ONE VALLEY: THE SAN JOAQUIN VALLEY PROFILE

Geography

The San Joaquin Valley (Valley) is the southern portion of the Great Central Valley of California [Figure V-1]. The San Joaquin Valley stretches from the Tehachapi Mountains in the south to the San Joaquin Delta in the north, a distance of nearly 300 miles. The eastern boundary is the Sierra Nevada Mountains, which reaches elevations of over 14,000 feet, while the western boundary is the lower coastal ranges. The Valley floor is about 10,000 square miles in size.



Figure V-1
San Joaquin Valley Topography

For the purposes of this report, the San Joaquin Valley is considered to include the entirety of the counties of San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare and Kern. The total area of the eight counties is 27,383 sq. mi. (larger than West Virginia). Kern County straddles the Sierra Nevada Mountains and occupies a portion of the Mojave Desert. The desert portion of Kern County (about 3,650 sq. mi.) is within the Southeastern Desert Air Basin, while the remainder of Kern County and the other counties are in the San Joaquin Valley Air Basin.

On the Valley floor, the topography is generally flat to rolling, and the climate is characterized by long, very warm summers, and short, cool winters. Precipitation is related to latitude and elevation, with the northern portions of the valley receiving approximately 12-14 inches of rain a year, while the southern portion has an annual average of less than six inches. Snow rarely falls on the Valley floor, but heavy winter accumulations are common in the Sierra Nevada Mountains.

The Valley occupies an area between the two largest metropolitan areas in California, San Francisco and Los Angeles. The major transportation facilities run generally north/south through the Valley and include State

Route 99, Interstate 5, Union Pacific Railroad and Burlington Northern & Santa Fe Railroad. Several highways and some rail lines cross the Valley east/west including State Routes 4, 120, 152, 198 and 58 among others. In addition, the Valley contains numerous oil and natural gas pipelines, a myriad of telecommunication facilities, distribution centers, the Port of Stockton, and air travel corridors.

Population

While the Valley is largely rural in nature, it does contain several large cities and suburbs with a total population of a little over 4 million people (more than the population of 24 states). The eight Valley counties are a part of seven Metropolitan Statistical Areas (MSAs): Stockton (San Joaquin County), Modesto (Stanislaus County), Merced, Fresno-Madera, Hanford-Corcoran (Kings County), Visalia-Porterville (Tulare County) and Bakersfield (Kern County). Most of the Valley's population resides along the State Route 99 corridor including four cities of over 150,000 people (Fresno, Bakersfield, Stockton and Modesto) [Figure V-2]. Population growth has been sustained and significant [Figure V-1]. In 1970, the eight San Joaquin Valley counties had a population of just over 1.6 million. By 2015, the population had increased 149% to over 4 million [Figure V-3]. The Valley continues to be one of the fastest growing regions in the state. The Valley accounted for 8.2% of California's total population in 1970 and has grown to account for 11% of California's total population now. By 2050, the Valley is projected to capture 15% of the state's population [Figure V-4].

San Joaquin Valley **Population** SAN JOAQUIN Centers California's San Joaquin Stockton Valley Manteca STANISLAUS Modesto Tracy Turlock Merced Los Banos Clovis Fresno Hanford Population Visalia ° 400,000 + 150,000 to 400,000 75,000 to 150,000 30,000 to 75,000 15,000 to 30,000 5,000 to 15,000 . . Tulare Porterville Source: CA Dept. of Finance, 2012 Highway Network State Route 99 Delano Interstate Federal State Oildale Bakersfield San Joaquin Valley Location 10 20 30 40 Miles Interstate System

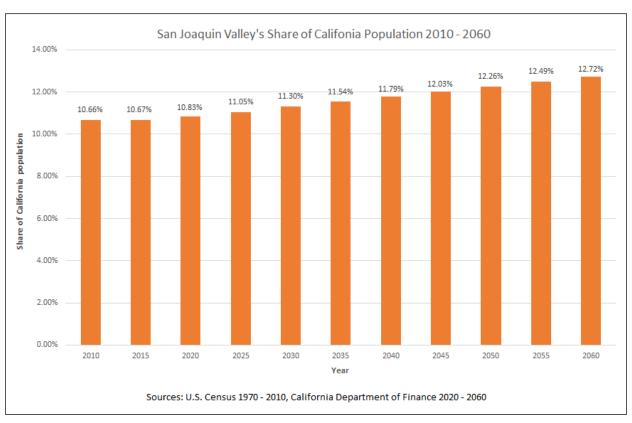
Figure V-2

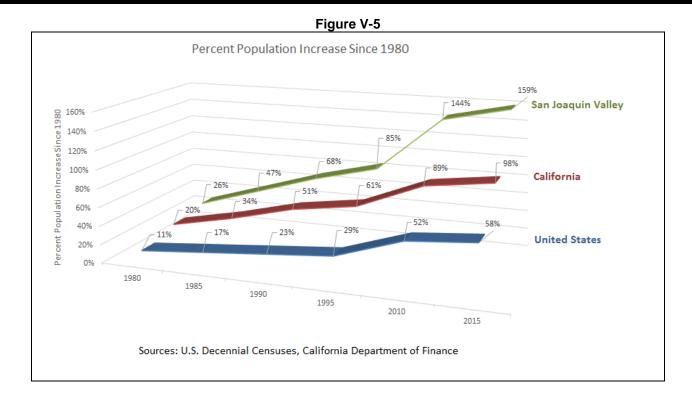
San Joaquin Valley Population Growth by County

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Fresno County	932,628	979,357	1,033,068	1,088,963	1,145,646	1,201,416	1,256,572	1,309,006	1,358,963	1,407,602	1,457,705
Kern County	841,887	883,327	929,787	995,408	1,067,631	1,141,109	1,213,558	1,283,154	1,350,705	1,419,039	1,488,228
Kings County	152,175	149,702	154,403	162,049	170,105	178,505	187,048	195,106	202,760	209,804	217,058
Madera County	150,193	154,956	162,814	174,156	186,761	199,556	212,229	224,744	237,116	249,271	262,065
Merced County	256,803	269,729	286,397	305,794	326,574	348,150	369,193	389,832	410,095	430,832	452,519
San Joaquin County	687,827	727,547	783,572	839,665	895,240	947,929	996,379	1,040,015	1,079,902	1,116,089	1,150,034
Stanislaus County	515,888	538,372	572,155	605,618	638,995	670,443	699,177	724,772	747,343	768,026	787,300
Tulare County	442,551	463,291	488,293	514,101	541,140	568,186	594,348	617,916	639,477	659,482	679,167
Total San Joaquin Valley	3,979,952	4,166,281	4,410,489	4,685,754	4,972,092	5,255,294	5,528,504	5,784,545	6,026,361	6,260,145	6,494,076
California	37,333,583	39,059,809	40,719,999	42,407,005	44,019,846	45,521,334	46,884,801	48,088,425	49,158,401	50,124,768	51,056,510
% of San Joaquin Valley of out of	10.66%	10.67%	10.83%	11.05%	11.30%	11.54%	11.79%	12.03%	12.26%	12.49%	12.72%
California	10.00%	10.07%	10.0370	11.05%	11.50%	11.34%	11.75%	12.03%	12.20%	12.45%	12.72/0

Sources: U.S. Census 1970 - 2010, California Department of Finance 2020 - 2060

Figure V-4



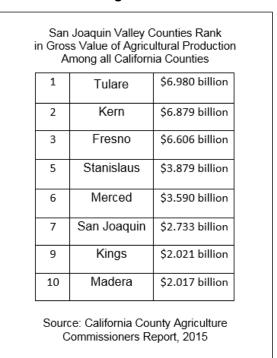


Future population growth is also expected to be sustained and significant. Both ends of the Valley are under growth pressure from the neighboring metropolitan areas of Los Angeles and the San Francisco Bay Area in addition to the natural growth rate in the Valley. Population in the eight Valley counties is projected to reach just a little over 6 million by the year 2050, using growth projections from the California State Department of Finance (DOF) [Figure V-3].

Economy

The San Joaquin Valley is famous for agricultural production. All eight counties rank within the top twelve of California's 58 counties. In addition, if the Valley were a state, it would be the top agricultural producing state in the country. The Valley produced \$34.7 billion in agricultural products in 2015 This amount is over double the remainder of California and more than the next highest producing state, Iowa [Figure V-7].

Figure V-6



San Joaquin Gross Value(Billion \$) in Agricultural Production Compared with Leading States Gross Value of Agricultrual Production (Billions \$) \$35.00 \$30.25 \$30.00 \$25.67 \$25.00 \$21.17 \$21.14 \$16.84 \$20.00 \$15.72 \$15.00 \$15.00 \$10.00 \$5.00 Source: USDA Economic Research, 2016

Figure V-7

Agriculture accounts for 12% of the Valley's jobs [Figure V-8]. In comparison, only 2% of the state and nation's jobs are in agriculture [Figure V-9]. Other major employment sectors in the Valley are education, health and social services (21.38%) and retail trade (11.4%).

Figure V-8

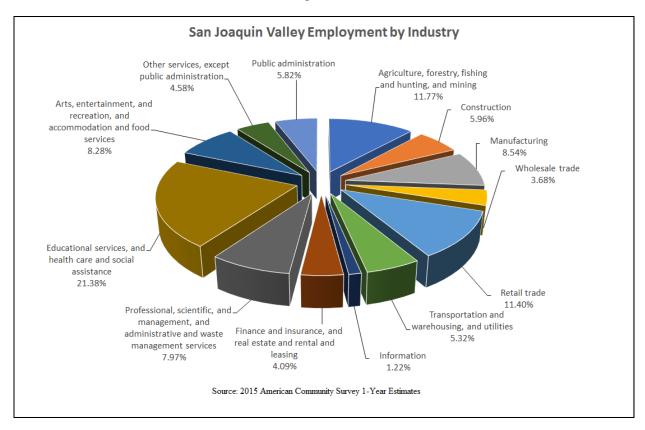


Figure V-9

EMPLOYMENT BY INDUSTRY

Industry	San Joaquin Valley		Californ	ia	United States	
Agriculture, forestry, fishing and hunting, and mining	183,769	11.77%	412,950	2.39%	2,852,402	1.96%
Construction	93,065	5.96%	1,029,140	5.97%	9,027,391	6.19%
Manufacturing	133,431	8.54%	1,687,092	9.78%	15,171,260	10.41%
Wholesale trade	57,467	3.68%	527,004	3.06%	3,968,627	2.72%
Retail trade	178,020	11.40%	1,910,340	11.08%	16,835,942	11.55%
Transportation and warehousing, and utilities	83,131	5.32%	808,614	4.69%	7,226,063	4.96%
Information	19,024	1.22%	495,819	2.87%	3,094,143	2.12%
Finance and insurance, and real estate and rental and	63,899	4.09%	1,075,345	6.24%	9,578,175	6.57%
Professional, scientific, and management, and	124,423	7.97%	2,219,057	12.87%	16,074,502	11.03%
Educational services, and health care and social	333,838	21.38%	3,616,356	20.97%	33,739,126	23.15%
Arts, entertainment, and recreation, and accommodation	129,269	8.28%	1,764,129	10.23%	13,984,957	9.60%
Other services, except public administration	71,499	4.58%	925,941	5.37%	7,198,201	4.94%
Public administration	90,853	5.82%	774,573	4.49%	6,996,990	4.80%
TOTAL Civilian employed population 16 years and over	1,561,688	100.00%	17,246,360	100.00%	145,747,779	100.00%

Source: 2015 American Community Survey 1-Year Estimates

Economically Distressed Area

The San Joaquin Valley is one of the most economically distressed regions in the United States. High unemployment rates have historically plagued the Valley. As shown in Figure V-10, in 2015 the Valley's unemployment rate was 8.3%, in contrast to 6.2% and 5.2% for the state and the nation, respectively. According to the Bureau of Labor Statistics, "unemployment rates fell in all eight San Joaquin area counties from August 2013 to August 2015. The largest two-year decrease occurred in San Joaquin County, down 3.5 percentage points, followed by Stanislaus County, down 3.4 points. Seven of the eight counties had unemployment rate decreases that were larger than the national decrease of 2.1 percentage points. Kern County had the smallest unemployment rate decline, 1.6 percentage points, from August 2013 to August 2015. Tulare County had the highest jobless rates in the area in August for each of the past three years."

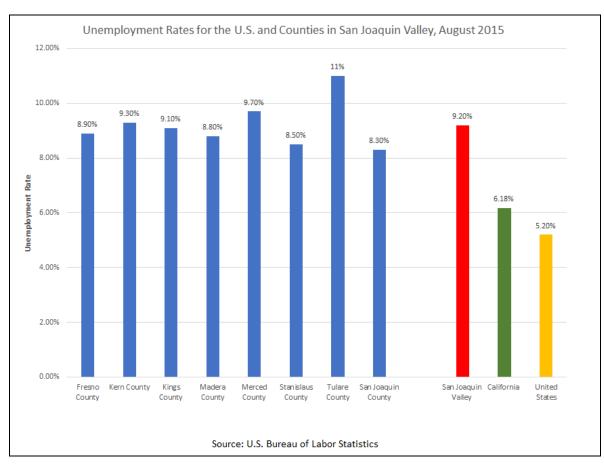
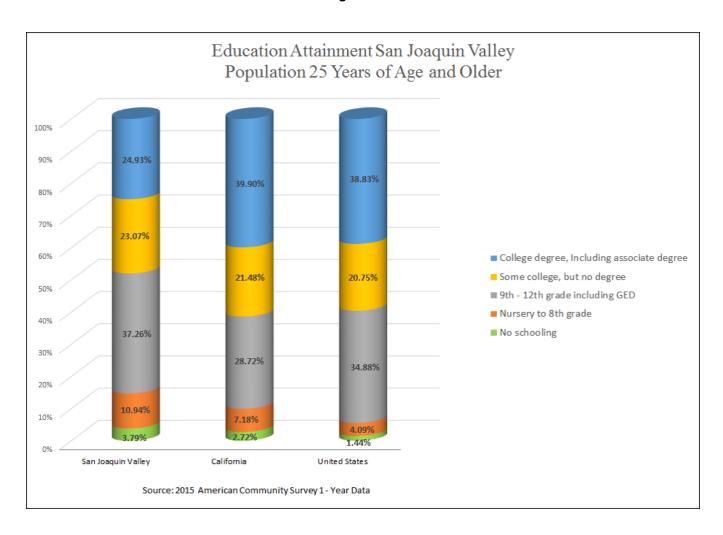


Figure V-10

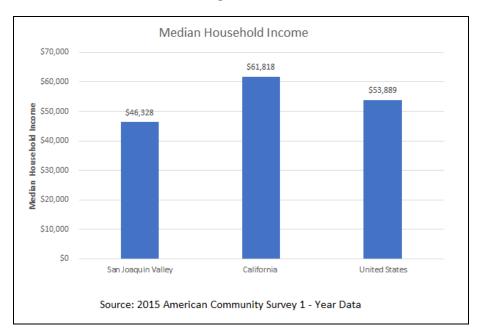
Educational levels for Valley residents lag behind those of California and the United States. Only 24.9% of persons 25 years of age and older have a college degree, compared to 39.9% and 38.8% for the state and nation, respectively [Figure V-11].

Figure V-11



With the Valley's mix of employment types, high unemployment, and low educational attainment levels, the Valley is plagued with a low median household income. As shown on Figure V-12 below, the Valley's median household income of \$46,000 is far below the state and nation's averages of \$61,000 and \$53,400.

Figure V-12



The economic plight of the San Joaquin Valley is starting to be recognized at a national level. The Congressional Research Service (CRS) completed a study in 2005 (California's San Joaquin Valley: A Region in Transition) comparing the economic conditions of the San Joaquin Valley to the Central Appalachian region, another severely economically distressed region. The Central Appalachian region (primarily eastern KY and parts of WV, TN and VA) is the most economically distressed sub-region within the Appalachian Regional Commission (ARC). ARC was created by Congress in 1965 in response to the persistent socioeconomic challenges in the Appalachian region. Economic conditions in the Valley were shown to be comparable to Central Appalachia and lagging far behind the state of California as a whole and the United States. For example, poverty rates in the Valley are similar to the poorest region of the Appalachians and are actually trending worse than the Central Appalachian region.

While being one of the most economically challenged regions in the country, the Valley has traditionally received far less federal assistance than other regions in the United States. The CRS study also showed that the Valley is lagging behind the Appalachian region, California and the United States in per capita federal expenditures.

Figure V-13 below indicated that in 2010, the per capita federal government expenditure for the Valley and each of its eight counties was still far below that of California and the United States. With the termination of the Federal Financial Statistics Program, the per capita federal government expenditure data after 2010 has been discontinued.

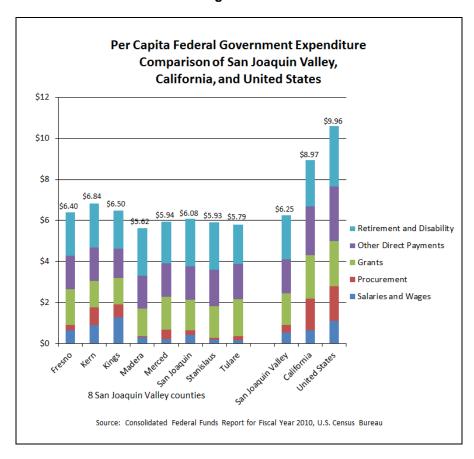
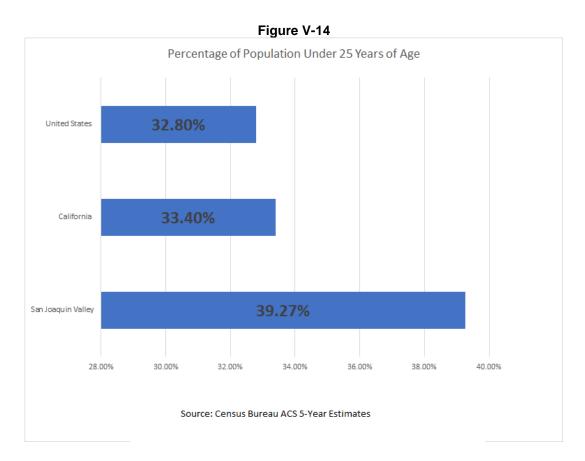


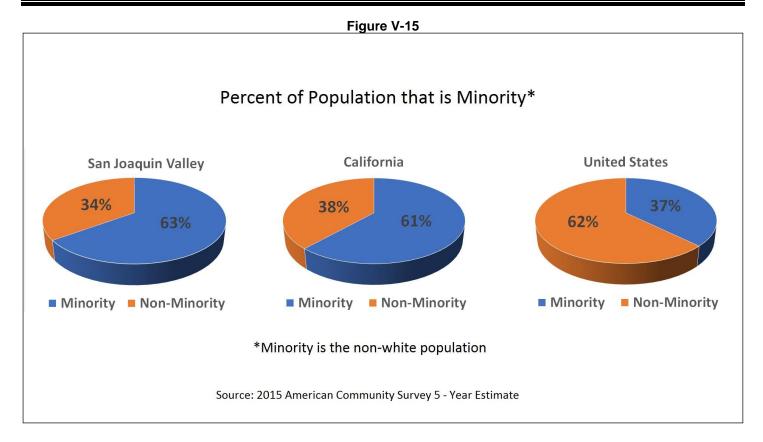
Figure V-13

Demographics

The Valley has a younger population than California as a whole and the United States. In 2015, 39.27% of Valley residents were under the age of 25 compared to 33.4% for California and 32.8% for the United States [Figure V-14].



The residents of the Valley are more ethnically diverse than those of California and the United States. According to the 2015 American Community Survey, 63% of the Valley's inhabitants are minority (non-white), compared to 61% and 37% for the state and nation [Figure V-15].



VALLEY SUCCESS IN PARTNERING AND PLANNING

Air Quality

Background

The SJV is one of the largest and most challenging air quality nonattainment areas in the United States. The SJV nonattainment area includes eight counties from San Joaquin County to Kern County on the Western border of the Sierra Nevada range. These counties represent a diverse mixture of urban and rural characteristics, yet are combined in a single nonattainment area that violates federal health standards for ozone and particulate matter. Air quality monitoring stations continue to indicate that the San Joaquin Valley is among the worst polluted regions in the country. Since the eight counties are combined into a single nonattainment area, there is a coordinated approach for compliance with the federal Clean Air Act. That coordinated approach is essential in meeting the Valley's goal to provide clean air to all residents.

Coordination

On-going coordination with federal, state, and local partners has been, is, and will continue to be critical to the meeting the goal of providing clean air to all San Joaquin Valley residents. As one of the few multi-jurisdictional planning areas in the country, the individual decisions and actions of each of the SJV Regional Planning Agencies (RPAs) have the potential to affect the entire San Joaquin Valley. This coordination process is critical to documenting compliance with the Federal Clean Air Act, as well as enabling the expenditures that

build and maintain transportation infrastructure; investments which provide valuable jobs to San Joaquin Valley residents.

Transportation Conformity

The primary goal of the transportation conformity process is to assure compliance with transportation conformity regulations with respect to the requirements for Regional Transportation Plans (RTPs), Federal Transportation Improvement Programs (FTIPs), amendments, compliance with the California Environmental Quality Act (CEQA), implementation of applicable transportation control measures (TCMs), and applicable State Implementation Plans (SIPs). Since coordination efforts have begun, the SJV RPAs have been successful in complying with conformity requirements for the 2004 TIP/RTP, 2006 TIP, 2007 TIP/RTP, 2011 TIP/RTP, and 2014 TIP/RTP. In addition, FHWA has determined that the SJV RPA planning processes substantially meet the federal planning requirements. TIP/RTP Amendments, including coordinated amendment cycles and development of valley-wide process to be federally approved.

Continued examples of SJV RPA coordinated efforts with respect to transportation conformity include the following:

- Monitoring and testing of transportation model updates;
- Continued documentation of latest planning assumptions and compliance with the transportation conformity rule and corresponding guidance documents;
- Drafting of valley-wide procedures for RPA staff use, with detailed instructions from the execution of EMFAC to post-processing of emissions results consistent with applicable SIPS; and
- Preparation of boilerplate documentation, including draft public notices and adoption resolutions, as well as draft response to public comments.

Sustainable Communities Strategies

Introduction

California's Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act, SB 375, Chapter 728, Statutes of 2008) supports the State's climate action goals to reduce greenhouse gas (GHG) emissions through coordinated transportation and land use planning with the goal of more sustainable communities.

Under the Sustainable Communities Act, the California Air Resources Board (ARB) sets regional targets for GHG emissions reductions from passenger vehicle use. In 2010, the ARB established these targets in the San Joaquin Valley as GHG reductions of 5% by 2020 and 10% by 2035. The ARB is currently in the process of setting the second round of targets for the regions. Under Senate Bill 375, each Metropolitan Planning Organization (MPO) in the State is required to develop a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP) to demonstrate that, if implemented, the SCS will attain or exceed the greenhouse emission reduction targets. If the targets cannot be met, then an Alternative Planning Strategy (APS) needs to be developed. The SCS outlines the plan for integrating the



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transportation network and related strategies with an overall land use pattern that accounts for projected growth, housing needs, changing demographics, and forecasted transportation needs among all modes of travel.

For the San Joaquin Valley, each MPO is scheduled to approve their SCS as an element of their Regional Transportation (RTP/SCS) in 2018. Referred to as the RTP/SCS, each Valley COG has developed an investment strategy that outlines their region's transportation future through 2042. Each RTP/SCS in the Valley goes in-depth into the projects, policies, and strategies that will achieve compliance with state laws while delivering a financially constrained plan matching forecasted revenues with transportation demands. Some achievements of the collective RTP/SCS include:

- Provision of transportation and travel choices
- Improving safety, mobility, efficiency of the transportation system
- Maximizing economic competitiveness/economic vitality
- Facilitating goods movement
- Building healthy and active communities
- Improving the environment
- Providing a range of housing choices

Valleywide Coordination on RTP/SCS Efforts

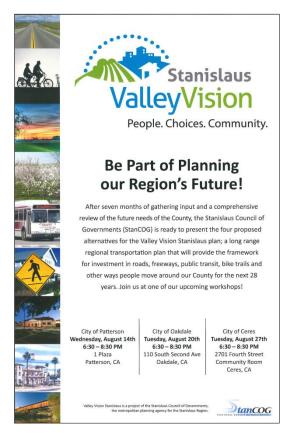
Valley Visions

While SB 375 mandated individual development of the RTP/SCS, the eight MPOs in the San Joaquin Valley have had a history of collaboration in this process to share information, best practices, and foster consistent approaches to RTP/SCS development. The eight COGs participated in a joint grant proposal to the California's Strategic Growth Council for Proposition 84 funding. The grant was funded and launched as "Valley Visions" in the 2014 RTP/SCS process

Valley Visions was implemented as a series of planning efforts underway throughout the San Joaquin Valley. It took a big-picture look at how the Central Valley grows over time in a way that uses resources efficiently, protects existing communities, conserves farmland and open space, and supports the Central Valley economy, ultimately reducing future greenhouse gas emissions. The Valley Visions logo was provided to each COG to use and customize to their region if they wanted.

One of the tasks identified in the successful grant proposal was enhancement of the eight COG's individual public outreach efforts with a valleywide campaign. The project scope for this task included templates/written materials for customization, a media campaign to engage residents and publicize outreach efforts (social media, newspapers, radio and/or TV), and to assist with the development of SB 375 required workshops and hearings.





Of particular note was an informational video on the SCS process provided in three languages: English, Spanish, and Hmong and the media campaign that was active during the months of August, September, and October 2013. The videos were made available on YouTube, with links on the Valley Visions web page (www.valley-visions.org).



Valley Visions is yet another example showcasing the successes in valleywide collaboration. The eight counties of the San Joaquin Valley coordinated some aspects of these planning efforts and maximized resources, while

each area's Metropolitan Planning Organization (MPO) developed a separate plan. This effort helped the Valley COGs brand a consistent message about sustainability.

Goods Movement

Introduction

In the Statewide Goods Movement Action Plan, the California Department of Transportation (Caltrans) designated the Valley as one of the State's four major international trade corridors. The San Joaquin Valley (SJV) is experiencing the demands of the modern global logistics system across a range of goods, from raw agricultural materials to consumer products. The critical role that the SJV plays in California and the nation's food supply will continue to require an effective goods movement system to distribute and export products quickly and efficiently. The growing regional population, and that population's growing expectations, will require increased attention to the safe and reliable movement of goods consistent with competing needs for infrastructure and greater sensitivity to emissions and congestion. Continued pressure on costs and profits is leading shippers and receivers to seek transportation efficiency gains wherever they can be found. Within the SJV, that goal translates to continual fine-tuning of logistics chains and transportation practices, and to a willingness to shift production and distribution facilities and activities to achieve the optimum combination. Due to its central location, relatively inexpensive land, labor force, and multimodal transportation system, the Valley has also become a major distribution point for international exports and consumer products. Prior to the recession, the Valley was the fastest growing population center in California and is poised to return to this position as the economy recovers.

Many of the agricultural products that the Valley produces are exported through California's rail, marine and airport systems as well as using the highway and roadway systems to move commodities from farm, to processor/packer, to market. While Interstate 5 and State Route 99 are the two primary north/south transportation arteries, SR 99 is the transportation backbone of the San Joaquin Valley and is served by many significant east-west corridors such as SR-58, SR -120, SR-180, I-580 to 205, SR-152, SR-198, and SR-46.

The Valley, as a region, needs to effectively plan for efficient goods movement and successfully partner with the private sector, state and Federal agencies to make necessary investments. A failure to effectively plan and invest could result in congested and poorly maintained highways, lost economic opportunities due to inadequate access to markets, land use conflicts between logistics-oriented business and growing communities, and poor air quality due to diesel emissions. Emphasis on system-wide efficiency, alternative fuel technology (see figures 1-3) and a comprehensive goods movement system seem to have become key elements of competitive funding. It is anticipated these trends will continue to shape transportation policy and that future funding may emulate

Figure V-16 - General Electric LNG



Figure V-17 – Hybrid Semi-Truck



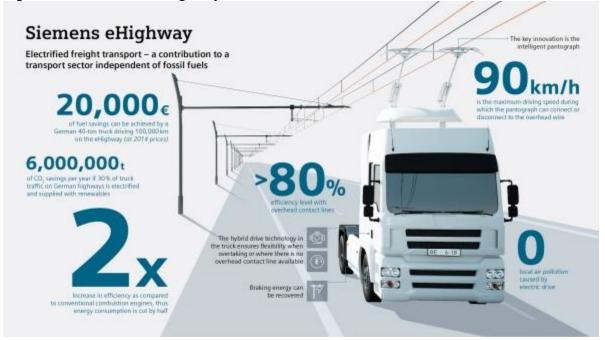
the approach of the state's Trade and Congested Corridor Programs funded through Senate Bill 1.

Figure V-18 – Emerging Cleaner Semi-Truck Technologies



Emerging Technologies

Figure V-19 – Siemens eHighway



eHighway is an energy-efficient, low-emission solution that Siemens developed for heavily traveled short-haul truck routes. It includes overhead electric lines for the highway, and electric or hybrid trucks with intelligent pantographs to pick up current. A sensor system enables the pantograph to automatically make and break contact with the overhead line at speeds as high as 90 kph. As long as there's an overhead line, the trucks generate no local emissions at all. On conventional roads, depending on what type of drive they use, they switch over to diesel, gas or battery mode. An eHighway, with about 80 percent efficiency, is about twice as efficient as transport via a diesel truck. That's because electric drives are more efficient. On top of that, transmitting

electricity via overhead lines is very environmentally friendly – efficiency here is 99 percent. The eHighway's energy efficiency increases even further if the trucks recycle electric braking energy back to the supply network.

In 2015, Siemens announced it would build the world's first eHighway project in California near the Ports of Long Beach and Los Angeles, the two largest ports in the U.S. Today. This first-of-its-kind system will use electricity delivered via overhead lines to electrify road lanes and provide clean and efficient power to trucks. Using electricity to power the heavy-duty trucks that travel on the 1-mile stretch near the ports will result in significantly reduced emissions and lower noise pollution.

Siemens' Steffen Goeller, the head of our Rail Electrification business noted in his panel *Moving Freight into the Future* that "this California project is crucial to understanding how electricity can answer today's transportation challenges. By installing the technology in a real-world scenario, it can be evaluated with a view of how it can be scaled up not only to connect the ports, but possibly on surrounding freeways and in other cities."

The SJV should coordinate with Caltrans, CARB, and SJVAPCD to explore the possibility of developing a zero-emissions freight corridor along SR 99 that connects SJV distribution and shipping with the Ports of Long beach and Oakland.

Background

In 2007, The San Joaquin Valley Regional Planning Agencies developed the San Joaquin Valley Regional Goods Movement Action Plan (2007). The purpose of the plan was to provide a knowledge base for the understanding of freight and goods movement issues facing the San Joaquin Valley. The plan identified freight flows for the region, and developed the San Joaquin Valley Truck Model tool and scenario testing. Since that time a number of goods movement studies have been completed that build on the previous work efforts and further refined the criteria and decision-making process while identifying vital goods movement networks for the multi-county region.

Previous goods movement studies for the Valley:

- San Joaquin Valley I-5/SR99 Goods Movement Corridor Study (2017)
- San Joaquin Valley Goods Movement Sustainable Implementation Plan (2017)
- San Joaquin Valley Interregional Goods Movement Plan (2013)
- Updated State Route 99 Business Plan (2013)
- SR 223, 166, 119, 46 and 65 Truck Origin and Destination Studies (2011)
- East Side Business Plan (Short Haul Rail), Tulare County (2010)
- SR 58 Origin and Destination Truck Study (2009)
- Interstate 5 and State Route 99 Origin and Destination Study (2009)
- Draft San Joaquin Valley Regional Goods Movement Action Plan (2008)
- San Joaquin Valley Regional Goods Movement Action Plan (2007)
- California Interregional Intermodal System (CIRIS) Implementation Plan (2006)

The three most current studies will be summarized below.

San Joaquin Valley Interregional Goods Movement Plan (2013)

This San Joaquin Valley Interregional Goods Movement Plan builds upon traffic, logistics, and long-term infrastructure improvement planning efforts throughout the study area, including the SJV Regional Goods Movement Action Plan (2007), corridor studies along SR 99 and other highways around the region (including SR 58 and SR 152), truck circulation studies to identify access points and routes for trade goods throughout the SJV region, and numerous rail studies that explore the use of the rail mode in a robust goods movement system.

Figure V-20 – Inside a Distribution Center



Building on these prior efforts and new analysis, the purpose of this study is to develop a plan of prioritized projects, strategic programs, and policies that will guide goods movement planning for the region in the future. The plan is based on an analysis of the economic and global trade trends that are driving the demand for goods movement in the SJV region and includes a forecast of future freight flows and demand by transportation mode. The plan also includes an evaluation of infrastructure needs that were the basis of many of the projects that were selected. While accommodating growth in goods movement demand is important to ensuring the economic health of the SJV region, this growth must be achieved in an environmentally sustainable manner. The plan includes strategies for improving the environmental performance of goods movement in the SJV and mitigating impacts on communities. The plan concludes with a discussion of funding and implementation strategies so the SJV regional transportation agencies can move forward with next steps to realize the vision embodied in the plan.

San Joaquin Valley Goods Movement Sustainable Implementation Plan (2017)

The purpose of this study was to build on the work conducted in the SJV Interregional Goods Movement Plan, and take the next steps to address issues raised in the SJV Interregional Goods Movement Plan (2013). This was accomplished by designating priority first and last-mile goods movement connectors and identifying any needed improvements to the connectors; identifying truck route and parking needs and strategies; identifying priority rural corridors; developing a framework for improving and maintaining the Vallewide truck model; and coordinating all of these efforts with the Valley Regional Transportation Planning Agencies' (RTPA) Sustainable Communities Strategies (SCS) and other planning efforts at the local, state, and federal level.

This study tackled several of the issues identified in the SJV Interregional Goods Movement Plan, including:

- Identifying high-priority, first- and last-mile connectors that emphasize improved connectivity to critical economic sectors. The study also identifies connector needs and recommends a plan of improvements and an approach to funding.
- Identifying areas of concern related to truck routing and parking and identifying truck route and parking
 needs and proposing policies, guidelines, and improvements to ensure truck routes are well planned,
 provide access and maintain continuity across jurisdictional lines. The study examined parking needs
 and shortages and proposes options to improving information about legal parking, encouraging the
 development and expansion of private truck stops and parking facilities, and identifying locations for
 new state or public parking facilities.

- Identifying rural and connecting urban priority corridors. This information will support the process by which the State will designate critical rural and urban corridors and their inclusion in the National Priority Freight Network as required by the FAST Act.
- Recommending improvements to the SJV goods movement model and a process to ensure that it is kept up to date with the best available data inputs and freight modeling best practices. To this end, the study developed a concept for institutionalizing freight modeling to support freight planning in the Valley so that good movement considerations become a part of the core analytical capabilities in each of the Valley Councils of Government. The revised model and supporting data can then be used to generate performance measures that are consistent with Federal and state guidance and that are linked to the SJV Interregional Goods Movement Plan Vision and Goals.

Connector Needs and Strategies

Performance metric data collected for select connectors revealed multiple needs that could improve safety and efficiency on connectors throughout the regional. Examples include:

- Improved signage for both passenger and commercial vehicle traffic.
- Safety analysis and improvement.
- Signal coordination on truck routes.
- Pavement quality improvements.
- Exploring design standards for heavy truck routes and connectors.

Truck Parking Recommendations

After reviewing previous reports and discussing the issue with public agencies, truck stop operators and truck drivers, several factors were identified that contribute to the truck parking problem in the Valley. The following recommendations to improve conditions should be considered:

- Planning and Funding
 - o Improve data collection and analysis to have a better understanding of short-term and long-term parking demand.
 - Work with law enforcement to educate and train them about improved use of safe and available parking spaces.
 - Update plans and investment programs to include truck parking solutions, both for facilities and technology for truck parking information services.
 - MPOs should consider ways to incentivize land use decisions to facilitate private-sector expansion of existing facilities or opening of new ones.
 - o Surplus public properties can be converted to truck stops.
 - o Funding provided by FAST could be used to construct or expand truck parking facilities and deploy tools for commercial motor vehicle drivers to find safe, available places to park and rest.

Demand Control

- o Policies that incentivize off-peak deliveries can reduce demand for long-term parking spaces.
- Truck circulation is a problem in some older parking facilities that are not designed for larger trucks.
- o Shippers/receivers often demand that drivers leave the facility immediately after delivery.

Recommended Next Steps

The SJV Sustainable Implementation Plan has identified a system of truck corridors and connectors and recommendations for how to proceed with improvements on these roadways to address identified needs. In order to move forward with these recommendations, implementation actions should be taken in four key areas:

- 1. Taking steps to secure funding for near-term opportunities;
- 2. Conduct additional local analysis to prioritize corridor improvements, including truck parking;
- 3. Establish a process for regular input on connectors, priority corridors and truck routes; and
- 4. Work with Caltrans to adapt the statewide freight model for Valley applications.

San Joaquin Valley I-5/SR99 Goods Movement Corridor Study (2017)

Interstate 5 (I-5) and State Route 99 (SR 99) play critical and unique roles as the major goods movement facilities in the Valley. At present, 92 percent of goods in the Valley are carried by truck,

and this is not expected to change in the near future. I-5 and SR 99 carry the highest volumes of trucks in the Valley and in some locations, among the highest volumes in the state. This is a reflection of the traditional north-south orientation of freight flows in the Valley, associated with the through routing of trucks to connect the major coastal urban areas to the north and south of the Valley, the north-south orientation of the Valley's major urban centers, and the need to access major east-west interstate connections north and south of the Valley itself.

I-5 is the route that is favored for long-haul movements. It carries higher levels for through traffic and there has traditionally been less development along this route. However, new developments in warehousing and distribution centers and manufacturing are taking advantage of access to I-5. Increasing traffic that is being generated within the Valley uses I-5 for national connections. SR 99 runs through each of the urban areas in the Valley and includes truck traffic distributing goods to/from these areas. It also provides connections to east-west routes that support the farm-to-market traffic and connections between farms and food processing that characterize the agricultural supply chain. It is the backbone of the intra-Valley goods movement and a major route for commuters who share the road with trucks in the urban centers.

A major effort and focus of this study involved identifying major truck generators in the Valley. This study identified seventeen major freight clusters responsible for a large percentage of truck trips within the Valley and to and from other regions I California. Each of these clusters consists of some combination of intermodal

Figure V-21 - SJV Freight Clusters



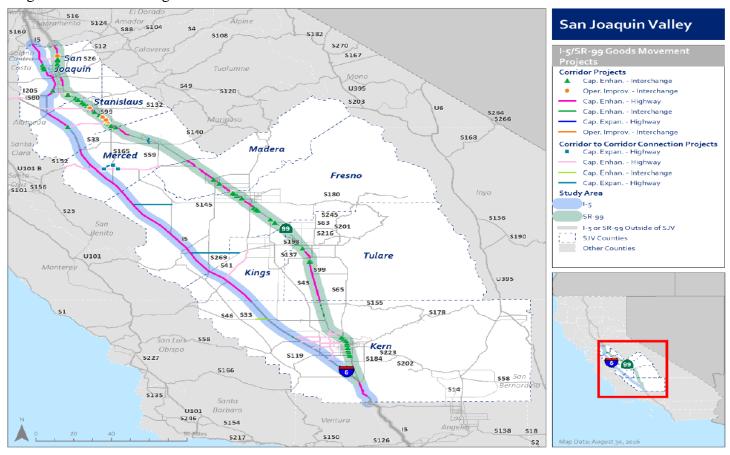
facilities, distribution centers, and/or large manufacturing firms. The clusters are distributed throughout the Valley, with four located in San Joaquin County, two in Stanislaus County, one each in Merced and Madera counties, one in Fresno County, one in Kings County, three in Tulare County, and four in Kern County.

- The San Joaquin Valley I-5/SR99 Goods Movement Corridor Study is divided into seven tasks, of which the Final Report incorporates Tasks 1, 2, 3, 4, and 7. Tasks 5 and 6 covered coordination in support of the other tasks. The Tasks covered in the Final Report are: Establish the need for streamlining goods movement.
- Name specific "pain points" and priorities for mitigation.
- Identify mitigating projects and programs.
- Identify mitigating projects and programs.
- Evaluate the feasibility of implementing projects and programs.
- Analyze potential for technical demonstration of specified technology.

Goods Movement Projects

The three key basis for selection of the projects are as follows: 1) they are located on I-5 or SR 99 corridors and would improve economic efficiency and productivity, alleviate mobility and safety related goods movement issues, as well as support the growth of agricultural and industrial land uses; 2) they are located on connectors between I-5 and SR 99 corridors and would meaningfully increase network redundancy and alleviate congestion on the SR 99 corridor, along which a majority of freight clusters are located; and/or 3) they are located on key ingress/egress routes of the San Joaquin Valley region and would likely enhance its economic opportunities of handling trade and logistics for the ports and large populations in the Bay Area and Southern California.

Figure V-22 - SJV Freight Clusters



Information collected for the projects includes: 1) location and route, 2) project ID, 3) project title and description, 4) project type, 5) project cost, 6) timeline for implementation, and 7) source of project information. The following provides information about projects planned along I-5 and SR 99, as well as along some major east/west or north/south connectors between I-5 and SR 99 that may alleviate SR 99 congestion.

The timeline for project implementation was 0-5 years, 6-15 years, 16-24 years, and 25 or more years. The projects with an implementation timeline of 0-5 years in each Valley County are as follows:

Fresno

- California High-Speed Rail Project-SR 99 Re-Alignment
- Mountain View and SR 99 Overcrossing: Widen Overcrossing and Improve Ramps
- NB SR 99 Herndon Off Ramp: Signalize & Widen Ramp
- Widen I-5 between Kings County and Merced County lines
- Widen SR 99 from 6 to 8 lanes from Central Ave to Bullard Ave.

Kern

- Centennial Corridor
- Centennial Connector SR 58/Cottonwood Rd to Westside Parkway
- Brown Material Rd to I5 interchange upgrade at 1-5 Phase 4A

Madera

- SR99: 4-Lane Freeway to 6-Lane Freeway Ave 12 to Ave 17
- SR99: Madera 6 Lane
- SR99: Reconstruct Interchange
- SR99: South Madera 6 Lane
- Widen SR99: In Fresno & Madera Counties, from south of Grantland Ave UC to north of Avenue 7

Merced

- Highway 99: Livingston Widening Northbound
- Highway 99: Livingston Widening Southbound
- Widen SR 152 between SR 99 and US 101 (in Merced County)

San Joaquin

- I-5 at Louise Avenue Interchange
- I-5 at Roth Road Interchange
- Widen I-5 between SR 120 and I-205
- Widen I-5 from 1 mile north of SR 12 to SR 120
- Widen SR 99 from French Camp Rd to Mariposa Rd 6 to 8 lanes, with new interchange
- SR 99 at Austin Road Interchange
- SR 99 at Eight Mile Road Interchange
- SR 99 at Gateway Boulevard Interchange
- SR 99 at Main Street/UPRR Interchange (Ripon)
- SR 99 at Morada Interchange
- SR 99 at Raymus Expressway Interchange
- SR 99 at Turner Road Interchange Operational Improvements
- Widen SR 12 between I-5 and SR 99
- Widen SR 120 between I-5 and SR 99, with new interchange at SR 99

Stanislaus

• SR 99 Interchange Ramp and Auxiliary Lane Improvements

- SR 99 & Hammett Rd
- SR 99 & Briggsmore Interchange
- SR 99 Reconstruct Interchange at Fulkerth Road
- SR 99 Reconstruct to 8-lane Interchange Phase II
- I-5 to Rogers Road: Interchange Improvements and Widen Sperry Ave
- Widen SR 99 from 6 to 8 lanes in Stanislaus County
- Widen SR 132 connecting SR 99 and I-580

Tulare

• State Route 99/Betty Drive Interchange

Kings County did not have any projects with an implementation timeline of 0-5 years.

Strategic Goals, Objectives, I-5/SR 99 Strategic Program

The study identified seven strategic goals with related objectives for the SJV region based on various state and regional transportation planning documents.

Strategic Goals, Objectives

- Improve Economic Competitiveness:
 - O Vitalize/Revitalize commercial vehicle corridors.
 - o Increase transportation choices for freight uses.
 - o Improve access to key economic centers.
 - o Reduce the cost of exporting products from the region, thereby increasing demand for those products and related processing/manufacturing jobs.
- Preserve Infrastructure:
 - o Conduct preventative maintenance and rehabilitation on freight transportation system.
 - o Maximize utilization of available supply for freight uses.
 - o Manage freight demand within existing supply.
 - o Preserve land for future freight uses.
- Improve Mobility and Travel Time Reliability:
 - o Integrate multiple modes for freight uses.
 - o Minimize congestion and increase operational efficiency for freight uses.
 - o Increase network redundancy for freight uses.
- Improve Safety and Security:
 - o Minimize crashes and damages for freight uses.
 - o Improve operations on freight transportation system.
 - o Improve incident management and network resiliency on freight transportation system.
 - Stay informed about the current level of threat to security on freight transportation system.
- Improve Environment:
 - Stay informed about the current commercial vehicle environmental laws and regulations and improve their enforcement.
 - o Conserve energy and natural resources for freight uses.
 - o Minimize commercial vehicle emissions.
 - o Improve development and implementation of mitigation measures for freight investments.

- o Improving environmental justice for freight investments.
- Use Innovative Technology and Practices:
 - o Develop commercial vehicle alternate fuel technology and fueling infrastructure.
 - o Develop new commercial vehicle to commercial vehicle communications technology applications.
 - o Develop new commercial vehicle operator information systems.
 - Develop institutional arrangements and business relationships to optimize freight transportation system usage and costs.
- Plan and Collaborate to Fund Investments:
 - o Develop freight projects list, timeline for implementation and public funding gap information.
 - o Conduct studies to evaluate benefits of key freight transportation system investments.
 - o Coordinate with other public agencies and private sector for freight project or service development and associated land use planning.

Conclusions

The most recent statewide, regional and local transportation plans were used to compile a master list of goods movement related projects and programs on I-5 and SR 99 corridors in the San Joaquin Valley region. These included projects on I-5 and SR 99, key connectors between the two corridors and key ingress/egress routes of the region that connect to San Francisco Bay Area and Southern California. The total project cost, project status and likely timeline for implementation were updated in consultation with Caltrans and regional metropolitan planning organizations. The planned projects are expected to address issues in all critical locations.

County level analysis of truck volume and peak period travel speed data on I-5 and SR 99 showed critical mobility and reliability issues on segments and critical freight access interchanges. County level analysis of truck involved crash severity data on I-5 and SR 99 showed critical safety and reliability issues on segments and critical freight access interchanges.

The literature review on ITS solutions for truck parking showed options for real-time parking detection technologies, compared their physical and operational capabilities, and summarized past tested public-private-partnership opportunities for truck parking.

A programmatic project concept of mode shifting from truck to potential short-haul rail service was assessed using a review of past studies and initiatives, an analysis of rail intermodal facility location options for major California ports and estimation of VMT reduction on I-5 and SR 99 on a per trip basis for the various. The review found that distance and volume are key determinants for rail carriers to provide rail shuttle service and price the rail shuttle service; the price and convenience are key determinants for shippers to select rail shuttle service instead of truck drayage. Previous concepts including CIRIS between the Port of Oakland and Stockton in San Joaquin County, and shared load container concept between the Ports of Long Beach/Los Angeles and Shafter in Kern County did not show a price advantage for a rail shuttle service over truck drayage; however, more recent unpublished analysis indicates that the rate gap between drayage and rail is closing. The mode shift would have varying VMT reduction impacts on I-5 and SR 99 depending on the location of rail intermodal facility.

The Future of Goods Movement in the Valley

Through the cooperative efforts of the San Joaquin Valley eight-county coalition and the goods movement planning efforts, the Valley is seriously looking at all of the existing conditions, growth implications and environmental impacts on our communities to develop a strategic and comprehensive understanding and strategies for implementing an efficient goods movement system.

Throughout the goods movement planning process, public and private stakeholders have met and discussed the criteria and metrics for evaluating projects to enhance the socioeconomic status of the San Joaquin Valley via improvements in our transportation systems. During the planning process the regional planning agencies worked with regional freight stakeholders from throughout the SJV to understand the issues, challenges, bottlenecks, and opportunities of the Valley's multi-modal goods movement system, including a three-tiered stakeholder outreach process to public, private, and other freight system stakeholders.

The supply chain and logistics trends of key industries, their current needs, and how they will impact goods movement in the future, including creating simplified supply chain diagrams to illustrate the transportation system needs of industries was assessed.

Through the planning process, a prioritized investment plan of multimodal project improvements and strategies to increase the efficiency and reliability of the region's goods movement system was created, including evaluation using the valleywide truck model, IMPLAN economic input-output software, and other tools to quantify the environmental, economic, and mobility benefits of each project / strategy.

The goods movement planning processes provides the eight-county region with data-driven, multimodal project lists that reflect the combined goods movement vision of the entire of the region.

Advocacy

San Joaquin Valley Regional Policy Council

The eight valley Regional Transportation Planning Agencies have a long history of successfully coordinating and collaborating to address issues of regional significance in the San Joaquin Valley. This approach was formalized with the voluntary creation of the San Joaquin Valley Regional Policy Council (Regional Policy Council).

This sixteen member Regional Policy Council was established in 2006 to discuss and build regional consensus on issues of Valley importance. The Regional Policy Council consists of two elected officials and one alternate appointed from each of the eight regional planning agencies' governing boards in the San Joaquin Valley. This body provides a forum for our Valley to communicate and coordinate easily and effectively on issues that impact the region such as:

- Intercity Passenger Rail
- State Route 99
- Goods Movement
- Short Haul Rail
- Air Quality/Transportation Planning

- Valleywide Model Improvement Plan
- AB 32, SB 375 Implementation
- Regional Energy Planning
- Regional Transportation Plans
- Annual Policy Conference

In addition, the Regional Policy Council also fosters and supports the development of relationships between the San Joaquin Valley and the California Transportation Commission, the California Air Resources Board, the California Partnership for the San Joaquin Valley, Caltrans, Federal Highway Administration, and other state and federal agencies.

Valley Legislative Affairs Committee

The Valley Legislative Affairs Committee (VLAC) is a staff-level coordination effort consisting of staff from each of the eight Regional Transportation Planning Agencies in the valley. VLAC meets monthly and is charged with tracking pertinent legislation, providing updates and making recommendations to the RTPA Directors' Committee and to the San Joaquin Valley Regional Policy Council. The primary purpose of VLAC is to develop and implement the valley-wide advocacy program – Valley Voice – which consists of an advocacy trip to Washington, D.C. and Sacramento annually.

The goals of the Valley Voice program are to:

- Communicate the Valley's legislative priorities clearly and succinctly.
- Obtain more state and federal funding for regional priorities.
- Advocate for legislation or changes to existing legislation that will benefit the valley

The Valley Voice delegation is comprised of representatives from the San Joaquin Valley Regional Policy Council. Each year, VLAC develops state and federal legislative platforms in coordination with the RTPA Directors' committee that are reviewed and approved by the Regional Policy Council. The Washington, DC trip is typically scheduled in September, and the Sacramento trip is typically scheduled for February/March.

SUMMARY OF ISSUES FOR THE STATE VALLEY VOICE PROGRAM 2014-2017

Air Quality

- Petition the EPA for new national standards for on-road, heavy-duty trucks and locomotives under federal jurisdiction.
- Establish a National Clean Air Investment Fund to accelerate the deployment of low-emission vehicles in a timeframe that will meet the air quality standards.

Cap and Trade Funding

- Structure investments to support SB 375 strategies with an emphasis on poor air quality regions, such as the San Joaquin Valley. This requires maintaining CalEnviroScreen criteria to determine Disadvantaged Communities status.
- Allow flexibility at the regional and local level to develop the most-effective ways to reduce GHG.
- Address project-funding determinations at the regional level to encourage local innovation and flexibility while addressing the needs and role of disadvantaged communities.

Goods Movement

• Support programming and construction of the priority goods movement projects in the San Joaquin Valley.

San Joaquin Amtrak Intercity Passenger Rail

• Provide a stable, consistent annual appropriation/allocation of state capital funds with increases necessary to meet future requirements and further expand the system.

Support for AB 28

• Pass AB 28 to add back Section 820.1 to the Streets and Highways Code, with provisions to waive immunity and consent to the jurisdiction of federal courts, but with no sunset clause.

Categorical Exclusion (CE) for Projects of Limited Federal Assistance

• Encourage the State to exercise the authority provided to them by federal statute to make categorical exclusion certifications or determinations for specific transportation projects that meet the law's criteria.

Transportation Funding

- Support a funding increase to the STIP that is equivalent to a return of truck weight fees.
- Fund the STIP in whole before adding new revenue to the Trade Corridor Improvement Fund.
- Through the SHOPP program, support a full range of safety and operational improvements that also provide for GHG reduction, including new interchanges.
- Support the return of \$1 billion per year of Truck Weight Fees to transportation, instead of using them to repay general obligation debt, dividing it up as follows: 44% to the STIP; 44% to Local Agencies; 12% to the SHOPP

Motorist Aid System: Multiple Service Elements

• Allow Service Authorities for Freeways and Expressways (SAFEs) to fund a variety of motorist aid infrastructure and services including but not limited to call boxes.

Transportation Initiative Voter Threshold

• Support the reduction of the voter threshold for transportation sales tax measures.

SUMMARY OF ISSUES FOR THE FEDERAL VALLEY VOICE PROGRAM 2014-2017

Buy America Waivers

• Expedite the Federal Transit Administration and Federal Highway Administration review and approval of Buy America waiver requests in the San Joaquin Valley.

Regional Transportation Plans Adoption Cycles

• Support legislation authorizing the option of updating RTPs at least once every 10 years.

MPO Role, Flexibility and Funding

- Support the role of MPOs in the decision making process, find ways to improve flexibility in how they operate, and avoid legislation that would transfer their power to the state and federal governments.
- Oppose the MPO Coordination and Planning Area Reform proposed rulemaking (Docket No. FHWA-2016-0016)

Geographic and Socioeconomic Equity in Grant Programs

• Provide special consideration for mid-sized, economically disadvantaged regions and non-attainment areas for infrastructure-related grant programs.

Clean Air Act Modernization

• Include an overriding provision in federal law to prohibit federal sanctions on local regions where their inability to attain federal standards is due to pollution from sources outside their regulatory authority.

Reductions in Emissions Sources Under Federal Control

- Petition the EPA for new national standards for on-road, heavy-duty trucks and locomotives under federal jurisdiction.
- Establish a National Clean Air Investment Fund to accelerate the deployment of low-emission vehicles in a timeframe that will meet the air quality standards.

Ozone Regulatory Delay and Extension of Assessment Length (ORDEAL) Act

• Allow more time for EPA to fully review all available research, which would help eliminate some of the confusion and the chaotic transition between air quality standards.

Air and Health Quality Empowerment Zone Designation

• Support and Co-Sponsor H.R. 5359 McNerney Air and Health Quality Empowerment Zone Designation to provide new incentive funding for non-attainment areas like the San Joaquin valley.

Goods Movement

- Support FAST Act discretionary freight programming (INFRA) for regionally significant projects in the SJV with consideration of providing additional attention to non-attainment areas, emphasizing safety as key criterion and keeping required match at an attainable level for rural disadvantaged communities.
- Support policy and funding for priority projects identified in the ongoing SJV Interregional Goods Movement planning process.

Farm-To-Market Routes

• Support funding for maintenance of critical farm to market routes that have heavy truck traffic, through a set-aside in the next Transportation or Farm Bill.

National Freight Program and Revenue Source

• Establish a national freight program that would include both formula shares and incentive grant programs to states designated to improve the efficiency and reliability of freight movement.

Continued Funding for Bridge Replacement and Rehabilitation

• Provide a stable, long term funding source dedicated to bridge maintenance and repair in future transportation bills that would include off-system bridges as well.

Aviation Fuel Sales Tax – H.R. 4441

• Support H.R. 4441 to re-establish Congressional intent and 29 years of federal interpretation that the tax collected on aviation fuel for airport purposes is applied to excise taxes on aviation fuel only, not to general sales that states and localities impose on all goods.

Water Quality, Supply and Reliability

- Encourage bipartisan cooperation between Congress and the Administration to resolve the water crisis.
- Encourage support for new storage capacity projects including Temperance Flat Dam and Sites Reservoir in California.

Commonsense Legislative Exceptional Events Reform (CLEER) Act

• Support the Commonsense Legislative Exceptional Events Reform (CLEER) Act, which would add events, like the drought conditions faced by California, to the Clean Air Act's exceptional event provision, streamline EPA's exceptional events approval process and would improve the appeals process when a regional does not agree with EPA's findings.

Map-21 Reauthorization Principles

- In crafting legislation reauthorizing MAP-21, the SJV Policy Council recommends the following principles:
 - (1) Financing: the SJV Policy Council supports a multi-year bill that would provide stability and certainty and allow for more deliberate economic investment. Also, the Policy Council supports provisions for a national freight program and maintaining formula funding allocations to regions.
 - (2) Performance-based measures: the SJV supports the performance-based decision making process to streamline and reform Federal surface transportation programs and project delivery.
 - (3) Fix it first: Priority should be given to preservation and maintenance of the existing system of roadways, bridges, transit routes, railroads, ports and airports.

Other Collaborative Planning Efforts

For over the last fifteen years the Valley RTPAs have explored the mutual benefits and economies of scale in working together on voluntary planning efforts. Oftentimes the funding for these projects is the result of a successful grant application that is submitted on behalf of all the Valley RTPAs. Developing the themes and consensus for the grant application requires a high level of coordinated effort between the Executive Directors and the governing boards.

Several impressive examples of this voluntary collaboration between the Valley RTPAs include the San Joaquin Valley Blueprint, the San Joaquin Valley Greenprint, the San Joaquin Valley Express Transit Study, and the San Joaquin Valley Tribal Transportation Environmental Justice Study. Each of the above named studies represents countless hours of conference calls, face to face meetings, working with Valleywide and local stakeholders, and often times retaining a subject matter consultant(s) between the Valley RTPAs to develop a specific product.

The San Joaquin Valley Blueprint is an outstanding example of this voluntary collaborative planning effort. A commitment to work together and submit a grant application in 2006, has since grown into a seven year cooperative valleywide and regional planning effort to identify smart growth strategies for the Valley communities. This planning effort involved all levels of government and the opportunity for local citizens in all eight counties to participate. From this unprecedented level of outreach, several other planning efforts have emerged and continue to gain momentum. As a counterpart to the San Joaquin Valley Blueprint, the San Joaquin Valley Greenprint continues to explore how to best preserve the vast productive acres of farmland and vital habitat in the region.

As part of the latter Blueprint effort, the Valley RTPAs worked with several other agencies to create the Blueprint Awards program. This award program began in 2010 and is used to recognize the outstanding achievements, the greater aesthetics or progressive details as demonstrated in a sustainable development project.

The Valley RTPAs in the recent years were successful in obtaining a grant for the purpose of assisting Valley jurisdictions with populations of 50,000 or less persons to implement smart growth principles into their local planning documents. Jurisdictions in the eight counties were divided into northern, central, and southern counties and well respected local consultant firms were retained in the three regions to provide technical services. This effort highlights a coordinated voluntary effort in which the Valley RTPAs came together on behalf of the smaller population member agencies.

Aside from regional planning, the RTPAs have explored Valleywide transit and strategies to improve regional planning with our Tribal Governments. The goal of the SJV Express Transit Study was to identify recommendations for inter-county commuter-express transportation services within the SJV region and non-Valley urbanized population centers. The Tribal Transportation Environmental Justice Collaborative Project invited 47 California Central Valley Tribes to participate with the Valley RTPAs and explore long-range planning issues and environmental justice priorities.

The Valley RTPAs work on specific studies often times when key information is unavailable. Recent examples include the San Joaquin Valley Demographic Forecast 2010 to 2050 Study and the Market Demand Analyses for Higher Density Housing in the San Joaquin Valley. These two technical data driven projects included a high level of subject experts from the private real estate and larger economics field. The Valley RTPAs made a coordinated effort to work with subject matter experts to ensure that the final end products were creditable with the high level of validity.

The Valley RTPAs continue to work very closely with the San Joaquin Valley Partnership. The San Joaquin Valley Partnership consists of members appointed by the Governor, California Cabinet Secretaries, and civic leaders that work with several work groups that explore economic development to water.

In conclusion, the Valley Regional Transportation Planning Agencies have a strong history of working together on other collaborative voluntary planning efforts and will continue to do so as resources allow.

Valley Success in Implementation

Passenger Rail in the San Joaquin Valley

Background

Passenger rail service has been an area of extensive activity for the Central Valley with two existing services currently operating and the first segment of the California High-Speed Rail System under construction, which began in Fresno in 2015. The two existing passenger rail services include the Amtrak San Joaquins route that runs the length of the Central Valley and the Altamont Corridor Express (ACE) that connects the northern Central Valley with the San Francisco Bay Area.

The Amtrak San Joaquins route provides service from the San Francisco Bay Area and Sacramento through the Central Valley to Bakersfield. The San Joaquins runs multiple times daily between the San Francisco Bay Area (or Sacramento) and Bakersfield, where Amtrak Thruway buses connect to Southern California destinations.

Figure V-23

AMTRAK San Joaquin Service



Other stops along the way include Stockton, Modesto, Merced, Martinez, and Fresno. Thruway bus connections to San Francisco are made at Emeryville. The seventh daily round trip of the San Joaquins was added on June 20, 2016, which was the first new round trip between Oakland and Bakersfield in 22 years. As part of the FY 2017/18 and FY 2018/19 Operating Plan, two of these seven daily round-trips are being planned to start/end at the mid-corridor location of Fresno so that they can arrive in Sacramento and the Bay Area by around 8 am. SJJPA has branded this new service "Morning Express Service."

Figure V-24



The Altamont Corridor Express (ACE) provides commuter rail service from the City of Stockton in San Joaquin County to the City of San Jose in Santa Clara County. ACE runs four round trips daily with average weekday ridership over 4,000 passengers totaling a million passengers per year. ACE trains depart Stockton in the morning with return departures from San Jose in the afternoon. ACE service has ten stations through San Joaquin, Alameda, and Santa Clara County with bus connections to other transit including Bay Area Rapid Transit (BART) in Pleasanton.

After breaking ground in 2015, construction of the California High-Speed Rail is well underway in the Central Valley. The

California High-Speed Rail System will be the first high-speed rail system in the nation. The California High-Speed Rail Authority ("Authority") is proposing an Initial Operating Section (IOS) to be completed by 2025 that will connect San Jose to a temporary station 20 miles north of Bakersfield. The Merced to Fresno Project Section is part of the first phase of the high-speed rail system. This project section is approximately 65-miles and generally parallels the Union Pacific Railroad (UPRR) tracks and State Route 99 between Merced and Fresno with stations in downtown Merced and Fresno. By 2029, the system will run from San Francisco to the Los Angeles basin in under three hours at speeds capable of over 200 miles per hour. The system will

eventually extend to Sacramento and San Diego, totaling 800 miles with up to 24 stations. In addition, the Authority is working with regional partners to implement a statewide rail modernization plan that will invest billions of dollars in local and regional rail lines to meet the state's 21st century transportation needs.

Coordination

Central Valley Rail Policy Working Group

Coordination of passenger rail service in the Central Valley has involved a significant number of stakeholders from the local, state, and federal agencies to the private railroads and public. The Central Valley Rail Policy Working Group consists of 20 agencies and has been involved in coordinated planning for passenger rail service between Merced and Sacramento since 2006. Recent activities of the Central Valley Rail Policy Working Group have included support of the High Speed Rail Authority (HSRA) in the implementation of high-speed rail through the Central Valley. These activities have involved:

- Partnering with the HSRA throughout the project development process
- Providing guidance on local issues, development plans, and policies
- Assisting in developing and evaluating alternatives
- Participation in public involvement activities and events
- Serving as liaisons to local communities

Figure V-25 California High Speed Rail Statewide Rail Modernization



San Joaquin Joint Powers Authority

With the passage of Assembly Bill (AB) 1779 in August 2012, regional government agencies were enabled to form the San Joaquin Joint Powers Authority (SJJPA) to take over the administration and management of the existing Amtrak San Joaquins Rail Service from the state. The SJJPA was established in March 2013 and is comprised of ten member agencies including the San Joaquin Regional Rail Commission, Sacramento Regional Transit, Stanislaus Council of Governments, Merced County Association of Governments, Contra Costa Transportation Authority, Tulare County Association of Governments, Madera County Transportation Commission, Alameda County, Fresno Council of Governments, and Kings County Association of Governments. An Interagency Transfer Agreement between the SJJPA and the State was signed on June 29, 2015. Under the provisions of AB 1779, the state will continue to provide the funding necessary for service operations, administration and marketing. Furthermore, Caltrans Division of Rail and Mass Transit will remain responsible for the development of the Statewide Rail Plan and the coordination and integration between the three state-supported intercity passenger rail services.

Looking Forward

Senate Bill 132 was adopted in April 2017, assigning \$400 million for the purpose of extending the Altamont Corridor Express into Ceres and Merced by the year 2027. Senate Bill 132 aligns with the San Joaquin Regional Rail Commission (SJRRC) ACEforward planning effort, which supports both the enhancement of exiting ACE service between Stockton and San Jose as well as extend ACE service to Manteca, Modesto, Turlock and Merced. **ACEforward** effort has involved extensive coordination through the Central Valley Rail Policy Working Group with the hope to realize portions of

Figure V-26 **ACEforward Proposed Service**

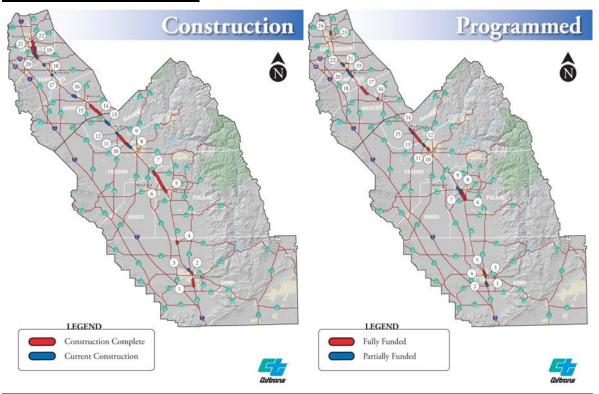


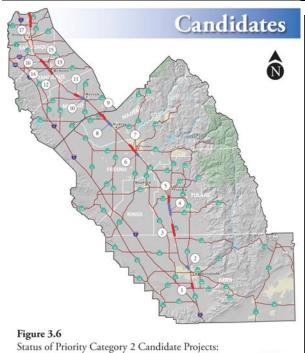
the ACE service extension to Merced by as early as 2020. The Central Valley transportation partners will also continue to work with the California HSRA to support the implementation of high-speed rail within the Central Valley as the initial operating phases are complete and services are initiated.

Proposition 1B and State Route 99 Bond Program

The \$1 billion for State Route 99 included in Proposition 1B made a small dent in the nearly \$6 billion in immediate needs identified in Caltrans' 99 Business Plan. Far greater funding is needed, however, to bring the "Main Street" and the primary goods movement corridor of the Valley up to a full six lanes from Bakersfield to Sacramento. Widening to at least six lanes has been a long term goal of the Valley and is necessary to accommodate the forecasted growth and avoid major congestion problems along the SR 99 corridor in the future. As the Proposition 1B program nears its sunset date, the recent update of the SR 99 business plan paints a clear picture of the continuing needs for upgrading and improving the roadway and interchanges.

State Route 99 Business Plan





Major Capacity Increasing Improvements

(Capital Costs Greater than \$8 million)

In 2013, Caltrans and the 8 Valley MPOs completed the second update to the 99 Business Plan. Here are the highlights:

- \$1Billion funded by Proposition 1B
- Construction/Complete 20 Projects -\$1.3 Billion funded
- Programed/Partially Funded 24 Projects -\$1.4 Billion funded
- Candidates Remaining 19 Major Projects -\$3.5 Billion unfunded
- New Emphasis on operational improvements including: carpool facilities / ramp metering, reduced truck congestion , 511 Travel Info System, CalVans public vanpool service, privately subsidized express bus service saving 1.4M VMT/yr, new park & ride lots.