surfliner Intercity Passenger Rail Annual Ridership

*Historical Corridor Investment*

Table 8 and Figure 23 show nearly \$8.8 billion has been invested on the corridor’s major interregional facilities since 1998.

Table 8: South Coast Corridor Historical Facility Investment

Facility	Corridor Investment 1998-2014 (in millions)							Total
	STIP	P1B	Local	TCRP	Other State	FRA/FTA	SHOPP	
I-5	\$1,672	\$487	\$2,379	\$281	\$2	\$0	\$1,593	\$6,413
US 101	\$175	\$106	\$167	\$39	\$0	\$0	\$543	\$1,031
Pacific Surfliner	\$233	\$357	\$560	\$117	\$22	\$37	\$0	\$1,325
<b>Total</b>	<b>\$2,080</b>	<b>\$949</b>	<b>\$3,106</b>	<b>\$437</b>	<b>\$24</b>	<b>\$37</b>	<b>\$2,136</b>	<b>\$8,769</b>

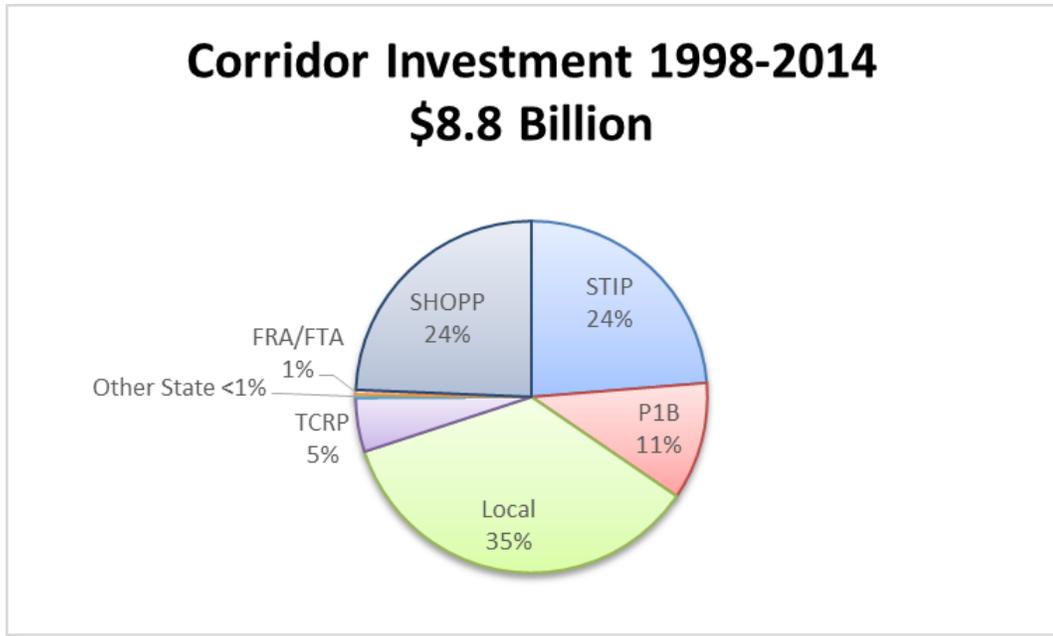


Figure 23: South Coast Corridor Historical Investment

The highest funding source for the corridor is from locally controlled sources, with both SHOPP and STIP providing significant investment.

#### *Interregional Transportation Priorities*

Priority investments for the *South Coast – Central Coast Corridor* over the next two decades will primarily focus on increasing the number of round trips on the Pacific Surfliner and making other intercity rail system improvements. Fix-it-first policies for US 101 will be a priority. The US 101 facility is almost fully developed within this corridor. Work that remains includes various operational improvements and the extension of the six-lane facility northward from Ventura into Santa Barbara to address commuter congestion. Expansion of I-5 has been identified as a regional priority (I-5 Service Profile in the *San Jose/San Francisco Bay Area – Central Valley–Los Angeles Corridor*).

Table 9: South Coast – Central Coast Corridor Interregional Transportation Priorities

Major Transportation Facilities	Priority	Short-term(SR) or Long-term (LR)	Funding Options	Comments
California High-Speed Rail, Phase II	High	Long-term	Proposition 1A, GHG Reduction	Extension of High-Speed Rail between Anaheim and San Diego via the Inland Empire
Pacific Surfliner Intercity Rail	High	Short-term	ITIP, RTIP, Local, Cap and Trade, FRA	Increase the number of daily round trip trains
US 101 and I-5 Maintenance and Preservation	High	Short-term	SHOPP	Preservation serves car, transit and bicycle users
US 101 Expansion	Medium	Long-term	ITIP, RTIP	Eliminating at-grade crossings
I-5 Expansion	Medium	Long-term	Local, RTIP, SHOPP, Pricing	Widening freeway from 4 to 6 lanes
Amtrak Thruway Bus Services	Medium	Maintain (ST); Expand (LT)	Caltrans State Operating Funds	Caltrans funds operating costs
Regional Connectors to Major Intermodal Freight Facilities	Medium	Short-term/ Long-term	RTIP, SHOPP, Local	Local and regional connectors between intermodal facilities, including seaports and airports, to Priority Interregional Facilities
Local and Regional Commuter Systems	Medium	Short-term and Long-term	Local, RTIP, Pricing, FTA, Cap and Trade	Local, RTIP, and Pricing for expansion; FTA for transit



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Central Coast – San Jose/San Francisco Bay Area Corridor

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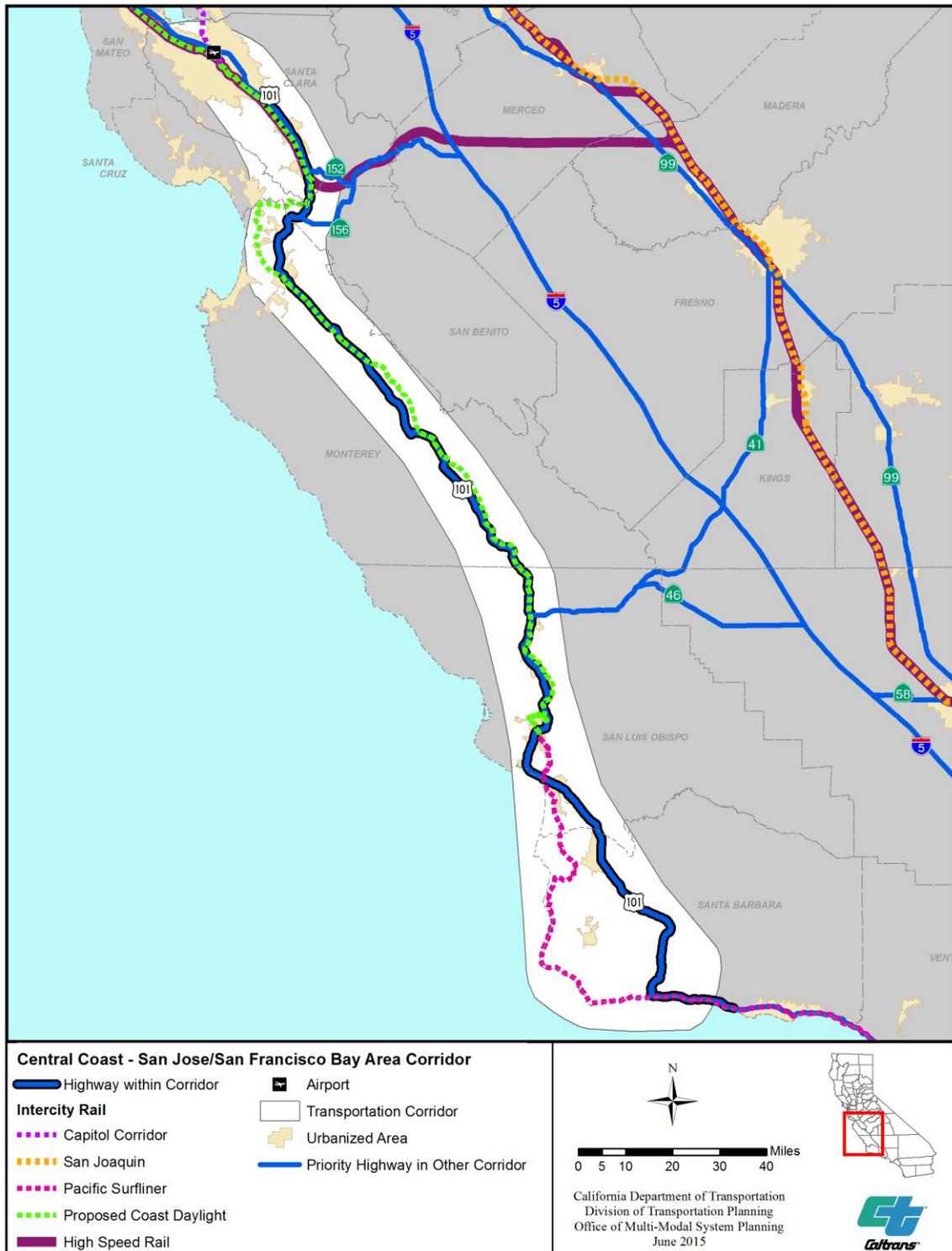


Figure 24: Central Coast - San Jose/San Francisco Bay Area

## Central Coast – San Jose/San Francisco Bay Area Corridor

The *Central Coast–San Jose/San Francisco Bay Area Corridor* connects the Central Coast to San Jose and San Francisco Bay region. US 101 is the major interregional transportation facility that traverses the entire corridor, with intercity rail services, including the under-construction high-speed-rail corridor covering part of the corridor in the northernmost portion. The Central Coast is a significant agricultural region. The Salinas Valley is home to the top vegetable-producing region in the nation (USDA National Agricultural Statistics Service 2010) and is known as the “Salad Bowl of the World.”<sup>13</sup>

US 101 accommodates interregional, regional, and local traffic. US 101 also serves the National Guard training installations at Camp Roberts and Fort Hunter Liggett and provides access to Vandenberg Air Force Base. The route is significant for goods movement and serves the agriculture and food processing and packaging industries that form the economic base for much of the Central Coast. In addition to connecting with the southern portion of the San Francisco Bay Area, US 101 connects the Salinas Valley agricultural production areas to the northern San Joaquin Valley via SR 156 and SR 152. The SR 41 and SR 46 corridor connects the San Luis Obispo and Paso Robles area with the central San Joaquin Valley and the food processing and distribution facilities located along the SR 99 corridor.

The rail facilities identified in this corridor includes high-speed rail at the northernmost portion of the corridor connecting the San Joaquin Valley to the San Francisco Bay Area, intercity and commuter rail, and freight rail. All three systems frequently share the same infrastructure, which is generally owned by private railroads. The UPRR Central Coast mainline serves freight movements along with the Pacific Surfliner and Coast Starlight services. The UPRR mainline is parallel to US 101. A new passenger rail service, the Coast Daylight, is being developed to provide regular service between San Luis Obispo and the San Francisco Bay Area, with a connection to the Capital Corridor.

The following are summaries of the major interregional transportation modes within the corridor.

**Freight**–The *Central Coast–San Jose/San Francisco Bay Area Corridor* is an essential corridor for goods movement, shippers, growers, aggregate miners, and manufacturers. Agricultural commodities, raw materials, and manufactured goods are predominately transported to, from, and through the Central Coast via truck. Agricultural production areas are clustered around US 101 in the Central Coast, and the associated businesses are dependent on US 101 for distribution to the rest of the State and nation. Major products from these areas include lettuce, broccoli, berries, artichokes, and wine.

**Intercity Rail**–Amtrak operates the Coast Starlight train, which offers one daily round trip between Los Angeles and Seattle, with stops in the cities of Santa Barbara, San Luis Obispo, Paso Robles, and Salinas. Throughout the Central Coast, there are currently multiple efforts underway to improve passenger rail service. Local agencies have long been

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<sup>13</sup> City of Salinas website. [http://www.ci.salinas.ca.us/visitors/community\\_profile.cfm](http://www.ci.salinas.ca.us/visitors/community_profile.cfm)

planning the Coast Daylight service from Los Angeles to San Francisco. Twenty agencies along the corridor have passed resolutions of support for the project. The Coast Daylight would begin with one round trip between San Luis Obispo and the San Francisco Bay Area and expand as demand warrants and funding permits.

In Monterey County, the Transportation Agency for Monterey County is working cooperatively with Caltrans, the Peninsula Corridor Joint Powers Board (Caltrain), and the Capitol Corridor Joint Powers Agency to extend the Capitol Corridor rail service to Salinas. The service is planned to consist of two round trips per day running from Salinas to San Jose, and on to Sacramento. This will be increased to up to six round trips as demand warrants. The extension will include three new station stops for the Capitol Corridor: Pajaro/Watsonville, Castroville, and Salinas. Amtrak Thruway bus services provide connections to multiple destinations along the corridor.

**Transit**—San Luis Obispo Regional Transit Authority (SLORTA), Santa Barbara Metropolitan Transit District (SBMTD), Monterey-Salinas Transit District (MST), San Benito County Local Transportation Authority, and Santa Cruz Metropolitan Transit District (METRO) are local, regional and inter county services that also offer local and regional shuttle services within the corridor. Most services offer free transfers for Amtrak users; this is coordinated by Caltrans under contract with Amtrak to provide connecting feeder bus services with public bus operators. Greyhound also uses US 101 to provide interregional bus service.

**Airports**—In the *Central Coast–San Jose/San Francisco Bay Area Corridor* there are four commercial airports including Monterey Peninsula Airport, San Luis Obispo County Regional Airport, and the Santa Maria Airport. Smaller regional and community airports include Paso Robles Municipal Airport, Salinas Municipal Airport, Hollister Municipal Airport, Watsonville Municipal Airport, Frazier Lake Airpark, Marina Municipal airport, and Mesa Del Rey Airport.

**Active Transportation**—Bicyclists have access to many segments of US 101. Where the route is closed to bicycle access, alternate bicycle travel options are available on the local network. Longer contiguous sections in the *Central Coast–San Jose/San Francisco Bay Area Corridor* located on US 101 that are accessible to bicycles include twenty miles from the San Luis Obispo/Monterey County line northward, intermittently between the King City and Salinas, north of the Salinas to SR 156 east, and SR 129 and the San Benito/Santa Clara County line in Monterey and San Benito counties.

The Pacific Coast Bike Route extends the length of the West Coast, from the Oregon/California state line to the Mexican border, following US 101 and SR 1 within the central coast. Within the corridor, the route travels through the counties of San Luis Obispo and Santa Barbara (connecting to the *South Coast–Central Coast Corridor*), with parallel/direct facilities on US 101. The Pacific Coast Bike Route brings many visiting cycle tourists into and through the Central Coast.

The California Coastal Trail is a partially developed 1,300-mile hiking trail that follows the California coastline. A plan for completing the California Coastal Trail was developed as a result of SB 908 (2001).<sup>14</sup>

**Highway**—US 101 is California’s major north-south coastal route between Los Angeles and San Francisco and is a vital asset to State, regional, and local economies. Its close proximity and linkage to two of the nation’s largest metropolitan areas makes it an essential route for goods movement, commerce, tourism, education, military and spaceport use, and other industrial activities.

### Corridor Analysis

Population and highway vehicle-miles traveled are expected to increase by 2040 in the South Coast corridor. Growth within the corridor and the greater region must be addressed through the cooperation of local, regional, State, and federal authorities.

- Population within the counties of Monterey, San Benito, San Francisco, San Luis Obispo, San Mateo, Santa Barbara, and Santa Clara is expected to increase from approximately 4.5 million in 2010 to 5.6 million in 2040 , a 26 percent increase.
- Ridership on the Pacific Surfliner intercity rail service is expected to increase from 2.7 million passengers in 2013 to over 5 million in 2040, an 87 percent increase.
- The emerging Coast Daylight service between San Luis Obispo and San Francisco is anticipated to generate ridership of 216,000 passengers annually.
- The VMT for US 101 (Monterey, San Benito, San Francisco, San Luis Obispo, San Mateo, Santa Barbara, and Santa Clara) is expected to increase by more than 6 million miles between 2010 and 2040 – a 25 percent increase – for a total of more than 29 million miles, with 21 percent truck traffic.

Figure 25 details truck and auto traffic volume along the entire US 101 corridor between Oregon to the north and its southern termination in Los Angeles. The AADT volumes are normalized by roadway lane. The dashed blue line is the percentage of the total volume attributable to trucks. The black dashed line is an estimate of the interregional traffic. The green dashed line is the portion of US 101 within this corridor. Looking more closely at the section of highway from Gilroy to San Luis Obispo:

- Much of the land surrounding the *Central Coast–San Jose/San Francisco Bay Area Corridor* is largely undeveloped or is dedicated to agriculture. This is evidenced by the deep valley of auto traffic in the Figure 25 between Salinas and Paso Robles. It would be safe to conclude that almost all of the traffic in this section is interregional.
- Much of the agricultural land use is considered prime farmland. Seasonality issues greatly affect trucking volumes, which are not reflected in the chart. Yet, average

<sup>14</sup> <http://www.californiacoastaltrail.info/cms/pages/trail/done.html>

truck traffic in the agricultural area is between 15 percent and 20 percent, which is considered high for any roadway.

- As the corridor reaches into the urbanized areas on its perimeters, specifically the San Francisco Bay Area to the north and San Luis Obispo in the south, automobile commute traffic takes a significantly greater portion of roadway capacity.

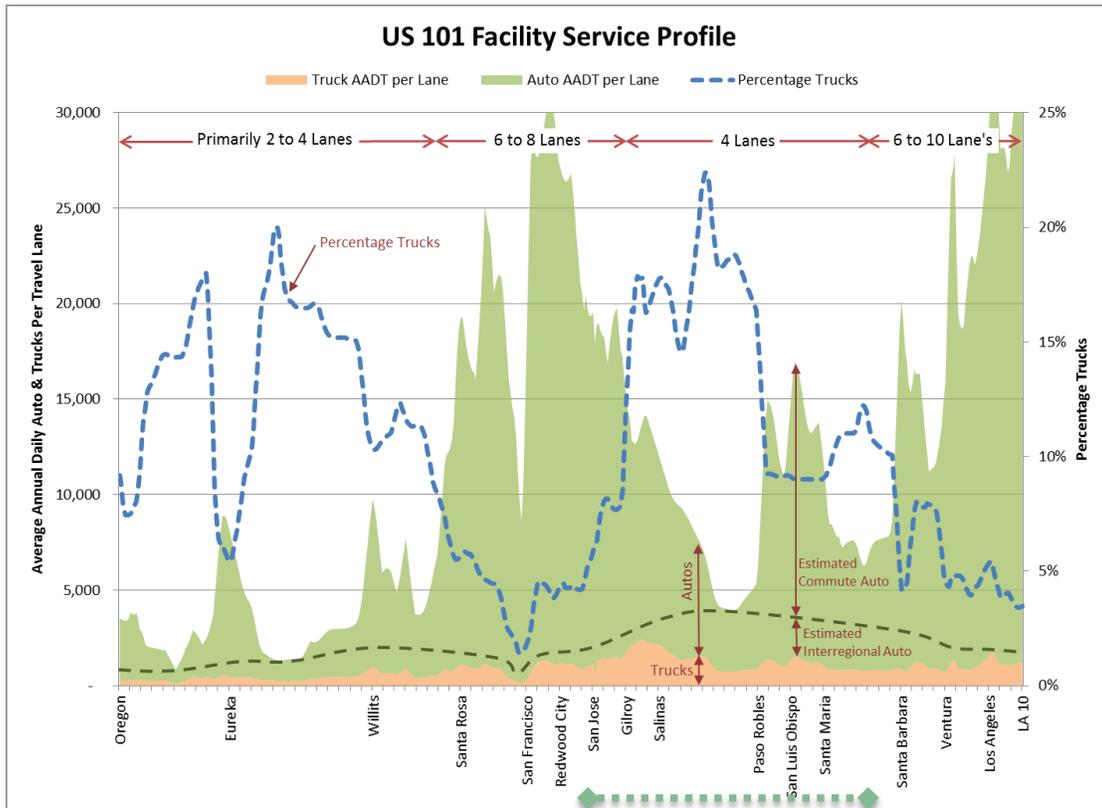


Figure 25: US 101 Facility Service Profile: Central Coast – San Jose/San Francisco

Figure 28 details the change in ridership for the Pacific Surfliner intercity passenger rail corridor since 1998. Between 1998 and 2008, the number of passengers increased from 1.6 million to 2.7 million, or 71 percent. More recently, the numbers have remained relatively consistent and always above 2.5 million riders. Future improvements to the Pacific Surfliner service will target greater ridership increases.

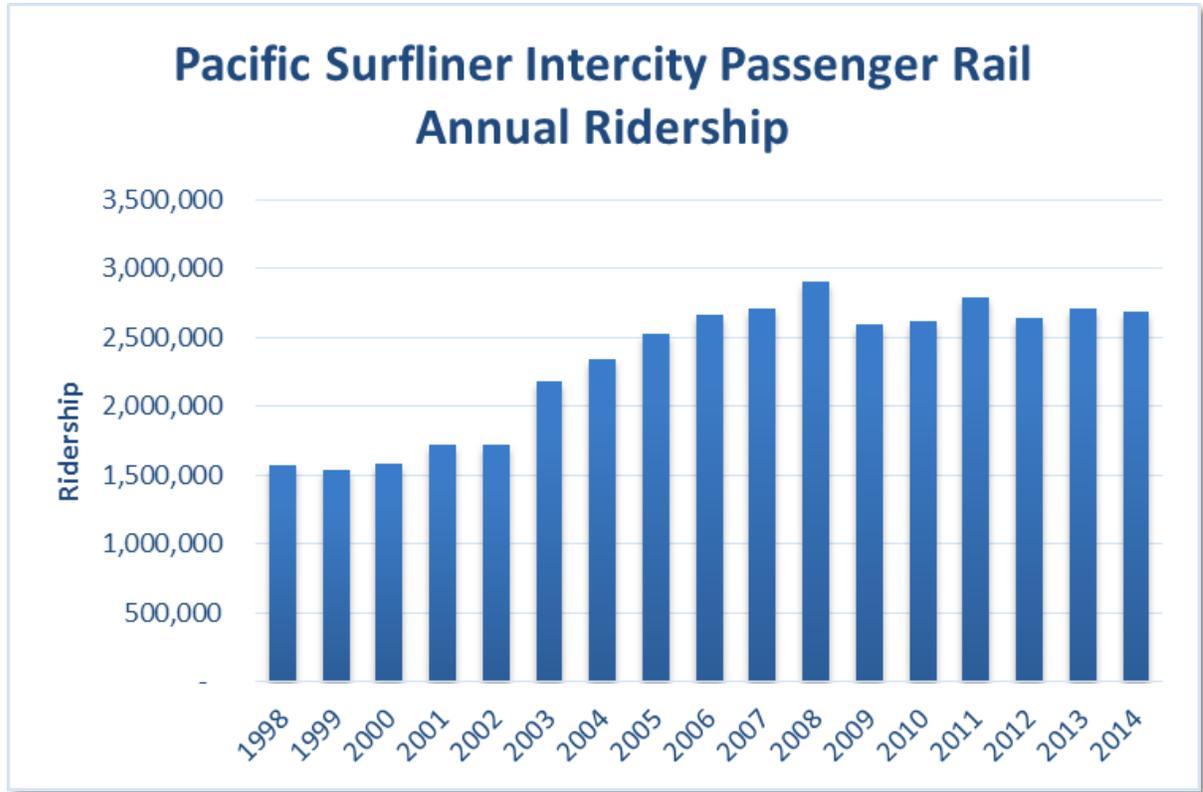


Figure 26: Pacific Surfliner Annual Ridership Profile

*Historical Corridor Investment*

The following table and figure show that over \$2.1 billion has been invested on the major interregional facilities in the corridor since 1998.

Table 10: Central Coast to San Jose/San Francisco Bay Area Facility Investment

Facility	Corridor Investment 1998-2014 (in millions)							Total
	STIP	P1B	Local	TCRP	Other State	FRA/FTA	SHOPP	
US 101	\$747	\$67	\$299	\$0	\$0	\$0	\$890	\$2,003
Pacific Surfliner	\$111	\$0	\$5	\$0	\$3	\$0	\$0	\$119
<b>Total</b>	<b>\$858</b>	<b>\$67</b>	<b>\$304</b>	<b>\$0</b>	<b>\$3</b>	<b>\$0</b>	<b>\$890</b>	<b>\$2,122</b>

The SHOPP and STIP are the two major funding sources for the corridor, with local funding (at 14 percent) the only other significant fund investment. The investment of SHOPP funds at a high level shows support for fix-it-first policies.

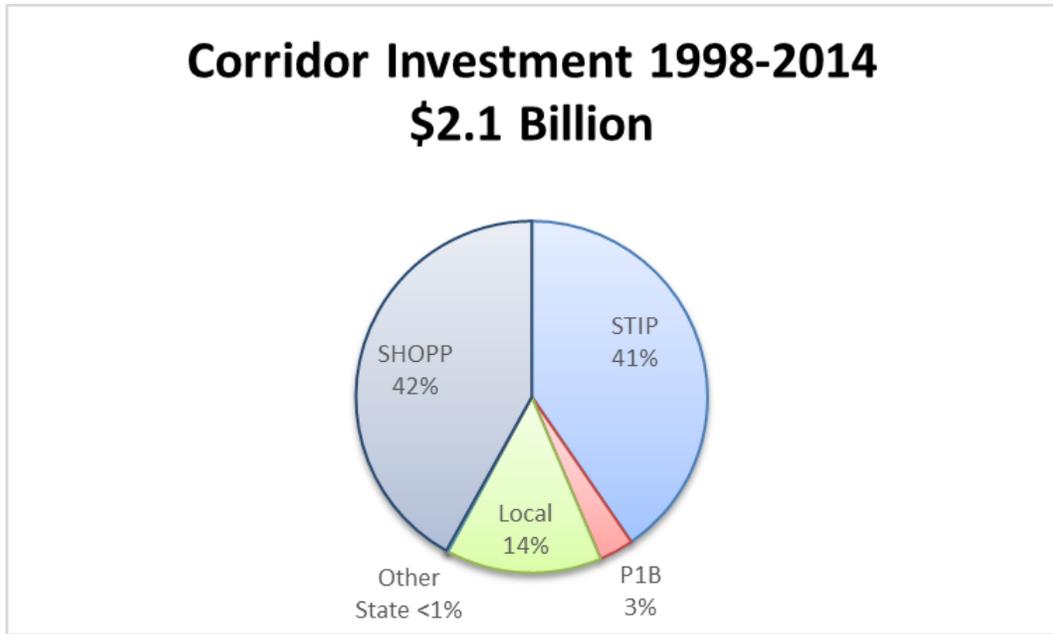


Figure 27: Central Coast to San Francisco/San Jose Historical Corridor Investment

#### *Interregional Transportation Priorities*

Priority investments for the *Central Coast–San Jose/San Francisco Bay Area Corridor* over the next two decades will primarily focus on developing new intercity passenger rail service in the emerging Coast Corridor, and expanding the Capitol Corridor to Monterey County. Fix-it-first policies for US 101 will be a priority, along with upgrading expressways with access control and parallel facilities in Santa Barbara, Monterey, San Benito, and San Luis Obispo counties along US 101.

**Table 11: San Jose/San Francisco Bay Area - Central Coast Interregional Transportation Priorities**

Major Transportation Facilities	Priority	Short-term (ST) or Long-term (LT)	Funding Options	Comments
California High-Speed Rail	High	Short-term	Proposition 1A, GHG Reduction	High-Speed Rail is the highest priority for this corridor
Pacific Surfliner Intercity Rail	High	Short-term	ITIP, RTIP, Local, Cap and Trade, FRA	Increase the number of daily round trip trains
US 101 Maintenance and Preservation	High	Short-term	SHOPP	Preservation serves auto, transit and bicycle users
US 101 Upgraded from 4-lane expressway to 4-lane freeway	High	Long-term	ITIP, RTIP	Eliminating at-grade crossings is a priority to establish full access control to improve safety
Proposed Coast Daylight Intercity Rail	Medium	Long-term	ITIP, RTIP, Local, Cap and Trade, FRA	New intercity rail service planned
Capitol Corridor Extension	Medium	Long-term	ITIP, RTIP, Local, Cap and Trade, FRA	Expand the southern end of the Capitol Corridor service
Amtrak Thruway Bus Services	Medium	Maintain (ST); Expand (LT)	Caltrans State Operating Funds	Caltrans funds operating costs
Regional Connectors to Major Intermodal Freight Facilities	Medium	Short-term/Long-term	RTIP, SHOPP, Local	Local and regional connectors between intermodal facilities, including seaports and airports, to Priority Interregional Facilities
Local and Regional Commuter Systems	Medium	Short-term and Long-term	Local, RTIP, Pricing, FTA, Cap and Trade	Local, RTIP, and Pricing for expansion; FTA for transit



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## San Jose/San Francisco Bay Area – North Coast Corridor

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Figure 28: San Jose/San Francisco Bay Area to North Coast

## San Jose/San Francisco Bay Area – North Coast Corridor

The *San Jose/San Francisco Bay Area–North Coast Corridor* is the coastal south-north connector linking the San Francisco Bay Area to California’s remote North Coast. US 101 is the primary transportation facility used for interregional travel and serves as a lifeline for the movement of people, goods, and services. The corridor follows the coast north in the western portion of the State through Marin, Sonoma, Mendocino, Humboldt, and Del Norte Counties. The corridor is vital to the area’s recreational tourism and economy and serves urban and suburban areas, such as Santa Rosa, San Rafael, and numerous smaller communities.

Much of US 101 passes through areas of geological instability, sensitive environmental resources, and cultural and historical resources. Projects along the corridor must be developed in collaboration with State, federal and local partners to balance transportation needs with economic, environmental, and cultural impacts.

The low population densities and challenging geologic and weather conditions north of the Santa Rosa area make intercity passenger rail financially infeasible in large portions of the corridor, but Amtrak Thruway bus service, along with coordinated bus services provided by local transit agencies, provide modal options. In the southern portion of the corridor, local voters have approved the SMART passenger rail and bicycle-pedestrian path between Larkspur and Cloverdale in Sonoma and Marin Counties to provide commute options to the region.

The following are summaries of the Corridor’s major interregional transportation modes:

**Freight**–US 101 is an important freight facility for the entire North Coast region. It is identified as a non-interstate STRAHNET route and is a Tier 3 freight network facility.

**Intercity Rail**–Sonoma-Marin Area Rail Transit (SMART) is a passenger rail and bicycle-pedestrian pathway project located in Marin and Sonoma counties that will serve a 70-mile corridor from Larkspur to Cloverdale, with a first phase from San Rafael to Santa Rosa expected in 2016. Amtrak Thruway bus service links McKinleyville to the San Francisco Bay Area.

**Transit**–Transit agencies along US 101 coordinate services to allow individuals to complete interregional transit trips between San Francisco and Brookings, Oregon.

**Airports**–Smaller regional airports, such as the Charles M. Schulz–Sonoma County Airport, exist throughout the corridor.

**Active Transportation**–The Pacific Coast Bicycle Route, also designated as US Bicycle Route 95, is the interregional north-south bicycle connection along the Pacific Coast. The bicycle route includes US 101 until the beginning of SR 1 in Mendocino County. The California Coastal Trail is a partially developed 1,300-mile hiking trail that follows the entire

California coastline. A plan for completing the California Coastal Trail was developed as a result of SB 908 (2001).<sup>15</sup>

**Highway**—US 101 connects the North Coast to the San Jose/San Francisco Bay Area, traveling through Marin, Sonoma, Mendocino, Humboldt, and Del Norte counties before reaching Oregon. There are important east-west highway facilities that provide connectivity to the Sacramento Valley via SR 299 and SR 20 (North Coast–Northern Nevada Connections), along with SR 37 connecting to I-80. Investment in electric vehicle charging stations along the corridor supports the State’s GHG reduction strategies. Stations are located throughout the US 101 corridor, in Eureka/McKinleyville, Ukiah, Healdsburg, Santa Rosa, Petaluma, San Rafael, Mill Valley, and San Francisco.

### *Corridor Analysis*

Growth in population and VMT through 2040 is expected to increase, but gains will be relatively small compared to other regions. The growth in interregional travel, which will be impacted by recreational tourism from regions including the San Francisco Bay Area, must be managed with highways that are smaller than other urbanized areas, along with limited rail and highway options. The growth along the corridor and the surrounding region must be addressed through cooperation among local, regional, State, and federal authorities.

- Vehicle-miles traveled throughout the entire corridor is expected to increase 27 percent to over 11 million miles between 2010 and 2040, with 20 percent truck travel.
- Population within the counties of Del Norte, Humboldt, Mendocino, Sonoma, and Marin is expected to increase from nearly 1 million in 2010 to over 1.1 million in 2040, a 15 percent increase.

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<sup>15</sup> <http://www.californiacoastaltrail.info/cms/pages/trail/done.html>

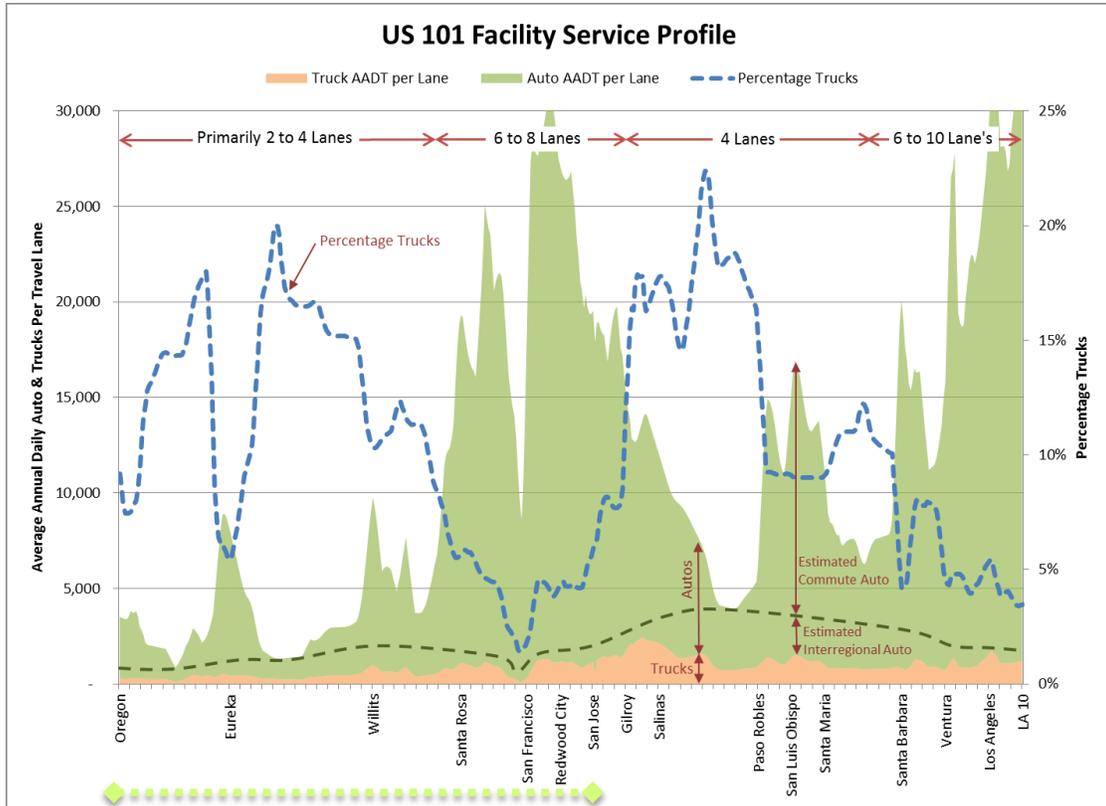


Figure 29: US 101 Facility Service Profile: San Jose/San Francisco Bay Area – North Coast

Figure 29 examines truck and auto traffic along the entire US 101 corridor between Oregon to the north and the termination of US 101 in Los Angeles to the south. The AADT volumes are normalized by roadway lane. The dashed blue line is the percentage of the total volume attributable to trucks. The black dashed line is an estimate of the interregional traffic. The green dashed line is the portion of US 101 within this corridor. Looking more closely at the section of the highway north of San Francisco, the chart illustrates:

- The share of traffic from trucks along the US 101 is moderately high—an average of about 10 to 15 percent.
- Once north of the San Francisco Bay Area, average volumes per facility-lane (both truck and auto) are lower than in other parts of the corridor. Volumes spike in the vicinity of Willits and Eureka.

When investments on US 101 are to be considered, the analysis shows the greatest benefits will be in increasing safety and travel reliability by closing the many gaps where two-lane conventional highway sections still exist.

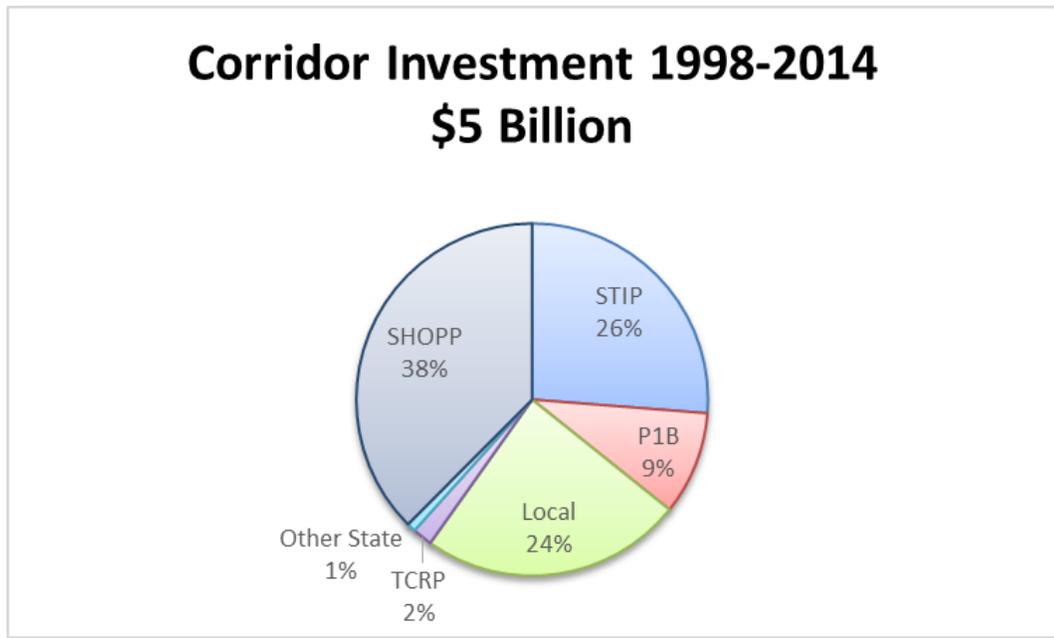
#### Historical Corridor Investment

The following table and figure illustrates that over \$5 billion has been invested on the major interregional facilities in the US 101 corridor since 1998.

**Table 12: San Jose/San Francisco Bay Area - North Coast Historical Facility Investment**

Corridor Investment 1998-2014 (in millions)								
Facility	STIP	P1B	Local	TCRP	Other State	FRA/FTA	SHOPP	Total
US 101	\$1,318	\$447	\$1,212	\$92	\$40	\$0	\$1,885	\$5,023
<b>Total</b>	\$1,318	\$447	\$1,212	\$92	\$40	\$0	\$1,885	\$5,023

The majority of funding for the corridor has been split between SHOPP, STIP, and local sources. The investment in SHOPP highlights the importance of maintaining the existing facilities.



**Figure 30: San Jose/San Francisco Bay Area - North Coast Historical Corridor Investment**

### Interregional Transportation Priorities

Priority investments for the *San Jose/San Francisco Bay Area–North Coast Corridor* over the next two decades will primarily focus on maintaining and preserving US 101. This includes addressing such issues as Last-Chance Grade in Del Norte County and developing improvements to support bicycle and pedestrian transportation facilities.

**Table 13: San Jose/San Francisco Bay Area - North Coast Interregional Transportation Priorities**

Major Transportation Facilities	Priority	Short-term (ST) or Long-term (LT)	Funding Options	Comments
US 101 Maintenance and Preservation	High	Short-term	SHOPP	Preservation serves car, transit and bicycle users
Amtrak Thruway Bus Connections	Medium	Maintain in ST, Expand in LT	Caltrans State Operating Funds	Caltrans funds operating costs
Highway 101 Access and Safety	High	Long-term	SHOPP, ITIP	Improvements include the Last-Chance Grade Project
Regional Connectors to Major Intermodal Freight Facilities	Medium	Short-term/Long-term	RTIP, SHOPP, Local	Local and regional connectors between intermodal facilities, including seaports and airports, to Priority Interregional Facilities
Local and Regional Com-muter Systems	Medium	Short-term and Long-term	Local, RTIP, Pricing, FTA, Cap and Trade	Local, RTIP, and Pricing for expansion; FTA for transit



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San Jose/San Francisco Bay Area – Central Valley – Los Angeles

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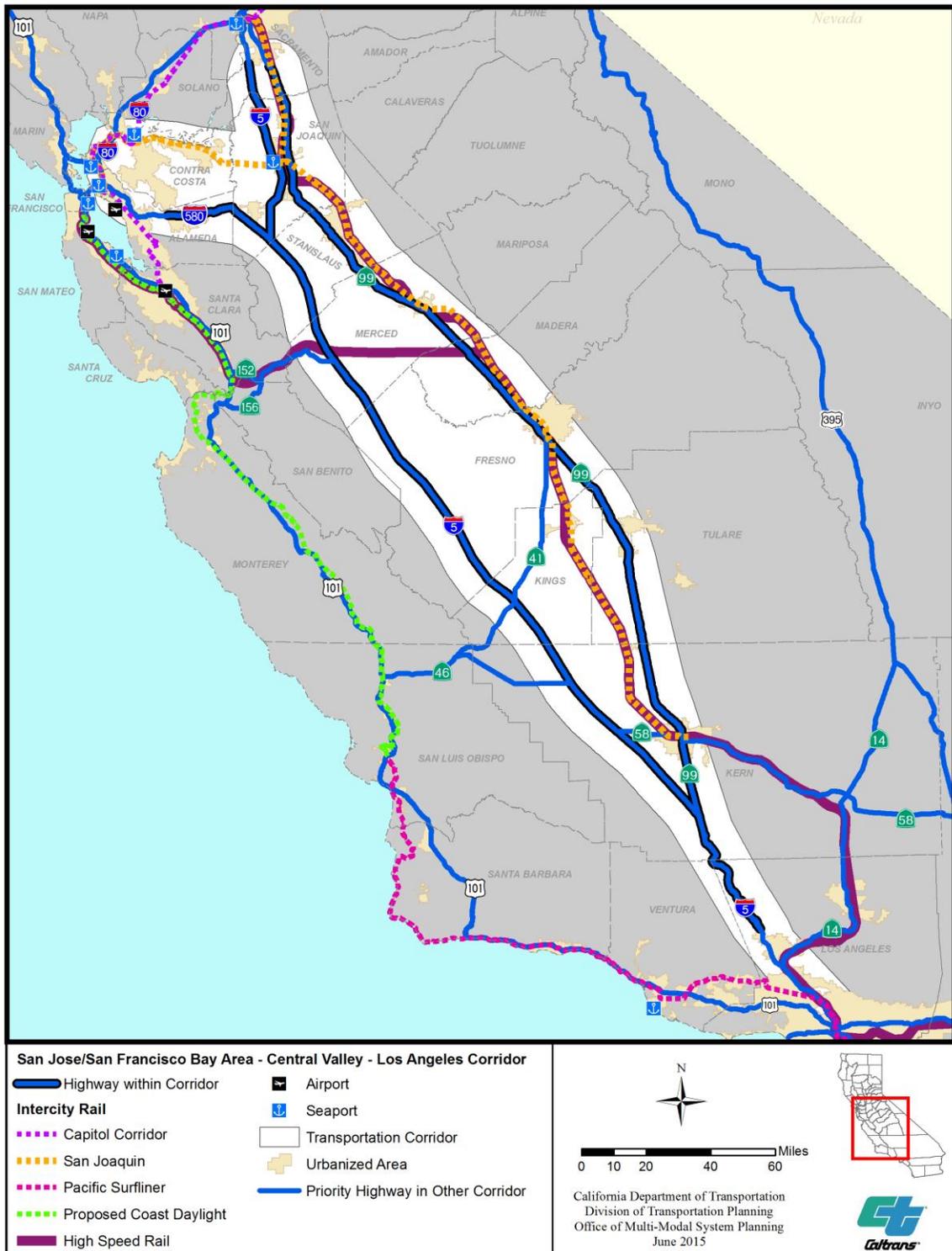


Figure 31: San Jose/San Francisco Bay Area - Central Valley - Los Angeles Corridor

### San Jose/San Francisco Bay Area – Central Valley – Los Angeles

The *San Jose/San Francisco Bay Area–Central Valley–Los Angeles Corridor* links southern and northern California and is significant business, recreational tourism, and freight movement corridor. This corridor has modal options for the movement of people and freight through major freeways (SR 99, I-5, and I-580), passenger rail services (San Joaquin, Amtrak Thruway Bus Service, and high-speed rail), freight rail (UPRR and the BNSF), and interregional buses (Greyhound Lines, BoltBus, Megabus and Transportes Intercalifornias). These facilities and modes, linked to local streets and transit systems, provide the basic transportation framework for an integrated interregional transportation system.

The San Joaquin Valley (Valley) is widely recognized as the most productive agricultural region in the world. As such, the Valley is a globally significant exporter of agricultural products and an importer of supplies, such as fertilizers, packaging, and animal feed, all of which supports the intense farming activities and export industry. Companion to farm production is an enormous food processing, packaging, and distribution industry. All of this activity generates some of the highest truck volumes in the country and requires excellent, reliable transportation facilities and services.

The southern end of the Valley provides access to the Los Angeles area through I-5 and freight rail lines for autos, trucks, trains, and buses (including Amtrak Throughway Buses) and is a vital link to the ports of Los Angeles and Long Beach. On the northern end of the Valley connectivity is provided to the Port of Oakland, which serves as an essential international food export gateway, and Interstates 5 and 80 that provide connectivity to the north and east.

The two major parallel north-south highways, I-5 and SR 99, that have very different characteristics and needs. Along the western edge of the San Joaquin Valley, I-5 primarily provides connectivity between the urban areas of the San Francisco Bay Area and Sacramento and the urban areas of the Los Angeles region. In between these two mega regions, along the I-5 corridor, there are almost no communities, no industry beyond agricultural production, and commercial services limited to gas stations, fast food establishments, and a few motels or hotels. The four-lane Interstate is characterized by high-speed, long-distance travel by autos and trucks.

In contrast, SR 99 on the eastern side of the Central Valley, serves as home to several million people, and links numerous cities and small communities along the entire length of the corridor. The SR 99 portion of the corridor directly serves a wide variety of industry, is often heavily congested with local and interregional traffic, including recreational traffic destined for the Sierra Nevada, and varies from four to eight freeway lanes. Both highways are paralleled by UPRR and BNSF tracks that not only ship freight, but also host the San Joaquin Passenger rail service. The developing California high-speed rail is being constructed along this general corridor and will serve major population centers such as Fresno and Bakersfield, as well as linking the San Francisco Bay Area and Southern California.

The following are summaries of the major interregional transportation modes within the corridor.

**Freight**–The corridor is central to California’s and the nation’s economy. The corridor connects three of the nation’s largest container ports (Los Angeles, Long Beach, and Oakland) by both rail and highway to the rest of the county as well as transporting a variety of agricultural products from the San Joaquin Valley to local, regional, national, and international markets. Multiple facilities within the corridor are included in the California Freight Mobility Plan including Tier 1 freight facilities I-580, I-5, and SR 99, and UPRR and BSNF railways. The corridor also includes the Ports of Stockton and West Sacramento. I-880 and SR 238 also serve freight trucks from the Port of Oakland

**High-Speed Rail**–The under-construction California high-speed rail service will provide intercity transit service between San Francisco (Phase 1) and Sacramento (Phase 2) through the Central Valley and into Los Angeles (Phase 1) and ending in San Diego (Phase 2). This service will be the backbone intercity rail service that will be supported by local and regional rail and transit service, along with highways and the local circulation networks.

**Intercity Rail**–The San Joaquin intercity rail service provides connections between Sacramento and San Francisco to Bakersfield with Amtrak Thruway Bus Service extending the rail corridor into the Los Angeles region and other communities that currently do not have intercity rail stations including to the Yosemite National Park and Mammoth Lakes; Torrance; San Bernardino; and Las Vegas. The Altamont Commuter Express linking cities in San Joaquin County to San Jose is an example of an intercity rail service that provides connections within the corridor.

**Transit**–The corridor has multiple interregional transit options including private bus services such as Greyhound Lines, BoltBus, Megabus and Transportes Intercalifornias utilize the I-5 and SR 99 corridors linking the San Francisco Bay Area and Central Valley to points throughout Southern California and the US/Mexico International Border. Yosemite Area Rapid Transit, connects with both Greyhound and the Amtrak San Joaquin, and deploys from Merced to Yosemite National Park, and Sonora

**Airports**–Major international airports along the corridor include ones in San Francisco, Oakland, San Jose, Sacramento, and Los Angeles. There are many smaller regional airports along the corridor and in the regions of San Francisco, Central Valley, and Los Angeles.

**Active Transportation**–The majority of active transportation throughout the corridor must use local streets and roads because portions of SR 99, I-5, and I-580 are built to freeway standards and restrict access to these modes. Many bike and pedestrian facilities link to the San Joaquin intercity rail service stations and local transportation systems. However, the San Joaquin intercity rail service does not allow bicycles on the trains.

**Highways**–SR 99, I-5, and I-580 are the major interregional highways in the corridor. These facilities connect to other highways, including other interregional transportation

corridors that link the Central Valley to the Central Coast. Freight movement and recreational tourism travel are the major users of these facilities, with pockets of local commute travel throughout SR 99 and some on I-5 in Stockton.

SR 41 and SR 49 run roughly parallel to the east of the corridor, linking Fresno (SR 41) to Mariposa County (SR 49) through Madera, Mariposa, Tuolumne, Calaveras, and El Dorado counties before connecting to US 50. SR 49 continues to Placer County and I-80. This route is an important connection to the Interstate system for multiple counties.

There are major east-west interstate and State highways that intersect with I-5 and SR 99 that provide connectivity to the Port of Stockton, statewide recreational areas, National Parks, and to the Central Coast. These facilities are identified in above.

This corridor is an important element of the West Coast Green Highway which is developing a network of electric vehicle charging station and associated infrastructure throughout California, Oregon, Washington, and British Columbia. Investment in electric vehicle charging stations along the corridor is necessary to ensure adequate support for interregional and interstate trips for electric vehicles.

### *Corridor Analysis*

The Central Valley is expected to be one of the highest rates of population growth in the State through 2040. The regional growth, combined with the high value of freight movement through California and the nation, makes this an important corridor for interregional travel. The impacts of growth on the region and travel along the corridor must be addressed through the cooperation of local, regional, State, and federal authorities.

- Population within the counties of Alameda, Sacramento, San Joaquin, Stanislaus, Merced, Fresno, Madera, Kings, Tulare, and Kern is expected to increase from around 6.9 to 9.9 million, a 42 percent increase between 2010 and 2040.
- Freight movement from the San Francisco Bay Area to Los Angeles is expected to increase from an estimated \$14 billion and 8 billion kilogram tons in 2015 to nearly \$26 billion and over 13 billion kilogram tons.
- The San Joaquin Intercity Rail Service is expected to increase from 1.17 million passengers in 2013 to 2.34 million passengers in 2040, which is a 100 percent increase.
- Changes in VMT throughout the corridor are expected to be significant through the life of the ITSP.
  - The VMT for I-5 is expected to increase more than 9 million miles with a 58 percent increase between 2010 and 2040 exceeding 26 million with 30 percent truck traffic by 2040. A smaller segment of the corridor, Fresno, Kern, Kings, Merced, and Stanislaus projects 40 percent of the VMT coming from trucks.

- The VMT for SR 99 is expected to increase more than 3 million miles with a 22 percent increase between 2010 and 2040 exceeding nearly 19 million with 31 percent truck traffic by 2040.

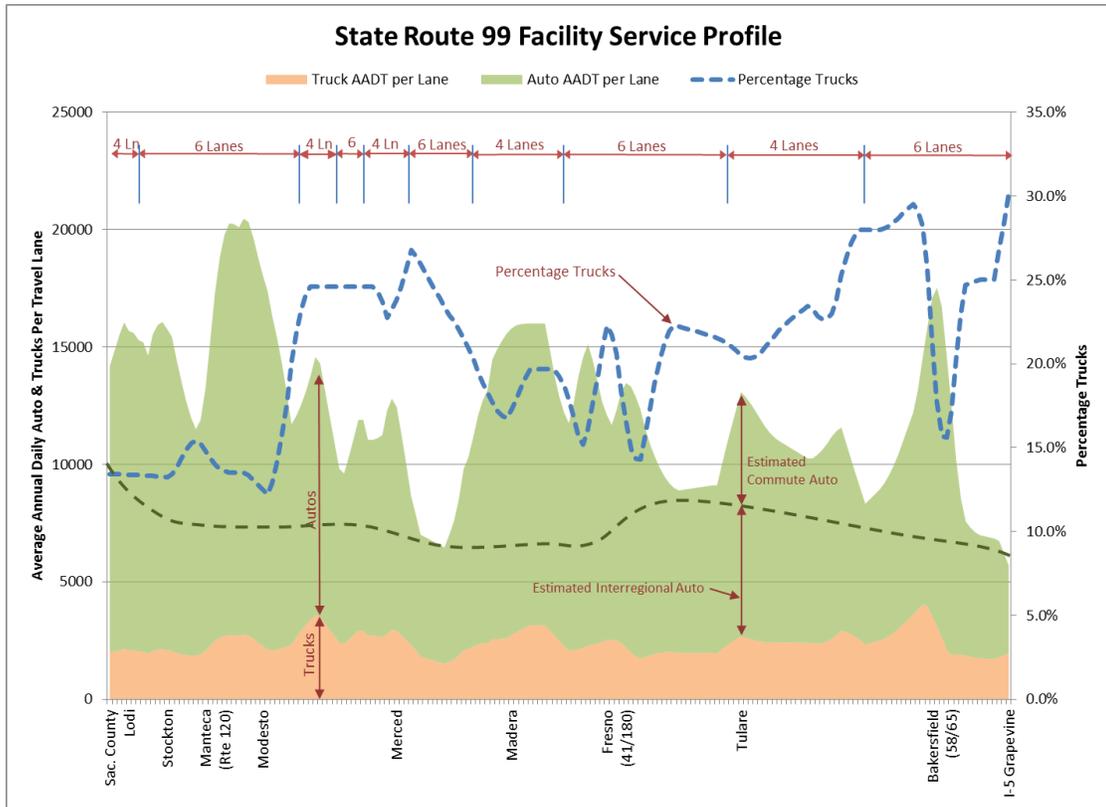


Figure 32: SR 99 Facility Service Profile

Figure 32 details truck and auto traffic along the SR 99 corridor between Sacramento to the north and the termination of SR 99 at I-5 north of the Grapevine in Southern California. The AADT volumes are normalized by roadway lane. The dashed blue line is the percentage of the total volume attributable to trucks. The black dashed line is an estimate of the interregional traffic. The pink dashed line in the I-5 profile is the portion of the freeway within this corridor. The analysis shows:

- Trucks account for a large share (about 20 percent, on average) of the volume throughout the 265-mile corridor.
- Commute patterns lead to congestion on SR 99 between Merced and Modesto to and from the San Francisco Bay Area, from Madera to Fresno, and through Bakersfield.
- There is a clear increase in congestion in the four-lane segment between Tulare and Bakersfield compared to the six-lane segments on either side. Trucks account for a very large (nearly 30 percent) share in this segment.

- There is also a clear increase in congestion in the four-lane segment centered on Madera.

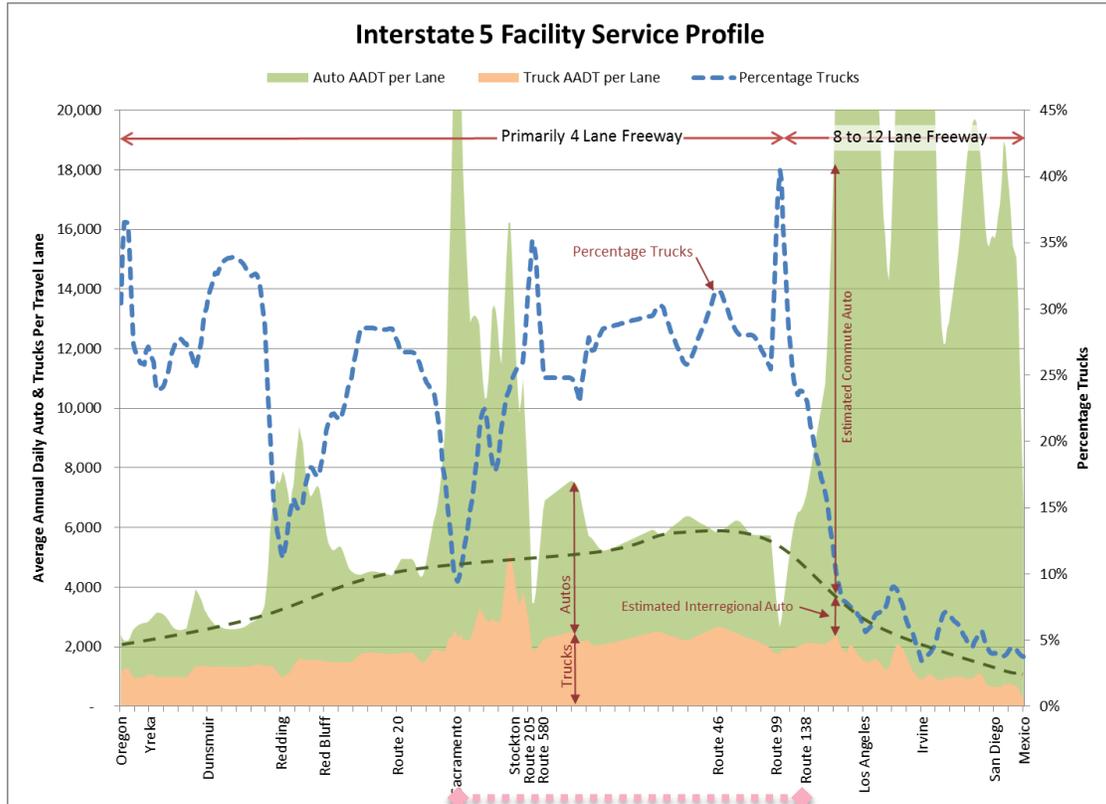


Figure 33: I-5 Facility Service Profile

Figure 33 above examines I-5 between Oregon to Mexico. Looking more closely at the section of highway south of Sacramento, the chart shows:

- The highest number of trucks per lane occurs between Sacramento/Stockton and the Grapevine. The other segments have fewer trucks per lane due to the greater number of lanes on the freeway in the south (between 8 to 12 lanes) and the smaller number of truck trips in the north.
- The highest average concentration of trucks on I-5 is similar to the typical concentration on SR 99.
- The number of trucks per lane peaks in Stockton.
- Commute traffic (areas above the green dashed line) significantly impacts these sections:
  - Redding to Red Bluff
  - Sacramento to I-205
  - SR 138 in Los Angeles to San Diego.

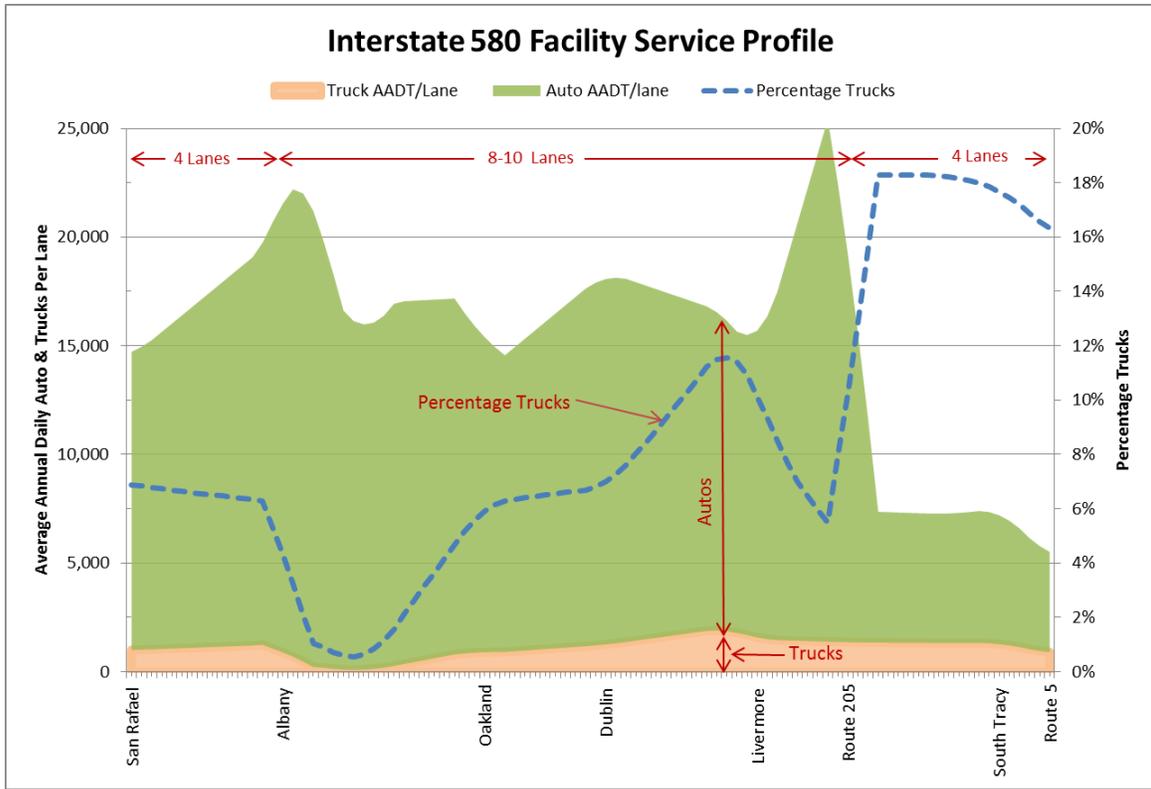


Figure 34: I-580 Facility Service Profile

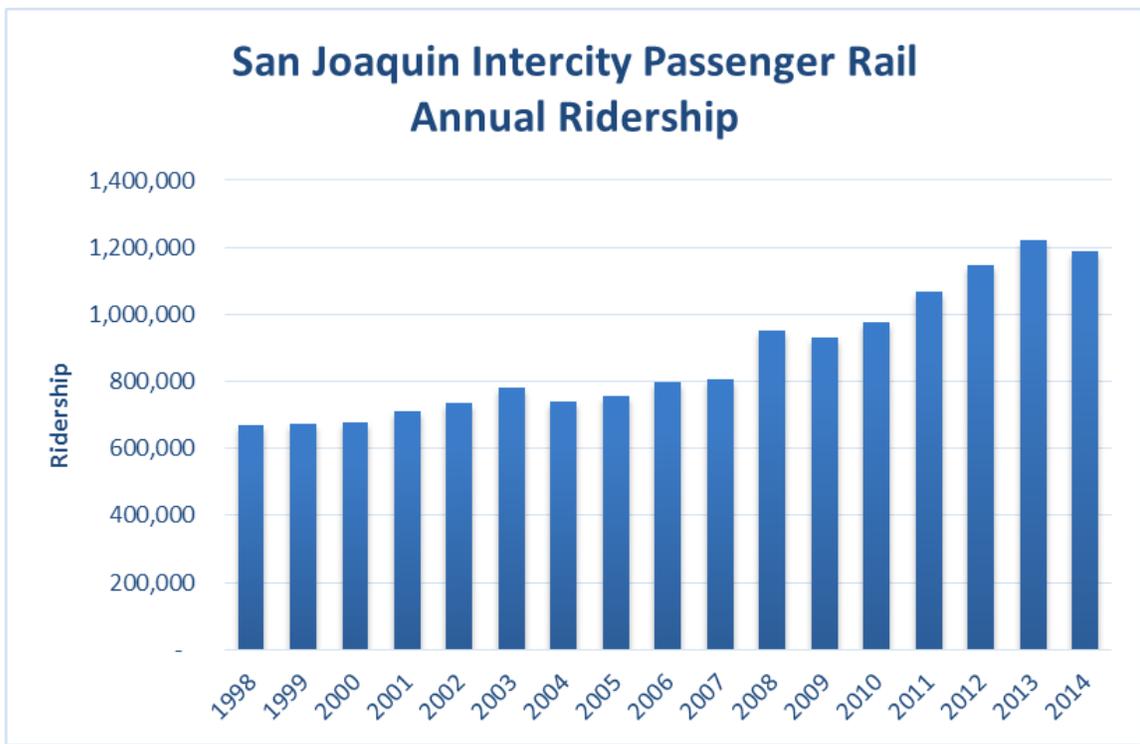


Figure 35: San Joaquin Intercity Service Facility Profile

The analysis from details that automobiles dominate the overall traffic patterns on I-580 between San Rafael and the junction with I-205 in San Joaquin County.

- Trucks per lane between San Rafael and Dublin below 10 percent.
- The highest truck traffic is between Dublin and the I-205 junction.
- The automobile volumes decrease significantly west of I-205 while truck volumes remain about the same. Since the route narrows to a four-lane facility between I-205 and I-5, the trucks per lane increases sharply and peaks around 20 percent.
- The segment of I-580 from I-205 to I-5 is a potential candidate for future interregional improvements to enhance freight movement.

The analysis of the highways in this corridor shows value in improvements on SR 99 and I-5. These improvements include:

- Eliminating bottlenecks on SR 99 by widening four-lane segments to six lanes so that the route between Stockton and the junction with I-5 in Kern County is a minimum of six lanes for the entire length.
- Widening I-5 from four to six lanes between I-580 and the SR 99 junction in Kern County.

Figure 35 details the change in ridership for the San Joaquin intercity rail corridor since 1998 with an increase of 78 percent during that time from 668,048 to 1.8 million. The ridership throughout this period has steadily increased to a high of 1.2 million in 2013. Future improvements to the Capitol Corridor service will target greater ridership increases.

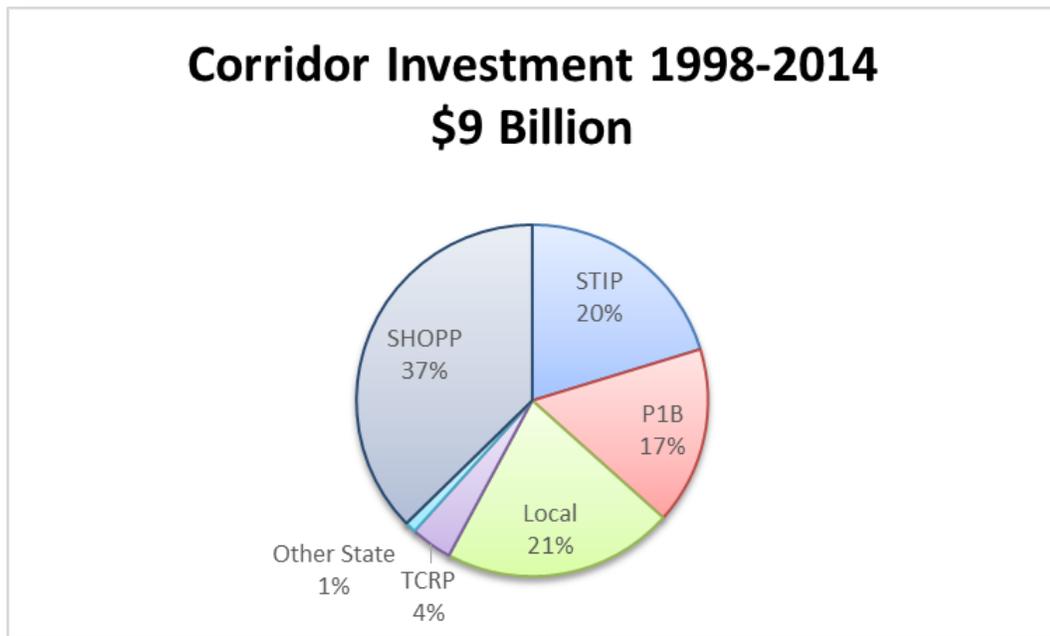
#### *Historical Corridor Investment*

The following chart and figure shows over \$9 billion has been invested in the corridor since 1998 on the major interregional facilities that link regions.

**Table 14: San Jose/San Francisco Bay Area - Central Valley - Los Angeles Facility Investment**

Corridor Investment 1998-2014 (in millions)								
Facility	STIP	P1B	Local	TCRP	Other State	FRA/FTA	SHOPP	Total
I-5	\$941	\$479	\$1,444	\$253	\$1	\$0	\$1,648	\$4,766
SR 99	\$729	\$838	\$272	\$45	\$5	\$0	\$637	\$1,097
I-580	\$38	\$163	\$200	\$25	\$34	\$0	\$1,103	\$2,992
San Joaquin Corridor	\$135	\$4	\$14	\$25	\$53	\$0	\$0	\$230
<b>Total</b>	<b>\$1,843</b>	<b>\$1,484</b>	<b>\$1,930</b>	<b>\$348</b>	<b>\$92</b>	<b>\$0</b>	<b>\$3,388</b>	<b>\$9,085</b>

As shown below in Figure 36, a variety of revenue sources have been used to fund improvements on the corridor with SHOPP, Local, and STIP being the highest three. TCRP and Proposition 1B has funded some improvements along the corridor, but no FRA funds have been used. The 30 percent of local funds shows partnerships with regional agencies have been established along the corridor. SHOPP being the highest expenditure highlights the importance of maintaining the current system. The two interstates, I-5 and I-580, have received the majority of the corridor investments totaling 85 percent of the funds.



**Figure 36: San Jose/San Francisco Bay Area - Central Valley - Los Angeles Corridor Investment**

### *Interregional Transportation Priorities*

*San Jose/San Francisco Bay Area–Central Valley–Los Angeles Corridor* highway improvements over the next two decades will primarily focus on the maintenance and preservation of I-5, SR 99, and other Tier 1 freight infrastructure and upgrading four-lane segments of SR 99 south of Stockton to six lanes, thus further capitalizing on Proposition 1B’s billion dollar investment in the route.

The San Joaquin Intercity Rail Corridor is expected to add a seventh daily roundtrip service in 2015/16. High-speed rail is expected to free-up airport capacity for more long-distance flights, reduce the growth in highway demand, and reduce air pollution in the Central Valley-which suffers from some of the worst air quality in the nation. Work will also commence on adding capacity to I-5 to better accommodate freight movement.

As lanes are added to critical freight routes, collaborative efforts among State agencies and regional and local partners will also be taking place to address the extreme air pollution that plagues the San Joaquin Valley. Part of these efforts will focus on transitioning the freight industry to a near-zero air pollutant status by 2050. This endeavor is consistent with air quality legislation and policy objectives of the Governor.

**Table 15: San Jose/SF Bay Area- Central Valley - Los Angeles Interregional Transportation Priorities**

Major Transportation Facilities	Priority	Short-term (ST) or Long-term (LT)	Funding Options	Comments
California High-Speed Rail	High	Short-term	Proposition 1A, GHG Reduction	High-Speed Rail is the highest priority for this corridor
San Joaquin Intercity Rail	High	Short-term	ITIP, RTIP, Local, Cap and Trade, FRA	Increase the number of daily round trip trains
Freight Corridor Maintenance and Preservation (I-5, SR 99, and I-580)	High	Short-term	SHOPP	Preservation of these facilities, including operational improvements, is a top priority
Freight Corridor Expansion	High	Short-term/Long-term	RTIP, ITIP, Local, Pricing	Gap closures and facility expansion to support the economy
Amtrak Thruway Bus Services	Medium	Maintain (ST); Expand (LT)	Caltrans State Operating Funds	Caltrans funds operating costs
Regional Connectors to Major Intermodal Freight Facilities	Medium	Short-term/Long-term	RTIP, SHOPP, Local	Local and regional connectors between intermodal facilities, including seaports and airports, to Priority Interregional Facilities
Local and Regional Commuter Systems	Medium	Short-term and Long-term	Local, RTIP, Pricing, FTA, Cap and Trade	Local, RTIP, and Pricing for expansion; FTA for transit

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## Sacramento Valley – Oregon Corridor

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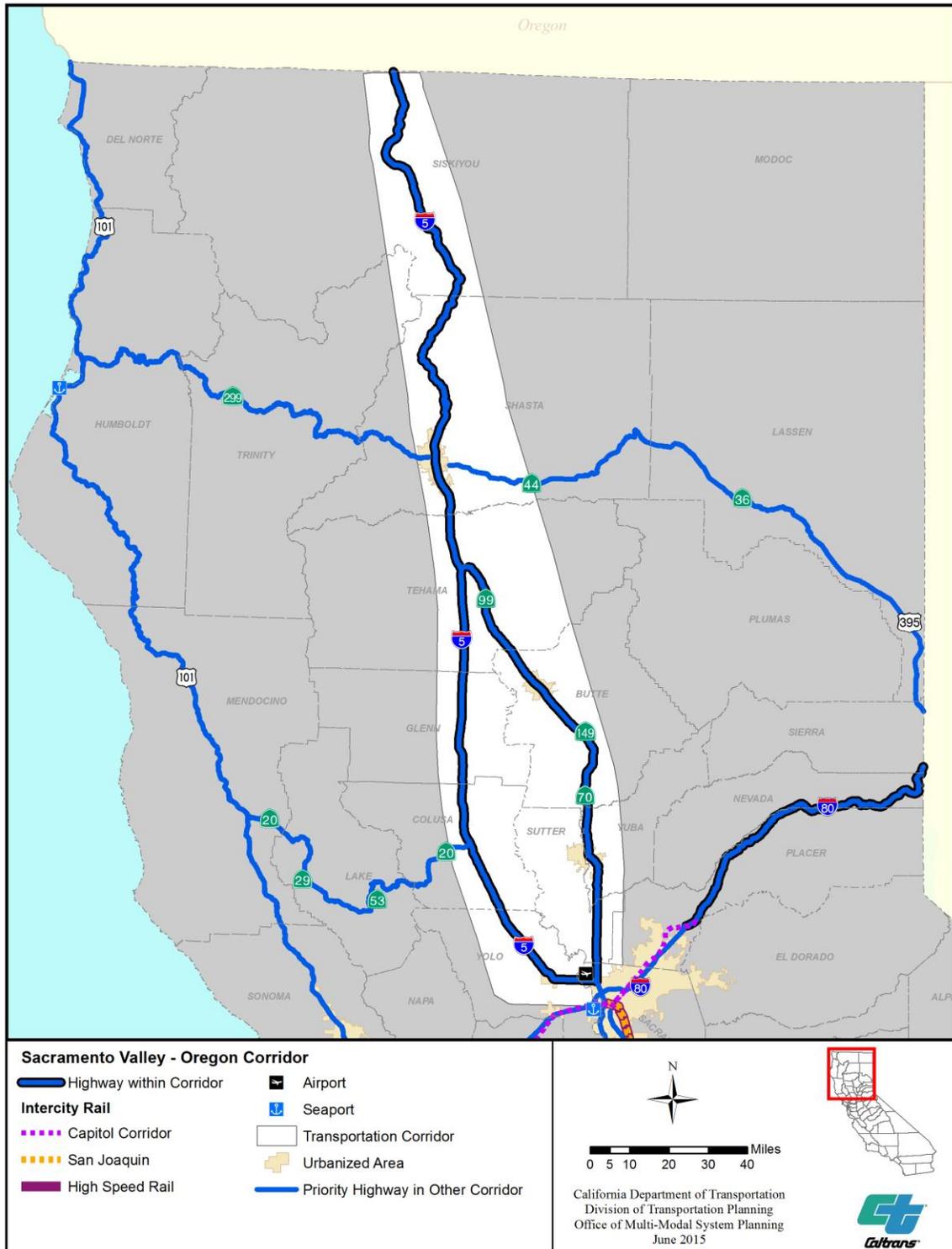


Figure 37: Sacramento Valley – Oregon Corridor Concept

## Sacramento Valley – Oregon Corridor

The *Sacramento Valley – Oregon Corridor* links the Sacramento Valley to the North State and the Oregon border. This is an important connection between California and states to the north and ultimately provides an international connection to Canada. The corridor supports the movement of people and freight, including recreational travel, and provides important connection for emergency response and resiliency for the region. Much of the Sacramento Valley is utilized for agricultural purposes and is dependent on this corridor for exporting products and importing farming and ranching supplies.

The southern portion of the corridor begins in the urbanized area of Sacramento. Between the northern portion of Sacramento and Red Bluff, there are two parallel facilities traversing different communities – I-5 goes through Woodland and SR 70, SR 149, and SR 99 provide access to and through Marysville, Yuba City, Oroville, and Chico terminating in Red Bluff at the junction of SR 36 two miles from I-5. The northern portion of the corridor is more rural with Red Bluff and Redding the major urbanized areas before reaching the Oregon border.

The general transportation issues that impact interregional performance include freight movement, recreational tourism, emergency response and resiliency, commute travel, and winter weather conditions in the northern portion of I-5.

The following are summaries of the major interregional transportation modes within the corridor.

**Freight**–The corridor includes multiple facilities important to the economy:

- I-5 is part of the US DOT Primary Freight Network and a Tier 2 facility in the California Freight Mobility Plan.
- SR 70, SR 149, and SR 299, are Tier 3 facilities in the California Freight Mobility Plan.
- SR 44, SR 89, and SR 99 are Tier 3 facilities in the California Freight Mobility Plan.
- The main UPRR route (District Union Pacific Valley Subdivision) is within the corridor and is included in the California Freight Mobility Plan as a major freight facility. BNSF also operates an important freight line through the Feather River Canyon.

**Intercity Rail**–The Amtrak Thruway Bus Service connects Sacramento and Redding. The Coast Starlight, a national Amtrak service, travels along the corridor starts in Seattle, Washington and ends in Los Angeles with stops within the Corridor in Redding and Sacramento.

**Interregional Transit**–Greyhound bus serves I-5 and SR 70, and SR 99. There are also local transit services that utilize portions of the routes and provide connection within the Greater Redding Area, between Redding/Red Bluff to the south, and north of Lake Shasta to Yreka and Oregon.

**Airports**–The corridor has three commercial airports that provide air passenger travel services – Redding Municipal, Chico Municipal airport, and the Sacramento International Airport along with a large number of publically owned general aviation airports and privately owned airports.

**Active Transportation**–Bicycle and pedestrian travel through the corridor is on State highways and local streets, with access on freeways very limited. On non-freeway portions of the corridor outside of communities bicycle and pedestrian travel is accommodated by achieving concept shoulders. Within communities, there are many locations with designated bike lanes as well as sidewalks and pathways for pedestrians.

**Highway**–I-5 is one of six interstate Routes identified by the US Department of Transportation to participate in the “Corridors of the Future”, an initiative to reduce traffic congestion on key multi-state corridors. The I-5 corridor is critical for the flow of people and goods along the entire West Coast, with the SR 44 and SR 89 portion providing detour when inclement weather or traffic incidents close I-5 through the Sacramento River Canyon. SR 89 further supports the flow of people and goods between Oregon and Nevada via its linkage from I-5 to the *North Coast–Northern Nevada Connections* (at SR 44).

The SR 70/149/99 portion of the corridor provides the same critical connectivity for people and goods along the East side of the California Central Valley and acts as critical I-5 alternate during incident management crisis in Northern California. Regional issues include upgrading I-5 to a 6-lane freeway between Redding and Anderson, adopt a new alignment for SR 99 between Butte and Tehama Counties, and developing the SR 44 and SR 89 corridors.

The entire corridor is an important element of the West Coast Green Highway which is developing a network of electric vehicle charging stations through California, Oregon, and Washington.

### *Corridor Analysis*

Growth is expected within the corridor and the greater region which must be addressed through the cooperation of local, regional, State, and federal authorities.

- Population within the counties of Butte, Colusa, Glenn, Shasta, Siskiyou, Sutter, Tehama, and Yolo is expected to increase from 853,210 to 1.068 million, a 25 percent increase between 2010 and 2040. Sacramento is expected to increase from 1.4 to 1.8 million, a 35 percent increase.
- Freight movement from the Sacramento to Oregon and Washington is expected to increase from an estimated \$1 billion and 1.6 billion kilogram tons in 2015 to nearly \$2.3 billion and over 3.2 billion kilogram tons.
- Changes in VMT throughout the corridor is expected to be significant through the life of the ITSP.

- The VMT for SR 70 and SR 99 north of Sacramento is expected to increase more than 2 million miles with a 97 percent increase between 2010 and 2040 exceeding 4.1 million miles with 13.5 percent truck traffic by 2040.
- The VMT for I-5 north of Sacramento is expected to increase over 3.5 million miles with a 66.8 percent increase between 2010 and 2040 exceeding 8.8 million miles with 37.5 percent truck traffic by 2040.

Freight movement is a significant part of interregional travel in California. The chart in the corridor analysis section of the *San Francisco Bay Area–Central Valley–Los Angeles Corridor* provides an assessment of current usage of I-5 from Oregon to Mexico with emphasis on freight movement. The chart shows the annual average daily trucks and automobiles per lane along with the percentage of trucks. The green dashed line is an estimate of the interregional traffic.

The analysis of I-5 for the *Sacramento Valley-Oregon Corridor* shows:

- The highest percent of trucks per lane is between Sacramento and Red Bluff and north of Redding.
- Commute traffic significantly impacts Redding to Red Bluff and the Sacramento area.

The analysis implies the improvement with greatest benefit for interregional freight movement along I-5 should be focused in the southern portion of the State.

#### *Historical Corridor Investment*

The following table and figure shows nearly \$3.6 billion has been invested on the corridor since 1998 on the major interregional facilities linking regions.

**Table 16: Sacramento Valley - Oregon Corridor Facility Investment**

Corridor Investment 1998-2014 (in millions)								
Facility	STIP	P1B	Local	TCRP	Other State	FRA/ FTA	SHOPP	Total
I-5	\$85	\$49	\$211	\$0	\$0	\$0	\$1,788	\$762
SR 70	\$255	\$0	\$13	\$0	\$0	\$0	\$412	\$680
SR 99	\$147	\$145	\$124	\$3	\$2	\$1	\$342	\$762
<b>Total</b>	<b>\$487</b>	<b>\$194</b>	<b>\$348</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,541</b>	<b>\$3,575</b>

As shown in Figure 38, a variety of revenue sources have been used to fund improvements on the transportation facilities in the corridor. About one half of the corridor funding has been from the SHOPP, with the other half a combination of STIP, proposition 1B and other local funding. The majority of the local funding has been on SR 70 and SR 99.

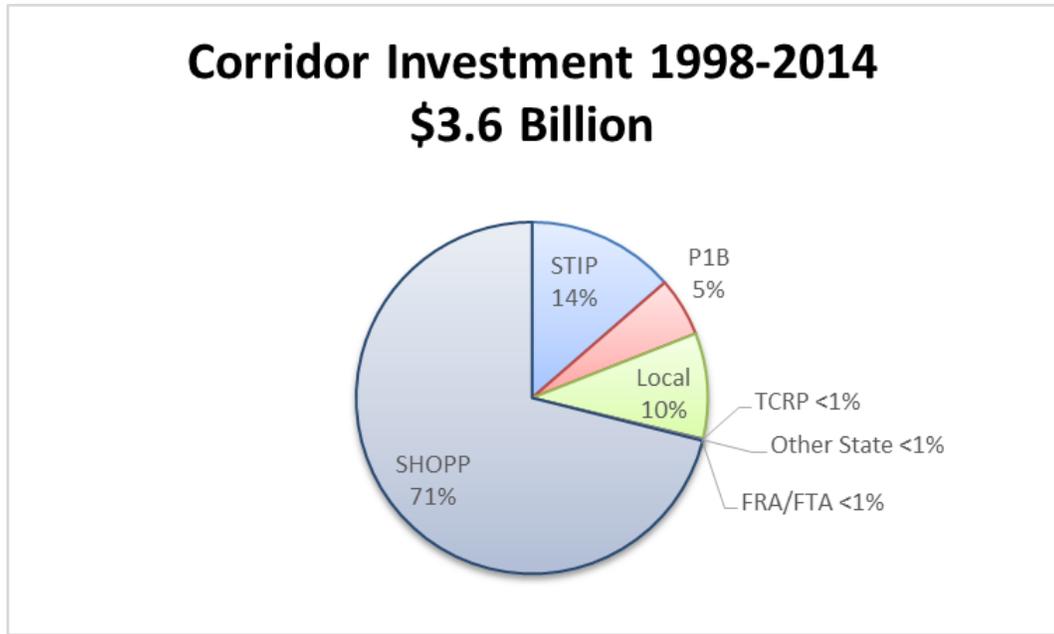


Figure 38: Sacramento Valley - Oregon Historical Corridor Investment

#### *Interregional Transportation Priorities*

Priority investments for the *Sacramento Valley–Oregon Corridor* over the next two decades will primarily focus on closing gaps on SR 70 by upgrading remaining two-lane segments to four lanes and continuing the fix-it-first policies. In Shasta County, I-5 has received substantial support from Shasta Regional Transportation Agency as a priority for investment of RIP funding and completion of the 6-lane section between Redding and Anderson is a top priority for interregional investment in the corridor. Expanding SR 70 between Marysville and Oroville is also a priority for the corridor.

Table 17: Priority Investments for Sacramento Valley - Oregon Corridor

Major Transportation Facilities	Priority	Short-term (ST) or Long-term (LT)	Funding Options	Comments
Highway Maintenance and Preservation	High	Short-term	SHOPP	Preservation serves car, transit and bicycle users
Amtrak Thruway Bus Connections	Medium	Maintain in ST, Expand in LT	Caltrans State Operating Funds	Caltrans funds operating costs
Highway Freight Capacity Expansion	Medium	Long-term	ITIP	Close gaps by expanding 2-lane segments on SR 70 to 4 lanes
Regional Connectors to Major Intermodal Freight Facilities	Medium	Short-term/ Long-term	RTIP, SHOPP, Local	Local and regional connectors between intermodal facilities, including seaports and airports, to Priority Interregional Facilities
Local and Regional Com-muter Systems	Medium	Short-term and Long-term	Local, RTIP, Pricing, FTA, Cap and Trade	Local, RTIP, and Pricing for expansion; FTA for transit



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High Desert – Eastern Sierra – Northern Nevada Corridor

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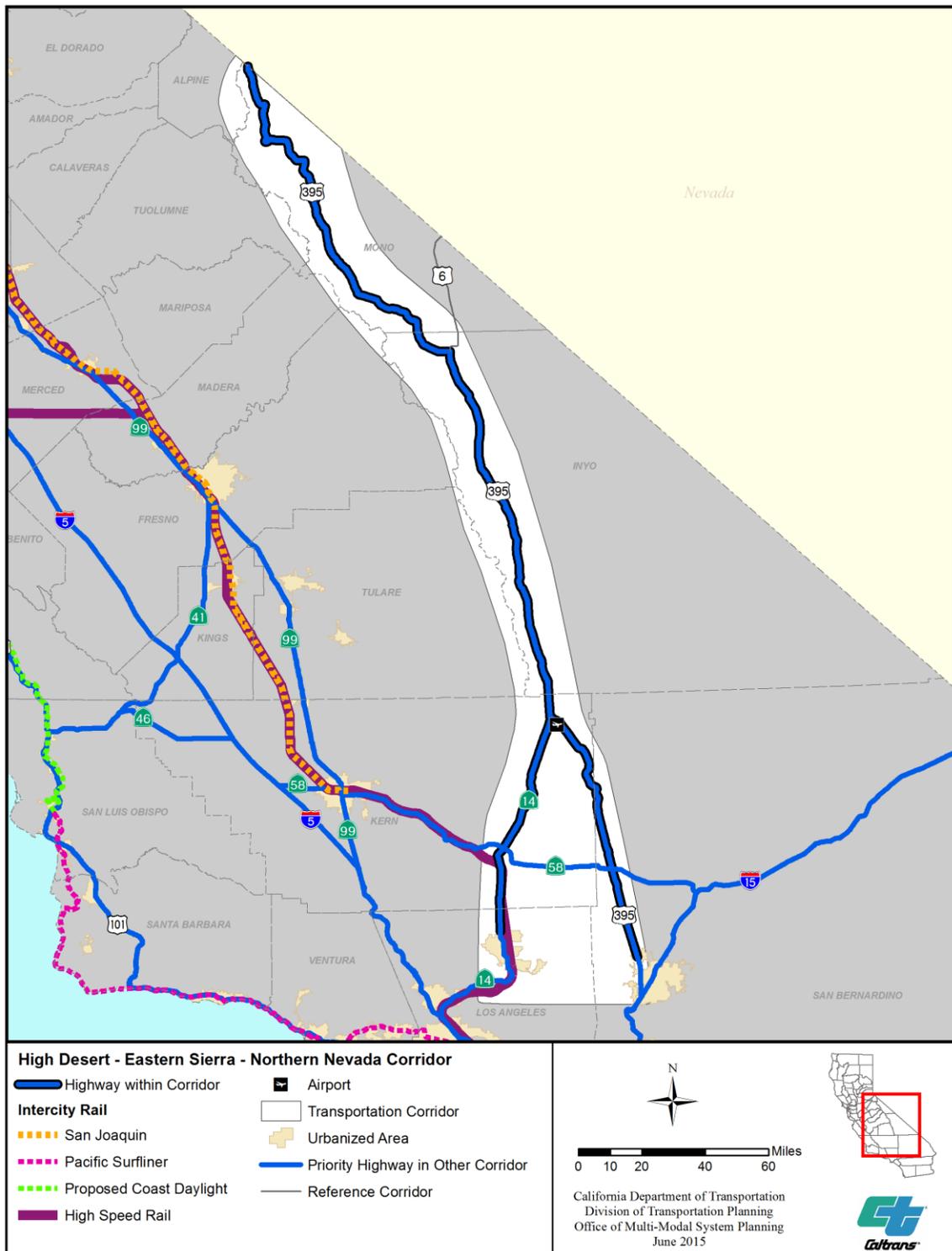


Figure 39: High Desert - Eastern Sierra - Northern Nevada Corridor Concept

## High Desert – Eastern Sierra – Northern Nevada Corridor

The *High Desert–Eastern Sierra–Northern Nevada Corridor* links the Los Angeles region to northern Nevada, including Lake Tahoe and Reno. It is an eastern California, north-south corridor and traverses the east side of the Sierra Nevada mountain range. The corridor provides a consistent high LOS for local trips and interregional and interstate movement of people, goods, and recreational travel. It also provides lifeline accessibility for rural communities where there are no alternative routes to access goods and services or for detours in the event of a road closure.

US 395 has been designated as a major evacuation route for the Town of Mammoth Lakes in the event of an emergency in both the *Long Valley Craters–Mono Craters Contingency Plan* and the *Mono County Local Hazard Mitigation Plan*. The Corridor is also identified as an evacuation route for the North Los Angeles County area by the Los Angeles Department of Public Works.

Recreation (60 percent) and goods movement (20 percent) account for the majority of trips on the corridor. Tourism (domestic and international) is the major economic activity with over 13 million visitor-days generated annually including the following destinations: National Parks such as Yosemite and Death Valley; Inyo and Humboldt-Toiyabe National Forests; State Parks such as Red Rock and Bodie; Mammoth Mountain Ski Area; and Mono Lake Basin National Scenic Area. The continued economic recovery will lead to increases in traffic volumes on the corridor as a result of recreational travel.

In Nevada, the Tahoe-Reno Industrial Center (TRI Center) is a 107,000 acre park that encompasses a developable 30,000 acre industrial complex. The complex is adjacent to I-80, a major east-west trucking artery, which intersects US 395 in Reno approximately 18 miles west of TRI Center's main entrance. An increase in freight trips is foreseen along the corridor from the TRI Center to southern California.

The corridor provides access to the military facilities of Edwards Air Force Base, China Lake Naval Air Weapons Station, and US Marines Pickel Meadows Mountain Warfare Training Center. Variable amounts of interregional trips are generated by military activities.

The following are summaries of the major interregional transportation modes within the corridor.

**Freight**–US 395 and SR 14 are Tier 3 Freight Network Facilities identified in the CFMP. SR 14 is Tier 2 Freight Network Facility from I-5 to Palmdale, and a Tier 3 Freight Network Facility from Palmdale to its junction with US 395, as identified in the CFMP. In addition, SR 14 together with SR 58 act as alternate routes to I-5 in case of natural disasters such as earthquakes and snow storms. From Kern County, UPRR runs in close proximity to SR 14 before it turns east near Palmdale toward San Bernardino County, known as the Tehachapi Trade Corridor. UPRR is a Tier 1 freight railroad as identified by the CFMP and is also a Class 1 railroad. Seventy percent of the freight volume over this corridor originates in the Central Valley.

**Intercity Rail**–Amtrak Thruway Bus service seasonally connects to Mammoth Lakes.

**Regional Transit**–Transit service, which stops in all the rural towns, connects local residents and visitors to the south-Metrolink in Lancaster, CA; and to the north-international/domestic air, greyhound bus and Amtrak rail services in Reno, Nevada. Eastern Sierra Transit provides interregional transit service on US 395 between Lancaster, CA and Reno, NV with connections in the Los Angeles area.

**Airports**–There are six general aviation and two commercial airports along this Corridor that serve the general public in the transport of goods and services. The Mojave Air and Space Port, adjacent to SR 14, provides intermodal freight connections for air, rail, and highway transport. Because of the rural nature of this area, access to emergency and medical services, including air ambulance service, is accessible only via the Corridor. The airports also serve as potential staging areas for emergency response in the case of a major catastrophic event.

**Active Transportation**–Throughout the majority of the corridor, bicycle and pedestrian travel is allowed on the State highways. Shoulder widths on these facilities vary. US 395 is listed as one of the planned bicycle corridors in accordance with AASHTO’s United States Bicycle Route System.

**Highway**–The major interregional transportation facilities are SR 14 and US 395. US 395 and SR 14 are part of the Surface Transportation Assistance Act National Network (STAA), the National Highway System, and portions of the routes, US 395 (I-15 to Bishop) and SR 14 (I-5 to Mojave), are designated as a Strategic Highway Network (STRAHNET) routes.

### *Corridor Analysis*

Growth is expected within the corridor and the greater region which must be addressed through the cooperation of local, regional, State, and Federal authorities.

- Between 2010 and 2040, population within the counties of Kern, San Bernardino, Inyo, and Mono is expected to increase from around 2.9 to 4.2 million, a 44 percent increase.
- Changes in VMT throughout the corridor are expected to be significant through the life of the ITSP.
  - The VMT for US 395 is expected to increase more than 600,000 miles with a 38 percent increase between 2010 and 2040 exceeding 2.4 million miles with 20 percent truck traffic by 2040.
  - The VMT for SR14 in Los Angeles and Kern Counties is expected to increase nearly 2 million miles with a 55 percent increase between 2010 and 2040 exceeding 5 million miles with 17 percent truck traffic by 2040.

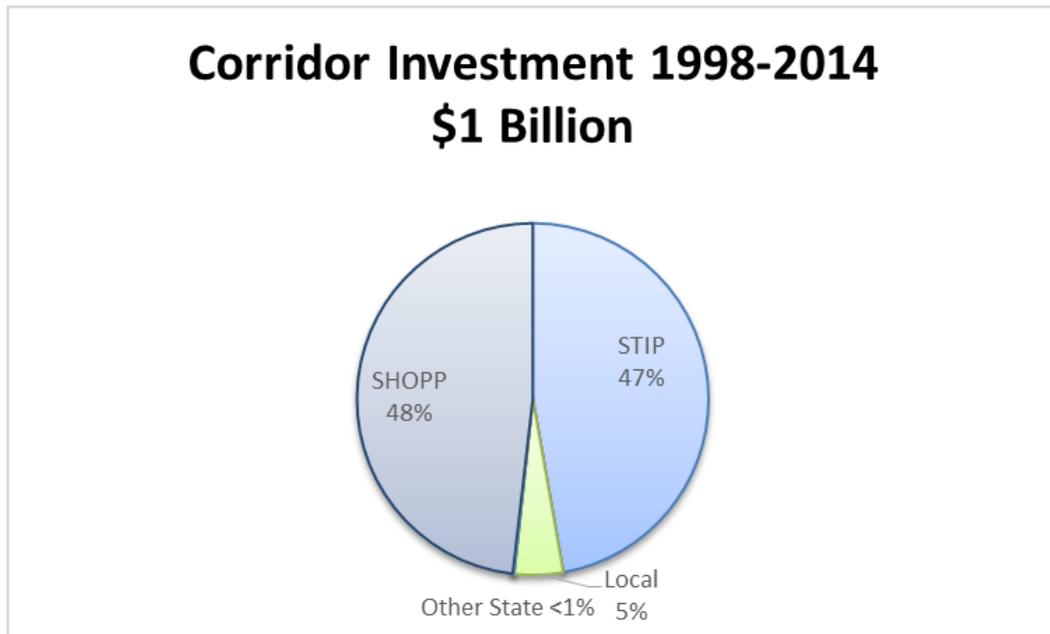
*Historical Corridor Investment*

Figure 40 and Table 18 illustrates that nearly \$1 billion has been invested on the corridor since 1998 on the major interregional facilities linking regions.

**Table 18: High Desert – Eastern Sierra – Northern Nevada Corridor Investment**

Corridor Investment 1998-2014 (in millions)								
Facility	STIP	P1B	Local	TCRP	Other State	FRA/ FTA	SHOPP	Total
395	\$340	\$0	\$44	\$0	\$1	\$0	\$450	\$835
SR 14	\$127	\$0	\$0	\$0	\$0	\$0	\$27	\$154
<b>Total</b>	<b>\$467</b>	<b>\$0</b>	<b>\$44</b>	<b>\$0</b>	<b>\$1</b>	<b>\$0</b>	<b>\$477</b>	<b>\$989</b>

The two main fund sources for improvements through the corridor are SHOPP and STIP with a small percentage of local funds contributed. The limited funds are a reflection of the limited funds available for improvements within the corridor. The region is rural and has limited population to raise tax revenues, but the corridor provides important access to the eastern Sierra and northern Nevada for a greatly disproportionate share of recreational trips from other areas of the State, other states, and other nations. The corridor provides access to Native American reservation properties in the region.



**Figure 40: High Desert - Eastern Sierra - Northern Nevada Corridor Investment**

Funding limitations necessitates interregional goals be addressed through a variety of funding sources which requires significant partnerships with local, regional, State, and federal agencies. Since 2001, Inyo County Local Transportation Commission, Mono County Local Transportation Commission, Kern Council of Governments, and San Bernardino Associated Governments, have participated in an MOU to improve the Corridor.

### *Interregional Transportation Priorities*

Priority investments for the *High Desert–Eastern Sierra–Northern Nevada Corridor* over the next two decades will primarily focus on highway improvements to close two-lane gaps on US 395 and SR 14, including system expansion, to support freight movement along with improving bicycle and pedestrian access.

**Table 19: High Desert-Eastern California-Northern Nevada Corridor Interregional Transportation Priorities**

Major Transportation Facilities	Priority	Short-term (ST) or Long-term (LT)	Funding Options	Comments
US 395 and SR 14 Maintenance and Preservation	High	Short-term	SHOPP	Preservation serves car, transit and bicycle users
Amtrak Thruway Bus Connections	Medium	Maintain in ST, Expand in LT	Caltrans State Operating Funds	Caltrans funds operating costs
US 395 and SR 14 Access and Safety	Medium	Long-term	ITIP	System improvements to support freight movement and active transportation
Regional Connectors to Major Intermodal Freight Facilities	Medium	Short-term/Long-term	RTIP, SHOPP, Local	Local and regional connectors between intermodal facilities, including seaports and airports, to Priority Interregional Facilities
Local and Regional Commuter Systems	Medium	Short-term and Long-term	Local, RTIP, Pricing, FTA, Cap and Trade	Local, RTIP, and Pricing for expansion; FTA for transit

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Southern California – Southern Nevada/Arizona Corridor

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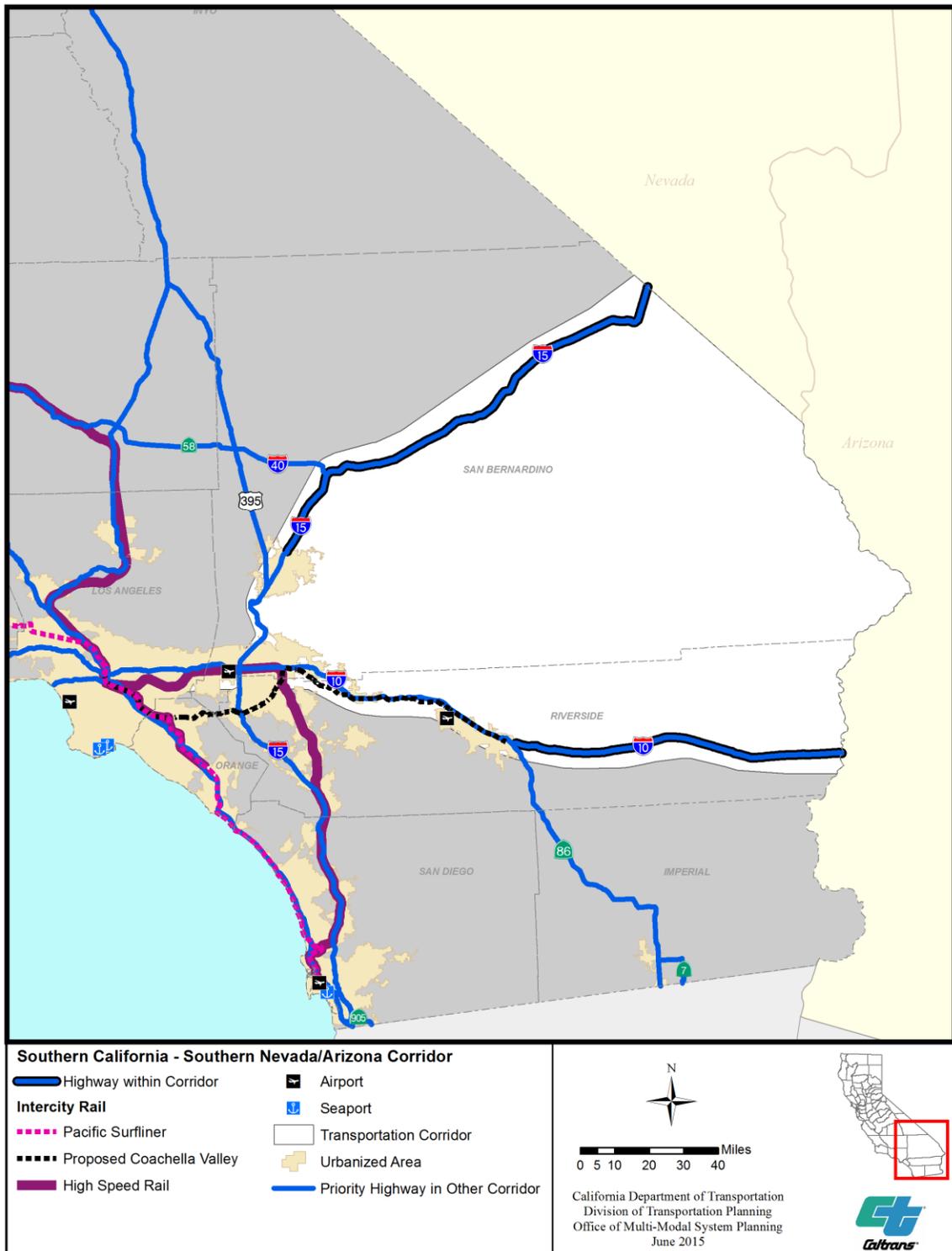


Figure 41: Southern California - Southern Nevada/Arizona Corridor

### Southern California – Southern Nevada/Arizona Corridor

The *Southern California–Southern Nevada/Arizona Corridor* connects Southern California’s seaport gateways, and the massive logistics and manufacturing sectors that are based in the region to the rest of the country via three Interstate highways (10, 15, and 40) and parallel freight rail routes owned and operated by UPRR and BNSF. The region is the nation’s largest and most important freight gateway and corridor for international trade. Also, I-15 and I-40 link to the San Joaquin Valley via SR 58 and provide connectivity to the southern United States for the nation’s most productive agricultural region in the Central Valley.

For the purposes of the ITSP, I-10 and I-15 are identified as high-priority corridors. Both routes are included within the set of six nationally identified “Corridors of the Future” and I-15 is the subject of a multi-state planning and operations partnership involving California, Nevada, Arizona, and Utah. The I-15 corridor also provides a vital link between Mexico, Southern California, and locations to the north and east of the region. The corridor is typically characterized as being heavily urbanized within the Los Angeles Basin with dense warehousing, transloading, distribution, and manufacturing land uses and by sparsely populated desert outside of the urban area. The focus of interregional highway investments is directed outside of the urban areas while passenger rail investments are targeted to the emerging Coachella Valley service and the very successful Surfliner service which has the nation’s second highest passenger ridership.

The I-15 Corridor begins in San Diego, near the Port of San Diego, and continues through the urban core. North of SR 163, I-15 is a well-developed, freeway ranging from 8 to 12 lanes. Portions of the I-15 include 20 miles of high-occupancy-vehicle (HOV) and high-occupancy toll (HOT) express lanes on a cross-section of 10 and 12 lanes. Between Escondido and I-40 in Barstow the corridor is a six to eight-lane freeway, and becomes a four-lane freeway north of Barstow, continuing to Las Vegas, Nevada.

Santa Monica is the western terminus for I-10. The entire I-10 facility within the Los Angeles metropolitan area ranges from an 8 to 12 lane freeway, continuing into San Bernardino and Riverside counties, collectively known as the Inland Empire. This area contains the nation’s highest density and extent of warehousing facilities serving not only the vast consumer market in Southern California but the US Southwest as well. The route and parallel and connecting freeways are characterized by very high truck volumes and frequent traffic congestion. I-10 becomes a four highway outside of Indio, California connecting to Arizona and continuing through the Southern US to terminate in Florida.

The following are summaries of the major interregional transportation modes within the corridor.

**Freight**–I-10, I-15 and I-40 are Tier 1 California Freight Network Facilities identified in the CFMP (Figure 11). UPRR and BNSF have transcontinental freight rail lines in the corridor that provide direct connectivity to the Ports of Los Angeles and Long Beach, the nation’s top two ports. Forty percent of international containerized trade passes through the ports and is moved primarily along this corridor via truck and rail. The Ports of San Diego and Hueneme are regionally important for the handling of bulk items and vehicles.

The CFMP has identified many freight facilities within the urbanized portion of Southern California that are not included in the IRRS, and are not a priority for ITIP funding. However these facilities, such as I-710 and segments of I-10, provide important connections between intermodal freight facilities and the rest of the interregional transportation system. This network of highways allows the flow of freight imports and exports between the Ports of Los Angeles and Long Beach to the rest of Southern California and other countries and neighboring states.

**Intercity Rail**–The following are the major intercity rail services within the corridor:

- Amtrak Thruway Bus Service links the Pacific Surfliner Intercity Rail Corridor to Coachella Valley on I-10 and Las Vegas on I-15.
- Amtrak’s Sunset Limited/Texas Eagle links Los Angeles to Phoenix (Maricopa), continuing to Chicago (Texas Eagle) and New Orleans (Sunset Limited), providing service three times a week.
- The proposed Coachella Valley-San Gorgonio Pass Corridor Rail Service would connect Los Angeles to Coachella Valley, paralleling I-10.

**Transit**–Private bus services such as Greyhound, BoltBus, El Paso-Los Angeles Express and Megabus utilize I-10 and I-15 corridors linking Los Angeles and San Diego to the Inland Empire, Las Vegas, Nevada and Phoenix, Arizona. The under development Southern California Regional Rail Authority (Metrolink) Perris Valley Line will link Los Angeles, Riverside and Perris on the I-15/ I-215 corridor.

**Airports**–The Inland Empire and San Diego have multiple major passenger airports and regional airports that impact the corridor. International airports along the corridor are located in San Diego, Los Angeles, Ontario, and Palm Springs. Los Angeles and Ontario are the primary air freight facilities in the region for international and domestic air cargo, respectively.

**Active Transportation**–Bicycle and pedestrian travel within the major urbanized centers in the corridors is generally restricted to local streets and roads and dedicated bicycle facilities. Bicycles are generally prohibited on area freeways.

**Highway**–I-15 and I-10 are the two major freeways supporting interregional travel through the corridor. They link the San Diego and the greater Los Angeles region with Nevada, Arizona, and the rest of the nation.

I-15 is a major transcontinental north-south highway in the western United States that extends more than 1,470 miles through the states of California, Nevada, Arizona, Utah, Idaho, and Montana. It is the principal artery linking coastal ports to inland population centers and connects with the nation’s three transcontinental east-west highways: I-10, I-80, and I-40. The I-15 transportation corridor links San Diego to San Bernardino. I-15 is a heavily traveled commuter route. It is also the primary access route between Southern California and Las Vegas with more than 8 million people driving this corridor annually.

I-10 has heavy congestion through the urbanized areas of Los Angeles and the Inland Empire and is impacted by the expansion of the suburban areas on the eastern edge of the Los Angeles Basin.

### *Corridor Analysis*

Growth in population and travel within the region is expected to increase by 2040.

- Population within the counties of San Diego, Riverside, and San Bernardino is expected to increase from around 7.3 to 9.8 million, a 33 percent increase between 2010 and 2040.
- The proposed Coachella Valley interregional rail route is expected to have 270,000 annual riders annually by 2040.
- Changes in VMT throughout the corridor is expected to be significant through the life of the ITSP.
  - The VMT for I-15 is expected to increase over 10 million between 2010 and 2040 exceeding 35 million with 20 percent truck traffic by 2040.
  - The VMT for I-10 is expected to increase nearly 8 million between 2010 and 2040 exceeding over 32 million with 21 percent truck traffic by 2040.

Figure 42 examines truck and auto traffic along I-10 from Santa Monica to the Arizona border. The analysis shows:

- Automobile traffic significantly impacts the segment from Santa Monica and Los Angeles to the Inland Empire. A significant number of freight trucks utilize I-10, but the size of the freeway keeps the truck share average around 10 percent between Los Angeles and Palm Springs.
- Truck traffic density increases sharply and remains close to 40 percent as I-10 narrows to four lanes east of Palm Springs all the way to the Arizona border.
- The segment between Palm Springs and Arizona border principally carries interregional freight and travelers, with truck traffic making up a significant portion of the total vehicular traffic along this segment of I-10.

Figure 43 on the following page details truck and auto traffic along I-15 from San Diego to Nevada. The AADT volumes are normalized by roadway lane. The dashed blue line is the percentage of the total volume attributable to trucks. The black dashed line is an estimate of the interregional traffic. The purple dashed line is the portion of I-15 within this corridor. The analysis shows:

- The traffic patterns for the segment between Victorville and downtown San Diego are dominated by large volumes of automobile traffic. The truck density in this segment is about 11 percent, which increases in the northern portion between Fontana and Victorville.

- The segment from Victorville to the Nevada border appears to be highly impacted by interregional travel. The truck traffic density between Barstow and Victorville peaks above 25 percent and averages around 20 percent throughout the segment.
- The segment from San Diego to Fontana is impacted mostly by regional automobile travel, while the segment from Victorville to the Nevada border is impacted significantly by interregional travel.

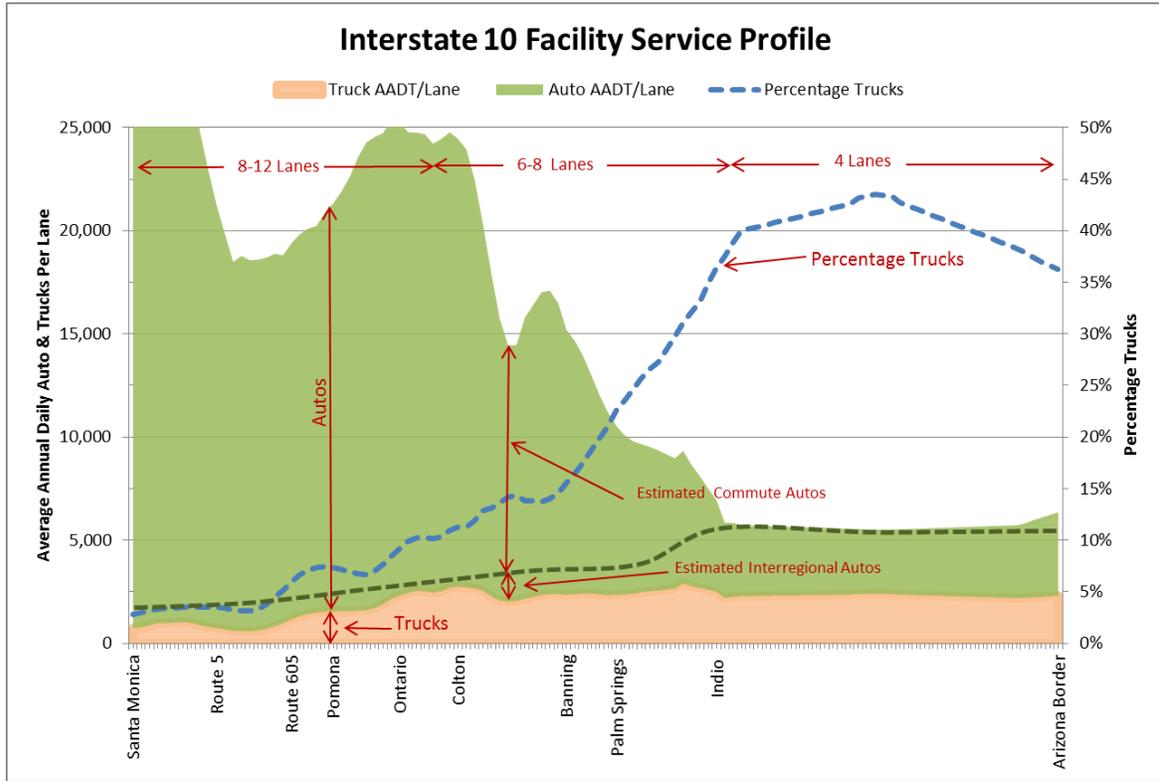


Figure 42: I-10 Facility Service Profile

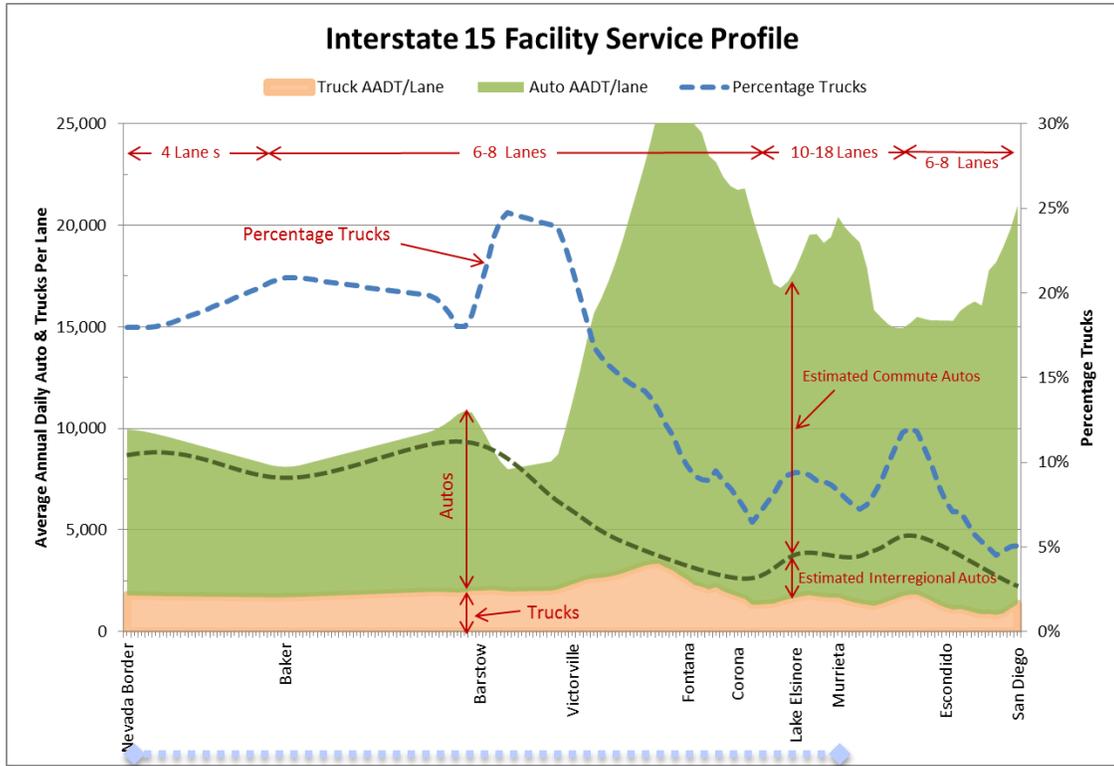


Figure 43: I-15 Facility Service Profile

Historical Corridor Investment

Table 20 and Figure 44 illustrate that over \$5.4 billion has been invested in the corridor since 1998 on the major interregional facilities that link regions.

Table 20: I-10 and I-15 Facility Investment Funding Sources

Facility	Corridor Investment 1998-2014 (in millions)							Total
	STIP	P1B	Local	TCRP	Other State	FRA/FTA	SHOPP	
I-10	\$531	\$107	\$1,248	\$130	\$0	\$0	\$1,598	\$3,615
I-15 (SBd)	\$320	\$110	\$332	\$1	\$0	\$0	\$1,054	\$1,817
<b>Total</b>	<b>\$851</b>	<b>\$217</b>	<b>\$1,579</b>	<b>\$131</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,652</b>	<b>\$5,432</b>

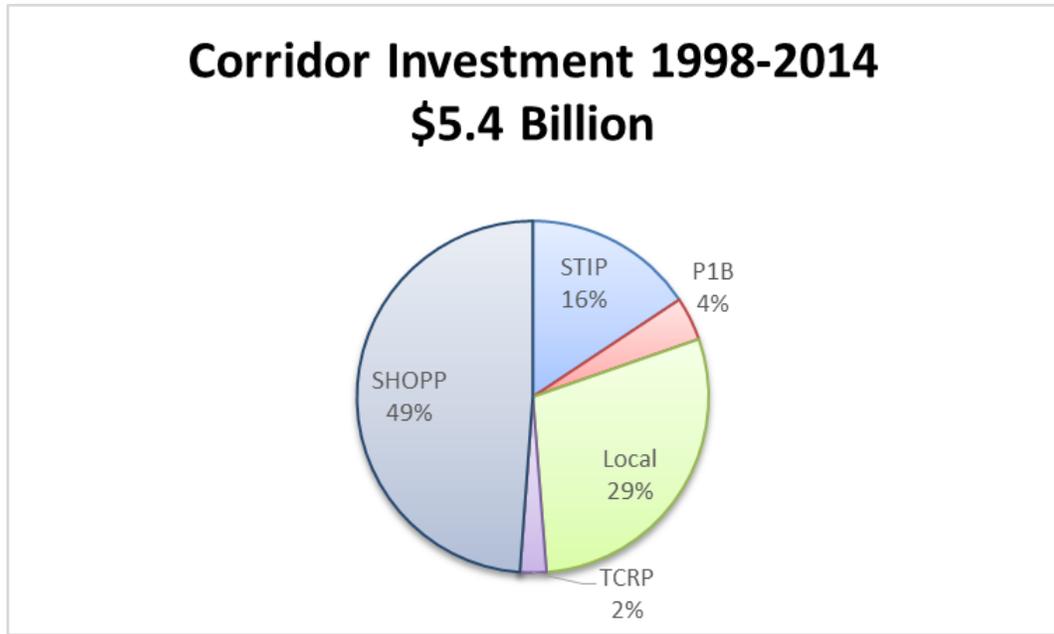


Figure 44: Southern California - Southern Nevada/Arizona Corridor Investment

As shown Figure 44 and Table 20, a variety of revenue sources have been used to fund improvements in the corridor. The two main fund sources for improvements along the corridor are SHOPP and local funds, with the STIP also a significant source of investment.

#### *Interregional Transportation Priorities*

The priority investments for the *Southern California–Southern Nevada/Arizona Corridor* over the next two decades will primarily focus on improving the Tier 1 freight corridors to support the economy. This involves maintaining the existing facilities to meet Caltrans' fix-it-first policies and expanding the system as needed. The development of the Coachella Valley Intercity Rail Route will provide modal alternatives to local commuters, along with other commute improvements funded through local and regional agencies.

**Table 21: Southern California - Southern Nevada/Arizona Corridor Interregional Transportation Priorities**

Major Transportation Facilities	Priority	Short-term (ST) or Long-term (LT)	Funding Options	Comments
Freight Corridor Maintenance and Preservation (I-10/ I-15)	High	Short-term	SHOPP	Support fix-it-first policies
Freight Corridor Expansion	Medium	Long-term	RTIP, ITIP, Local, Pricing	Highway capacity as needed to support freight movement; freight rail expansion funded through local and private funds
Proposed Coachella Valley Intercity Rail Route	Medium	Long-term	RTIP, ITIP, Local, Cap and Trade, FRA	New intercity rail service is planned
National Intercity Rail	Medium	Long-term	Caltrans State Operating Funds	Caltrans funds operating costs
Amtrak Thruway Bus Services	Medium	Maintain (ST); Expand (LT)	Caltrans State Operating Funds	Caltrans funds operating costs
Regional Connectors to Major Intermodal Freight Facilities	Medium	Short-term/ Long-term	RTIP, SHOPP, Local	Local and regional connectors between intermodal facilities, including seaports and airports, to Priority Interregional Facilities
Local and Regional Commuter Systems	Medium	Short-term and Long-term	Local, RTIP, Pricing, FTA, Cap and Trade	Local, RTIP, and Pricing for expansion; FTA for transit



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## Central Coast and San Joaquin Valley East-West Connections

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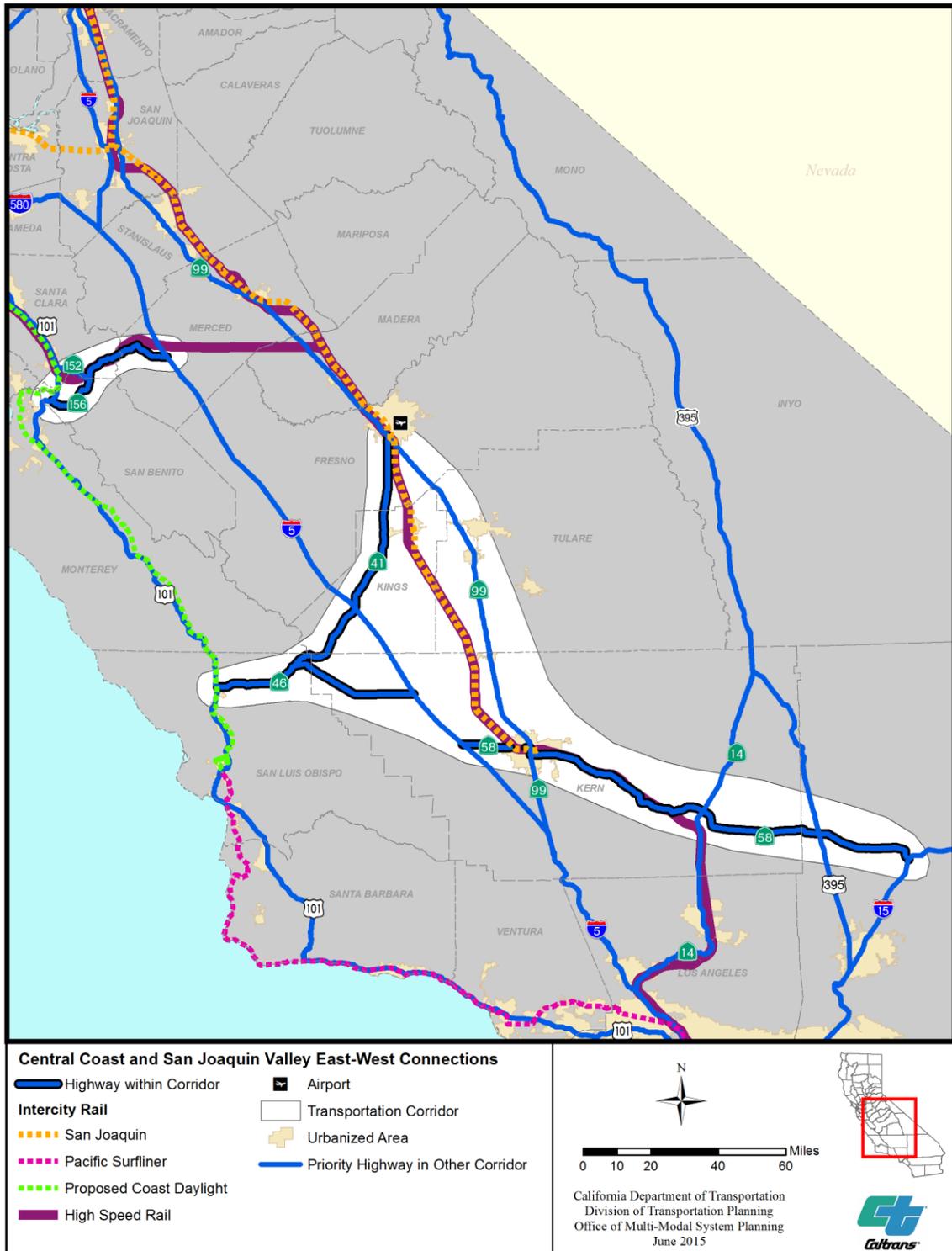


Figure 45: Central Coast - San Joaquin Valley East-West Connections

## Central Coast and San Joaquin Valley East-West Connections

*Central Coast and San Joaquin Valley East-West Connections* provides connectivity between two major agricultural regions within central California. The Central Coast and San Joaquin Valley are connected through two separate corridors that provide access for people and freight which support the economy through the agricultural industry and tourism.

The northern interregional corridor providing connectivity between the regions is made up of SR 156 and SR 152 and the southern interregional corridor consists of SR 41 and SR 46. These corridors are instrumental in the movement of freight, specifically agricultural products. The connections are also vital to the movement of people between the regions and experience very heavy seasonal and weekend recreational travel by Central Valley residents to access coastal areas. SR 46 connects with SR 58 in the southern Central Valley. SR 58 provides vital connectivity for the Valley to I-15 and I-40.

The Central Coast region generates \$50 billion annually in all products, with more than 48 percent destined elsewhere in the State and across the US. Agricultural and agricultural-related products are the dominant commodity group accounting for \$17 billion annually, or 16 percent of regional employment. The corridor supports the \$7 billion Central Coast tourism industry serving national and international travelers. It supports connectivity for national defense and ensures the efficient movement of troops and equipment for the only west coast commercial spaceport - Vandenberg Air Force Base - as well as four additional military bases along the coast.

Preserving interregional traffic flow, continuity, and reliability is a priority for these corridors. The population throughout the corridor is limited, with a few significant small urban areas, and the access is needed to link people and goods between the major regions. Land use along and surrounding the corridor is predominantly rural with open space, agricultural and rangeland.

The following are summaries of the major interregional transportation modes within the corridor:

**Freight**—The corridors have significant freight movement especially during peak agricultural seasons. SR 152 and SR 58 are identified in the CFMP as being Tier 2 freight network facilities. SR 156, SR 41, and SR 46 are included as Tier 3 freight network facilities. UPRR and BSNF freight rail parallels SR 58 on shared track and is used for the export and import of agricultural products between the Valley and the rest of the US and for access to San Francisco Bay Area seaports.

As the most active east-west truck routes connecting these regions, SR 46-SR 41 and SR 156-SR 152 are important links between US 101 and I-5 and the communities and agricultural processing facilities in the San Joaquin Valley. Trucks also rely on these routes for final distribution and delivery to communities, retail shopping, distribution centers, and intermodal facilities. Total shipments between the Central Coast and San Joaquin Valley for goods equal over 13 million tons and \$7 billion dollars each year.

**Intercity Rail** – There is no intercity passenger rail service currently operating along the east-west corridor connectors. The Amtrak Thruway Bus service links the Central Coast (Paso Robles, San Luis Obispo, and Santa Maria) to Amtrak San Joaquin Corridor intercity passenger rail service at Hanford in the San Joaquin Valley via State Route 41 and 46. A Thruway bus route also provides connections from the San Joaquin Corridor to Las Vegas, Nevada. Future connections to the California High Speed Rail service could be possible at San Joaquin Valley station stops.

**Transit**–The Greyhound Express provides service between the coastal cities in Monterey and cities in southern Santa Clara County with Los Banos, Merced, and Fresno.

**Airports**–In the Central Coast - San Joaquin Valley East-West Connections Corridor there is one commercial airport, the San Luis Obispo County Regional Airport. Smaller regional and community airports include Paso Robles Municipal Airport, Salinas Municipal Airport, Hollister Municipal Airport, Frazier Lake Airpark, and Marina Municipal Airport.

**Active Transportation**–Bicycle access is open along these routes with shoulder widths that vary. Improvements that focus on closing the gaps and constructing standard shoulder widths are essential for safety along the corridors.

**Highway**–There are four highway sub-corridors in the *Central Coast-San Joaquin Valley East-West Connections* corridor – (1) SR 152 and SR 156 and (2) SR 41 (3) SR 46 and (4) SR 58. These highways provide east-west connectivity between the Central Coast and its agriculture and the processing and transportation facilities in the San Joaquin Valley and the San Francisco Bay Area. These corridors are major routes that connect local economies within the Central Coast Region that are largely dependent on the US 101 corridor for the transportation of goods. Improvements within these corridors will preserve interregional traffic flow, continuity, and reliability. There are limited electric vehicle charging stations along the corridor, with the main ones at the ends of the routes.

### *Corridor Analysis*

Growth is expected within the corridor and the greater region which must be addressed through the cooperation of local, regional, State, and Federal authorities.

- Between 2010 and 2040, population within the counties of Monterey, Santa Clara, San Benito, and Merced (SR 152 and SR 156) is expected to increase from around 2.5 to 3.3 million, a 31 percent increase.
- During the same period, population within the counties of San Luis Obispo, Kern, and San Bernardino (SR 46 and SR 58) is expected to increase from around 3.1 to 4.4 million, a 42 percent increase. The majority of the growth within these counties is not along the corridor and therefore has limited impact.

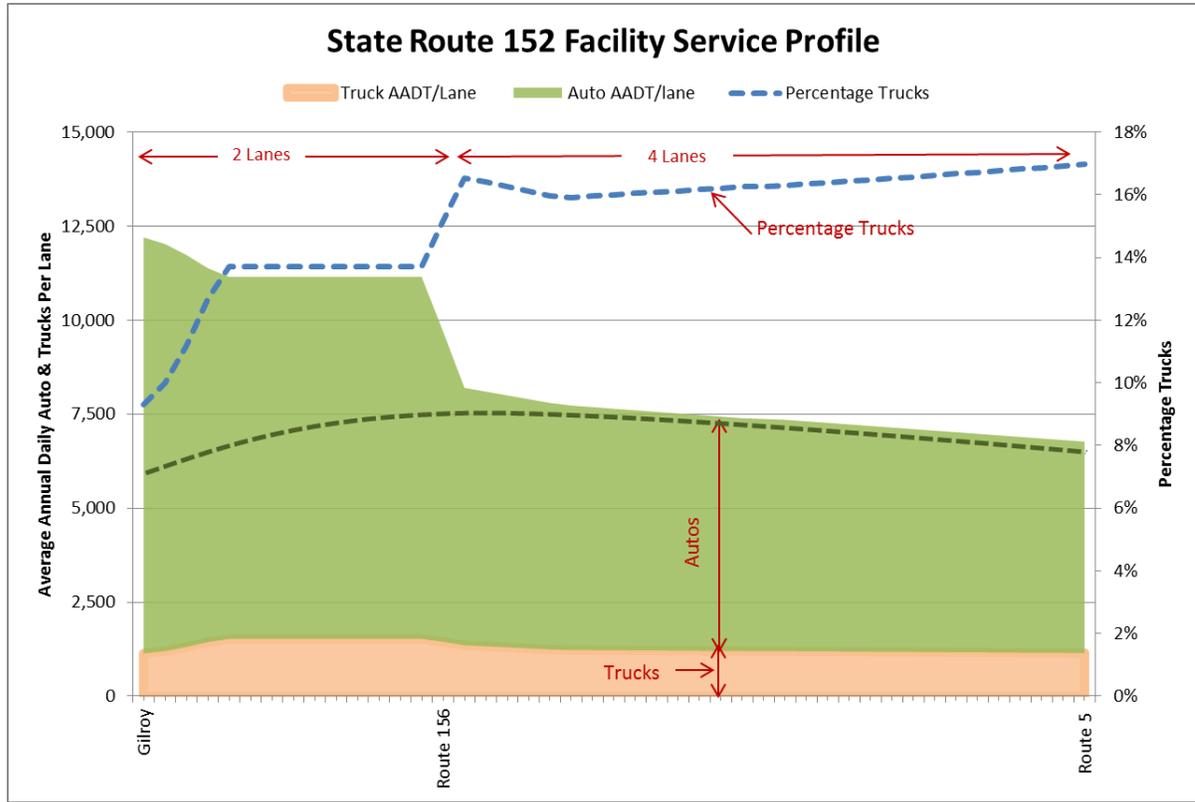


Figure 46: SR 152 Facility Service Profile

Figure 46 examines truck and auto traffic along the SR 152 corridor between US 101 in the Central Coast and I-5 in the San Joaquin Valley. The AADT volumes are normalized by roadway lane. The dashed blue line is the percentage of the total volume attributable to trucks. The black dashed line is an estimate of the interregional traffic. The analysis shows:

- The share of trucks per lane increases from around 10 percent at the western end of the corridor in Gilroy to over 16 percent at the intersection of SR 156. The AADT per lane is high because the facility is two lanes in this segment.
- The AADT and the share attributable to trucks for the rest of the corridor between SR 156 and I-5 remains consistent, around 16 percent and about 7,500 AADT. The consistency shows the majority of travel on the facility is interregional.
- Based on this analysis, future growth in the region could require improvements to the two-lane segment between US 101 and SR 156. The rest of the corridor is four lanes and is adequate for interregional travel.

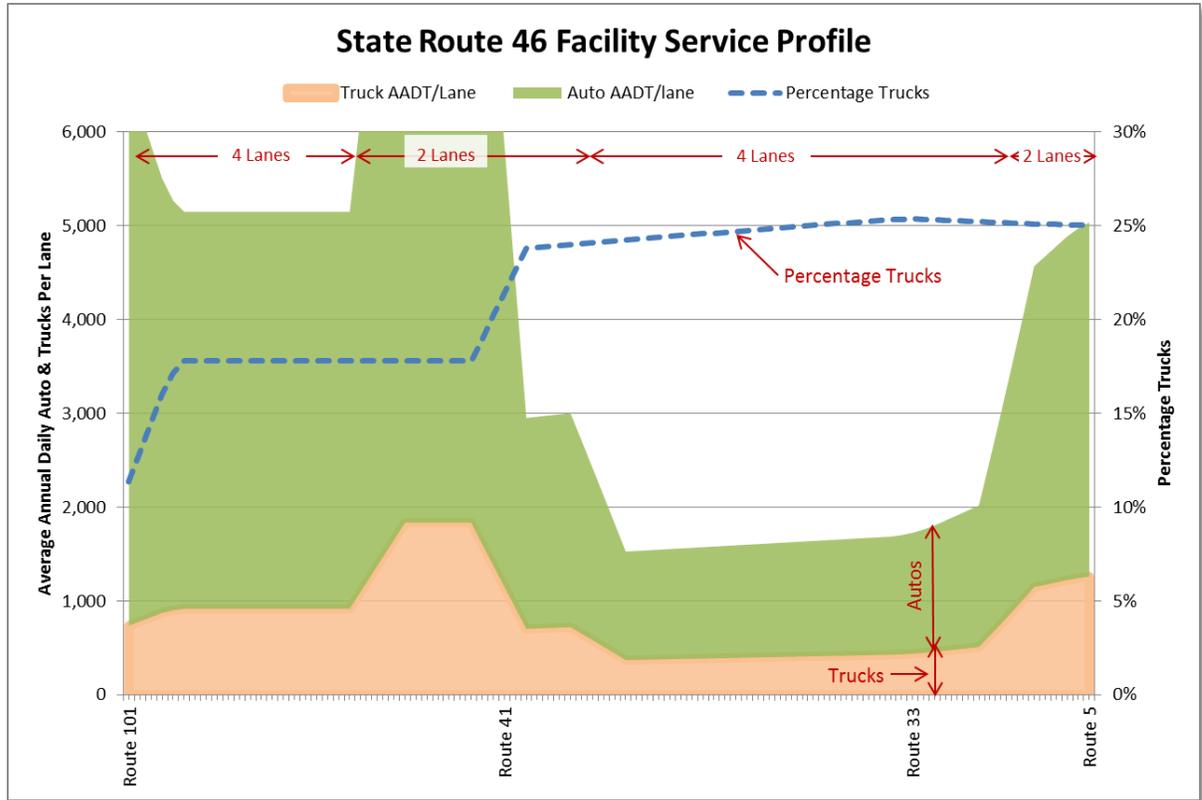


Figure 47: SR 46 Facility Service Profile

Figure 47 chart examines truck and auto traffic along the SR 46 corridor between US 101 in the Central Coast and I-5 in the San Joaquin Valley. The analysis shows:

- The truck share throughout the corridor is significant, averaging about 22 percent, with the higher levels between SR 41 and I-5.
- The AADT volumes per lane spike in the two-lane segments near the SR 41 junction and near I-5.
- Future improvements should consider widening the remaining two-lane portions to four lanes along with improving the SR 46/SR 41 junction.

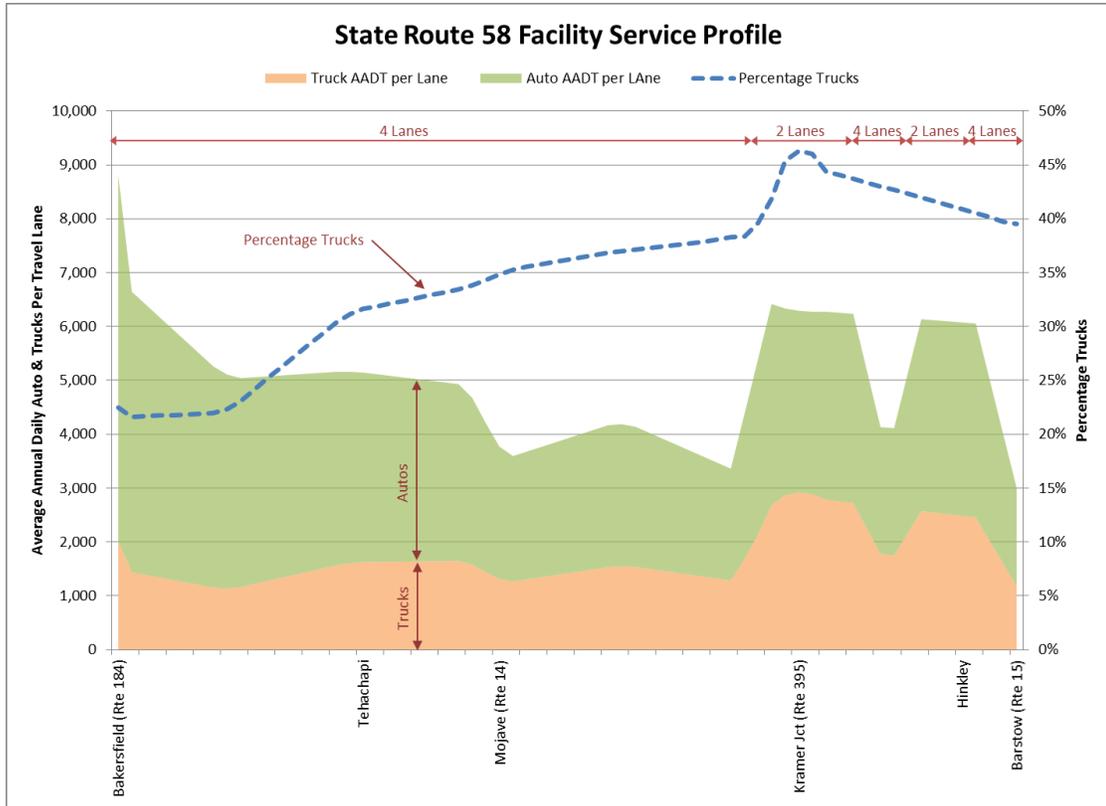


Figure 48: SR 58 Facility Service Profile

Figure 48 examines truck and auto traffic along the SR 58 corridor between Oregon to the north and the termination of US 101 in Los Angeles. The analysis shows:

- The SR 58 facility between Bakersfield to the intersection of I-15 in Barstow carries the greatest share of trucks per lane of any interregional facility in California. A majority of the facility has been improved to a four-lane expressway.
- The two-lane conventional highway gaps on SR 58 have received STIP funding allocations in previous STIP cycles. The first gap is an at-grade rail crossing and the second is a signalized intersection (both shown as spikes in lane volume on the graph). One project, in the vicinity of Hinkley, is just starting construction, the other project, in the vicinity of Kramer's Junction, is slated to be ready for Commission allocation in FY 2016-17.

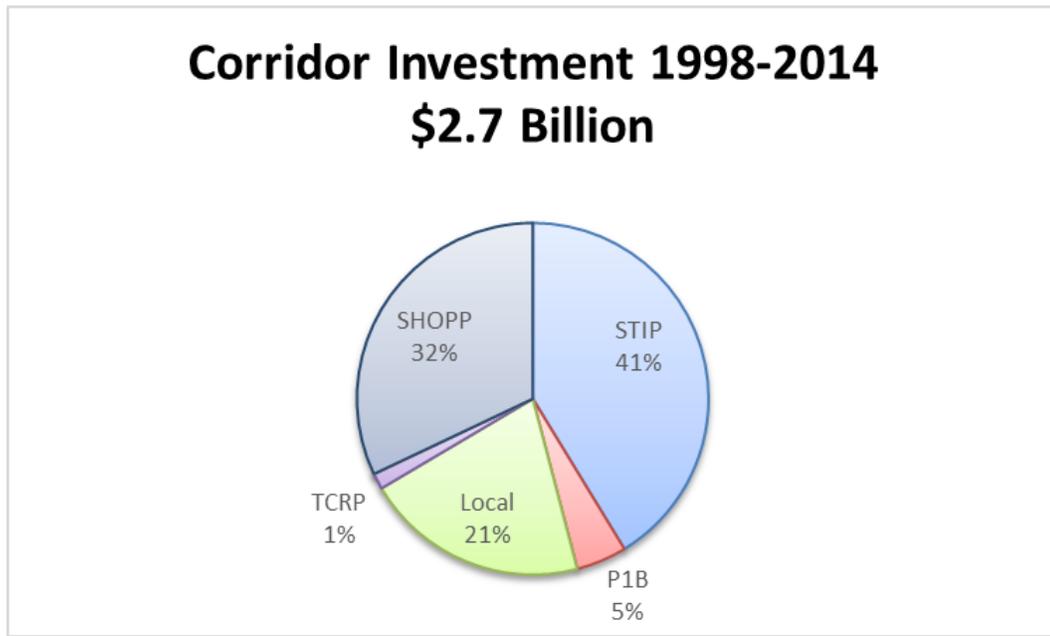
*Historical Corridor Investment*

Table 22 and Figure 49 illustrate that more than \$2.7 billion has been invested on the corridor since 1998 on the major interregional facilities linking regions.

**Table 22: Central Coast - San Joaquin Valley Corridor Investment**

Corridor Investment 1998–2014 (in millions)								
Facility	STIP	P1B	Local	TCRP	Other State	FRA/FTA	SHOPP	Total
SR 152	\$42	\$0	\$39	\$0	\$0	\$0	\$171	\$252
SR 156	\$115	\$0	\$14	\$0	\$0	\$0	\$39	\$168
SR 41	\$84	\$0	\$14	\$10	\$0	\$0	\$307	\$415
SR46	\$336	\$128	\$150	\$30	\$0	\$0	\$85	\$729
SR 58	\$557	\$0	\$348	\$0	\$0	\$0	\$279	\$1,184
<b>Total</b>	\$1,134	\$128	\$565	\$40	\$0	\$0	\$880	\$2,746

The funding has been split between STIP, SHOPP, and local sources. The population along the corridor is limited, making it difficult to raise revenues to construct interregional transportation improvements, but the corridor is important to the movement of freight and California’s economy.



**Figure 49: Central Coast - San Joaquin Valley Corridor Connectors Investment**

*Interregional Transportation Priorities*

Priority investments for the *Central Coast and San Joaquin Valley East-West Connections* over the next two decades will primarily focus on completing the SR 46 and SR 156 expressways, improving shoulders for bicycle and pedestrian travel, completing the SR 41 and SR 46 interchange, and making improvements to SR 41 to enhance safety.

**Table 23: Priority Investments for Central Coast - San Joaquin Valley Corridor Connectors**

Major Transportation Facilities	Priority	Short-term (ST) or Long-term (LT)	Funding Options	Comments
California High-Speed Rail	High	Short-term	Proposition 1A, GHG Reduction	High-Speed Rail is a high priority for this corridor
Highway Corridor Maintenance and Preservation (SR 156 and 152 & SR 46, 41 and 58 to I-15 and I-40 split)	High	Short-term	SHOPP	Preservation of these facilities, including operational improvements, is a top priority
Highway Corridor Expansion	High	Short-term/Long-term	RTIP, ITIP, Local, Pricing	Completing expressways on SR 46 and SR 156
Amtrak Thruway Bus Services	Medium	Maintain (ST); Expand (LT)	Caltrans State Operating Funds	Caltrans funds operating costs
Regional Connectors to Major Intermodal Freight Facilities	Medium	Short-term/Long-term	RTIP, SHOPP, Local	Local and regional connectors between intermodal facilities, including seaports and airports, to Priority Interregional Facilities
Local and Regional Comuter Systems	Medium	Short-term and Long-term	Local, RTIP, Pricing, FTA, Cap and Trade	Local, RTIP, and Pricing for expansion; FTA for transit



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San Jose/San Francisco Bay Area – Sacramento – Northern Nevada Corridor

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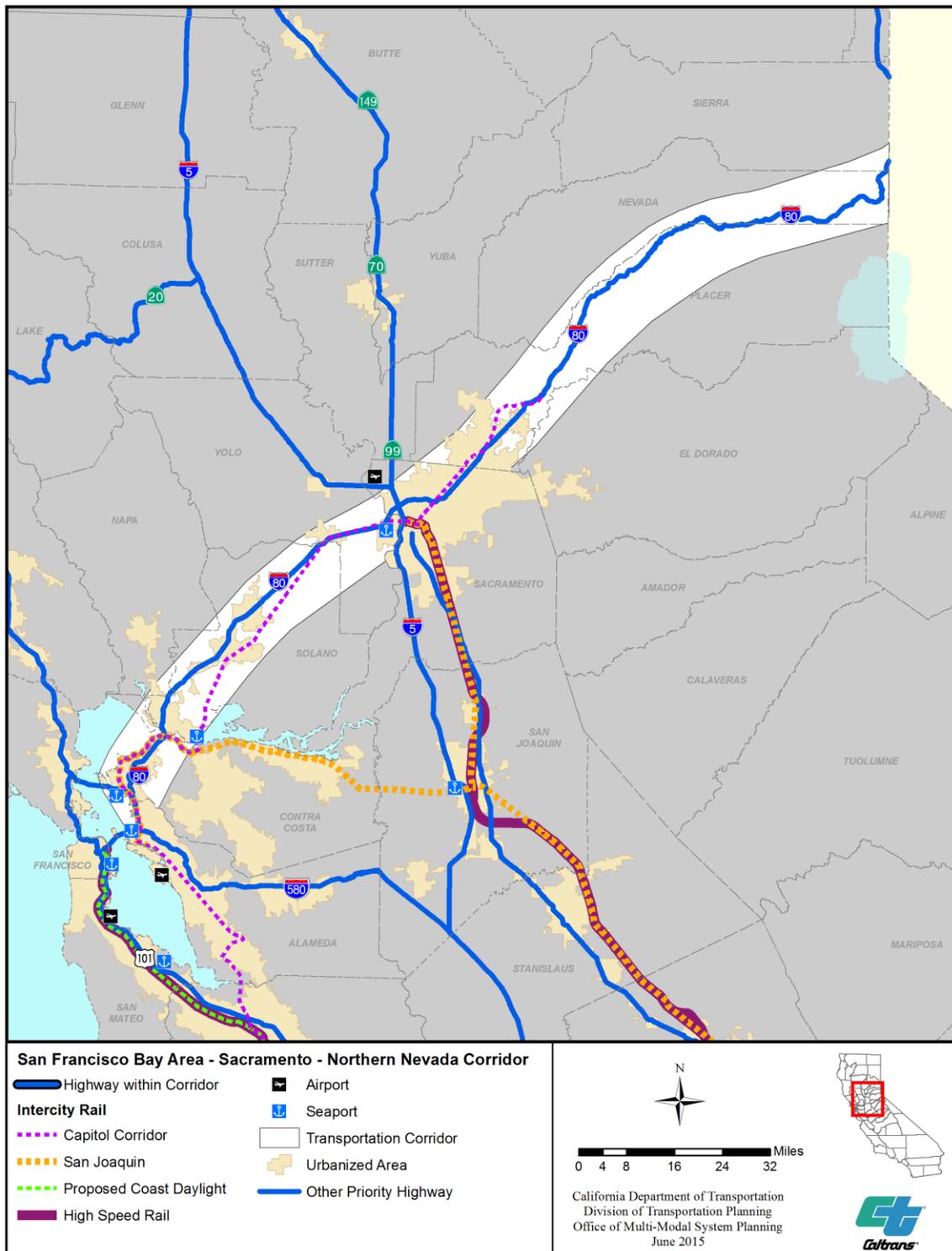


Figure 50: San Francisco Bay Area – Sacramento --Northern Nevada Corridor

### San Jose/San Francisco Bay Area – Sacramento – Northern Nevada Corridor

The *San Jose/San Francisco Bay Area–Sacramento–Northern Nevada Corridor* is the primary west-east connection between the San Francisco/San Jose (Bay Area) and Reno, Nevada, and areas east of Nevada. Interstate 80 (I-80) is a transcontinental highway route, starting in San Francisco and terminating in the State of New Jersey. A multi-state partnership has been formed among the States of California, Nevada, Utah, and Wyoming to coordinate winter highway operations and long range planning along the corridor, a partnership that is funded in part by a grant from the FHWA and matching funds from the State of California. The Union Pacific Railroad (UPRR) parallels I-80 throughout the corridor and serves as a transcontinental rail route accommodating freight and passenger services. Both the highway and the railroad provide national connectivity for San Francisco Bay Area seaports and the agricultural region of the Great Central Valley and the Salinas Valley.

The 170-mile long Capitol Corridor Intercity Passenger Rail service shares tracks with UPRR freight trains while serving 17 passenger stations and providing 30 weekday trips and 22 weekend trips. The service has the third-highest passenger rail corridor ridership in the nation. Modal choice for connectivity to the corridor is good with the availability of regional and express bus transit services, BART commuter rail, ferry services, Sacramento Regional Transit light rail, and access to other interstate freeways and State highways. With the exception of the mountainous portion of the corridor, it is well served by an extensive array of interconnected bicycle facilities.

The San Francisco Bay Area, including the San Jose metropolitan area, is home to over seven million people and the Sacramento region has a population of approximately 1.5 million. Beyond the urbanized areas of the San Francisco Bay Area and Sacramento, and the agricultural region between the two metro areas, the corridor becomes rural and sparsely populated as it continues through the Sierra Nevada Mountain Range, eventually connecting to the Tahoe/Reno region. This portion of the corridor, particularly I-80, is subject to winter storm related delays and closures. Commute traffic regularly delays interregional travel.

The general transportation movements that impact interregional performance include daily commute congestion; congestion between port facilities and the local, regional, and interregional road systems; recreational travel between the San Francisco Bay Area and the Truckee/Lake Tahoe areas; freight and passenger rail shared track conflicts; and seasonal weather disruptions.

The following are summaries of the major interregional transportation modes within the corridor.

**Freight Movement**—I-80, the Union Pacific Railroad (UPRR), and the Burlington Northern-Santa Fe (BNSF) Railway are identified in the CFMP as Tier 1 freight network facilities. These two major facilities, along with the local and regional transportation networks throughout the corridor, link to the seaports at Oakland, Richmond, San Francisco, Benicia, and West Sacramento.

**Intercity Rail**–The Capitol Corridor runs daily intercity passenger rail service between San Jose and Sacramento/Auburn. The Capitol Corridor Joint Powers Agency is planning infrastructure improvements to increase service between Sacramento and Roseville and between Oakland and San Jose. The under-construction California High-Speed Rail system does not travel along the corridor, but the two northern connections for Phase 1 (San Francisco) and Phase II (Sacramento) are within the corridor. Thruway bus service connects the Capitol Corridor to destinations including Reno and South Lake Tahoe along the corridor.

**Transit**–Local and regional transit services including BART, Sacramento Regional Transit, express buses, and local transit systems support commute travel throughout the corridor. The systems link communities to employment centers and individuals to other transportation systems such as intercity rail and, in the future, high-speed rail.

**Airports**–There are four international passenger airports within the corridor, along with many smaller regional airports. The international airports are in San Jose, San Francisco, Oakland, and Sacramento.

**Active Transportation**–The corridor was identified as an interregional bicycle corridor in the American Association of State Highway Transportation Officials (AASHTO) National Corridor Plan for the United States Bicycle Route System. Since bicycle and pedestrian access on I-80 is restricted due to the availability of nearby local facilities, these active modes are integrated into the local transportation systems and the intercity rail services (stations and train cars) through plans developed by cities, counties, associated Congestion Management Agencies, Metropolitan Planning Organizations, and the Capitol Corridor Joint Powers Authority. Bicycles are generally permitted on Capital Corridor trains and the various regional and local transit services.

**Highways**–The main interregional highway in the corridor is I-80 which is a full freeway that meets the interregional corridor concept, though regional transportation plans have identified portions of the highway for the addition of high-occupancy-vehicle and/or high-occupancy-toll lanes. I-80 provides access to major regional and interregional freight corridors including I-5, I-505, I-680, I-780, I-880 and I-980, and SR 12, as well as United States Highways (US) 50 and 101, along with supporting commute and recreational-tourism travel. In Sacramento, US 50 branches off of I-80 in the City of West Sacramento and continues east through El Dorado County and reaches the State of Nevada at the southern end of Lake Tahoe. SR 20 and SR 49 provide vital linkages to the Nevada City/ Grass Valley region and beyond, along with being alternate routes during I-80 closures.

Electric vehicle charging stations are prevalent in the corridor with many more planned in the San Francisco Bay Area and in the Greater Sacramento region. However, but similar infrastructure is very limited in the eastern portion of the corridor as it crosses the Sierra Nevada Mountain Range. There are efforts to expand charging station availability in the Tahoe/Truckee/Reno areas.

### Corridor Analysis

Population, freight movement, intercity rail, and I-80 travel projections show this corridor is expected to have significant growth through 2040. This growth will impact local, regional, and interregional travel. The following information highlights the level of expected growth:

- Between 2010 and 2040, population within the counties of San Francisco, Alameda, Contra Costa, Solano, Yolo, Sacramento, Placer, Nevada, and Sierra is expected to increase from around 4.3 to 5.8 million, a 33 percent increase.
- The annual value of interstate freight transported by truck and rail between San Francisco–Sacramento–Nevada Region is expected to grow from \$4.4 billion in 2012 to \$8.3 billion in 2040, a 90 percent increase.
- The Capital Corridor Intercity Rail Service ridership is expected to increase from nearly 1.8 million passengers in 2013 to nearly 3.5 million passengers in 2040, a 93 percent increase.
- The average daily VMT on I-80 in 2010 was over 19.5 million miles, and the projected VMT for 2040 is over 25.7 million, an expected increase of 32 percent. Between those years, the share of truck VMT for the entire corridor is expected to rise from 17 percent to 20 percent.

Figure 51 examines truck and auto traffic volumes along the I-80 corridor between San Francisco to Nevada. AADT volumes are normalized by roadway lane. The dashed blue line is the percentage of the total volume attributable to trucks. The black dashed line is an estimate of the interregional traffic. The analysis shows:

- Traffic between the San Francisco Bay Area and Sacramento and beyond to Auburn is predominately from automobiles and is commute related. Truck traffic density in this segment remains around six percent, considered to be light to moderate due to the number of freeway lanes. However, the very high automobile volumes dilute what would otherwise be recognized as a high absolute number of trucks.
- The segment between the city of Auburn and the Nevada state border principally serves interregional goods movement and recreational travel. Beyond Auburn, the truck density jumps to slightly below 20 percent due to the freeway dropping to a four-lane facility.

Figure 52 shows the change in ridership for the Capitol Corridor intercity rail from 462,480 to 1.4 million since 1998, an increase of 207 percent. Between 1998 and 2008, ridership increased substantially, and in recent years the numbers have remained relatively consistent. Future improvements to the Capitol Corridor intercity passenger rail service will target greater ridership increases.

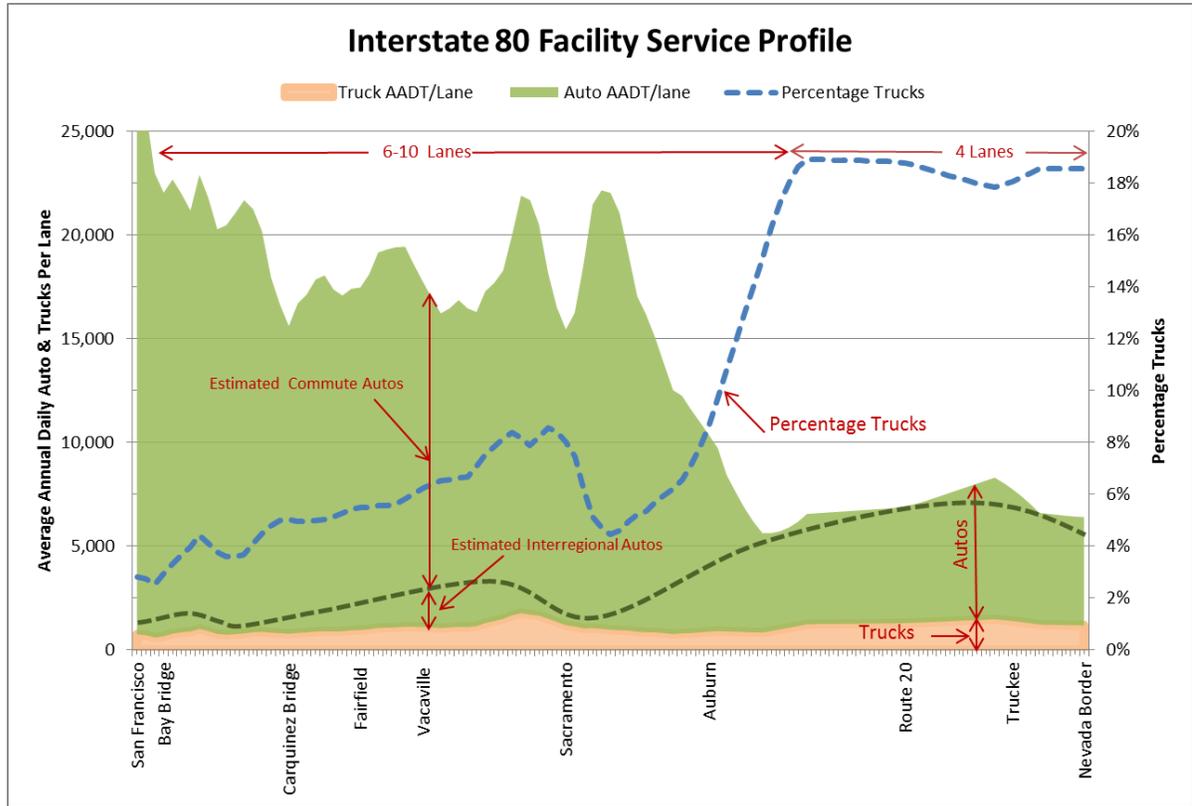


Figure 51: I-80 facility Service Profile

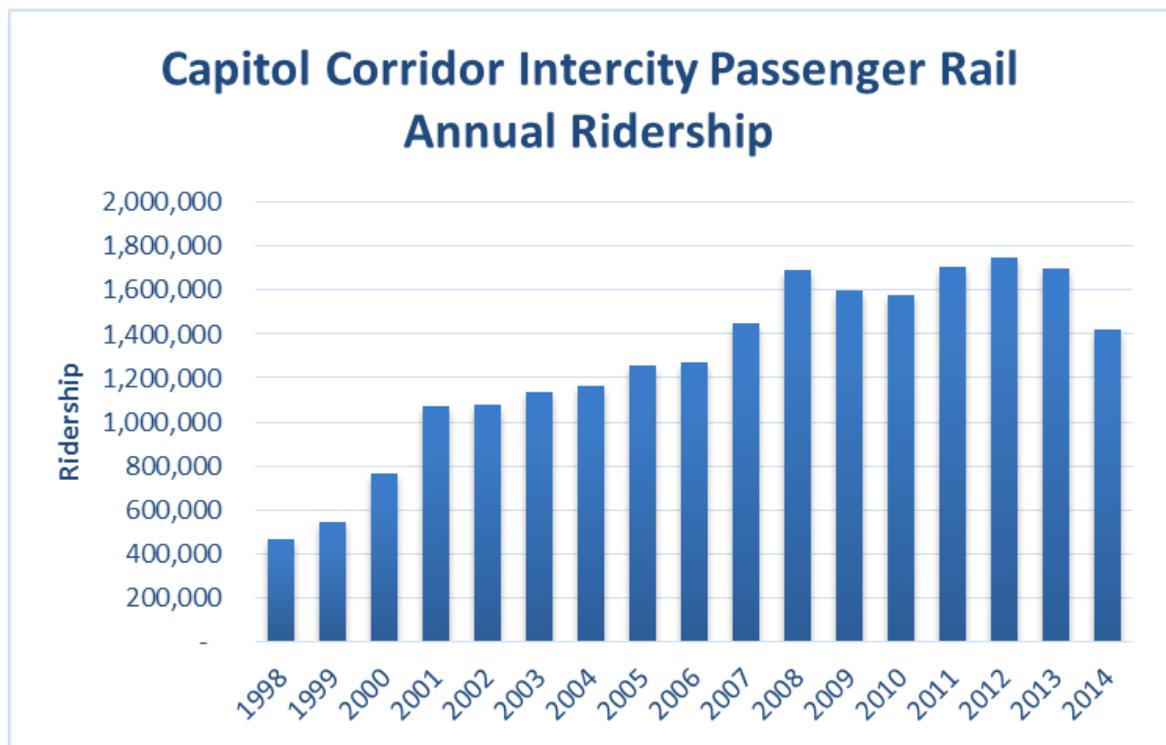


Figure 52: Capitol Corridor Ridership Numbers from 1998-2014

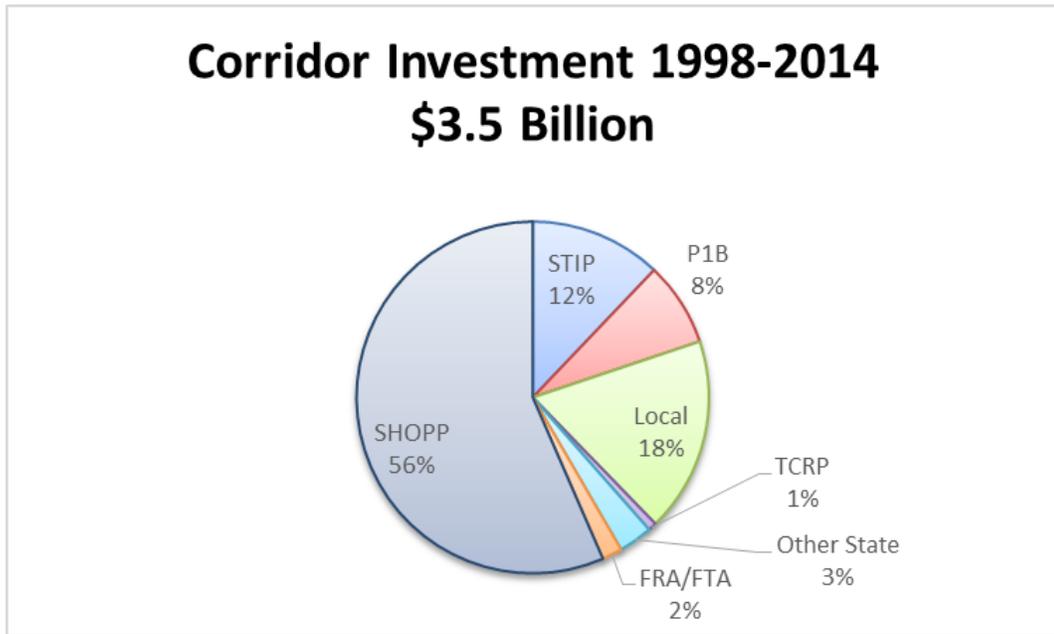
*Historical Corridor Investment*

The following chart and figure illustrates that over \$3.5 billion has been invested in the corridor since 1998 on the major interregional facilities that link regions.

**Table 24: I-80 Corridor Investment**

Corridor Investment 1998-2014 (in millions)								
Facility	STIP	P1B	Local	TCRP	Other State	FRA/FTA	SHOPP	Total
I-80	\$245	\$173	\$634	\$13	\$10	\$0	\$2,003	\$3,077
Capitol Corridor	\$184	\$102	\$0	\$15	\$100	\$65	\$0	\$466
<b>Total</b>	<b>\$429</b>	<b>\$274</b>	<b>\$634</b>	<b>\$27</b>	<b>\$110</b>	<b>\$65</b>	<b>\$2,003</b>	<b>\$3,543</b>

As shown Table 24, a variety of revenue sources have been used to fund improvements on I-80 and the Capitol Corridor. Half of the investments have been funded through the SHOPP with local contribution being a little more than one quarter of the total. The STIP has funded only 10 percent of the improvements. The high percent of SHOPP investment shows an emphasis on the fix-it-first policy to reconstruct, rehabilitate, and maintain the existing infrastructure over capacity expansion.



**Figure 53: I-80 Corridor Investment**

### Interregional Transportation Priorities

Priority investments for the *San Jose/San Francisco Bay Area–Sacramento–Northern Nevada Corridor* over the next two decades will continue to focus on a fix-it-first approach with additional highway capacity added only where specifically needed, particularly serving the movement of freight, and expanding the capacity of and frequency of the Capitol Corridor intercity passenger rail services. Addressing increased travel demand for commute purposes should be addressed through local and regional agency funding sources. The corridor will also be subject to further development of alternative fueling infrastructure such as electric vehicle charging and hydrogen fueling stations. Improvements to better support bicycling, pedestrian and transit modes should be funded via local and regional sources as well as dedicated transit funding and the ATP funding.

Table 25: I-80 Interregional Priority Investments

Major Transportation Facilities	Priority	Short-term (ST) or Long-term (LT)	Funding Options	Comments
Freight Corridor Maintenance and Preservation (I-80)	High	Short-term	SHOPP	Support fix-it-first policies
Freight Corridor Expansion (I-80)	Medium	Long-term	RTIP, ITIP, Local, Pricing	Highway capacity as needed to support freight movement; freight rail expansion funded through local and private funds
Capitol Corridor Intercity Rail	High	Short-term	RTIP, ITIP, Local Cap and Trade	Increase service to Roseville and San Jose
Stockton - Sacramento Seaports/Waterways	Medium	Long-term	Local, State, Federal	Improve system performance
Amtrak Thruway Bus Services	Medium	Maintain (ST); Expand (LT)	Caltrans State Operating Funds	Caltrans funds operating costs
Regional Connectors to Major Intermodal Freight Facilities	Medium	Short-term/Long-term	RTIP, SHOPP, Local	Local and regional connectors between intermodal facilities, including seaports and airports, to Priority Interregional Facilities
Local and Regional Comuter Systems	Medium	Short-term and Long-term	Local, RTIP, Pricing, FTA, Cap and Trade	Local, RTIP, and Pricing for expansion; FTA for transit

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## North Coast – Northern Nevada Connections

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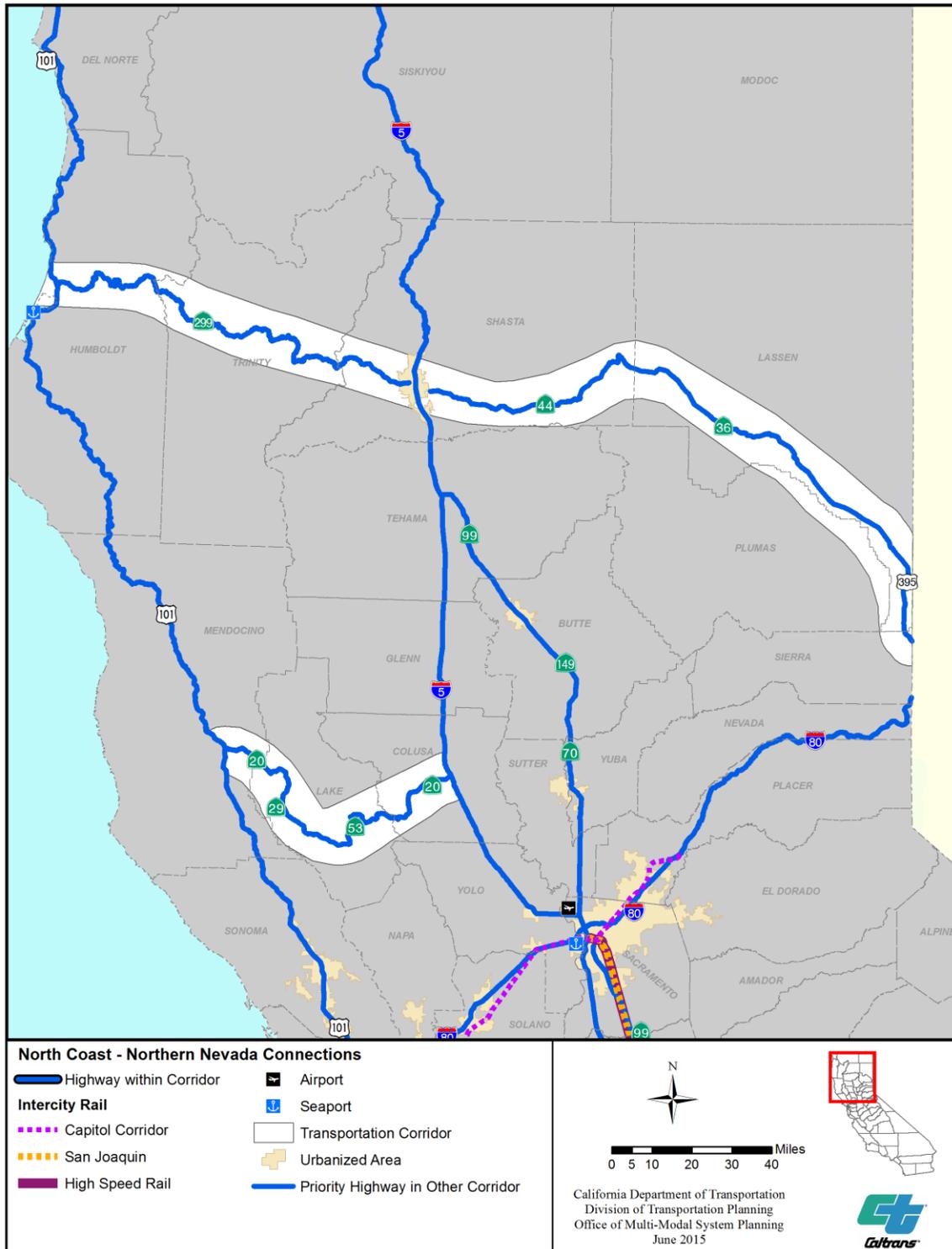


Figure 54: North Coast - Northern Nevada Corridor Concept

## North Coast – Northern Nevada Connections

The *North Coast–Northern Nevada Connections* consists of two separate east-west northern California highway corridors between the coast to the eastern part of California and Nevada. The first corridor is from Humboldt County to Lassen County and on to Reno and it includes segments of SR 299, 44, 36, and US 395. The second corridor is from Mendocino County to Nevada County (portions of SR 20, SR 29, and SR 53). These routes provide access to communities throughout the region, supporting the regional economy and providing connection to emergency services and vital health and human services.

The two major interregional facilities travel through mostly rural areas connecting rural communities, urban areas, and tribal reservations. The interregional facilities provide the corridor with vital connections to the interstate system and the rest of the State, providing access to basic goods and services along with routine and emergency medical services. These routes support the local economy, including freight movement and recreational tourism, and are the major transportation corridors for response and recovery efforts in case of emergencies such as forest fires.

The following are summaries of the major interregional transportation modes within the corridor:

**Freight**–The Port of Humboldt, though the smallest of California’s seaports, is important to the regional economy and is working with partner agencies to make land-side improvements to highway and rail facilities to improve access to the port so that it can remain viable and better support the regional economy. Goods moving into and out of the North Coast are shipped primarily by truck on either US 101 or SR 99. On the eastern side of the Sacramento Valley, freight connectivity to the State of Nevada is provided by SR 44 and SR 36. There are numerous shipments of locally generated natural resource products (hay, sand and gravel, timber, etc.) for use within the region.

**Intercity Rail**–The Coast Starlight stops in Redding as it bisects the SR 299 corridor. At the west end of the corridor, the Amtrak Thruway Bus Service stops in McKinleyville, linking to the North Coast.

**Regional Transit**–Transit operations along the east-west corridor are managed by county transit agencies. Transit provides access to long-distance travel opportunities along these routes and provides critical lifeline service. On the west side of the east-west corridor, multiple providers coordinate service to make access between Eureka and Redding possible. Other transit operators coordinate on the east side of the corridor for transit access between Redding to Reno Nevada. There are also a half dozen park and ride lots along the corridor to accommodate regional and interregional travelers.

**Airports**–The 299/44/36/395 corridor has two commercial airports that provide air passenger travel services. Redding Municipal Airport provides connection to airports in Sacramento and San Francisco that carry passengers internationally. Humboldt County’s Arcata/Eureka regional airport offers commercial air passenger service that connects to Crescent City, San Francisco, and Sacramento and Portland, Oregon.

In addition there are approximately 30 other publically owned general aviation airports and many privately owned airports distributed throughout the counties in the district.

**Active Transportation** – The majority of the east-west corridors are rural with long average travel distances between communities, so most cyclists in these areas are traveling for recreation or lifestyle choice.

Bicycle and pedestrian use along rural portions of the corridor is accommodated by achieving standard shoulders. Within communities, there are many locations with designated bike lanes as well as sidewalks and pathways for pedestrians. Caltrans participates in the development of bicycle and pedestrian plans and projects for both on and off the SHS.

**Highway** – The *North Coast–Northern Nevada Connections* corridor is comprised of two sub-corridors – (1) SR 299, SR 44, SR 36 and US 395; and (2) SR 20, 29, 53. The majority of these highways are 2-lane conventional highways with intermittent passing lanes. In many communities, the highways serve as main streets and may have four lanes, or continuous center turn lanes, bicycle lanes and sidewalks.

General transportation issues that impact interregional performance include: freight movement, recreational tourism, emergency response and resiliency efforts, and commute travel.

### *Corridor Analysis*

An increase in highway usage is expected within the corridor and small population growth in the greater region which must be addressed through the cooperation of local, regional, State, and Federal authorities.

- Between 2010 and 2040, the VMT for SR 299/SR 44/SR 36/US-395 is expected to increase by more than 600,000 miles – a 52 percent increase. The volume in 2040 is expected to exceed 2 million miles, with 15 percent truck traffic.
- During the same period, the VMT for SR 20/SR 29/SR 53 is expected to increase by more than 700,000 miles – a 43 percent increase. The volume in 2040 is expected to exceed 2.5 million miles, with 18 percent truck traffic.
- During that period, population within the counties of Humboldt, Trinity, Shasta, and Lassen (SR 299/SR 44/SR 36/I-395) is expected to increase from 362,567 to 403,911, an 11 percent increase.
- Also during that period, population within the counties of Mendocino, Lake, and Colusa (SR 20/SR 29/SR 53) is expected to increase from around 174,788 to 177,658, a 2 percent increase.

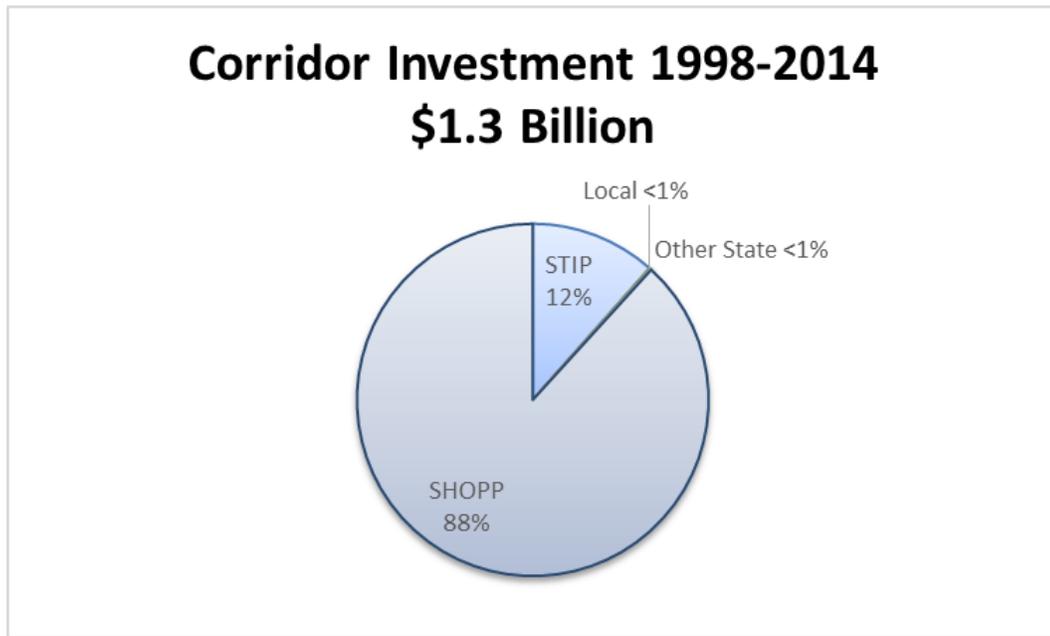
*Historical Corridor Investment*

Table 26 shows nearly \$1.3 billion has been invested on the corridor since 1998 on the major interregional facilities linking regions.

**Table 26: North Coast - Northern Nevada Corridor Investment**

Corridor Investment 1998-2014 (in millions)								
Facility	STIP	P1B	Local	TCRP	Other State	FRA/FTA	SHOPP	Total
SR 299, SR 44, SR 36 and US 395	\$113	\$0	\$0	\$0	\$1	\$0	\$806	\$921
SR 20, SR 29, and SR 53	\$37	\$0	\$1	\$0	\$0	\$0	\$338	\$376
<b>Total</b>	\$150	\$0	\$1	\$0	\$1	\$0	\$1,144	\$1,297

The two main funding sources for investments in this corridor have been the SHOPP and STIP, with SHOPP being by far the largest. The emphasis on SHOPP shows that the majority of needs within the corridor are not related to capacity. Typical projects include pavement maintenance and rehabilitation, lane and shoulder widening, drainage, curve improvements and removal of STAA restrictions.



**Figure 55: North Coast - Northern Nevada Corridor Investment**

### Interregional Transportation Priorities

Priority investments for the *North Coast–Northern Nevada Connections* over the next two decades will primarily focus on multimodal and freight access improvements including improved shoulder widths, curve corrections, and removing remaining barriers to STAA access. These improvements will also support bicycle, pedestrian, and transit services. Increased coordination of local transit services to provide interregional bus services will provide increased modal options.

**Table 27: North Coast - Northern Nevada Interregional Transportation Priorities**

Major Transportation Facilities	Priority	Short-term (ST) or Long-term (LT)	Funding Options	Comments
Highway Maintenance and Preservation (SR 299, SR 44, SR 36, and US 395 & SR 20, SR 29, and SR 53)	High	Short-term	SHOPP	Preservation serves car, transit and bicycle users
Amtrak Thruway Bus Connections	Medium	Maintain in ST, Expand in LT	Caltrans State Operating Funds	Caltrans funds operating costs
Highway Access and Safety	High	Long-term	ITIP	Highway improvements including curve corrections and removing barriers to STAA access
Regional Connectors to Major Intermodal Freight Facilities	Medium	Short-term/Long-term	RTIP, SHOPP, Local	Local and regional connectors between intermodal facilities, including seaports and airports, to Priority Interregional Facilities
Local and Regional Com-muter Systems	Medium	Short-term and Long-term	Local, RTIP, Pricing, FTA, Cap and Trade	Local, RTIP, and Pricing for expansion; FTA for transit

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## *Chapter 5: Funding*

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## Chapter 5: Funding

Funding for the interregional transportation improvements outlined in this plan is obviously necessary to implement the needed changes. The linked nature of the interregional transportation system means many different agencies share responsibility for its development and operations. Funding should come from a variety of sources to meet the different needs of the system. Partnerships and coordination are the keys to identifying, planning, funding, and developing needed interregional transportation investments.

This chapter address the planning and funding connection and includes a summary of the available major funding sources, selection criteria for interregional transportation improvement projects, and further recommendations.

### Section 5.1: Corridor Improvements

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Corridor improvement projects supporting interregional travel vary considerably in size and scope. Projects are scoped to address a wide spectrum of issues, such as truck climbing lanes, passing lanes, expressway-to-freeway conversion, shoulder widening, bicycle lane construction, highway widening, interchange improvements, increased rail capacity, new rail service, transit stations, and others. Reasons for these projects include closing capacity gaps in the system, eliminating at-grade crossings to improve corridor safety, expanding shoulders to increase bicycle access, and increasing the frequency and reliability of intercity passenger rail travel. Such projects address a variety of goals, such as safety, sustainability, and increased multimodal options. Combined with local and interregional improvements from other funding sources, these and other projects will ultimately result in a complete transportation system that meets local, regional, and interregional needs.

#### Prioritization and Funding

Each of the 11 Strategic Interregional Corridors discussed in the ITSP includes recommendations for prioritizing projects based on their potential to improve interregional travel. Several of the corridors pass through urbanized areas as well as crossing the vast spaces between them. Within urbanized areas, existing facilities are generally larger in scale yet their effectiveness in facilitating mobility is often adversely affected by commuter traffic congestion. Outside urbanized areas, many facilities remain unchanged in scale since their initial construction many decades ago, yet population and mobility demands continue to grow.

Funding to address these needs is a real and significant challenge. The level of STIP funding has not kept pace with the costs of accommodating population growth. A preliminary sketch estimate of costs to improve selected locations on the highway system on most of the 11 Strategic Interregional Corridors outside urbanized areas is in excess of \$10 billion. This figure includes completing the conversion of existing four-lane segments on SR 99 between Stockton and Bakersfield to six lanes, widening portions of I-5 to six lanes in the San Joaquin Valley, making selected freeway conversions on Route 101, and some other improvements to facilitate freight movement and safety. This tally is in no way comprehensive nor fiscally precise. It does not include costs for full development of the

three intercity rail lines and proposed expansion of the Capitol Corridor down to the Los Angeles–San Diego–San Luis Obispo Corridor (LOSSAN Corridor.)

A complete interregional transportation system that meets local, regional, and interregional needs will have to be funded from a variety of sources, where appropriate funds are applied to improvements of shared purpose within and outside the urbanized areas. Common fund sources other than Interregional Improvement Program funds that could be utilized to address unmet interregional needs include:

- Regional Improvement Programs funds
- Active Transportation Program funds
- Local sales tax measure and other funds
- Future Trade Corridors Improvement Funds
- Cap and trade funds
- Other funds

#### Interregional Freight Movement

The ITSP considered 11 Strategic Interregional Corridors of greatest interregional significance. Looking closely at the movement of freight as representative of interregional travel each corridor was analyzed to find the areas of greatest truck travel for facility lane. The results are charted under the discussion of each Strategic Interregional Corridors concepts in Chapter 4 of the document.

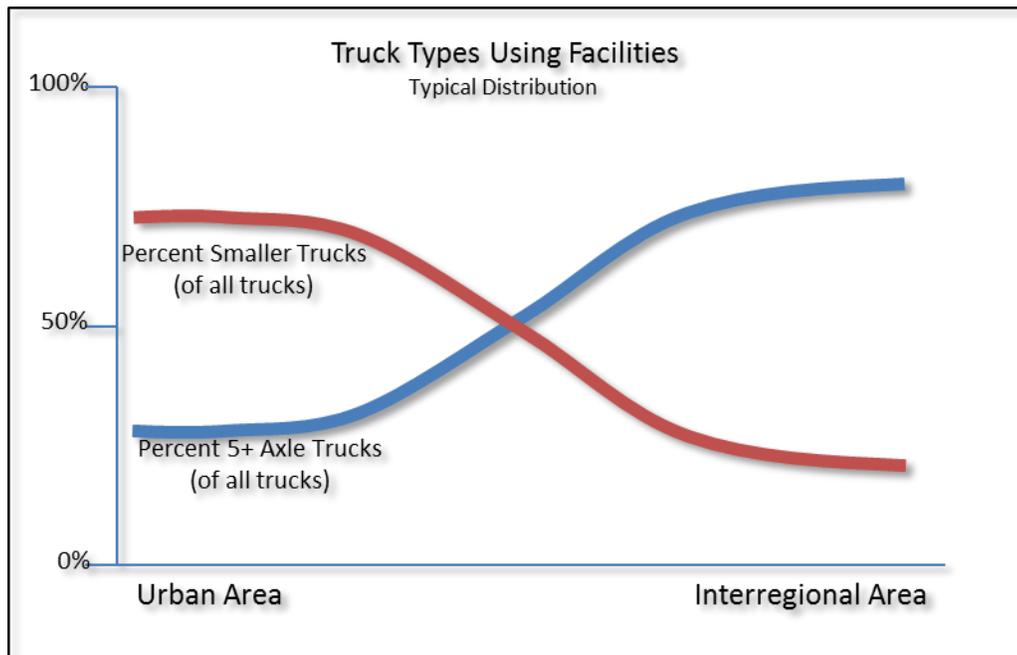


Figure 56: Freight Truck Facility Utilization

The large 8- to 12-lane facilities normally found in heavily urbanized areas can move many trucks, though they are mostly used for automobile traffic. Of the trucks using the larger urban facilities, the most common are the smaller two- or three-axle, local delivery-type trucks. In the open spaces between the urban areas, it is the long-haul five-plus-axle models that dominate the roadway. A conclusion that can be drawn is that a significant amount of truck volume in the core urbanized area is intraregional, and most of the truck volume between urbanized areas is interregional. Figure 56 illustrates how the mix of truck types can change between urban and rural areas.

To discover the interregional facilities with the highest-volume freight movement relative to capacity truck volumes, vehicle distribution data associated with highway facilities within the 11 Strategic Interregional Corridors were tallied. The data was then normalized to a per-lane basis to compare facilities of different sizes. The objective was to find the segments of highway along the corridors that have highest truck concentrations per travel lane. To further refine the analysis:

1. Segregate the truck data into two categories by percentage:
  - a. Percentage of five-axle trucks
  - b. Remaining percentage of smaller trucks
2. Omit highway segments where the volume of five-axle truck traffic is less than 60 percent of overall truck volume (to focus on highway segments carrying the large, heavy, long-haul trucks).

The result of the analysis is charted in Figure 57. Normalizing long-haul freight movement to the capacity of the facility can help identify deficient route segments within corridors of greatest interregional freight-carrying significance.

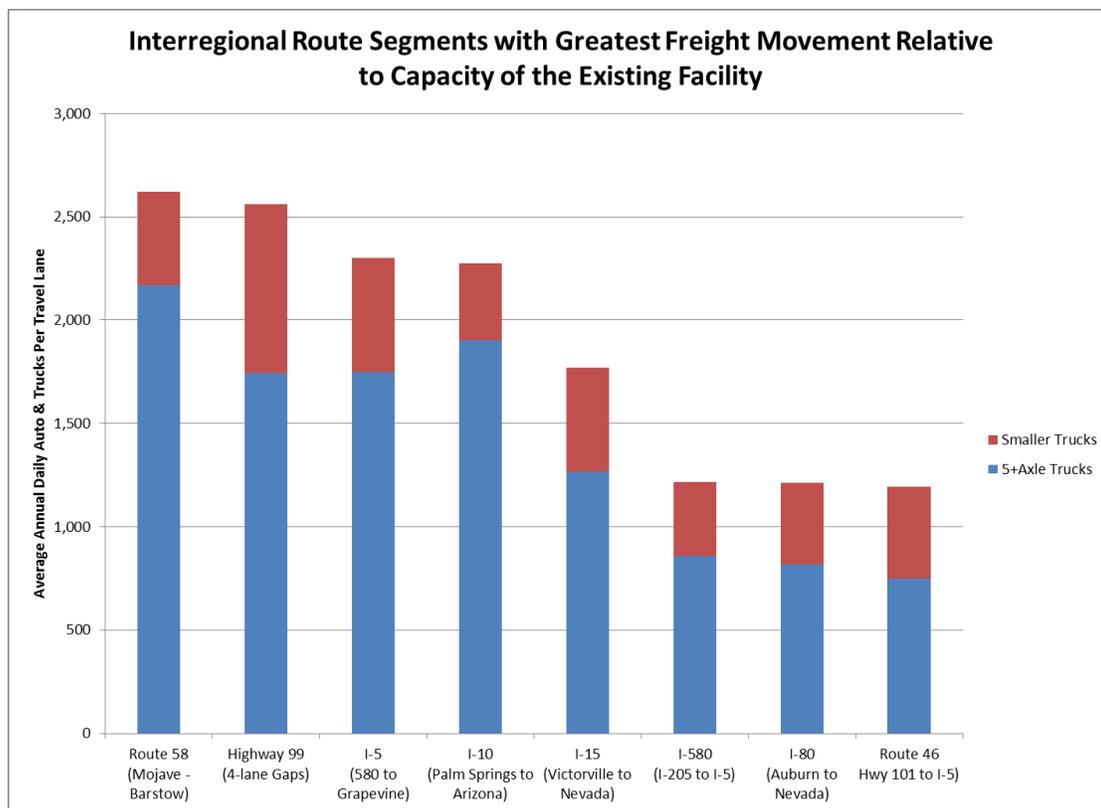


Figure 57: High-Volume Freight Route Usage by Trucks with Five-plus-axes and Smaller Trucks

It is important to note that high-level analysis like the above does not adequately capture seasonal agricultural travel demands. This is particularly acute in the Salinas Valley and San Joaquin Valley. Further analysis should be conducted as time permits to account for this factor in future updates to the ITSP.

### Section 5.2: ITIP Prioritization

The STIP is the biennial five-year plan adopted by the Commission for future allocations of certain State transportation funds for State highway improvements, intercity rail, and regional highway and transit improvements. The Interregional Improvement Program (IIP), which represents 25 percent of the STIP funds controlled by Caltrans, is programmed into the ITIP to invest in the interregional transportation system. The remaining STIP funds, Regional Transportation Improvement Program (RIP) funds, are programmed into the Regional Transportation Improvement Programs to address regional and interregional transportation issues and are controlled by the individual MPOs and RTPAs. The ITIP and the RTIPs are combined to create the STIP.

State statute, Government Code 14524.4 regarding the Interregional Transportation Strategic Plan, states: “(a) On or before June 30, 2015, the department (Caltrans) shall submit to the commission (California Transportation Commission) for approval an interregional transportation strategic plan directed at achieving a high functioning and balanced interregional transportation system. The plan shall be action oriented and

pragmatic, considering both the short-term and long-term future, and shall present clear, concise policy guidance to the department for managing the state's transportation system." It further states that "(b) The interregional transportation strategic plan shall be consistent with the California Transportation Plan as updated pursuant to Section 65071."

ITIP funds are State funds whose purpose is to meet the following statutory objectives by funding capacity-increasing projects to improve the performance of the interregional transportation system:

Government Code 14526 (a) state that "Not later than October 15 of each odd-numbered year, based on the guidelines established pursuant to Section 14530.1, and after consulting with the transportation planning agencies, county transportation commissions, and transportation authorities, the department shall submit to the commission the draft five-year interregional transportation improvement program consisting of all of the following:

- (1) Projects to improve state highways, pursuant to subdivision (b) of Section 164 of the Streets and Highways Code.
- (2) Projects to improve the intercity passenger rail system.
- (3) Projects to improve interregional movement of people, vehicles, and goods.

The statute continues, "(b) Projects included in the interregional transportation improvement program (ITIP) shall be consistent with the state interregional transportation strategic plan prepared pursuant to Section 14524.4.

Other statutes go further and direct that most ITIP funding capacity be used to improve and solve problems with system elements on segments that lie located outside urbanized areas but connect and benefit urbanized areas.

As noted above, the costs of the improvements needed to maintain economic competitiveness are very high. Add the cost to expand the service and range of the three intercity rail lines for enhanced sustainability, livability, and mobility options, and the total is much greater. With both of these objectives essential for ITIP spending as defined by statute, prioritization of potential improvements is necessary. The primary consideration for prioritization of ITIP dollars will be to projects that exhibit potential for improved interregional freight movement and interregional rail travel as they relate to the Strategic Interregional Corridors described within this plan. To maximize the benefits of from limited ITIP funding and do so in a manner consistent with Caltrans' updated mission statement, the following focus for ITIP investments are:

- For the movement of people, ITIP revenues should be used to improve and expand the state's intercity passenger rail system and implement operational improvements and strategic capacity increases on the Interregional Road System along the Strategic Interregional Corridors outlined within this document, consistent with the state's economic development and environmental objectives.
- For the movement of goods, ITIP revenues should be used to improve interregional facilities (typically roads) in the freight network detailed in the California

Freight Mobility Plan, with particular emphasis on the interregional portions of the Tier 1 network components.

Every two years during the development of the ITIP, Caltrans' Division of Transportation Programming will work closely with the districts, which coordinate with their regional partners to identify potential interregional improvement projects. The identified projects must have an approved Project Initiation Document, improve interregional travel, implement the ITSP, and meet legislative requirements. The projects that qualify will meet the ITIP short term focus and will be assessed based on, but not limited to, the project evaluation criteria (both summarized later in this chapter).

#### State-Supported Intercity Passenger Rail

The ITSP prioritizes intercity passenger rail corridors for funding through the ITIP, a dedicated source of funding for intercity passenger rail projects. The existing State-supported intercity rail corridors serve a critical function in integrating the California passenger rail network. Development of these corridors is necessary to provide connections and riders to support planned high-speed rail in California and to provide local connections via commuter rail systems and public transit.

Intercity passenger rail improvements that are proposed for programming in the ITIP must be identified in the California State Rail Plan and have a completed Project Study Report that describes in detail the project's purpose and need, scope, schedule, and budget. In addition, the following key performance measures will be used to prioritize improvements for programming:

- Projected increase in ridership and farebox revenue
- Improved on-time performance
- Travel time reduction/increased travel speed
- Frequency (increased number of round trips)
- Increased track capacity (supports freight/goods movement)
- Geographic equity (equitable distribution of funding between intercity passenger corridors)

#### Short-Term Focus

Priority should be given to projects on the statutorily IRRS and intercity rail system outside urbanized areas. By law, at least 60 percent of ITIP funding must be programmed on projects in non-urbanized areas (of that amount, at least 15 percent must be allocated to intercity rail projects). To ensure compliance with statute, Caltrans should target the highest percentage to the IRRS and intercity rail system in non-urbanized areas, since interregional projects frequently traverse smaller urbanized areas or partially overlap other urbanized areas. ITIP investment focus should be as follows:

- **Strategic Interregional Corridors.** As mentioned earlier, the cost of the needs far outweighs available revenues. Funding should be constrained to projects on the corridors described in the ITSP.
- **Greatest interregional merit.** Generally measured by the potential for passenger growth in an intercity rail line, greatest relative truck (goods) movement on an existing highway, and benefits to interregional automobile travel between regions.

An analysis was conducted to identify the areas with the greatest concentration of heavy, five-plus-axle, long-haul trucks. A summary of the results is shown in Figure 57. It also illustrates the concentration of automobile within the same interregional segments. The ITIP should focus investments on projects along these facilities that improve freight movement and recognize the economic benefits of tourism, and other projects that offer modal choice within corridors. Strategies include:

- Investments in intercity rail corridors that affordably increase opportunity for additional long-distance passenger rail trips per day while strengthening an integrated rail network that leverages high-speed rail investments and enables rapid, statewide travel by rail with improved connections to regional and local transit systems, creating more travel options for auto dependent communities.
- Investments to create capacity consistency between logical end points, particularly for the purpose of improving freight-carrying capacity and efficiency and reducing auto/truck conflict points.
- Investments in converting facilities to expressways or freeways to improve cross-median and cross-roadway agricultural equipment movement safety, reduce congestion, improve interregional automobile travel between regions, and improve freight movement.

Example outcomes from the strategies above may include:

- Improving the intercity passenger rail system in a manner consistent with service development plans and plans for integrating the statewide passenger rail network.
- Constructing and operating the nation's first high-speed rail system, which is seamlessly connected to, and augmented by, the full transit/passenger rail system.
- Improving highways to ensure consistent facility capacity between major regions to facilitate freight movement and passenger vehicle interregional travel.
- Upgrading highway facilities to improve cross roadway agricultural equipment movement safety and freight movement, particularly in the Salinas Valley.
- Improving interchanges to reduce collisions and improve freight movement.

### Partnership Funding

To the extent possible partnerships should be encouraged to jointly fund projects of high interregional merit. It would be fair to prioritize partnered projects for funding ahead of non-partnered projects where all else is equal and projects are consistent with the priorities noted above.

### Section 5.3: Project Evaluation Criteria

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The following are suggested guidelines for evaluating individual projects for ITIP funding. An overriding consideration is whether the project proposal is consistent with the development strategies laid out in this document and is consistent with the near-term focus noted above. Among projects that meet those requirements, project evaluation should be based on, but not limited to, the following six objectives: accessibility, reliability, safety, sustainability, economy, and integration.

The project evaluation criteria will be refined before each STIP cycle to incorporate new policies, altered circumstances, and legislation changes. Identifying very specific project selection scoring criteria at this time would limit the flexibility of Caltrans to utilize new information and analysis tools to create more accurate assessment methodology.

#### Accessibility

Provide access for people and goods to and through all regions in California.

1. Does the project eliminate a constraint or close a gap that will improve the corridor performance?
2. Is the main focus of the project to improve corridor-wide movement of people and goods to and from major generators of economic activity?
3. How does the project improve corridor access to/from major generators of economic activity (e.g., passenger and/or freight gateways, business centers, etc.) and travel destinations?

#### Reliability

Ensure that the interregional transportation system is reliable and efficient for the movement of people, good, services, and for emergency response.

1. Will the project improve interregional travel time reliability for people and goods on the interregional transportation system?
2. How does the project improve system operations for the interregional transportation system?
3. How does the project improve an efficient movement of goods on the interregional transportation system

### Safety

Develop and operate a safe multimodal interregional transportation system for all travelers.

1. Does the project significantly improve safe travel with the potential to reduce fatalities and severe injuries?
  - a. Does the project reduce safety conflicts between modes?
  - b. Does the project consider safe access and accommodation for all modes (including trucks, trains, bicycles, and pedestrians)?
2. Does the project enhance security/emergency responsiveness along the corridor?

### Sustainability

Improve and manage California's interregional transportation system in an environmentally sensitive, economical, and equitable manner.

1. How does the project demonstrate mode shift, including active transportation options, and consistency with regional plans?
2. How does the project promote design resiliency, energy conservation, and asset management principles (e.g., longer design/service life, lower operating/maintenance costs, complete life-cycle costs)?
3. How does the project incorporate multi-benefit environmental sustainability principles (e.g., green infrastructure to filter air and water pollutants, improve flood control, reduce heat effects, absorb carbon dioxide, promote fish passage, reduce GHG, use alternative fuels, etc.)?

### Economy

Improve interregional connectivity to enhance California's diverse economy.

1. Does the corridor carry significant freight and goods movement as measured by truck volumes (more than 15 percent of total volume)?
2. Is the project located in one of the Strategic Interregional Corridors identified in the Interregional Transportation Strategic Plan (ITSP)? Is the project on one of the identified Priority Interregional Facilities?
3. If the problem is congestion, is it due to high volumes of corridor-wide traffic (as opposed to morning/evening commute)?
4. Does the project enhance access and/or reduce travel time to and from freight gateways, centers of significant economic activity, jobs, or tourism destinations?

### Integration

Optimize multimodal connectivity throughout the interregional transportation system.

1. Will the project facilitate connectivity with other modes of travel within the corridor, including high-speed rail?
2. How does the project accommodate integration of multiple travel modes in the corridor?

### Section 5.4: Major Funding Sources for Interregional Projects

A wide variety of funding sources are available to implement improvements on the interregional transportation system. These funding sources are controlled by different groups and have different goals. Addressing the many system needs requires coordination between agencies. The following funding sources can be used for improvements to the interregional transportation system, depending on the type of the improvement and the eligibility of the funding program. With limited funding and a seemingly unlimited need for improved transportation options, projects generally must utilize multiple funding sources and meet multiple objectives. The following funding chart illustrates the significance and contribution of various types of funding that typically comprise the overall funding landscape for projects in the statewide transportation system.

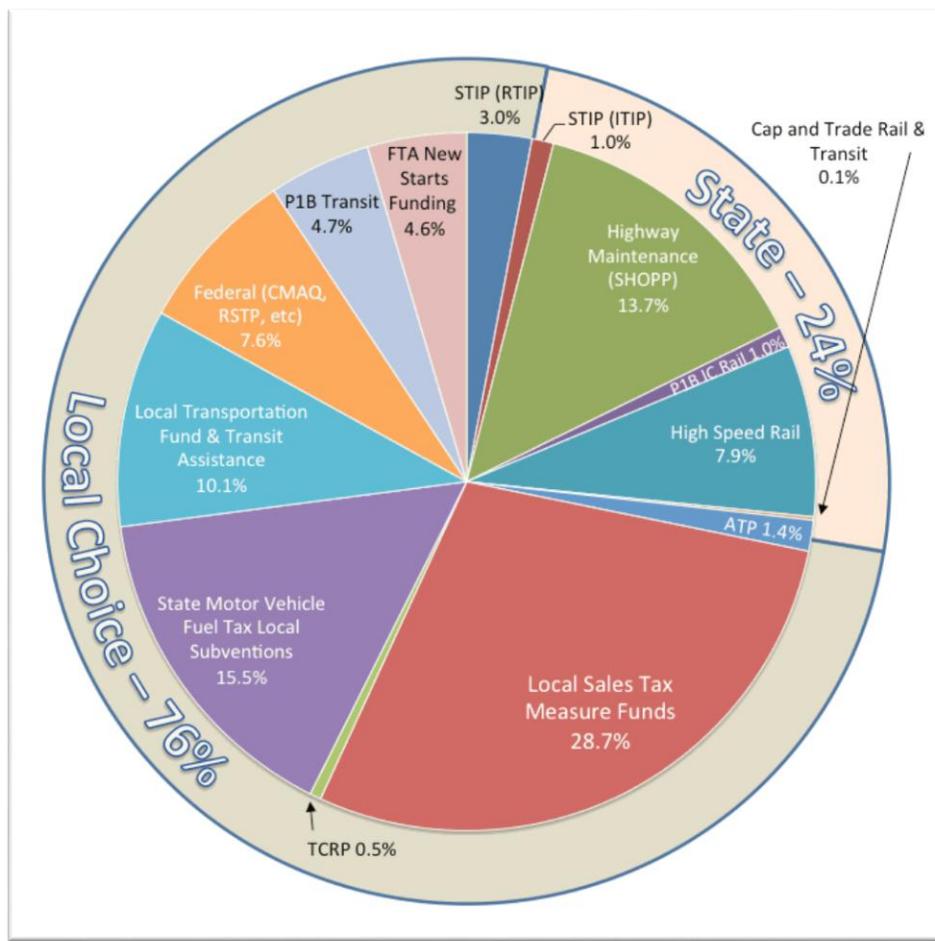


Figure 58: Major Transportation Funding Allocations for Fiscal Year 2014/15

The following is a brief summary of some of the major funding programs. The list includes typical funding sources and is not meant to be exhaustive:

#### State Transportation Improvement Program (STIP)

The STIP is comprised of the ITIP and the RTIP. The STIP is a biennial five-year plan adopted by the Commission for future allocations of certain State transportation funds for State highway improvements, intercity rail, and regional highway and transit improvements. State law requires the Commission to update the STIP biennially, in even-numbered years, with each new STIP adding two new years to prior programming commitments.

#### *Interregional Improvement Program (IIP)*

The interregional Improvement Program (IIP) receives 25 percent of the total STIP funds. By statute, the primary purpose of the program is to fund State highway and intercity passenger rail projects that facilitate the interregional movement of people and goods. This program is managed by Caltrans. Most projects funded with IIP funds primarily focus on connecting various regions for the purpose of moving people, vehicles, and goods across the State.

#### *Regional Improvement Program (RIP)*

The RIP receives the remaining 75 percent of the overall STIP funds. This program is further subdivided by formula for each county. The RPTAs manage these funds for their jurisdictions. State statutes allow the funds to be used for a broad array of transportation improvement projects, including improvement of State highways, local roads, public transit, intercity rail, regional commuter rail, pedestrian and bicycle facilities, intermodal facilities, and grade separations; transportation system management; safety improvement; and provision of funds to match federal transportation funds. Though the primary purpose of this funding source is congestion reduction, goods movement and interregional connectivity are also high-value applications.

#### State Highway Operation and Protection Program (SHOPP)

The SHOPP is a four year-year program that is updated every two years. Unlike STIP, SHOPP is developed and managed by Caltrans. The SHOPP primarily funds projects for safety, preservation of existing facilities, and various types of operational improvements for the SHS. By statute, the SHOPP funding cannot be used to increase highway capacity by adding more lanes to existing facilities.

#### Active Transportation Program (ATP)

On September 26, 2013, Governor Edmund G. Brown Jr.'s signed legislation creating the ATP. The ATP consolidated a number of existing federal and State transportation programs into a single program. These funds can be used to deliver any scope of work that will increase the proportion of trips accomplished by biking and walking or increase

safety and mobility for non-motorized travelers. Utilization of ATP funds to facilitate increased interregional non-motorized travel is a qualified use of these funds.

#### Cap and Trade Proceeds

AB 32 identified a cap and trade program as one of the strategies that California will use to reduce the GHG emissions from multiple sources. As per the investment plan for these proceeds, a portion of the funding that will be generated by this program will go to the intercity rail and mass transit projects. Most of the current funding has been set aside for the California High-Speed Rail program; however, \$25 million was earmarked in FY 2014–15 for intercity rail and mass transit. Ten percent of the total proceeds from the cap and trade program will be earmarked for such projects.

These seemingly nominal amounts earmarked for transportation projects could grow significantly as more industries that contribute to emissions are required to buy credits to offset them. Depending upon the priorities of the administration and the legislature at that time, this program could provide significant funding for interregional projects that help reduce transportation-related emissions.

#### Federal Funds

A variety of federal funds that are under the direct control of local agencies can be used to fund interregional improvements. Congestion Mitigation and Air Quality (CMAQ) is a federal program for funding projects and programs that reduce transportation-related emissions. This program can fund bicycle, transit and pedestrian improvements. Surface Transportation Program (STP) can fund safety, construction, and operational improvements to any highways receiving federal aid.

#### Local Sales Tax Measure and other Funds

Local sales tax measures and other locally generated transportation funds provide a significant source of revenue that could be eligible for use on interregional projects. Counties are allowed to adopt a sales tax increase for transportation projects. Self-Help Counties Coalition is an organization of twenty local transportation agencies for counties that have adopted such measures by a super-majority vote.

#### Traffic Congestion and Relief Program (TCRP)

The Traffic Congestion Relief Act of 2000 created the TCRP and committed \$4.9 billion to 141 specific projects. Although the bulk of the program funds have been allocated, approximately \$475 million remains to be made available. The timing for the availability of such funds remains uncertain.

#### Future Bond/Stimulus Funds

Proposition 1B passed by voters in 2006 authorized over \$19 billion for a wide range of transportation programs intended to relieve congestion, facilitate goods movements, and improve air quality and safety of the State's transportation system. A portion of that funding helped Caltrans and local agencies deliver a portfolio of well-needed interregional

improvement projects. In addition, funds from the federal stimulus program—the Recovery Act—provided another timely infusion for some very important transportation projects. A similar opportunity in the future could provide another funding source for interregional projects.

#### Trade Corridors Improvement Fund (TCIF) Program

The highly successful TCIF was extended indefinitely under law (SB 1228), but is without a funding source at this time. In the future, it could receive funds from other sources including the cap and trade program described earlier. A primary purpose of the interregional system is efficient movement of goods, making it a good candidate for future TCIF funding.