

# DSMP

## DISTRICT SYSTEM MANAGEMENT PLAN

DISTRICT 10  
AUGUST 2014



*Disclaimer: The information and data contained in this document are for planning purposes only and should not be relied upon for final design of any project. Any information in this District System Management Plan (DSMP) is subject to modification as conditions change and new information is obtained. Although planning information is dynamic and continually changing, District 10 makes every effort to ensure the accuracy and timeliness of the information contained in the DSMP. The information in the DSMP does not constitute a standard, specification, or regulation, nor is it intended to address design policies and procedures.*

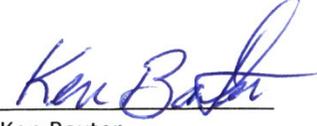
### California Department of Transportation

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

Approvals:

  
Dennis T. Agar  
District 10 Director

8/13/14  
Date

  
Ken Baxter  
Deputy District Director  
Planning and Local Assistance

8/18/14  
Date



# TABLE OF CONTENTS

ABOUT THE DISTRICT SYSTEM MANAGEMENT PLAN.....	3
STAKEHOLDER COORDINATION.....	3
EXECUTIVE SUMMARY.....	4
DISTRICT PROFILE .....	5
DISTRICT OVERVIEW .....	6
TRANSPORTATION SYSTEM .....	8
STATE HIGHWAY SYSTEM .....	8
FREIGHT .....	21
TRANSIT .....	27
AVIATION .....	39
BICYCLE .....	42
PEDESTRIAN.....	44
DISTRICT STATE ROUTES.....	44
TRANSPORTATION PARTNERS.....	71
PLANNING EFFORTS.....	73
ENVIRONMENTAL SETTING .....	75
MANAGEMENT PLAN.....	75
MISSION, VISION, AND GOALS .....	75
DISTRICT POLICIES .....	76
APPENDIX .....	78
APPENDIX A: Intercity Rail Project List .....	78
APPENDIX B: System Planning Flow Chart.....	79
APPENDIX C: Glossary of Terms and Acronyms/Definitions.....	80
ACRONYMS .....	80
DEFINITIONS .....	82
APPENDIX D: Resources.....	88

## TABLES OF FIGURES

Figure 1: District 10 Map.....	5
Figure 2: District 10 Land Use Map.....	7
Figure 3: District 10 Interregional Road System.....	10
Figure 4: District 10 High Emphasis Routes.....	11
Figure 5: District 10 NHS Highways.....	13
Figure 6: District 10 Scenic Map.....	15
Figure 7: District 10 Northern San Joaquin Valley Regional HOV Lane Master Plan.....	17
Figure 8: Mountain House Ramp Metering.....	18
Figure 9: Recommended Priorities for Ramp Metering in District 10.....	19
Figure 10: RWIS sensors and CMS alert.....	20
Figure 11: Railroad System.....	21
Figure 12: Crosstown Freeway in Stockton.....	22
Figure 13: District 10 Truck Networks.....	23
Figure 14: District 10 Truck Volumes, 2012.....	24
Figure 15: District 10 Peak Hour Traffic Volumes, 2012.....	25
Figure 16: District 10 Annual Average Daily Traffic (AADT), 2012.....	26
Figure 17: Port of Stockton.....	27
Figure 18: San Joaquin Amtrak Station.....	28
Figure 19: State Supported Intercity Rail and Feeder Bus Routes.....	29
Figure 20: YARTS Route Locations.....	31
Figure 21: ACE Service Corridor.....	32
Figure 22: High Speed Rail.....	33
Figure 23: District 10 Interregional Passenger Rail.....	34
Figure 24: Rest Area on SR-99 South of Turlock.....	36
Figure 25: District 10 Maintenance Stations.....	38
Figure 26: District 10 Aviation Map.....	41
Figure 27: District 10 Bike Routes.....	43
Figure 28: District 10 Land Use Partners and Agencies.....	72

## LIST OF TABLES

Table 1: District 10 Interstate Highways, State Highways & Unconstructed State Highways.....	8
Table 2: District 10 Transit Providers.....	35
Table 3: Airports in District 10.....	39
Table 4: Performance of Commercial Airports in District 10.....	40
Table 5: District 10 Transportation Partners.....	71

## **ABOUT THE DISTRICT SYSTEM MANAGEMENT PLAN**

System Planning is the long-range transportation planning process for the California Department of Transportation (Caltrans). The System Planning process fulfills Caltrans' statutory responsibility as owner/operator of the State Highway System (SHS) (Gov. Code §65086) by evaluating conditions and proposing enhancements to the SHS. Through System Planning, Caltrans focuses on developing an integrated multimodal transportation system that meets Caltrans' goals of safety, mobility, delivery, stewardship, and service.

The System Planning process is primarily composed of four parts: the District System Management Plan (DSMP), the Transportation Concept Report (TCR), the Corridor System Management Plan (CSMP), and the DSMP Project List. The district-wide DSMP is the strategic policy and planning document that focuses on system preservation, operating, managing, and developing the transportation system. The TCR is a planning document that identifies the existing and future route conditions as well as future needs for each route on the SHS. The CSMP is a complex, multi-jurisdictional planning document that identifies future needs within corridors experiencing or expected to experience high levels of congestion. The CSMP serves as a TCR for segments covered by the CSMP. The DSMP Project List is an appendix to the DSMP and provides a list of planned and partially programmed transportation projects used to recommend projects for funding. These System Planning products are also intended as resources for stakeholders, the public, and partner, regional, and local agencies.

### **DSMP Purpose**

California's State Highway System needs long range planning documents to guide the logical development of transportation systems as required by CA Gov. Code §65086 and as necessitated by the public, stakeholders, and system users. The purpose of the DSMP is to develop the District's vision of how the transportation system will be maintained, managed, and developed over the next 20 years and beyond. It provides a vehicle for the development of multimodal, multijurisdictional system strategies. The DSMP is developed with the goals of increasing safety, improving mobility, providing excellent stewardship, and meeting community and environmental needs throughout the District.

## **STAKEHOLDER COORDINATION**

Caltrans is committed to a continuous and comprehensive public communication and outreach process to maximize external input into our planning activities. In particular, local residents can provide valuable information regarding the needs of facility users, the character of the community, the design specifications desired, and educate the planning team about historical safety and congestion patterns. Seeking input from the community as early as possible helps avoid potential problems and makes the acceptance of the residents to changes a much easier process.

The District is continuously exploring new methods of engaging stakeholders and interest groups to ensure they have the opportunity to participate in the development of plans and projects that affect their daily lives. This includes consulting with the Tribal Community, local governments, and the community prior to making decisions, taking actions, or implementing programs that may impact their communities, including the planning and development of projects identified throughout the DSMP. A successful public participation process involves understanding the local governments and the community, and determining the best way to solicit public feedback on all aspects of proposed State highway improvements. Caltrans employs a number of forums for stakeholder outreach: including websites, public meetings, email, fliers, tribal consultation, newsletter, attending local government and community meetings to provide updates, and accepting written and verbal comments.

## **EXECUTIVE SUMMARY**

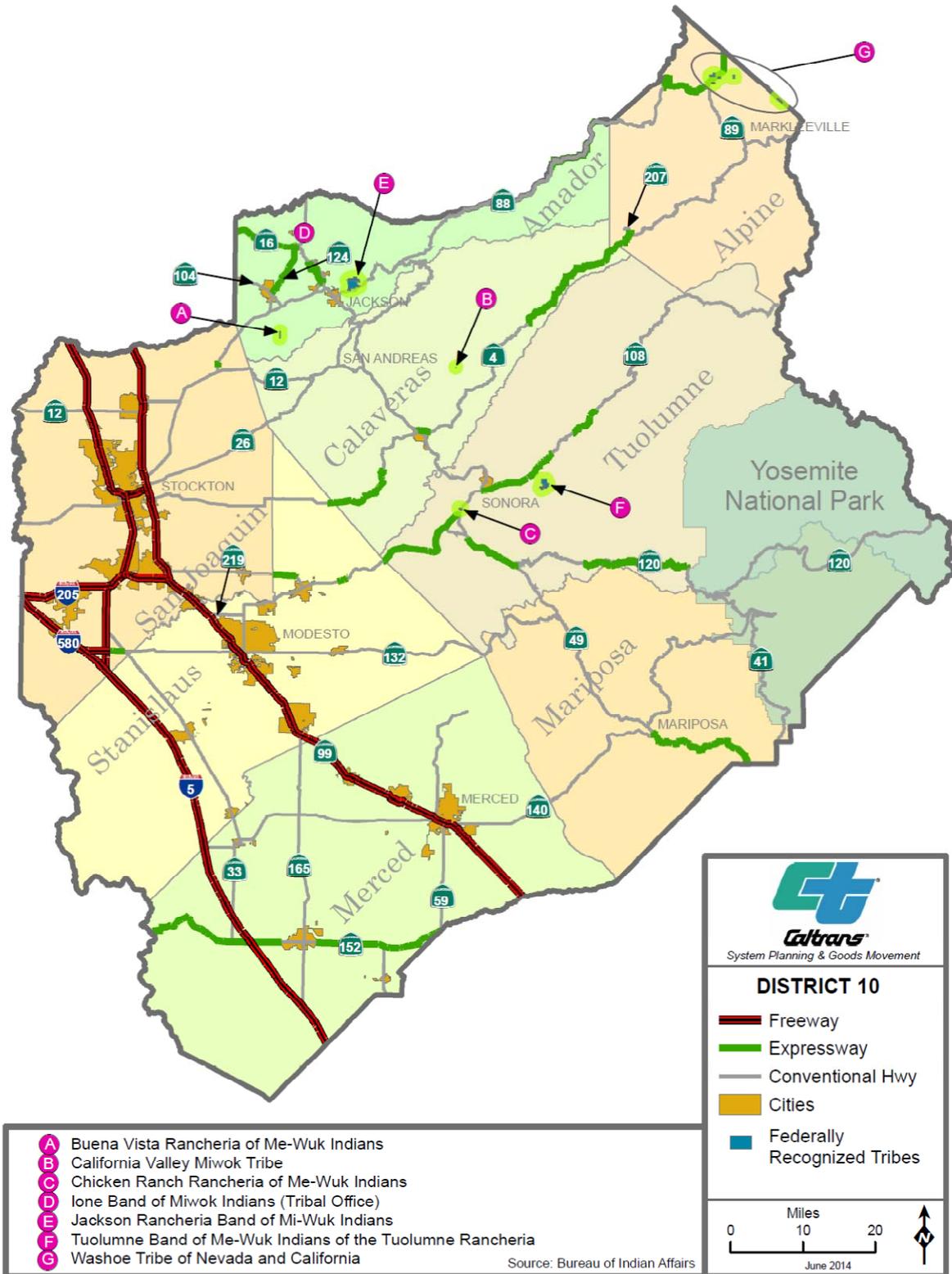
The DSMP provides a twenty to twenty five year vision for District 10 to carry out its responsibilities overseeing the State's transportation system. Reflecting the State's commitment to complete streets, the DSMP describes the current transportation system, identifies opportunities, and provides strategies to improve mobility throughout the eight counties of District 10. The DSMP is not an environmental document or funding document, but rather serves as a guide in making planning decisions.

Caltrans' commitment to safety, collaboration, inclusion, innovation and communication is a hallmark of this agency's leadership. The DSMP developed through review of projects listed in Metropolitan Planning Organization's (MPO) or Regional Transportation Planning Agency's (RTPA) Regional Transportation Plan (RTP), or reflecting the public's desire for a safe and efficient highway system, illustrates this commitment. By partnering with local transportation agencies, the DSMP addresses challenges faced by those agencies, and considers interregional needs specific to Caltrans' role and responsibility.

Factors that influence transportation planning including land use, housing characteristics and distribution, employment patterns, and goods movement, provide the context and background to the future strategies, the DSMP might employ. These are summarized, and along with the current level of service (LOS) on highway facilities, provide a sense of how the transportation system has been affected, and what future endeavors at maintenance and improvement might proceed in the context of available and projected funding.

# DISTRICT PROFILE

**Figure 1: District 10 Map**



## DISTRICT OVERVIEW

Caltrans District 10 includes eight counties (*Figure 1*) spread over three geographically distinct regions--the three urban counties occur in the San Joaquin Valley (San Joaquin, Stanislaus and Merced), four of the five rural counties straddle the Sierra Nevada Foothills (Amador, Calaveras, Tuolumne, and Mariposa), and one rural county extends from the crest of the Sierra Nevada to the State of Nevada (Alpine).

The major urban areas (by population) in the District are the Cities of Stockton, Modesto, Tracy, Merced, Turlock, Manteca, and Lodi which together comprise a population of 871,189 out of the total population of 1,638,757 for the District (Department of Finance (DOF), 2012). The urban areas cluster along I-5 and SR-99; and the communities of Tracy, Lathrop, Manteca, Stockton, and Lodi are included with other San Francisco Bay Area cities into a Combined Metropolitan Statistical Area by the federal government.

Currently, the five rural counties have experienced a decline in population growth. Much of this can be attributed to lack of in-migration from other areas in the State following the recession in 2007, steady or increasing out migration of the young, and the remnant population being elderly.

Aside from the State highways supporting the weekday work commute and goods movement, the District contains several popular weekend recreation travel destinations, particularly Yosemite National Park. Merced, Tuolumne, and Mariposa Counties' local economies depend upon tourism to the Park. The District has been active in integrating Park transportation planning into our interregional transportation planning, and in supporting the development of the Yosemite Area Regional Transportation System (YARTS).

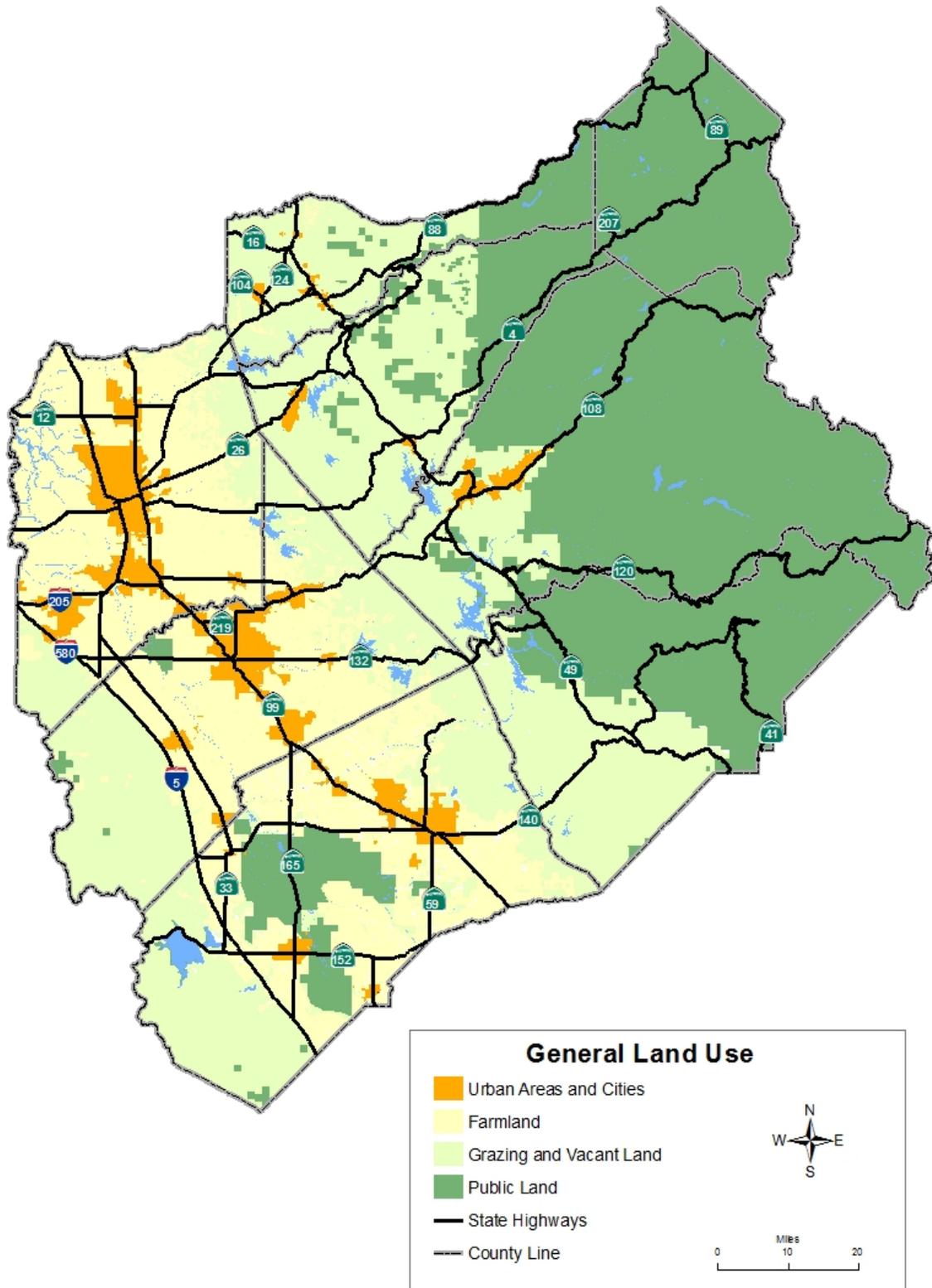
Much of the District's area is engaged in primary economic activities (forestry, mining, farming, grazing etc.). About one third of the District is public land (National Parks, State Parks, Forest Service, Bureau of Land Management), with two thirds in private ownership and employed for either agriculture or grazing (*Figure 2*).

Within the District, there are 3,670 lane miles of highway, four mountain passes (only Carson Pass (SR-88) is open year round) and 24 maintenance stations. The District's current payroll of \$38,900,000 pays for 524 permanent and 100 temporary help employees. The District's annual operating expense is \$35,700,000 million, with a total budget of approximately \$74,600,000 (2011).

The District's Capital Program (2014) includes about 160 active projects worth approximately \$4,500,000,000, of which \$3,900,000,000 is from State Transportation Improvement Program (STIP) and locally funded projects, or of which \$593,000,000 is from the State Highways Operations and Protection Program (SHOPP).

At present short falls in future funding appear likely until a different formula is developed to fund highway projects.

Figure 2: District 10 Land Use Map



# TRANSPORTATION SYSTEM

## STATE HIGHWAY SYSTEM

District 10 maintains 3,670 lane miles and 1,328 centerline miles of interstate and State highways. All interstate routes within the District are freeways. Intersections at freeways are grade separated with interchange structures, whereas intersections at expressways are not grade separated.

The State Highway System (SHS) constitutes only a portion of the road system within District 10. The remainder consists of local streets and roads. Together these make up the intra-regional road network.

Planning for intra-regional highway system is accomplished by local general purpose governments, (cities and counties) and transportation planning agencies, (RTPAs or MPOs). Local transportation plans are included in general plans as circulation elements addressing needs and priorities established by local governing bodies. Where a locally-originated highway improvement project utilizes the SHS, District 10 becomes involved as either the lead agency or in an oversight role.

The numbering and characterization of highways in California reflect a long history and changes in numbering conventions. Essentially there are three numbering conventions, the oldest being the ‘SR’ numbering, which was last updated in 1964, and now includes the route numbers of United States (US) Highways and Interstates (I). For example, I-5 is also SR-5, and US 99 is now SR-99. Currently, the only US Highway to retain the US Highway numbering convention is US 50 in Yolo, Sacramento, and El Dorado Counties (known also as the Lincoln Highway). The significance of the interstate designation is that those freeway facilities were funded with federal monies, and subject to federal standards and requirements. The same may not apply to US highways.

The State Legislature designated the freeway and expressway (F&E) system but several of the routes have yet to be constructed. These ‘traversable highways’ include unconstructed portions of SR-65, SR-104, SR-108, and SR-130, along with unconstructed routes SR-234, SR-235, and SR-239. The development of a SR-239 corridor is currently under study by District 4.

**Table 1: District 10 Interstate Highways, State Highways & Unconstructed State Highways**

Interstate Highways						
I-5		I-205			I-580	
State Highways						
SR-4	SR-12	SR-16	SR-26	SR-33	SR-41	SR-49
SR-59	SR-88	SR-89	SR-99	SR-104	SR-108	SR-120
SR-124	SR-132	SR-140	SR-152	SR-165	SR-207	SR-219
State Highway legislatively designated but currently unconstructed						
SR-130		SR-234	SR-235	SR-239	SR-65	

Some interest has been shown in redesignating SR-99 to Interstate status, but the process to implement that status has not been initiated in District 10 due to limited funding, sub standard interstate facilities and competing priorities. However, the District will continue to track this issue and respond as appropriate in cooperation with partner agencies.

## **INTERREGIONAL ROAD SYSTEM**

The Interregional Road System (IRRS) was identified in statute in 1989 as part of the Blueprint Legislation. The IRRS is defined as a series of interregional State highway routes, outside the urbanized areas, that provides access to, and links between, the State's economic centers, major recreation areas, and urban and rural regions. The IRRS was conceived as part of the larger effort to address the critical transportation system funding and development needs of the State. Like most of new programs created by Legislation, the implementation is dependent on increases in State transportation revenues.

The fifteen IRRS routes and route segments within District 10 are illustrated in *Figure 3*.

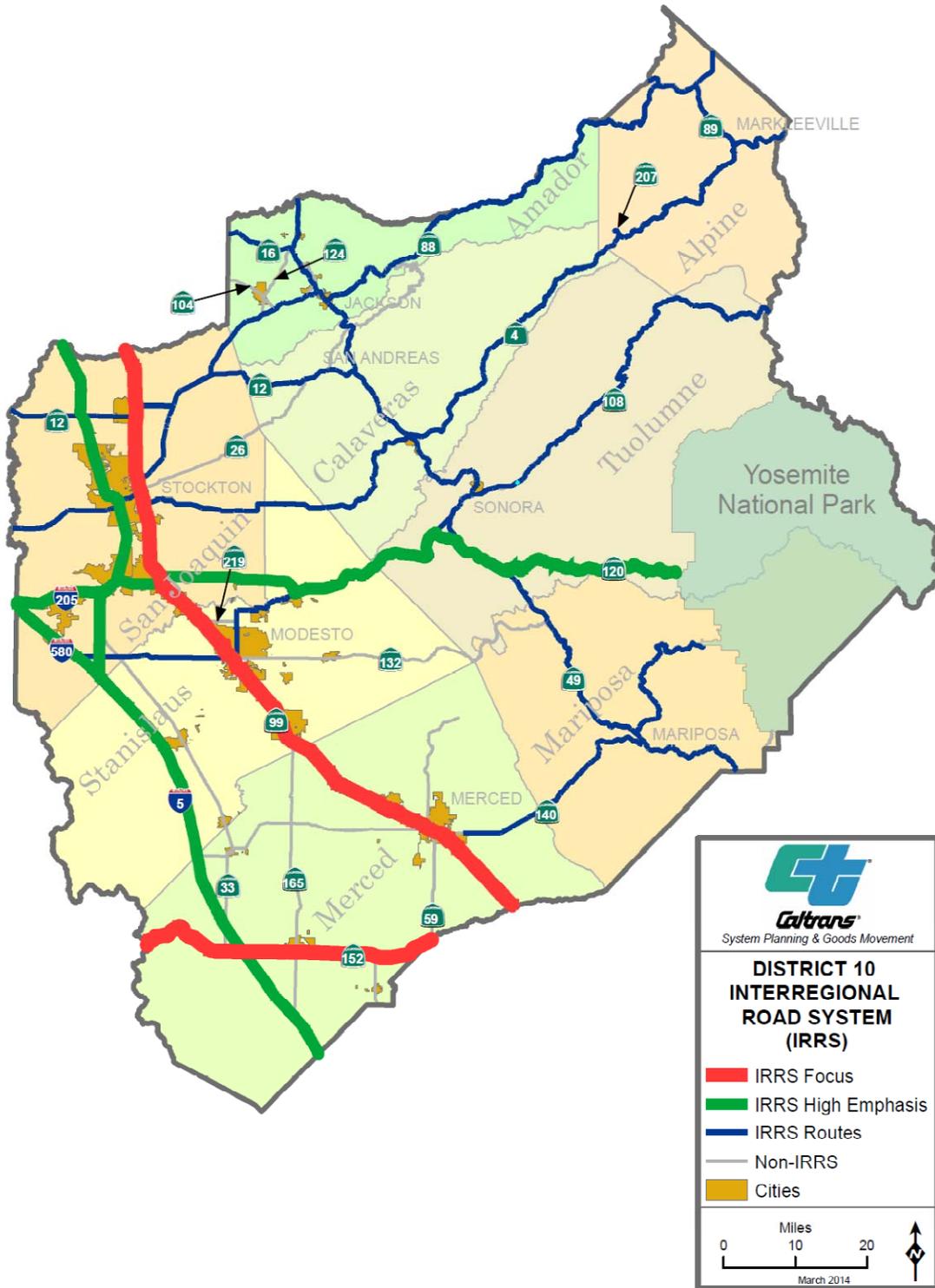
### **HIGH EMPHASIS ROUTES**

High Emphasis Routes, segments of highways which have been identified as being the most critical routes in the IRRS, are a priority for programming and construction to minimum facility standards. High emphasis routes are priority candidates for projects intended to relieve congestion or facilitate goods movement (*Figure 4*).

### **FOCUS ROUTES**

Focus Routes, a higher priority subset of High Emphasis Routes, are earmarked for completion to minimum facility standards by the year 2018. Completion of the Focus Routes to minimum facility standards will serve high volume interregional trip movements and connections. Two of the six High Emphasis Routes in District 10 are designated as being Focus Routes see *Figure 3*.

Figure 3: District 10 Interregional Road System

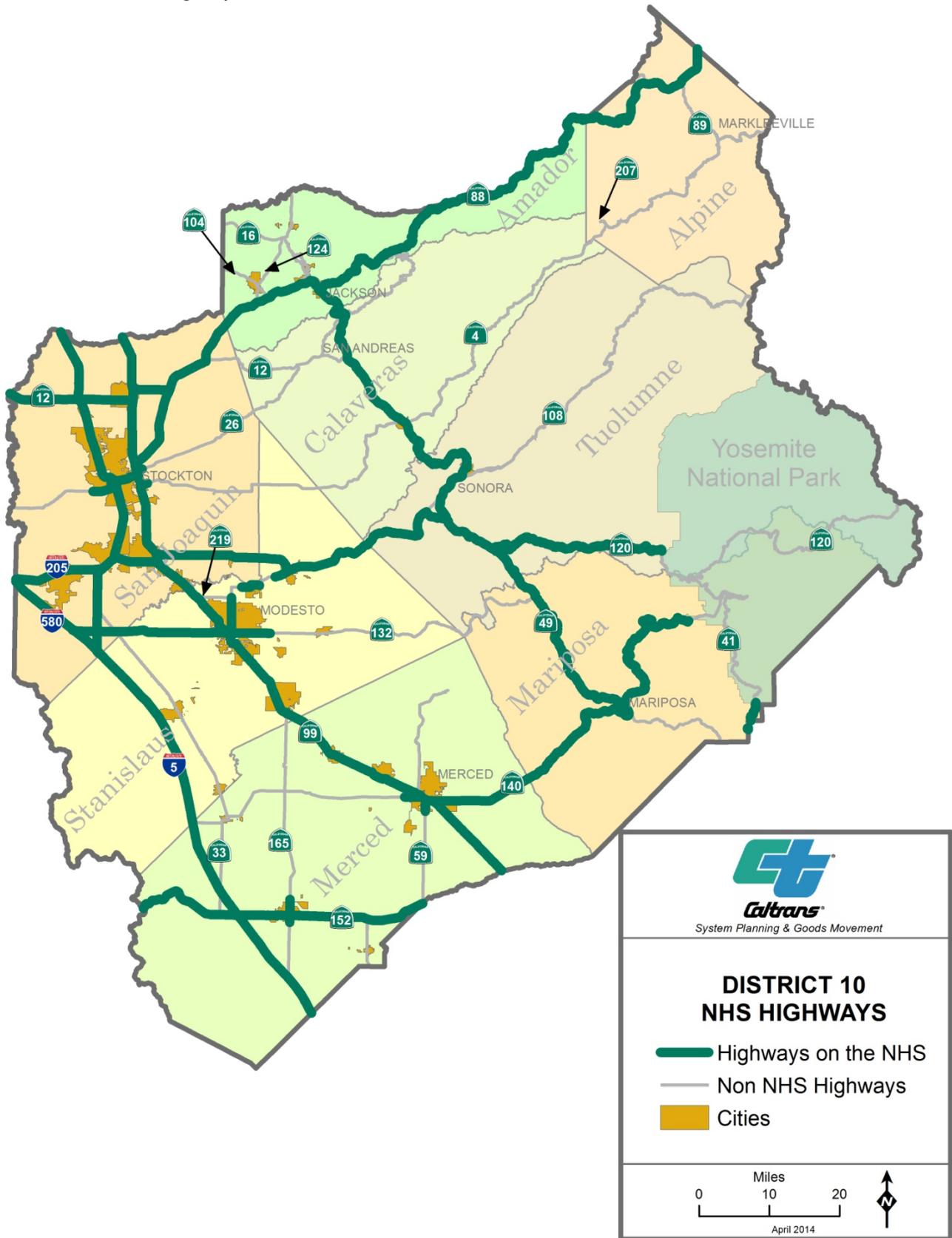




## **NATIONAL HIGHWAY SYSTEM AND FUNCTIONAL CLASSIFICATION**

Caltrans with Federal Highway Administration (FHWA) oversight maintains a database of National Highway System (NHS) eligible routes called the California Road System. The classification scheme considers design elements, traffic volume, and connectivity. Highways and local roads eligible for federal funding are based upon being included in one of the following classes: Interstates, Other Freeways or Expressways, and Other Principal Arterials. Highways within District 10 not eligible for federal funding are classified as Minor Arterials or Major Collectors (see Figure 5 for collectors).

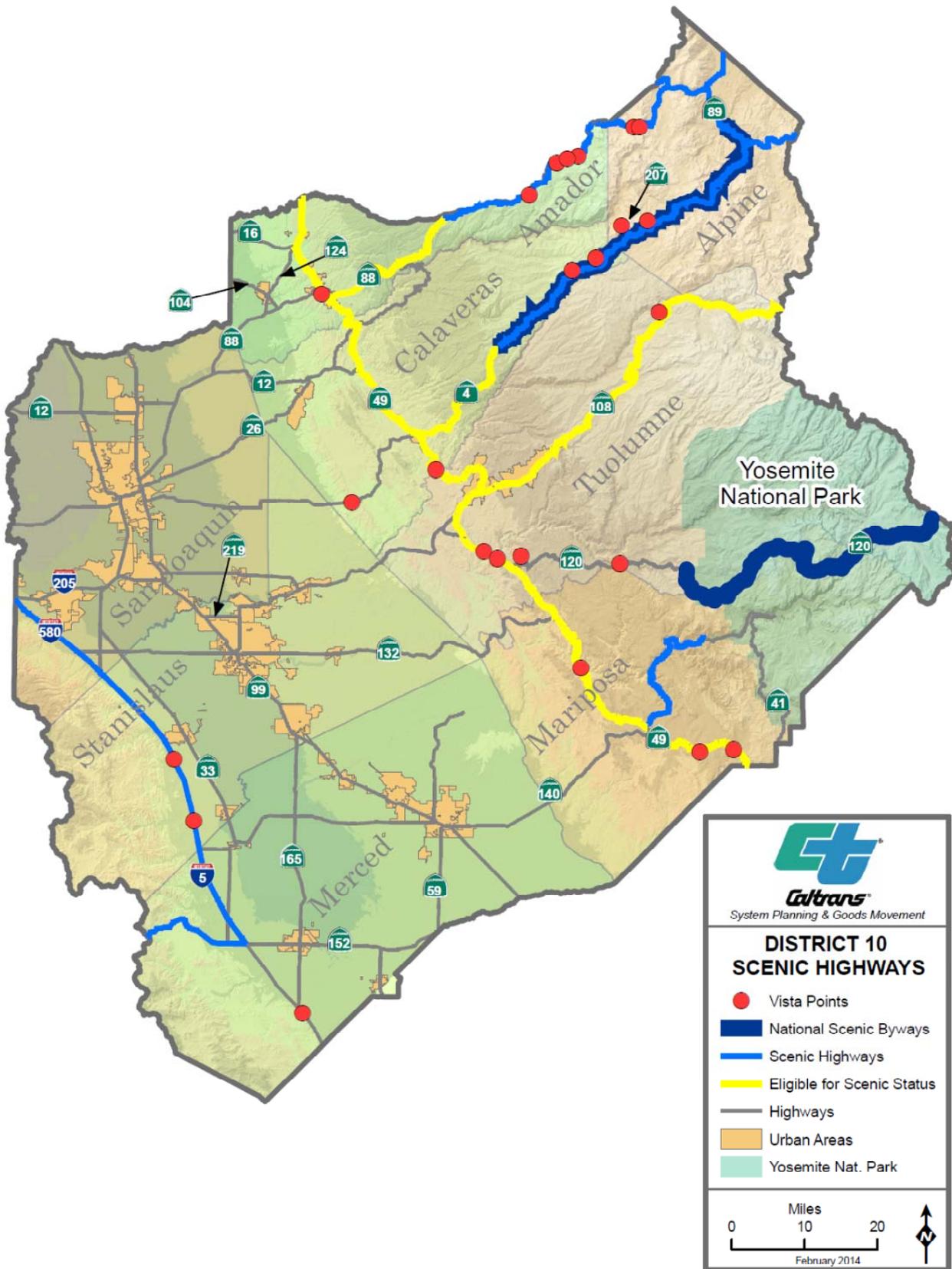
Figure 5: District 10 NHS Highways



## SCENIC ROUTES

District 10 has a variety of scenic resources appending its highways. These include the Ebbetts Pass National Scenic Byway on SR-4, the Tuolumne Wild and Scenic River off of SR-120, the Merced Wild and Scenic River off of SR-140, and several State scenic highways, both officially designated and/or eligible (*Figure 6*). Portions of the SHS are designated as State scenic highways to establish the State's responsibility for the protection and enhancement of California's natural scenic beauty along those routes by identifying those portions of the State Highway System which, together with the adjacent scenic corridors, will require special scenic conservation treatment. The Scenic Highway System includes not only the pavement or traveled roadway but also the entire publicly owned right-of-way (ROW). Customary accessory uses usually found in the right-of-way include bridges, drainage facilities, public utilities, walkways and trails, protective planting and landscaping, rest areas, and vista points.

Figure 6: District 10 Scenic Map

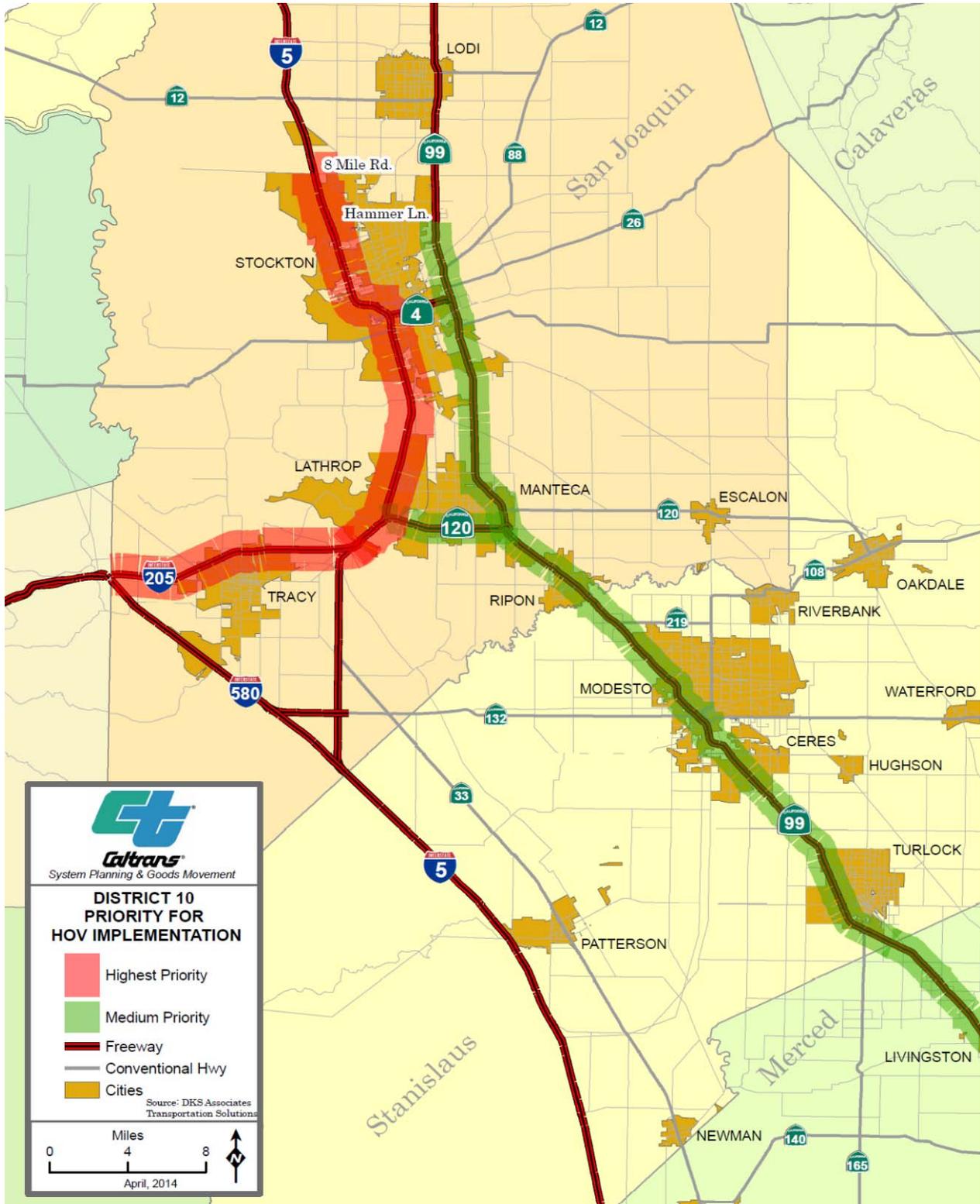


## **EXPRESS LANES**

Express Lanes, also known as High Occupancy Vehicle (HOV) lanes are a critical element in maintaining future mobility throughout District 10. Over the same distance, HOV lanes move a greater number of people but with fewer vehicles compared to a mixed flow lane. Currently, all freeways in District 10 have been prioritized for express lanes—I-205 and I-5 north of I-205 into Stockton are highest priority; SR-120, SR-4, and SR-99 are medium priority, and I-5 south of I-205, I-580, and SR-132 are the lowest priority (or do not experience commuter traffic volumes necessitating an express lane—see *Figure 7*)

The I-5 Stockton Widening project is currently in construction, and will feature an eight lane facility with two of those being an express lane.

Figure 7: District 10 Northern San Joaquin Valley Regional HOV Lane Master Plan



## INTELLIGENT TRANSPORTATION SYSTEMS

Intelligent Transportation System (ITS) applications refers to the integration of advanced sensor, computer, electronics and communications technologies and roadway management strategies that provide an opportunity to increase the safety and efficiency of the transportation system at a minimum cost. Listed below are a few of Caltrans' ITS elements:

### Changeable Message Signs

Changeable Message Signs (CMS) advise motorists of road conditions ahead, such as incidents and lane restrictions.

### Highway Advisory Radio

Highway Advisory Radio (HAR) is intended to provide more specific traffic information to the traveler than is currently available from traditional broadcast traffic reports.

### Traffic Monitoring Stations

Traffic monitoring stations (TMS) monitor traffic conditions on a roadway by noting the speed, volume and occupancy of each traffic lane.

### Closed Circuit Television Cameras (CCTV)

CCTVs are used primarily for incident verification assessment and management. CCTV allows operators at the transportation management centers (TMC) to identify the exact location and nature of anything adversely affecting highway traffic.



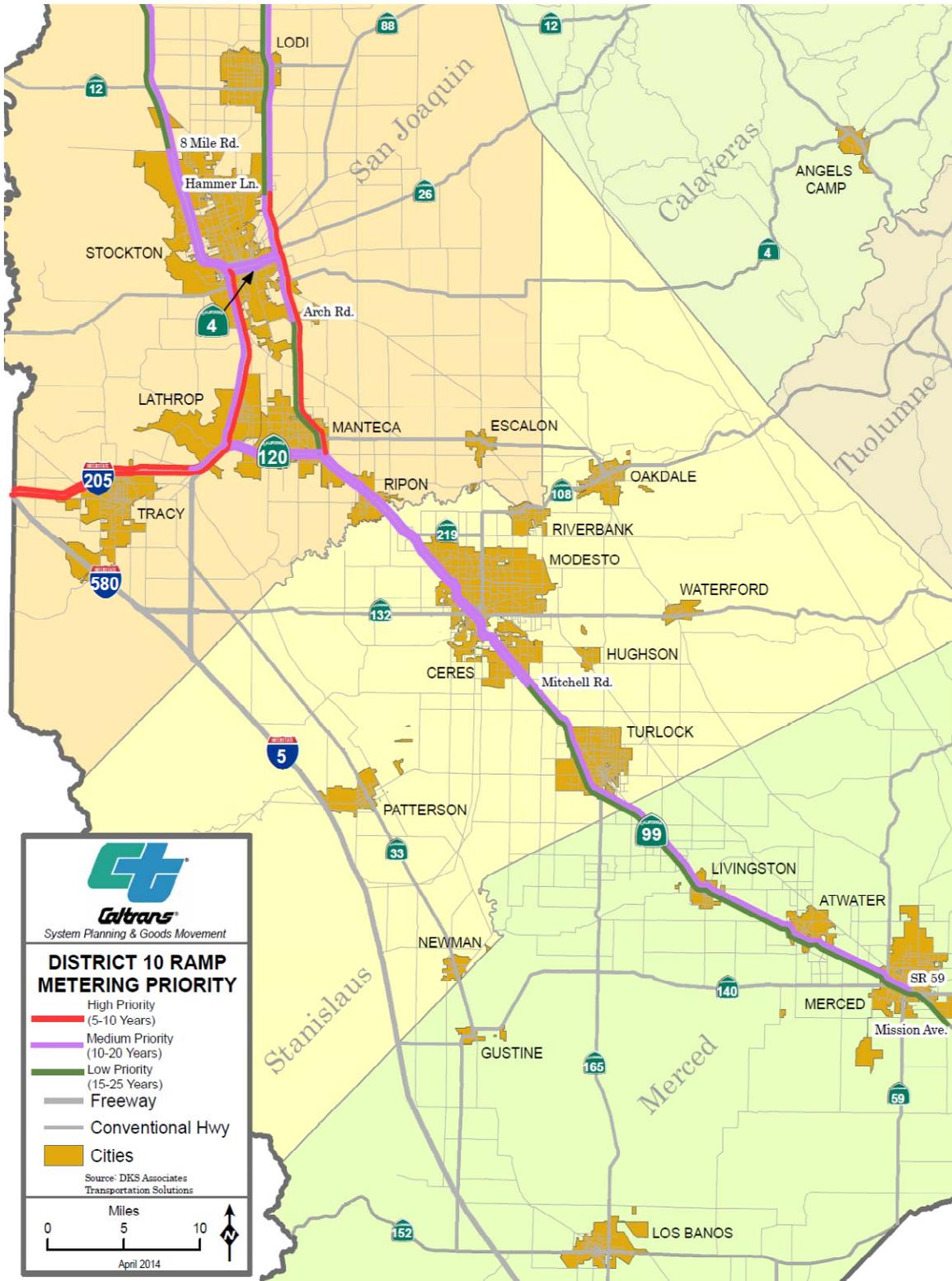
**Figure 8: Mountain House Ramp Metering**

### Ramp Meters

Located at on-ramps to congested freeways, ramp meters vary the rate at which vehicles enter the freeway so that the freeway's capacity is not exceeded. The Mountain House Parkway interchange on I-205 near Tracy (*Figure 8*), is the only location with ramp metering in the District.

*Figure 9* identifies the Northern San Joaquin Valley Regional Ramp Metering and HOV lane Master Plan proposed priorities for ramp metering implementation in San Joaquin and Stanislaus counties. These priorities reflect different implementation timeframes as follows: high priority segments (5 to 10 years), medium priority segments (10 to 20 years), and low priority segment (15 to 25 years). While some segments are candidates for the immediate implementation of ramp metering, the necessary equipment has not yet been installed and therefore a lead time of five years was assumed for high priority segments.

Figure 9: Recommended Priorities for Ramp Metering in District 10



## Roadway Weather Information Systems

Roadway weather information systems (RWIS) consist of sensors installed in the travel lanes of the highway to detect whether moisture is present. Caltrans District 10 uses a sophisticated multi-sensor automated warning system composed of roadside weather stations, visibility meters, and traffic monitoring stations to reduce accidents and delays due to adverse conditions.

*Figure 10: RWIS sensors and CMS alert*



### Other ITS technologies:

Smart call boxes, which allow stranded motorists to call for help; they also sense weather conditions such as fog. Weigh in motion sensors and pass systems for commercial vehicles, allow vehicles to pass without the delay of traditional weigh stations.

### Transportation Management Center (TMC)

Effective ITS implementation requires coordination of all components. The TMC plays an important role in day-to-day system management, providing coordinated incident responses, as well as integration of various systems. An example of integration would be the coordination of ramp metering and arterial signal management. Traveler information also requires sharing data with public and private partners. Different agencies such as Caltrans District 10, California Highway Patrol (CHP) and the media have different roles and utilize different systems for incident management. The TMC integrates these roles and systems on one location to optimize performance.

## **FREIGHT**

### **Goods Movement**

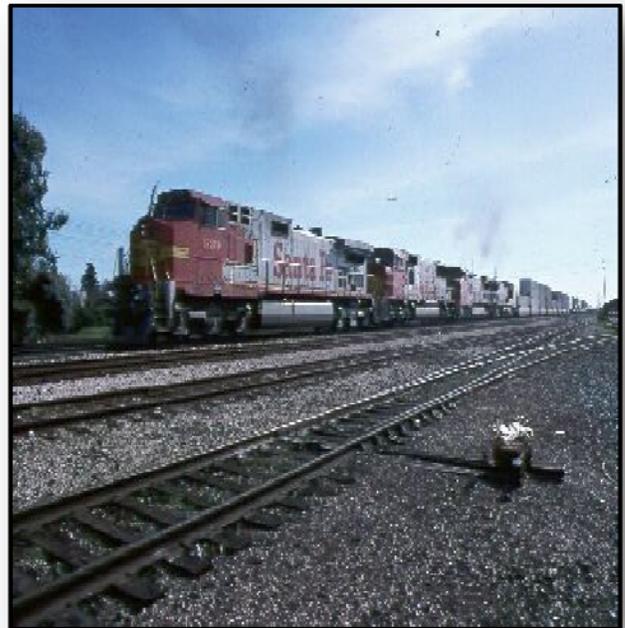
The San Joaquin Valley possesses a significant role in the movement of goods originating from, and moving through, California. The counties that comprise District 10 are part of one of the most productive agricultural regions in the world, and support international, interstate, regional and local commerce. Located in the Central Valley, through movement of goods into or away from the major metropolitan areas (Southern California and the San Francisco Bay Area) are served by two major transcontinental railroads (RR) Burlington Northern and Santa Fe (BNSF) and Union Pacific (UP) and by the two major north south highways, I-5 and SR-99.

The San Joaquin Valley Goods Movement Action Plan (SJVGMAP), 2013 reports a current volume of 464 million (M) tons originating in the SJV that will grow to over 818 million tons by 2040. Of this volume 92% is transported by truck, 8% by rail and less than 1% by water or air. Of the 464 million tons transported, 49% have a destination within the region, 29% are brought into the region, and 22% are transported out of the region.

### **Rail**

Although rail handles 8% of the freight tonnage, all of that is destined outside of District 10. The rail network consists of two Class I railroads (BNSF and UP), and six Class III railroads (Central California Traction Railroad, Modesto and Empire Traction Company, San Joaquin Valley Railroad, Sierra Northern Railway, Stockton Terminal and Eastern Railway and Central Northern California Railroad). Much of the freight handled by the Central California Traction Railroad and the Stockton Terminal and Eastern Railway transfers loads between the Port of Stockton and the two class I railroads. The Modesto and Empire Traction Company supports various industries in the Beard Tract in eastern Modesto to both Class I railroads. The Sierra Northern Railway ties the lumber mill in Standard to the BNSF at Oakdale.

*Figure 11: Railroad System*



### **Railroad Crossings**

One special consideration at the interface of highway and rail transport is at grade crossings. These are within the railroad's right of way, regulated by the Public Utilities Commission, and lack Caltrans jurisdiction. Associated with at grade crossings are safety and congestion issues, and present particular difficulties in urban settings on conventional highways. Specific concerns center on SR-132 at Eighth Street in Modesto, and SR-132 at Santa Fe in Empire.

## Trucking

As mentioned, the important truck routes in District 10 are I-5 and SR-99 (*Figure 13*). Nearly 25% of the daily traffic volume on I-5 and over 13% of the daily traffic volume on SR-99 are trucks. Of the truck volume, the largest percentage typically is the five axle or greater (almost 80% of trucks on I-5 and greater than 50% on SR-99). The highest truck volumes on I-5 and SR-99 occur in San Joaquin County, and arise north of I-205 for I-5, and north of SR-120 for SR-99. Cross connections on I-205, SR-120, and SR-4 also carry high truck volumes (*Figure 12*). This pattern is consistent with the siting of intermodal freight facilities off both UP and BNSF RRs in the vicinity of Stockton; the locating and relocation of trucking firms, transloading facilities, and warehouses from the San Francisco Bay Area to the hub of I-5, I-205 and SR-120; and truck access to the Port of Stockton.

Critical to the movement of truck freight are highways and local truck routes consistent with the standards of the Surface Transportation Assistance Act (STAA). For California these routes split into those which are part of the National Network and Terminal Access Routes. In general, National Network routes are part of the interstate system, though in District 10 this designation applies to SR-99 and the portions of SR-4 and SR-120 that are freeway. The Moving Ahead for Progress in the 21st Century Act (MAP-21) further subdivides the National Network into the Primary Freight Network along with the Future Primary Freight Network. Terminal Access routes have fewer design requirements than National Network routes, as they may access an individual warehouse or other business.

Oversize truck loads (up to twenty feet in height) that exceed the bridge heights of the National Network must travel on the Extra Legal Load Network. Although a good portion of this system is routed onto local roads, SR-33 for much of its length is designated for this purpose.

*Figure 12: Crosstown Freeway in Stockton*





Figure 14: District 10 Truck Volumes, 2012

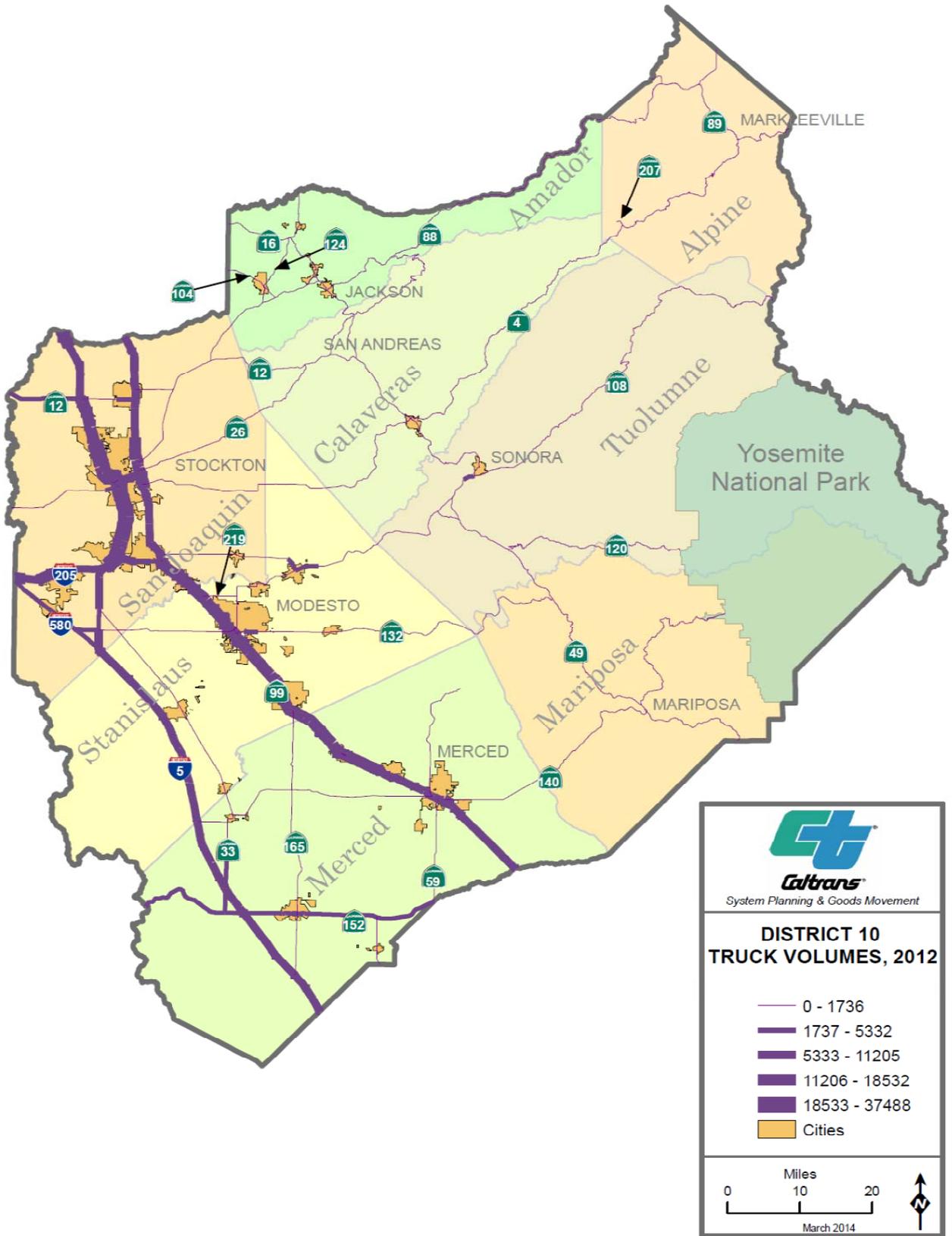
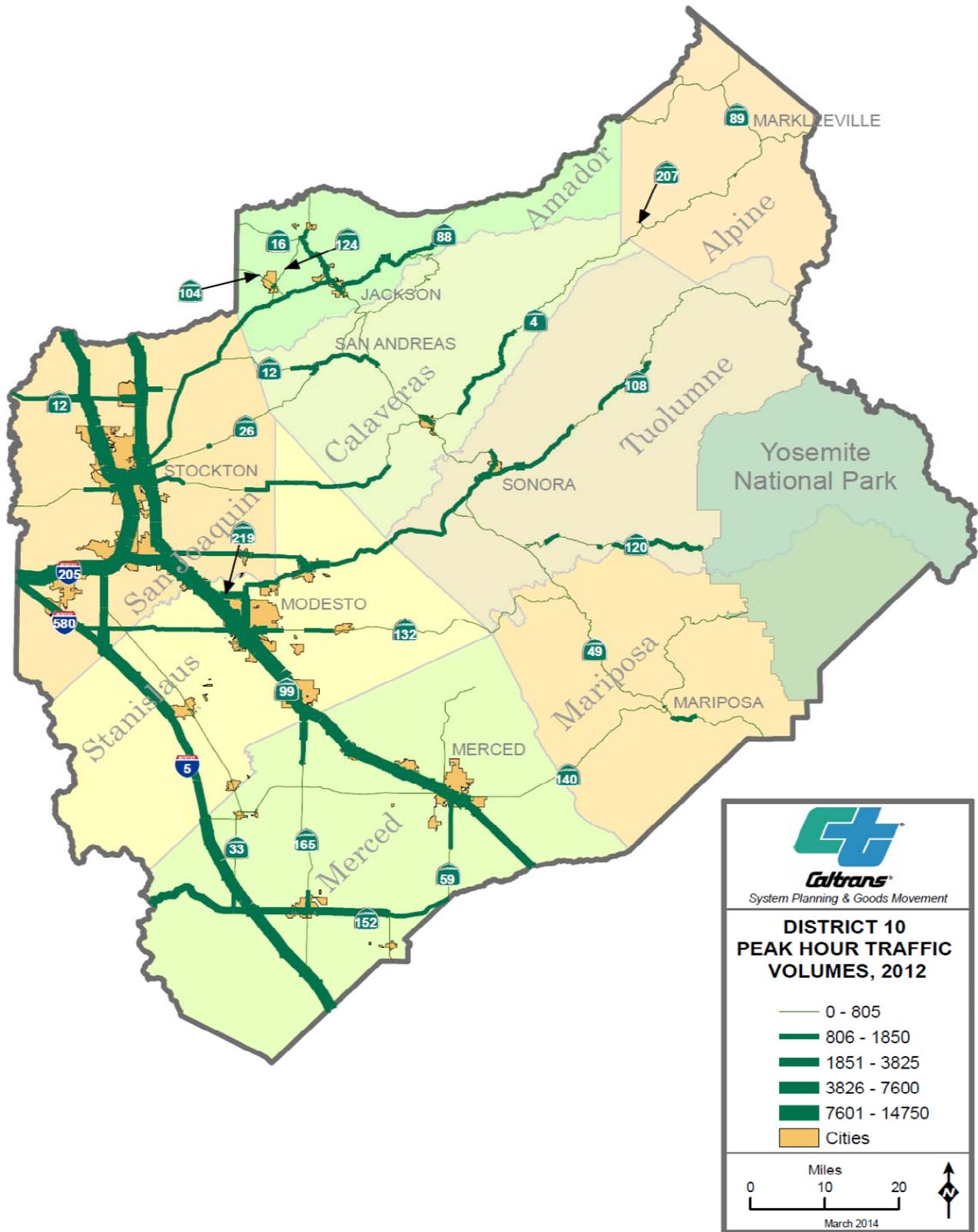


Figure 15: District 10 Peak Hour Traffic Volumes, 2012





## The Port of Stockton

The Port of Stockton is an inland port accessible by the Stockton Deep Water Channel. The Port has implemented the Marine Highway (M-580) associated with the Port of Oakland. M-580's name refers to the preferred truck route out of the Port of Oakland. M-580 provides barges laded with containers to circulate between the Ports of Oakland and Stockton with the intent to reduce truck trips. Trucks access the Port by the SR-4 onto Fresno Avenue. An extension of the freeway to better access the Port is underway.

Figure 17: Port of Stockton



## TRANSIT

### Mass Transportation

For the purposes of the DSMP, there are 47 transit service providers within District 10. Transit services include Amtrak and Altamont Commuter Express (ACE) passenger rail services, as well as 45 bus systems and other services that utilize the public highways. With the exception of interregional rail service, all public transit planning and service delivery decisions are made by local governments and/or local transit providers. Administration of the Amtrak San Joaquin corridor has been taken over by the SJ Joint Powers Authority.

### Buses and other Transit Services

Transit services are intended to serve two public policy objectives:

1. Reduce dependence on the private automobile as the primary means of travel, particularly home to work travel.
2. Increase mobility of those who are unable to or prefer not to travel by private automobile, e.g. the economically disadvantaged, the disabled, the young, and the elderly.



Greyhound is the primary private transportation provider for the public because of its size and coverage area. Other public transportation providers are geared exclusively for elderly or disabled individuals, or for medical

transportation. Types of routes listed include fixed route, deviated fixed route, dial-a-ride, and demand response.

- A **fixed route** transit provider follows a set route with a set schedule.
- A **deviated fixed route** provider follows fixed route, but can slightly deviate off the route, usually no more than ½ mile, to pick up or drop off passengers. Advance notice is required, usually from an hour's notice to a week's notice.
- **Dial-A-Ride** will pick up and drop off passengers at various locations, when called upon by the passenger. Advance notice is required varying from an hour's to a week's notice.
- **Demand response** service only runs when called upon. This type of service can be found in Mariposa and Alpine counties where the population is very small and spread out over a large area.

## Passenger Facilities

### Amtrak San Joaquin Line

*Figure 18: San Joaquin Amtrak Station*



Amtrak combines both rail and bus passenger services. In District 10, Amtrak operates the San Joaquin Corridor Intercity Service. They provide commuter access to Oakland as well as Sacramento six times a day, which consists of four daily round trips between Bakersfield and Oakland, and two round trips between Bakersfield and Sacramento plus interconnecting bus service from Stockton to Lodi/Sacramento, San Jose, Yosemite, and the ACE stations. There is also a ticket honoring agreement with ACE. The State recently completed \$60 million in capital improvements on the BNSF portion of the San Joaquin route to increase passenger service capacity to six round trip trains per day.

### Amtrak Buses

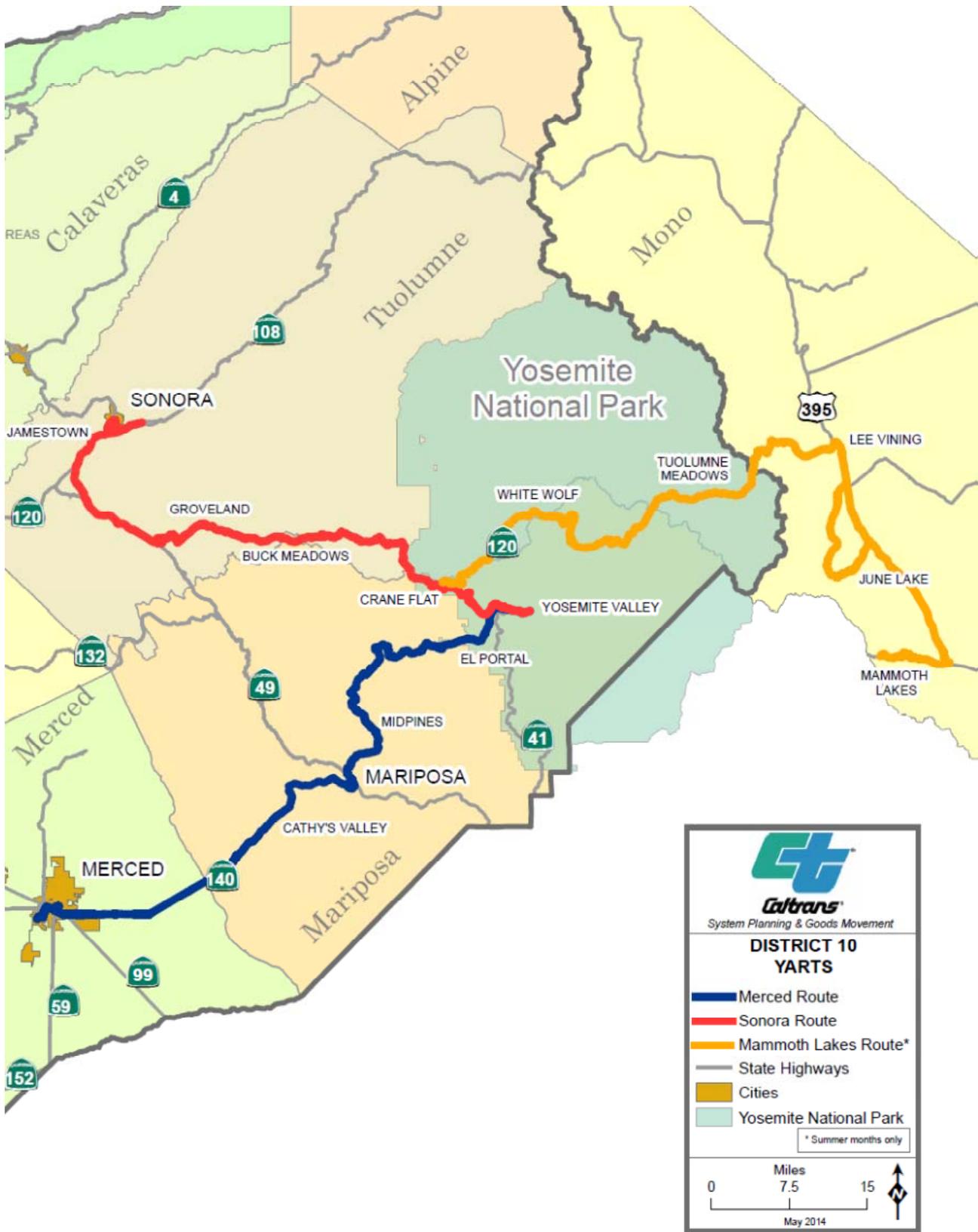
More than 60 percent of all San Joaquin passengers use at least one connection bus for their trip (*Figure 15*). There are ten thruway bus routes that connect with the San Joaquin. Three of these routes are at least partially within District 10. The first bus route runs multiple times daily between Stockton and Sacramento. The second route consists of a connection between Stockton and San Jose. The third Amtrak bus route runs from Merced and Modesto to Yosemite National park with stops in Mariposa, Midpines, and El Portal. There are additional frequencies for parallel ACE passengers.



## **Yosemite Area Regional Transportation System (YARTS)**

YARTS evolved with the goal to improve transportation service within the Yosemite region (*Figure 16*). Yosemite National Park had an interest in reducing the number of single family vehicles entering the park to reduce the air quality impacts facing the region. Public demand to visit Yosemite Valley exceeded the available parking, forcing the National Park Service to turn away visitors. Four million people visit Yosemite annually with approximately 12 percent coming to the park from out of state or out of the country. YARTS provides year round, regular scheduled public transit into Yosemite National Park and the gateway communities. In July 2011, YARTS surpassed a record of 12,000 passengers, more than any other month in the 11-year history of the service. Bus service to the Park lessens the impact of providing parking, mitigates increasing congestion and air pollution, and provides a pedestrian and bicycle friendly outdoor experience.

Figure 20: YARTS Route Locations



## Altamont Commuter Express



Figure 21: ACE Service Corridor

ACE provides an attractive commute alternative that reduces congestion on routes I-205, 580, 680, and 880 freeways (Figure 21). A 2011 ACE passenger survey found that 75.8% of the passengers were previously solo drivers. ACE ridership has climbed steadily, carrying an average of 4,000 riders per day, amounting to over a million riders a year. The 85-mile corridor parallels I-580 and I-680, two of the most congested highways in the San Francisco Bay Area. It has proven to be a successful program because it has multi-regional support, a strong funding foundation, and provides an attractive, timely, and cost-saving alternative to driving alone. ACE vision for the future is to improve the existing service between Stockton and San Jose with added frequencies, and to extend service to additional Central Valley communities – downtown Modesto in the near term and downtown Merced subsequently. An improved ACE would offer a catalyst for smart growth in communities by revitalizing city core areas and addressing traffic congestion issues in the cities of the northern central valley.

As the High-Speed Rail (HSR) project moves forward, the vision is to transform the existing ACE into the new **Altamont Corridor Express**—a faster, expanded intercity service with better regional connections and a dramatically streamlined system. The goal is to run state-of-the-art electric trains that will be more comfortable, faster, cleaner, that will lower greenhouse gas emissions, improve air quality, and further regional land use and transportation planning goals under Senate Bill (SB) 375 and other local, regional, and state sustainability initiatives. The system will work for our communities on many levels, allowing quick trips between cities, commuter access to job centers, easy connections to local transit systems, and access to California’s planned High-Speed Train (Figure 23).

## High Speed Rail

The California HSR Authority is responsible for planning, designing, building and operation of the first HSR in the nation with speeds capable of over 200 miles per hour. Voters approved Proposition 1A in 2008 authorizing \$9.95 billion in general obligation bonds for the HSR project; of that amount \$950 million was reserved for capital improvements, such as the ACE. These funds must be allocated to intercity, commuter and urban rail projects that provide direct connectivity to the HSR system. Over \$5.8 billion (\$2.6 billion in State and \$3.2 billion in federal funding) was appropriated in 2012 in SB 1029 (Committee on Budget and Fiscal Review 2012) for the first construction section of the Initial Operating Section (IOS). Once completed, a portion of the existing San Joaquin intercity rail service will be able to use this track to travel at higher speed while reducing travel times on the southern section of the intercity rail corridor. The operation of this interim San Joaquin service along the first construction section of the IOS is anticipated to begin in 2018 and will provide an immediate benefit to the State's passenger rail program.

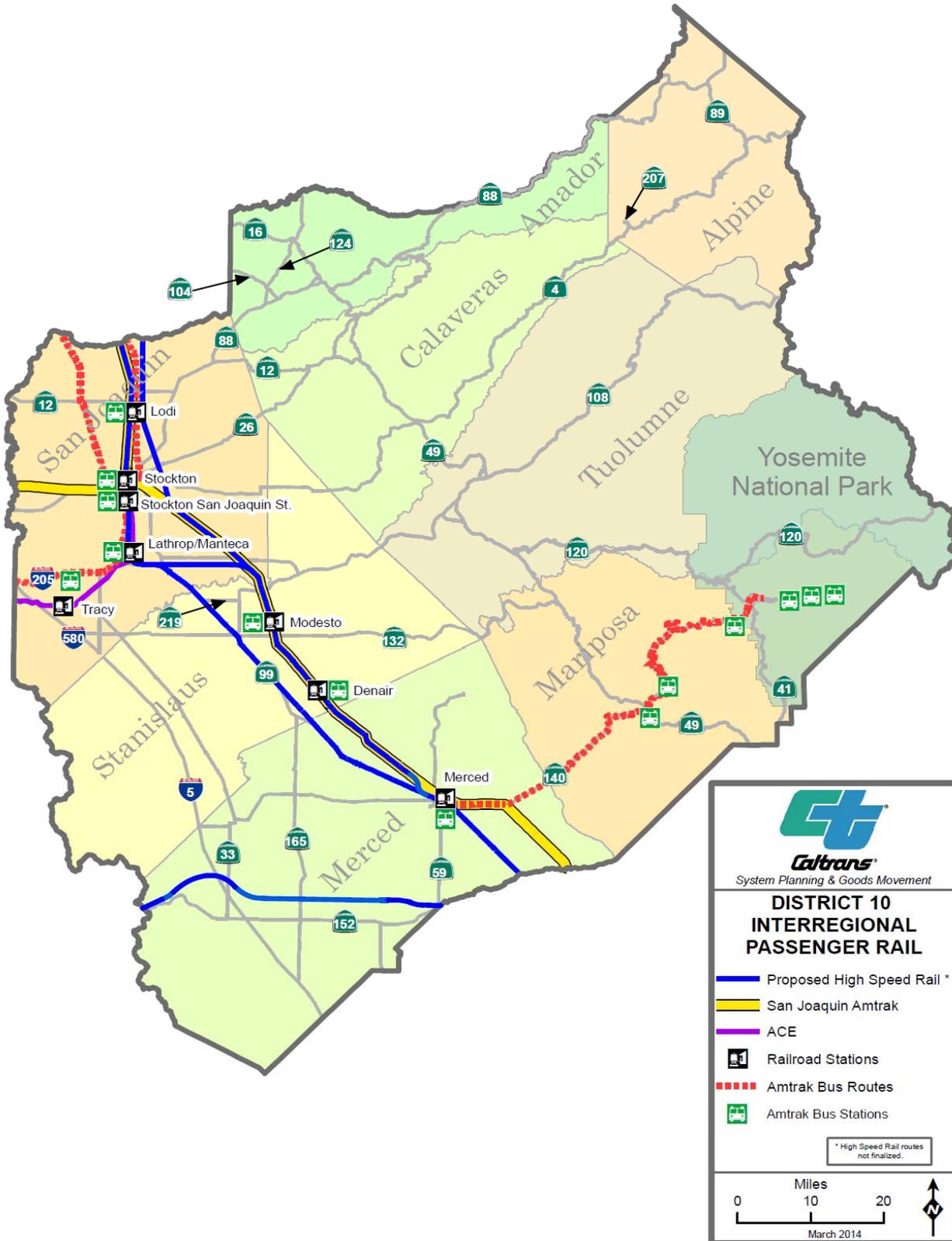
An integrated system, whereby HSR system running from San Francisco to Los Angeles/Anaheim via the Central Valley and later to Sacramento and San Diego (see *Figure 23*). The system will total 800 miles with up to 24 stations, will produce economic benefits, support statewide environmental and energy goals, create near-and long-term employment, reduce vehicle travel, and improve mobility throughout the State. HSR will reduce travel times for train riders, save 12.7 million barrels of oil, reduce greenhouse gas emission by 12 billion pounds per year, support a clean and sustainable travel mode, and generate more than 1 billion in annual revenue. An integrated system where HSR and conventional passenger rail services feed into one another will improve ridership potential for all participating services.

Additional information is available at <http://www.cahighspeedrail.ca.gov/>.

*Figure 22: High Speed Rail*



Figure 23: District 10 Interregional Passenger Rail



**Table 2: District 10 Transit Providers**

District 10 Transit Providers		
County	City	Name
Alpine County		Alpine County Transit/ Dial-A-Ride (DAR)
Amador County	Jackson/Sutter Creek/Pine Grove/Drytown/ De Martini-Carbondale Rd./ Pioneer/Plymouth/River Pines/lone/Buena Vista	Amador Regional Transit System(ARTS) /DAR/Gold County Wine Tours/Blue Mountain Transit/Amador Stars/Jackson Rancheria
Calaveras County		Calaveras Transit/Stagecoach Limousine/Mark Twain St. Joseph's Hospital
Mariposa County		Mariposa County Transit (Mari-Go)/DAR/Medi-Trans/YARTS/Mariposa Indian Health Clinic/Juniper Crest Airport Shuttle/Yosemite Valley Shuttle System/El Capitan Shuttle/Badger Pass Shuttle/Wawona-Mariposa Grove Shuttle Bus
Merced County	Merced	Amtrak
San Joaquin County	Stockton/Lodi/Mariposa/Tracy/Lathrop/Merced/ Modesto/Midpines/El Portal/Yosemite National Park/Lodi/Flag City/Terminous	San Joaquin Regional Transit District (RTD)/DAR/Ace Train/Amtrak/Amtrak Bus/Lodi Grapeline/Manteca Transit/Tracy Tracer/Greyhound/Galt South County Transit/Rio Vista Breeze/DAR Para-Transit Services
Stanislaus	Modesto/Ceres/Riverbank/Oakdale/Escalon/Ripon /Turlock	Stanislaus Regional Transit (STaRT)/ Ceres Area Transit (CAT)/Modesto Area Express (MAX)/Riverbank-Oakdale Transit Authority (ROTA)/Greyhound/ETrans DAR/The Blossom Express/Bus Line Service of Turlock/BLAST Transit/
Tuolumne		Tuolumne County Transit (TCT)/DAR/Tuolumne Meadows Shuttle/Tuolumne Meadows Tour and Hikers' Bus/YARTS

## Rest Area



Caltrans owns and maintains six freeway rest areas in District 10. Merced County has two for northbound and southbound I-5, located 0.7 miles north of the Fresno County line. Stanislaus County has four rest areas. One pair is for northbound and southbound I-5, located 0.9 miles south of the San Joaquin County line. The second pair is for northbound and southbound SR-99, located 2.3 miles south of the City of Turlock. More information can be obtained about all Caltrans owned and operated rest stops online: [www.dot.ca.gov/hq/maint/ra/](http://www.dot.ca.gov/hq/maint/ra/).

*Figure 24: Rest Area on SR-99 South of Turlock*



## Park and Ride

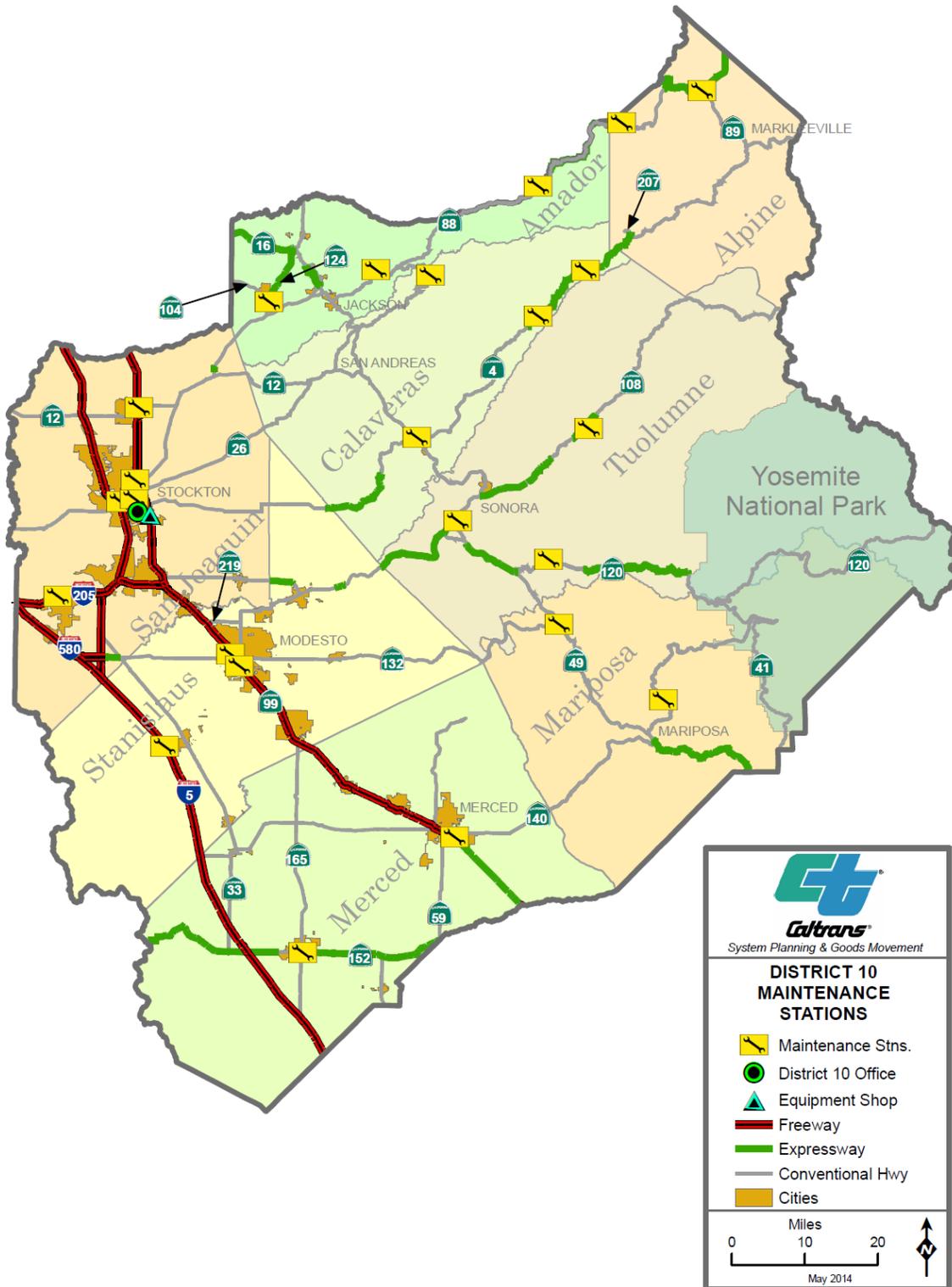


Park-and-ride offer commuters a location to park their cars at no cost and continue their travels by car/vanpool or transit. This commute option helps in decreasing traffic congestion and reducing air pollution. District 10 has created a District-wide Park and Ride Plan and currently owns and operates five Park and Ride facilities. Three privately-owned Park and Ride facilities operate through a lease agreement. Three additional Park and Ride lots are in the lease agreement process and will soon serve Modesto Area residents.

## **Maintenance Stations**

Critical to system preservation and maintenance is adequate coverage by district maintenance services. The District 10 Maintenance Department is divided into seven service groups—Electrical and Structural Painting; Special Crews; Pine Grove maintenance region; Altaville maintenance region; Modesto maintenance region; Stockton maintenance region; and, Merced maintenance region. There are currently 24 maintenance stations in District 10 that provide service coverage to the SHS in District 10. Whether availability of funding that will address futures needs is unknown, and upgrades may require additional maintenance stations or greater expenditures in contractor services.

Figure 25: District 10 Maintenance Stations



## AVIATION

There are nineteen public airports in District 10. Of these three are commercial airports (facilities that offer access to major passenger airlines and freight carriers); four are regional airports; eight are community airports; and four are limited use. Much of the support Caltrans offers these airports is provided through the aeronautics division, rather than at the district level.

**Table 3: Airports in District 10**

County	Name
Commercial Airports	
Merced	Merced Municipal Airport--Macready Field
San Joaquin	Stockton Metropolitan Airport
Stanislaus	Modesto City and County Airport
Regional Airports	
Mariposa	Mariposa and Yosemite Airport
San Joaquin	Tracy Municipal Airport
Tuolumne	Columbia Airport
Amador	Westover Field Amador County Airport
Community	
Merced	Los Banos Municipal Airport
Merced	Gustine Airport
Merced	Castle Airport
Stanislaus	Turlock Municipal
Stanislaus	Oakdale Municipal
Tuolumne	Pine Mountain Lake Airport
San Joaquin	Lodi Airpark
Calaveras	Calaveras County, Maury Rasmussen Airport
Limited Use	
San Joaquin	New Jerusalem
San Joaquin	Kingdom Airpark
San Joaquin	Lodi Airport
Alpine	Alpine County Airport

District 10's three commercial airports handle domestic flight services. Close proximity to major metropolitan airports in the Bay Area and Sacramento, there has been a tendency for the airports to underperform compared to the State as a whole. As might be expected, Stockton Metropolitan Airport leads in passenger traffic by a margin of almost two to one over Macready Field and Modesto City and County Airport, but performs poorly as a freight operation. Ongoing efforts have been underway to increase the freight leaving Stockton Metropolitan Airport. It is expected to remain light until the completion of the Arch and Sperry Road project, and development of commercial and industrial zoned properties near the airport.

**Table 4: Performance of Commercial Airports in District 10**

Location	Airport	Passenger Traffic		Freight (Tons)		Percentage of State Total	
		2011	2012	2011	2012	Passenger	Freight
Merced Co.	Merced	6,519	6,975	84	197	-	-
San Joaquin Co.	Stockton Metro	111,047	124,606	N/A	5	-	-
Stanislaus Co.	Modesto	40,033	32,999	371	401	-	-
District 10	-	157,599	164,580	455	603	0.09%	0.02%
State Wide	-	172,019,001	178,991,558	3,652,916	3,803,515	100%	100%

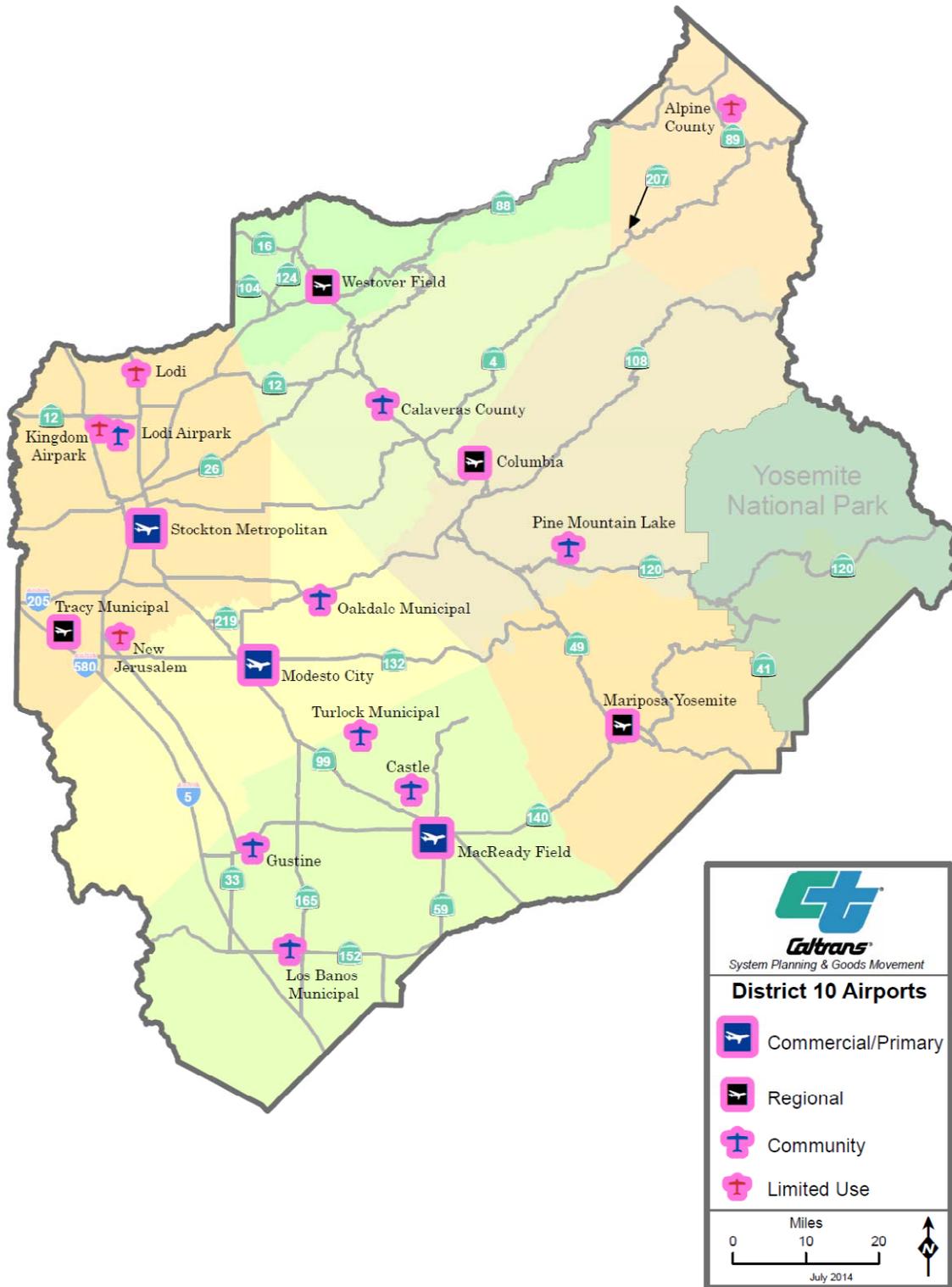
Modesto City and County Airport presently benefit from a better connection to freight opportunities than does Stockton Metropolitan. It enjoys close access to Mitchell Road, an STAA terminal access route that accesses both SR-99 and SR-132 and, it offers chartered passenger flights to Laughlin, Nevada, and connects to San Francisco International Airport via United Express Airlines (until June 4, 2014).

Macready Field which serves the smallest of the three urban areas has managed to double its freight output. Passenger service is limited to Great Lakes Airlines twice daily weekday, once on Saturday service to Los Angeles International Airport.

All four of the regional airports enjoys proximity and access to the SHS: the Mariposa and Yosemite Airport is off of SR-49 north of Mariposa, Tracy Municipal Field is accessible by both I-580 and I-205, Columbia Airport from SR-49, and, Westover Field, from SR-49.

Community and Limited Use Airports have important roles in emergency response, and within District 10 have access to the SHS.

Figure 26: District 10 Aviation Map



## BICYCLE

District 10 maintains over 1,150 miles of highways that are open to bicycle travel. Bicycle facilities generally fall into three distinct categories.

**Class 1:** Class 1 bicycle paths are physically separated from the roadways and are designated for the exclusive use of bicycles and pedestrians with vehicle and pedestrian cross-flow minimized. There are several in the District: Examples from the MPOs include,

- ✚ Paths along portions of Black Rascal and Bear Creeks (Merced County)
- ✚ Manteca Tidewater Bikeway (San Joaquin County)
- ✚ Stockton Pixley Slough Bike Path and Bear Creek Bike Path (San Joaquin County)
- ✚ Calaveras River Bike Path (San Joaquin County)
- ✚ "T" Street in Newman (Stanislaus County)
- ✚ Canal Drive, from Colorado to Berkeley Avenues in Turlock (Stanislaus County)

There are also many Class II and III bicycle paths within District 10. Most counties and cities have individual bicycle and pedestrian path plans.

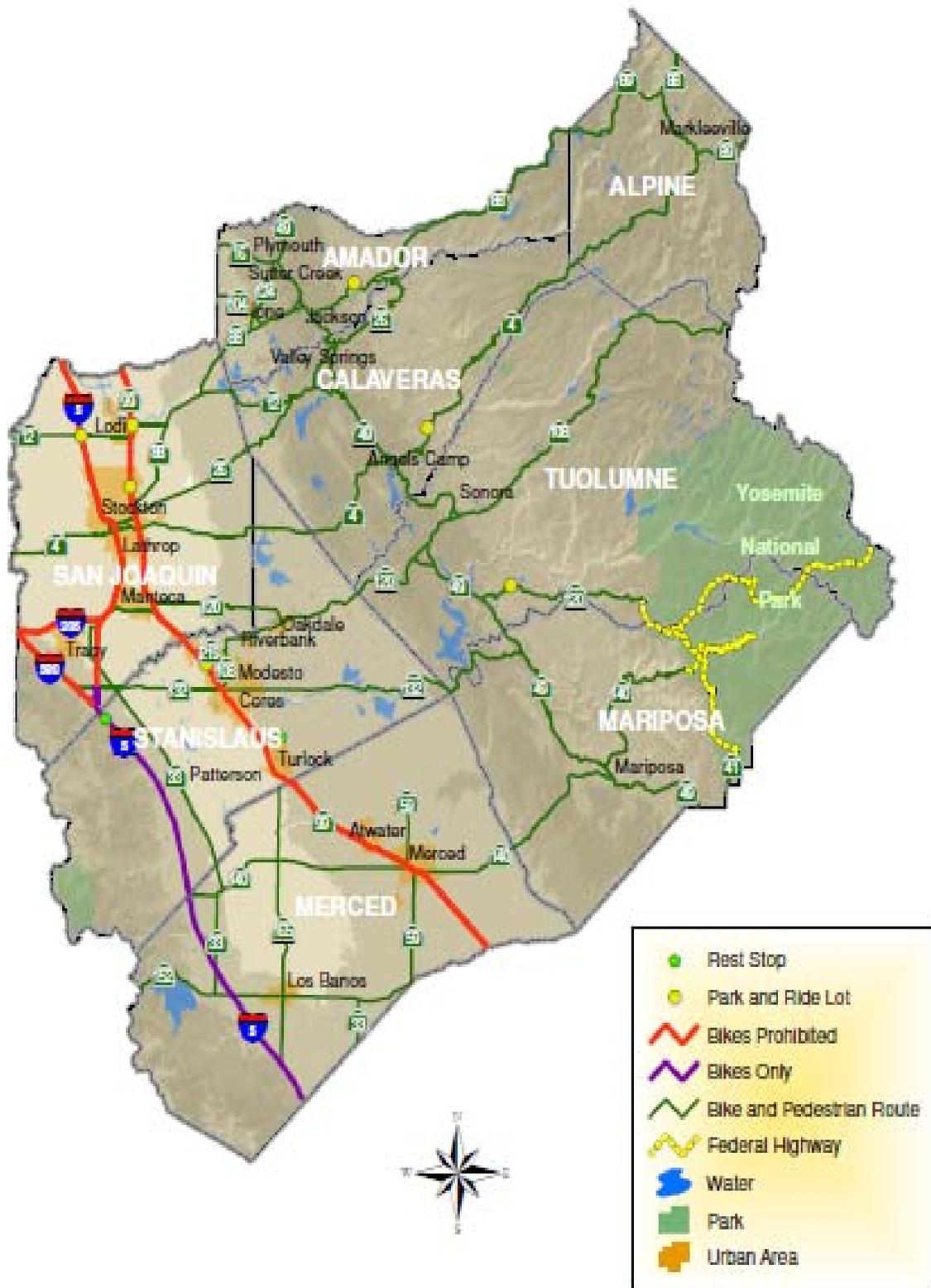
**Class II:** Bicycle lanes on the street which clearly delineate the right of way for both the motorist and the cyclist.

**Class III:** Bicycle routes which require that the motorist and the cyclist share the roadway.

In the planning stage is the Mokelumne Coast to Crest Trail, a public/private partnership project that would allow bikes and pedestrians to cross the State on a dedicated multi-user path. Some segments of the 300 mile trail, from the Bay Area shoreline, the East Bay foothills, the Delta sloughs and wetlands, San Joaquin valley farmland, Mokelumne River valleys and canyons, the Sierra foothills (also known as the Mother Lode), the Sierra Nevada forests, and the Sierra Nevada alpine areas, have been constructed and are open to the public. However, not all landowners will allow bicycle use across their land, so some parts of the trail are limited to hiking and equestrian use.

The District has developed a District 10 Bicycle Guide that is available on the Caltrans Website located at <http://www.dot.ca.gov/dist10/docs/BIKEGUIDE0809.pdf>. The plan outlines the different bike plans in jurisdictions throughout the District, and identifies the various routes and what to expect while cycling in the District. Most freeways are closed to bicycle travel. Exceptions are made when no alternative to the highway exists. *Figure 22* is an overview of District 10 bike routes on the SHS.

Figure 27: District 10 Bike Routes



## PEDESTRIAN

Pedestrian issues within the context of the SHS concern the past legacy of freeway intrusion through communities, and portions of conventional highways serving as local ‘mainstreets’. These considerations break along lines of urban and rural regions, and are accompanied by differing local concepts of desired and acceptable ‘walkability’.

The upgrade of the Golden State Highway (former US-99) to freeway status in the 1950s (though not complete until the Livingston Freeway in 1998) resulted in enhanced regional and interregional automobile travel at the expense of local mobility in many cities in the San Joaquin Valley—particularly Lodi, Stockton, Modesto, Ceres, Delhi, Livingston, Atwater, and Merced. Pedestrian and bicycle movement across SR-99 has been hampered by overcrossings without sidewalks, and was specifically an issue for children traveling to schools on the opposite side of the freeway. Efforts to correct this have been sporadic, but are now coordinated through interchange widening projects addressing the future upgrade of SR-99 to eight lanes. The problem is less apparent with other freeways where the design is flyover, or with newer facilities such as SR-4 and SR-120.

Within the rural portions of the District, there are efforts to enhance portions of State highways that function also as the primary local artery and business district. Wherever possible, bypassing these ‘main streets’ and returning them to local management and control has been a District goal. Where impractical, Caltrans has underwritten local community planning with transportation planning grants to best address the values and needs of all stakeholders. Such context sensitive planning efforts have been undertaken in communities as diverse as the resort town of Arnold, and the agriculture based City of Gustine.

Whenever pedestrian facilities are present upon the SHS, District 10 has provided appropriate ADA access, or is in the process of upgrading facilities to meet current ADA guidelines. These apply most readily to bridge overcrossings along I-5 and SR-99.

## DISTRICT STATE ROUTES

The following characterizations of State highways within the District are meant for summary purposes only. Particularly, statements characterizing current challenges assume future conditions will be consistent with previously proposed operational improvements and that maintaining facilities will be consistent with requirements of the Highway Design Manual. These statements address needs noted in TCRs but, as of yet, unaddressed by local RTPs.

### State Route 4 (SR-4)

SR-4 originates from I-80 in Contra Costa County, and terminates at SR-89 in Alpine County. Within District 10, SR-4 serves San Joaquin, Stanislaus, Calaveras, and Alpine Counties, and serves as an east/west freeway link between I-5 and SR-99. Much of the rural route is built to conventional highway standards, with portions as expressway. Beyond SR-207 in Alpine County the route is closed in winter.

#### Characteristics

-  On Interregional Road System
-  Portions within the City Limits of Stockton on the National Highway System

- ✚ Two segments are Terminal Access routes: Port of Stockton Expressway to O'Byrnes Ferry Road (Copperopolis), and, from SR-49 (Angels Camp) to SR-207 (Bear Valley).
- ✚ Freeway portion part of the Strategic Highway Network (STRAHNET)

## Achievements

- ✚ New expressway bypassing congested section serving Angels Camp constructed.

## Challenges

- ✚ Need to upgrade and improve connectivity to San Francisco Bay Area constrained by Bay Delta wetlands and antiquated two lane bridges.
- ✚ Extension of freeway to Port of Stockton, and create a through route.
- ✚ Future widening of Freeway section between I-5 and SR-99.

## Interstate 5 (I-5)

I-5 originates at the Mexican border near San Diego and ends at the Oregon border north of Yreka. As an interstate, I-5 is on the IRRS and is a high emphasis route along the portions that are rural. I-5 serves California as the principal north/south route that supports high volumes of traffic and freight. Within District 10 it serves as the interregional work commute to the San Francisco Bay Area and the regional work commute within San Joaquin County. From Merced County to Lathrop, I-5 is rural. From Lathrop to Lodi the route is mostly urban, and it continues from Lodi to the Sacramento County line in a rural setting.

## Characteristics

- ✚ High Emphasis Focus Route on the IRRS.
- ✚ On the NHS.
- ✚ Designated part of the National Network by the STAA for large trucks.
- ✚ A part of the Primary Freight Network by MAP-21.
- ✚ On STRAHNET.

## Achievements

- ✚ Although a high emphasis route in the IRRS, all of I-5 is constructed to freeway standards, and has attained the primary goal of the Interregional Transportation Strategic Plan (ITSP).
- ✚ Targeted improvements such as widening the freeway north of the Channel Viaduct to Benjamin Holt are underway.

## Challenges

- ✚ For the segment of I-5 from the Eleventh Street Interchange east of Tracy north to the SR-12 Interchange the concept LOS will become deficient by 2030. Improvement is constrained by the need to replace two bridges over portions of the San Joaquin River: Mossdale (at the SR-120 Interchange) and

the San Joaquin River Viaduct (near the SR-4 Interchange), though programmed projects are included in the SJCOG RTP to address this need. Currently programmed projects to address need will require additional operational improvements as outlined in the I-205/I-5 CSMP, as well as future interchange spacing consistent with current HDM.

## State Route 12 (SR-12)

SR-12 originates from SR-1 in Sonoma County and terminates at SR-49 at San Andreas. Within District 10, the route serves San Joaquin and Calaveras Counties. A considerable portion of the route is constructed to conventional highway standards. The route serves as an important agricultural freight connection to the northern Bay Area. SR-12 serves as a “main street” for the City of Lodi.

### Characteristics

- ✚ On IRRS.
- ✚ Portion on NHS from San Joaquin county line to the diverge from SR-88 north of Clements.
- ✚ Terminal Access Route.

### Achievements

- ✚ Construction of median barrier on Bouldin Island underway.
- ✚ Installation of ITS network at I-5 underway.
- ✚ Updating of conventional highway section west of Burson at Pettinger Road to current design standards completed.

### Challenges

- ✚ Need for route to serve as third east west expressway or freeway connection between I-5 and SR-99. New alignment would reduce need to address conditions on conventional highway segment serving Lodi.
- ✚ An antiquated bridge (Mokelumne River Bridge) constrains expansion of facility to four lanes expressway westwards to Solano County.

## State Route 16 (SR-16)

SR-16 consists of two segments. The western section originates from SR-20 in Colusa County (Wilbur Springs) to I-5 (Woodland), and the eastern section originates from SR-50 (Sacramento) to SR-49 (Plymouth). Within District 10, SR-16 accesses Amador County and is rural and expressway.

### Characteristics

- ✚ On IRRS.
- ✚ Terminal Access.

- ✚ Freeway portion part of the STRAHNET.

## Achievements

- ✚ No projects identified.

## Challenges

- ✚ Future widening to four lanes to meet current and future work commute to Sacramento region.
- ✚ Access Control.

## State Route 26 (SR-26)

SR 26 is an east/west two lane conventional highway beginning at SR-99 (Fremont Street) in Stockton and ending at SR-88 east of Pine Grove in Amador County. This 63.47 mile corridor lies entirely within District 10, crossing San Joaquin and Calaveras Counties and a small portion of Amador County. It also traverses the communities of Stockton, Linden, Bellota, Valley Springs, Mokelumne Hill, Glencoe, and West Point. SR-26 runs concurrently with SR-12 in Valley Springs from the West Junction of SR-12 (CAL post mile (PM) 010.302) to the East Junction of SR-12 (CAL PM 010.435). This corridor primarily serves interregional traffic. In the Stockton area, the SR-26 corridor serves commercial/industrial development and is a major truck route for the transfer of solid waste from Stockton to the facility in Bellota, the Foothill Sanitary Landfill. Average daily volume is 620 tons and reached 212,190 tons delivered in 2011. It also serves as a local commuter route in the cities of Stockton and Linden. SR-26 serves to provide access to New Hogan Reservoir, and the Rancho Calaveras and La Contenta residential developments near Valley Springs. This corridor serves as an important access route to many other communities and recreational facilities of the Gold Country and as a corridor for “farm to market” goods.

## San Joaquin County (SR-26)

### Characteristics

- ✚ On the California F&E system from (Stockton to Valley Springs) SR-99 near Stockton to SR-12.
- ✚ Terminal Access Route consistent with STAA provision from:
  - Junction SR-99 to West access road to Podesta Farms, 1.35 miles east of Fine Road (SJ PM 001.110 to 014.020).
- ✚ California Legal Truck Network with a king pin to rear axle length of 40 feet or greater:
  - West access road to Podesta Farms, 1.35 miles east of Fine Road to Escalon-Bellota Road (SJ PM 014.020 to 015.060).
- ✚ Advisory Truck Route for trucks with a king-pin-to-rear-axle length of 30 feet or greater:
  - King-pin-to-rear-axle length of 32 feet or greater.
  - Escalon-Bellota Road to the San Joaquin/Calaveras County Line (SJ PM 015.060 to 020.506).

## Achievements

- ✚ Pinasco Road left turn/widen.
- ✚ Cardinal Road traffic signal.
- ✚ Sandstone Creek curve correction in progress.
- ✚ SR-26/99 steel girder replacement.
- ✚ Bellota curve correction.

## Challenges

- ✚ Access management from SR-99 to the Stockton Diverting Canal.

## Calaveras County (SR-26)

### Characteristics

- ✚ On the California F&E system from (Stockton to Valley Springs) SR-99 near Stockton to SR-12.
- ✚ California Legal Truck Network with a king-pin-to-rear axle length of 40 feet or greater from:
  - East Junction SR-12 to the Junction of SR-49 (CAL PM 010.435 to 018.069).
- ✚ Advisory Truck Route for trucks with a king pin to rear axle length of 30 feet or greater:
  - From the Junction of SR-49 to the Calaveras/Amador County line (CAL PM 018.069 to 038.325).
  - King-pin-to-rear-axle length of 32 feet or greater:
    - San Joaquin/ Calaveras County Line to West Junction SR-12 (CAL PM 000.000 to 010.302).
    - Junction SR-49 to the Calaveras/ Amador County Line (CAL PM 018.069 to 038.325).

## Achievements

- ✚ Savage Way widening.
- ✚ Silver Rapids Curve realignment.
- ✚ SR-12/26 intersection improvements.
- ✚ Burson Road vertical curve correction, left turn channelization, super elevation and cross slope.

## Challenges

- ✚ Access management from Olive Orchard Road to the East Junction of SR-12.

- ✚ Land uses along SR-26 include agriculture, single and multi-family residential, commercial, and light and heavy industrial. The predominant land use is agriculture, except for the City of Stockton and the towns of Linden, Valley Springs and the community of Rancho Calaveras, where tight residential and commercial development setbacks may limit right-of-way acquisitions.
- ✚ Due to hilly terrain and narrow to non-existent shoulders on the roads, bicycle facilities are limited in Calaveras County.

## Amador County (SR-26)

### Characteristics

- ✚ Advisory Truck Route for trucks with a king pin to rear axle length of 32 feet or greater:
  - Calaveras/Amador County Line to the Junction of SR-88 (AMA PM 000.000 to 004.644).

### Achievements

- ✚ No projects identified.

### Challenges

- ✚ Amador County has very few designated bicycle routes. Due to its rural nature, and the absence of paved shoulders, cyclists have to share the traveled way with vehicles; a less than ideal situation. Investigation into the development of bicycle alternatives, remain an on-going priority within the County.

## State Route 33 (SR-33)

SR-33 is primarily a north/ south rural route that begins at I-5 in Merced County south of Dos Palos, and it ends in San Joaquin County north of the SR-132 interchange in Vernalis. The corridor traverses the flat lands of Western San Joaquin Valley. The first city it crosses through is Dos Palos. At SR-152 it becomes the concurrent route in an east/west trajectory for approximately 21 miles, which includes the City of Los Banos. Then, SR-33 continues in a north/south direction through the City of Gustine and up to the Merced/Stanislaus County Line. In Stanislaus County it continues in a north/south trajectory through the cities of Newman and Patterson, then up to the Stanislaus/San Joaquin County Line ending at Vernalis in San Joaquin County. The corridor serves as a connector between Interstate 5 and SR-152, SR-59, SR-165, SR-132, SR-99, and SR-580/SR-205.

### Characteristics

- ✚ It is on the Freeway & Expressway (F&E) System.
- ✚ It is not eligible for the State Scenic Highway System.
- ✚ It is on the NHS where it is concurrent with SR-152.
- ✚ It is not a part of the STRAHNET under the Federal-Aid Surface Transportation Program.

- ✚ It is a part of the STAA Terminal Access route system for heavy duty trucks, except from Cottonwood Rd. in Merced County (PM 22.440) to the south junction of SR-140 in Gustine (PM 26.463). In this area SR-33 is classed as California Legal Network. Where SR-33 is concurrent with SR-140 in Gustine it is classed as California Legal Advisory.
- ✚ Its functional classification is a minor arterial until it becomes concurrent with SR-152. It begins again at Gonzaga Road, and makes a north/south trajectory to I-5 as a minor arterial again. From I-5 it continues as a Major Collector until it becomes a concurrent route with SR-140 through the City of Gustine. It begins again as a major collector until the City of Patterson where it again becomes a Minor Arterial through the city limits only. Beyond Patterson SR-33 becomes a major collector until its terminus in Vernalis in San Joaquin County.
- ✚ The highway functions as a “main street” through the towns of Dos Palos, Los Banos, Gustine, Newman, and Patterson.

## Challenges

- ✚ Access Management.
- ✚ Route Conditions - Congestion through the City of Los Banos where it is concurrent with SR-152, Pacheco Boulevard is already at LOS F. Traffic congestion will increase at a growth rate of 1.52 percent between the Los Banos College entrance (East side) and SR-165, and between Wards Ferry Road and SR-165 at 2.65 percent per year (West side). It closely parallels the railroad tracks between I-5 and Gustine.
- ✚ Bridge Conditions – There are three bridges in Merced County that are in need of upgrade of the bridge railing and one with a seismic retrofit needed. The Quinto bridge structure was built in 1920.
- ✚ Right of Way – Due to right of way issues, where SR-33 is concurrent with SR-152 on Pacheco Boulevard through the City of Los Banos, the Los Banos Bypass Segments will be difficult to finance. It is likely that Segment I will not be constructed until 2020 or later.

## State Route 41 (SR-41)

Although a small portion of SR-41 is located within District 10 in Mariposa County (Fish Camp and the surrounding vicinity), the route in its entirety is assigned to Caltrans District 6 for reporting purposes. SR-41 can be found within the District 6 Transportation Concept Report.

## State Route 49 (SR-49)

The Golden Chain Highway, SR-49 is a north/south 295 mile route originating at SR-41 in Oakhurst in Madera County and ending at SR-70 near Vinton in Plumas County. In District 10, SR-49 traverses Mariposa, Tuolumne, Calaveras, and Amador Counties. SR-49 links the communities in the Sierra Nevada foothills known as the “Mother Lode” in California’s Gold Country. It is the “Main Street” for many Sierra Mountain towns and communities. It leaves District 10 at the Amador/El Dorado county line north of the city of Plymouth. In addition to being used locally by Sierra Nevada commute traffic, SR-49 is also a highly desirable recreation and tourism route with considerable weekend traffic. It is proposed for inclusion into the NHS.

SR-49 is functionally classified as a minor arterial for its entire length in the District. This entire portion of SR-49 is in the IRRS and is eligible for the Scenic Highway System. The highway is not considered a High Emphasis or

Focus Route in the IRRS. Some segments of SR-49 are Terminal Access Routes to the National Network for STAA Trucks. There are also segments that are on the California Legal Truck Network, and segments that are posted as advisory for vehicles with a kingpin-to-rear-axle (KPRA) length of over 30 feet. It is not part of the Strategic Highway Network (STRAHNET). SR-49 is accessible to Bicycles.

## Mariposa County (SR-49)

### Characteristics

- ✚ California F&E system from SR-41 near Oakhurst to SR-140 (Madera/Mariposa County Line PM 00.332 to the North Junction of SR-140 PM 18.500 and on concurrent SR-140 PM 21.224 to PM 22.080).
- ✚ Is identified as an IRRS route for its entirety within District 10.
- ✚ SR-49 travels concurrently over SR-140 within the town of Mariposa.
- ✚ Serves five communities in Mariposa County, Bootjack, Mormon Bar Mariposa, Bear Valley, and Coulterville.
- ✚ Private tour buses move thousands of tourists to and from Yosemite (via SR-140, 41, 120) and through rolling to mountainous terrain.
- ✚ Expressway/Principal Arterial from the Madera/Mariposa County Line to the North Junction of SR-140 (PM 00.332 to PM 18.500).
- ✚ Arterial/Minor Collector from the North Junction of SR-140 to the Mariposa/Tuolumne County Line (PM 018.510 to 048.835).
- ✚ Terminal Access Route consistent with STAA provision from the Madera/Mariposa County Line to 1.25 miles north of Bear Valley Road (PM 000.332 to 30.700).
- ✚ Advisory Truck Route for trucks with a king pin to rear axle length of 30 feet or greater from 1.25 miles north of Bear Valley Road to the Mariposa/Tuolumne County Line (PM 30.700 to 48.835).
- ✚ Bicycle and pedestrian accessible.
- ✚ Eligible for State or federal scenic highway status.
- ✚ SR-49 is bicycle and pedestrian accessible.

### Achievements

- ✚ SR-49 and Ashworth Road left turn channelization and roadway widening.

### Challenges

- ✚ Fulfillment of recent Department policies regarding complete streets and context sensitive solutions were sought in the evaluation and characterization of interregional travel needs with Mariposa County. As the full extent of SR-49 in the District is characterized as part of the IRRS, the Ultimate Transportation Concept (UTC) has been reported as expressway as reflection of our priorities. However, the concept

facility acknowledges the presence of the State highway as “Main Street”, and defers to local planning priorities by characterizing the facility as conventional highway for the existing alignment, and, expressway, if planned or programmed new alignments are identified.

## Tuolumne County (SR-49)

### Characteristics

- ✚ Is on the California F&E system from SR-108 south of Jamestown to SR-108 at Washington Street near Sonora in Tuolumne County PM 11.287 to 17.965 and on concurrent SR-120 from .252 miles north of Shawmut Grade Road to the South Junction of SR-49 and New Priest Grade Road/SR-120.
- ✚ Is identified as an IRRS route for its entirety within District 10.
- ✚ Moderate to rolling terrain.
- ✚ Expressway/principal arterial from on concurrent SR-120 from .252 miles north of Shawmut Grade Road to the South Junction of SR-49 and New Priest Grade Road/SR-120.
- ✚ Arterial/minor Collector from the Mariposa/Tuolumne County Line to (concurrent SR-120) .252 miles north of Shawmut Grade Road (PM 000.000 to T16.041) and from South Junction of SR-49 and New Priest Grade Road/SR-120 to the Tuolumne/Calaveras County Line.
- ✚ Terminal Access Route consistent with STAA provision from the SR-120 Junction near Chinese Camp to Ponderosa Drive.
- ✚ Advisory Truck Route for trucks with a king pin to rear axle length of 30 feet or greater from the Mariposa/Tuolumne County Line to South Junction SR-120 and from Ponderosa Road to the Tuolumne/Calaveras County Line.
- ✚ SR-49 travels concurrently over SR-120 from its southern junction with SR-49 at Moccasin to its northern junction with SR-49 in Chinese Camp. The California Streets and Highway Codes (Section 253.6) identifies SR-120 from Route 5 near Mossdale, in San Joaquin County to the west boundary of Yosemite National Park as within the California F&E System.
- ✚ SR-49 serves six communities in Tuolumne County, Moccasin, Chinese Camp, Jamestown, Columbia, Tuttletown, and the City of Sonora.
- ✚ Considered a “main street” highway from Washington Street to .4 miles past Parrott’s Ferry Road.
- ✚ SR-49 is bicycle and pedestrian accessible, and not designated, but eligible for State or federal scenic highway status.

### Achievements

- ✚ Poppy Hills Drive curve improvement (realign roadway and widen shoulders).
- ✚ Jamestown acceleration lane.

## Challenges

- ✚ Fulfillment of recent Department policies regarding complete streets and context sensitive solutions were sought in the evaluation and characterization of interregional travel needs with Tuolumne County. As the full extent of SR-49 in District 10 is characterized as part of the IRRS, the UTC has been reported as expressway as reflection of our priorities. However, the concept facility acknowledges the presence of the State highway as “Main Street”, and defers to local planning priorities by characterizing the facility as conventional highway for the existing alignment, and, expressway, if planned or programmed new alignments are identified.

## Calaveras County (SR-49)

### Characteristics

- ✚ Moderate to mountainous terrain.
- ✚ Is identified as an IRRS route for its entirety within District 10.
- ✚ Arterial/minor Collector throughout all of Calaveras County.
- ✚ Terminal Access Route consistent with STAA provision from South Junction SR-4/Finnegan Lane to Junction SR-12 West.
- ✚ California Legal Truck Network from the Junction of SR-12 West to the Calaveras/Amador County Line.
- ✚ Advisory Truck Route for trucks with a king-pin-to-rear-axle length of 30 feet or greater from the Tuolumne/Calaveras County Line to the South Junction SR-4/Finnegan Lane.
- ✚ SR-49 serves three communities in Calaveras County, Mokelumne Hill, San Andreas and City of Angels Camp.
- ✚ Considered “main street” highway from the South Junction SR-4 to the North Junction of SR-4 (PM 7.210 to 8.667) and from the Junction of SR-12 to the Junction of SR-26 (PM R20.496 to 27.614).
- ✚ SR-49 is bicycle and pedestrian accessible, and not designated, but eligible for State or federal scenic highway status.

### Challenges

- ✚ Fulfillment of recent Department policies regarding complete streets and context sensitive solutions were sought in the evaluation and characterization of interregional travel needs with Calaveras County. As the full extent of SR-49 in the District is characterized as part of the IRRS, the UTC has been reported as expressway as reflection of our priorities. However, the concept facility acknowledges the presence of the State highway as “Main Street”, and defers to local planning priorities by characterizing the facility as conventional highway for the existing alignment, and, expressway, if planned or programmed new alignments are identified.
- ✚ Access Management.

## Amador County (SR-49)

### Characteristics

- ✚ Is on the California F&E system in Amador County from the South Junction of SR-88 near Jackson to the Amador/El Dorado County line.
- ✚ Is identified as an IRRS route for its entirety within District 10.
- ✚ Rolling to mountainous terrain.
- ✚ Arterial/Minor Collector throughout all of Amador County.
- ✚ Terminal Access Route consistent with STAA provision from the Scottsville Blvd., Jackson to Main St in Plymouth.
- ✚ California Legal Truck Network from the Calaveras/Amador County Line to Scottsville Boulevard., in Jackson.
- ✚ Advisory Truck Route for trucks with a king-pin-to-rear-axle length of 30 feet or greater from Main St., in Plymouth to the Amador/El Dorado County line.
- ✚ SR-49 serves seven communities in Amador County, Amador City, City of Plymouth, City of Sutter Creek, City of Jackson, Martell, Drytown, and Fiddletown.
- ✚ Considered “Main Street” highway from French Bar Road to the North Junction of SR-88 in Martell.
- ✚ SR-49 is bicycle and pedestrian accessible, and not designated, but eligible for State or federal scenic highway status.

### Achievements

- ✚ Sutter Creek Bypass.
- ✚ Jackson Gate Traffic Signal.

### Challenges

- ✚ Fulfillment of recent Department policies regarding complete streets and context sensitive solutions were sought in the evaluation and characterization of interregional travel needs with Amador County. As the full extent of SR-49 in the District is characterized as part of the IRRS, the UTC has been reported as expressway as reflection of our priorities. However, the concept facility acknowledges the presence of the State highway as “Main Street”, and defers to local planning priorities by characterizing the facility as conventional highway for the existing alignment, and, expressway, if planned or programmed new alignments are identified.
- ✚ Access Management.

## State Route 59 (SR-59)

SR-59 is primarily a north/south rural route that begins at SR-152 in Merced County where it proceeds north through the town of El Nido until entering the city of Merced. Then, it runs concurrently with SR-99 freeway and SR-140 where it then runs on one way frontage roads. The SR-59 then meets with 16<sup>th</sup> Street, crossing a rail road track, then continues on the Snelling highway until and it terminates in the town of Snelling at the intersection of County Routes J59 and J16. The corridor serves as a connector between SR-152, SR-140 and SR-99.

### Characteristics

- ✚ It is not on the IRRS, however, it is on the F&E System.
- ✚ It is not eligible for the State Scenic Highway System.
- ✚ MAP-21 - It is only on the NHS where it is concurrent with SR-99 and through the City of Merced up to PM 17.035 at Yosemite Avenue.
- ✚ It is not a part of the STRAHNET under the Federal-aid Surface Transportation Program.
- ✚ It is a part of the Surface Transportation Assistance Act Terminal Access route system for heavy duty trucks.
- ✚ It is a minor arterial until it enters beyond the City of Merced limits where it becomes an other principal arterial until it meets V Street where it continues north onto the Snelling Highway as a minor arterial up to W. Cardella Road where it becomes a major collector for the remainder of the route, a short distance beyond Snelling.

### Achievements

- ✚ The existing SR-59 is being realigned to a new route called the Atwater/Merced Expressway that recently received 99 Bond savings funds for the Buhach Interchange improvements. The route will turn north at W. Dickenson Ferry Road where it connects with SR-140. It then will continue to the SR-99 Buhach Interchange. This project is in construction. The other portions of the Atwater/Merced Expressway are unfunded and will be built through phases over time as part of a Tier II project.

### Challenges

- ✚ Funding Availability - The Atwater Merced Expressway will require a significant amount of funding through a series of phases that may take thirty years to accomplish in its entirety.
- ✚ Reaching the end of their useful life, numerous bridge structures built from the 1920's to the 1960's need to be replaced or upgraded.

## State Route 88 (SR-88)

SR-88 begins at SR-99 (Stockton) and terminates at the Nevada State line in Alpine County. The route serves San Joaquin, Amador, and Alpine Counties. All of the route is conventional highway, and is the only route in the District crossing the Sierra Nevada that is open year round. The route serves as a "main street" for Waterloo, Lockeford, Clements, Jackson, Pine Grove, Pioneer, and Buckhorn.

## Characteristics

- ✚ It is on the IRRS.
- ✚ It is on the NHS from SR-99 (Stockton) to SR-49 (Martell).
- ✚ Terminal Access Route from SR-99 to SR-49; and from Caples Lake (Alpine County) to Nevada State Line.

## Achievements

- ✚ Widened two narrow bridges between San Joaquin and Amador County lines and SR-104 as part of a pavement overlay project (in construction).

## Challenges

- ✚ San Joaquin County portion of the route has seven signals, and proposes another at Liberty Road. Signals along with reduced speed limits within towns reduce effectiveness of SR-88 as rural highway and future expressway. Future consideration of new route or bypasses may be needed, as widening to four lanes may be unfeasible.
- ✚ Increased passing opportunities in Amador and Alpine Counties are needed to lessen the delay caused by high truck and recreational traffic to restore highway performance.
- ✚ Access Management

## State Route 89 (SR-89)

SR-89 originates at SR-395 (Mono County) and continues north to terminate at I-5 (Siskiyou County). The route runs through Alpine County, and is a 'main street' for the town of Markleeville. The current facility is conventional highway. The portion of the route south SR-4 is closed in winter.

## Characteristics

- ✚ On the IRRS.
- ✚ Terminal Access from the El Dorado County line south to Pine Hill Resort (Markleeville).

## Challenges

- ✚ Increase passing opportunities on portion north of SR-88 to the El Dorado County line.

## State Route 99 (SR-99)

As the principal north/south freeway in the Central Valley, SR 99 is also a major connector to all east/west routes that link to the San Francisco Bay Area, the Central Coast, and the Sierra Nevada Mountains. SR-99 provides for movement of goods for the entire Central Valley particularly with respect to shipment of agricultural products to both domestic and world markets. Agriculture, while the Valley's most significant economic activity, is also a major component in the larger California economy. Department of Finance statistics

shows that over 50% of California's agricultural output originates in SR-99 corridor counties. The importance of SR-99 to the movement of people, goods, and services is shown by its designation as the following:

## Characteristics

- ✚ It is both a State High Emphasis and Focus Route on the IRRS. There are many capacity improvements noted in the 2013 Updated SR-99 Business Plan and 2013 Interregional Transportation Strategic Plan (ITSP). It also a part of the F&E.
- ✚ It is a part of the MAP-21 NHS.
- ✚ It is a part of the Non-Interstate STRAHNET, under the Federal-Aid Surface Transportation Program.
- ✚ A part of the National Truck Network of the STAA for large trucks.
- ✚ It is functionally classified as an other principal arterial.
- ✚ As Intermodal Corridor of Economic Significance (ICES), SR-99 has been deemed by the State to be critical to statewide movement of freight.

## Achievements

- ✚ The SR-99 Business Plan was updated in February, 2013.
- ✚ There are no expressway portions remaining on SR-99 in San Joaquin, Stanislaus and Merced County. All portions are to freeway standards. The Proposition IB 99 Bond funding was integral in creating this achievement.

## Challenges

- ✚ The facility is aging and requires some effort to provide necessary operational improvements as well as maintenance and preservation. Segments of SR-99 range from 40 to 50 years old in Lodi, Stockton, and Merced and from 40-45 years old in South Lodi to North Stockton, from Central Modesto to Ceres, and Atwater to Merced.
- ✚ Right of Way – Due to right of way, environmental and financial constraints, all portions of San Joaquin, Stanislaus and Merced Counties, in the populated portions, will be highly congested by 2030 without efforts to achieve the concept facility needs. HOV and ramp metering and other operational improvements are being considered when each facility is widened to eight lanes for the most highly urbanized areas in the SR-99 corridor.
- ✚ LOS Conditions – Most or all portions of SR-99 in San Joaquin and Stanislaus Counties will be LOS F by 2015. Lack of right of way preservation in the development of Stanislaus and San Joaquin Counties, freeway expansion will be difficult, expensive, and possibly infeasible. Financial constraints and air quality and transportation conformity may also impact future expansion.

## San Joaquin County (SR-99)

Through the eastern fringe of Stockton, 6.8 miles of SR-99 are currently congested for 3.25 hours typically both a.m. and p.m. peak periods. In 10 years, 23.0 miles of SR-99 in Manteca through Stockton will be congested. The entire 38.7 miles in San Joaquin County are projected to be congested in the 20 year planning horizon.

Although the concept facility is eight lanes from the Stanislaus County/San Joaquin County line to the San Joaquin County/Sacramento County line, the need for 10 to 14 lanes has been identified throughout the Stockton area.

### Achievements

-  Programmed improvements are currently in construction to cover portions of SR-99 to a six-lane freeway facility from north of Arch Rd. to Hammer Lane (approximately 8 miles).
-  Reconstructing the SR-99/SR-120 East Separation and Yosemite Ave interchange in Manteca.
-  Constructing a single point interchange at SR-99 and Arch Rd. in Stockton (the 1st in the Valley – 3rd in the Nation).
-  Reconstructing an interchange at SR-99 and Hammer Lane in Stockton.
-  Manteca Widening.

## Stanislaus County (SR-99)

Of the 25 miles in Stanislaus County, 5.5 miles through the Turlock area are projected to be congested in 10 years, and 4.5 miles through the Modesto urban area are projected to be congested in 20 years.

In Stanislaus County, a need has been identified for ten-twelve lanes (UTC) through Modesto down to Hatch Road, however due to right of way restrictions, environmental and financial constraints, the concept facility is for eight lanes from the Merced County line to Hatch Road, and eight lanes from Hatch Road to the San Joaquin County line.

There are no programmed capacity improvements for SR-99 in Stanislaus County at this time. There are two interchange projects currently programmed to modify the Pelandale overcrossing and reconstruct the Whitmore overcrossing. Planned improvements include converting the existing six-lane freeway facility through the Modesto urbanized area to an eight-lane freeway. Planned operational improvements include auxiliary lanes, closed-circuit TV cameras and CMS throughout the County, weather stations, TMS and traffic monitoring stations at various locations.

## Merced County (SR-99)

Of the 37.30 miles in Merced County, 22.9 miles through the Merced area are projected to be congested in 20 years.

In Merced County, although the need for an eight to ten lane facility is identified in the north between Hammatt Avenue and the Merced/Stanislaus County line, due to right of way environmental and financial constraints, the concept facility is eight lanes from the Madera/Merced County line to the Merced/Stanislaus County line.

## Achievements

- ✚ Programmed Improvements now in construction through Merced include upgrading existing expressway portions on SR-99 to freeway standards south of Merced, and adding approximately nine miles of six-lane freeway.
- ✚ Operational improvements to be implemented countywide include CCTV, CMS, and TMS.
- ✚ Planned improvements will upgrade the entire SR-99 facility into a six-lane freeway, and modify interchanges including the Atwater Merced Expressway portion of SR-99 at Buhach Road, SR-59/SR-99 and SR-99/SR-140 (SR-140 provides access to Yosemite).

## State Route 104 (SR-104)

SR-104 is primarily an east/west rural route that begins at SR-99 near to Galt (in Sacramento County), turns northeast, passes near the community of Clay and enters Amador County. It is concurrent with SR-124 in Lone. Where it connects with SR-88, it is a concurrent route that ends at SR-49 south of Sutter Creek. It is known as Twin Cities Road from its western terminus up until just before the City of Lone. Heading west past its western terminus along Twin Cities Road will lead to I-5, and eventually to an end at SR-160 north of Walnut Grove. The corridor traverses through agricultural lands of the Valley and serves the cities of Galt, Lone and Sutter Creek. It also serves as a connector to Elk Grove and Sacramento from SR-99, Amador City and the City of Jackson to the east, and the communities of Twin Cities and Martell. The corridor serves as a connector between SR-99, SR-124, SR-88, and SR-49.

## Characteristics

- ✚ SR-104 is not on the IRRS or a focus or high emphasis route.
- ✚ SR-104 is on the F&E System.
- ✚ SR-104 is not a part of the officially designated State scenic highways and it is not eligible for being a State scenic highway.
- ✚ It is on the MAP-21 NHS System in the portion concurrent with SR-88.
- ✚ It is not a part of the STRAHNET, or a major connector under the Federal-Aid Surface Transportation Program.
- ✚ It is a part of the STAA Terminal Access route system for heavy duty trucks from PM 8.386 and 10.072. The rest of the route is either California Legal or California Legal Advisory with a KPRA advisory of a thirty foot length for trucks.
- ✚ SR-104 in District 10 is functionally classified as a major collector except where it is concurrent with SR-88 where it is an other principal arterial.
- ✚ SR-104 is accessible to bicycles.

## Achievements

- ✚ A Highway Rail Grade Crossing warning device is in construction in Amador County near Lone on SR-104 at Edwin railroad crossing.
- ✚ The Dry Creek Bridge was replaced in February 2007.

## Major Challenges

- ✚ The Lone Bypass which would create a new two lane expressway on a new alignment from Collins Road left to Foothill Blvd Left PM 4.0 to 6.5 will move traffic around the city of Lone. It has been an inactive project for several years.
- ✚ Environmental Issues - Amador County has been designated as non-attainment for the 8 hour ozone classification. Transportation Projects now need to be fiscally constrained and included in a Transportation Demand Management (TDM modal).
- ✚ Access control to maintain highway performance.

## State Route 108 (SR-108)

SR-108 is an east to west route originating from SR-132 (Modesto) and ending at SR-395 (north of Bridgeport) with an unbuilt portion located between I-5 and SR-99. The route is subject to winter closure past the town of Strawberry. For all of Stanislaus County the route is conventional highway, but portions of the year round route are built to expressway in Tuolumne County.

## Characteristics

- ✚ On the IRRS.
- ✚ Included in the NHS for Stanislaus County, and Tuolumne County west of Sonora.
- ✚ Terminal Access from Intersection of McHenry Boulevard and Needham Street (Modesto) eastwards to Herring Lane (Strawberry).

## Achievements

- ✚ Construction of East Sonora Bypass Phase II.

## Challenges

- ✚ Need for ongoing effort to close gaps between existing expressways in Tuolumne County east of Sonora.
- ✚ A southern west to east connector between I-5 and SR-99 may be needed in the future, and may be met by the unbuilt portion of the highway.

## State Route 120 (SR-120)

SR-120 begins at I-5 in the District in San Joaquin County and ends at Yosemite National Park, where it has a route break as federal parkland. State Route 120 crosses through San Joaquin, Stanislaus, Tuolumne and Mariposa Counties. Beyond the District boundaries, it crosses through Yosemite National Park under the jurisdiction of the National Park Service and becomes a park service road, and continues into Caltrans District 9 jurisdiction where it begins again as SR-120, and ends at its junction with U.S. Route 395 in Mono County near the Nevada State line. The corridor provides a convenient east/west linkage for commuter and recreational traffic between the San Francisco Bay Area and the Sierra Nevada Mountains.

SR-120 is a high volume east/west four-lane freeway between I-5 and SR-99 and serves local traffic in Manteca. East of SR-99, it continues as a two-lane conventional highway through eastern Manteca and continues through Escalon and Oakdale where it becomes more rural in nature. In Tuolumne County, it passes through the town of Groveland and continues where it ends finally at the boundary with Yosemite National Park. State Route 120 serves as a commuter route and is a primary recreational route for tourists visiting Yosemite National Park from the Bay Area, northern California and the San Joaquin Valley. The highway crosses through San Joaquin and Stanislaus Counties on flat terrain and changes to rolling to mountainous terrain through Tuolumne and Mariposa Counties. The route is on the IRRS, which makes it eligible for Interregional Improvement Program funding. It is included in the California F&E and eligible to be improved to expressway standards.

### Characteristics

- ✚ It is a High Emphasis route and it is on the IRRS. It is also on the F&E System.
- ✚ It is eligible for the State Scenic Highway System.
- ✚ As a principle arterial it is a part of MAP-21 NHS.
- ✚ It is an STAA Terminal Access route through San Joaquin, Stanislaus Mariposa, and Tuolumne Counties until TUO-PM 23.9, where it changes to California Legal Advisory Route.
- ✚ It is a not a part of the Non-Interstate STRAHNET, or major connector route under the Federal-Aid Surface Transportation Program.
- ✚ It is a principal arterial from PM R0.00 to T 6.87, from PM T 6.87 it is an other principal arterial up to the end of the route in Tuolumne County.

### Achievements

- ✚ The North County Corridor has been conceptualized for a portion of SR-120 through the City of Oakdale.
- ✚ SR-120 was included within the San Joaquin Valley HOV and Ramp Metering Study and is included as a potential route for HOV lanes and ramp metering between I-5 and SR-99.

### Challenges

- ✚ Route Conditions - Route 120 is closed on Tioga Pass during much of the winter months. In addition, the Rim fire burned some of the transportation infrastructure in Tuolumne County that had to be replaced.

- ✚ Age of the Facility Conditions - Route 120 is almost 100 years old in places, and there is a need for pavement replacement, particularly in Stanislaus, Tuolumne and Mariposa Counties. Several grade rail road crossings exist on the route.
- ✚ Right of Way – Due to right of way issues through the cities of Escalon in San Joaquin County and Oakdale in Stanislaus County, financial, urbanized and environmental constraints will amplify congestion issues in the near future. Although the North Country Corridor will improve conditions for the City of Oakdale, there are no transportation projects that will address the LOS conditions in Escalon.
- ✚ SR-120 faces many challenges now, and in the years ahead. Due to the low cost of housing in the San Joaquin Valley and in the adjacent foothills, commute traffic loads from SR-120 onto I-205 to I-580 into the Bay Area where higher paying jobs can be found. This causes higher AADT and truck traffic, encroaching development, and lack of adequate transportation funding to meet the needs of bedroom communities.

## State Route 124 (SR-124)

SR-124 begins at SR-88 south of the City of Lone and terminates at SR-16 northwest of Amador City. It is a North/South route and traverses the western portion of Amador County in District 10. The route is concurrent with SR-104 through downtown Lone (AMA PM 002.290 to AMA PM R002.291). SR-124 is a two lane conventional highway from SR-88 south of Lone to SR-104 (AMA PM 000.000 to 002.240) and two lane expressway from SR-104 to SR-16 (AMA PM R002.291 to R010.335). SR-124 is one of two routes that provide access to the City of Lone. It primarily serves local and commute traffic. The route connects Lone to Sacramento (via SR-16 and 104), Stockton and Lodi (via SR-88), and recreational areas in the Mother Lode and the Sierra Nevada's (via SR-49 and SR- 88). State Route 88 truck traffic eastbound for Plymouth uses this route to bypass Jackson, Sutter Creek and Amador City.

### Characteristics

- ✚ Not on the IRRS.
- ✚ It is on the California F&E system in its entirety.
- ✚ STAA, Terminal Access Route from PM 0.000 to PM 1.000.
- ✚ California Legal Only allowed from PM 1.000 to R3.460 KPRA advised for the route is less than 30 feet, but is posted as 30 feet and from PM R3.460 to R10.335 overall length of 65-foot and KPRA of 40-foot.
- ✚ In the City of Lone, the State highway is also the “Main Street”.

### Challenges

- ✚ The first segment on SR-124 is a conventional highway. It is directly adjacent to businesses and residents that have direct access to the highway through several driveways. Also, as the route approaches the City of Lone the number of cross streets increase. These factors can be obstructive to the flow of traffic. The second segment, however, is an expressway which is better capable of free-flow traffic since fewer cross streets exist and the presence of turn pockets remove turning vehicles from the through traffic lane. Within the City of Lone, local streets intersect the highway system at 200 foot intervals, road widths are narrow and are constrained by existing structures. Large truck and trailer units cannot negotiate existing intersections without crossing centerlines. At the intersections of SR-124 and SR-104, many trucks must

use the entire roadway. The 2004 Amador RTP does identify plans for an Interim West Bypass involving the construction of a roadway (arterial or collector) to serve some local traffic and to route truck traffic around the downtown area. The County may want to consider developing an Access Management Plan which would improve traffic operations. (The Lone General Plan, 2009 mentions WIRIS the West Lone Roadway Improvement Strategy, which identifies improvements to the City circulation system on the west side of the City that address circulation in and around the City and improve safety.)

- ✚ Due to SR-124 being located primarily within a rural setting, few right of way issues exist outside of the City of Lone. Within the City of Lone, there are numerous right of way limitations including school routes, sidewalks, parks, churches, businesses, as well as, intersections that cannot be negotiated by legal truck traffic. Many gold-rush era buildings line the corridor through Lone, which severely restricts available right of way and the ability to widen the highway through town.

- ✚ Access management.

- ✚ Context sensitive solutions for downtown Lone.

- ✚ Interim West (lone west bypass)?

## State Route 132 (SR-132)

SR-132 is an east/west route completely within District 10. Originating at I-580, the route terminates at SR-49 (Coulterville), and serves San Joaquin, Stanislaus, Mariposa and Tuolumne Counties. Aside from a short segment in San Joaquin County, the entire route is conventional highway. The route serves as a “Main Street” for the City of Waterford and the town of La Grange.

### Characteristics

- ✚ Segment between I-580 and SR-99 are on the IRRS; and, the portion between I-5 and the unbuilt SR-65 is on the F&E System.

- ✚ NHS from I-580 to Root Road (Empire).

- ✚ Terminal Access Route from I-580 to SR-99.

### Achievements

- ✚ Widening highway between to four lanes between Riverside Drive and Franzine/Condoni Drives (Modesto).

### Challenges

- ✚ Fill gaps between four lane Freeway segment between I-580 and I-5 with programmed new four lane expressway at SR-99.

## State Route 140 (SR-140)

SR-140 is primarily an east/west rural route that begins at I-5 at the Stanislaus/Merced County line and ends at the Yosemite National Park boundary at PM 51.803 before the connecting road, Big Oak Flat, that leads to SR-

120 within Yosemite National Park in Mariposa County. The corridor traverses the agriculture lands of the valley and serves the cities of Gustine, Merced, Planada, and Cathey's Valley. Beyond Cathey's Valley, it continues to become mountainous through the communities of Mariposa, Midpines, and El Portal. The corridor serves as a connector between I-5, SR-33, SR-165, SR-59, SR-99 and SR-120 on the western side, north into Tuolumne County (SR-120), and east ultimately providing access to US-6 on the eastern side of the Sierra Nevada's. From the Mariposa/Merced County Line it transitions into grazing land, and from Catheys Valley it becomes mountainous ascending up the Guadalupe Range into the Sierra National Forest. Due to it's relatively lower elevation compared to SR-120 and SR-41 it is considered as the best all weather route for use by tour buses and recreational vehicles. It is also bicycle accessible.

## Characteristics

- ✚ It is on the IRRS starting at Franklin Road, west of Merced, east to its terminus at SR-120 at the Yosemite National Park western boundary. It is on the F&E System.
- ✚ There is a portion of SR-140 on the officially designated State Scenic Highways and Historic Parkways State Scenic Highway System between its junctions with SR-49 in the town of Mariposa to the Yosemite National Park boundary (PM 22.8-PM 51.8). It is further eligible for being a part of the State Scenic Highways from PM 21.2-22.8, the remainder indicated (through PM 51.8) as eligible has already been transferred to a Scenic Highway designation.
- ✚ It is on the MAP-21 NHS starting at Franklin Road west of Merced, all the way to its terminus at PM 51.803 near Yosemite Valley.
- ✚ It is not a part of the Non-Interstate STRAHNET, or major connector under the Federal-Aid Surface Transportation Program.
- ✚ It is a part of the STAA Terminal Access route system for heavy duty trucks, however beyond the town of Mariposa there is posting to truck drivers that it cannot be used as a truck freight route through to US-6.
- ✚ It is a minor arterial from PM 0.00 to 33.550 at Franklin Road. From PM 33.550 it is an other principal arterial up to the center median of SR-99. There is a route break at the SR-99 center median up to the Yosemite Avenue Interchange at SR-99, where the route begins again.
- ✚ The Merced River along SR-140 from Briceburg up to Yosemite National Park is one of the designated California State Wild and Scenic Rivers.
- ✚ In Mariposa County between Briceburg and Yosemite National Park, SR-140 has a number of bridges that have been preserved for their historical and scenic value. The following bridges were built in 1926: Bear Creek, Slate Gulch, Sweet Water Creek, South Fork, Merced River (two). The following bridges were built in 1957: Cold Canyon Creek and Crane Creek with bridge numbers 40 0046 and 40 0010 respectively.

## Achievements

- ✚ A preventative maintenance project to place approximately 1.2 inches of rubberized hot mix asphalt on SR-140 in Merced County from 0.2 miles west of Tower Drive to the Mariposa County line (PM 39.0 to 50.3) was recently implemented.

- ✚ Long after the Ferguson Slide occurrence in April, 2006, the interim project was completed in the summer of 2008. The permanent restoration project for the Ferguson slide is now an active, programmed project in the Plans, Specifications, and Estimates (PS&E) phase. The Project Approval/Environmental Document (PA&ED) phase was achieved in January, 2014. Construction is scheduled for FY 2016 for its permanent restoration.
- ✚ Two bridges were built on SR-140 at the Merced River in 2008. They are both named Merced River Bridge. (40-0057 and 40-0058).
- ✚ There were remaining SR-99 Bond funds to rebuild the SR-99/Buhach Interchange for the Atwater-Merced Expressway that will eventually become part of the new alignment for SR-140.

## Challenges

- ✚ Route Conditions - The Ferguson Slide buried about 600 feet of SR-140 in its entirety at PM 42.3 between the Briceberg Information Center and El Portal Road. The interim Ferguson Slide project was between PM 41.5 and 48.2. It provided temporary one lane bridges to pass around the slide area.
- ✚ Project Costs - The Ferguson Slide Permanent Restoration Project cost is still subject to change as we finalize design. The total programmed cost for the entire project is \$132 million.
- ✚ Rock falls and icy roads are problems that affect the portion of SR-140 between Mariposa and its terminus at the boundary with Yosemite National Park. This occurs due to inclement weather. There typically is a 15 minute wait to get to Yosemite, as it is only open to alternating one way traffic.
- ✚ Air quality issues from the large number of vehicles entering and exiting the park.

## State Route 152 (SR-152)

SR-152 begins at its junction with SR-1 in Watsonville in Santa Cruz County and ends at its junction with SR-99 in Madera County. It becomes a major east-west interregional route starting at U.S. 101 connecting the southern San Francisco Bay Area with I-5 and SR-99 in the San Joaquin Valley. In District 10, SR-152 passes through Merced County and the City of Los Banos.

## Characteristics

- ✚ SR-152 and 156 provide the only direct agricultural goods movement, and recreational routes south of the Bay Area to the coast. It links with SR-99, I-5 and U.S. 101 to the urbanized Monterey/South Bay region. This provides the only access to the coastal recreation areas, agricultural centers and high growth valley centers between I-205 and SR-41 in the valley within approximately 120 miles.
- ✚ It is a part of the IRRS as both a High Emphasis and Focus Route. It is also included in the F&E system.
- ✚ It is a MAP-21 NHS route.
- ✚ It is designated on the California State Scenic Highway System from the portion from the Santa Clara County line at PM 0.00 to Interstate 5 (I-5) at R13.244/11.27-13.848. Otherwise, it is not eligible or designated for federal or State scenic highway status.
- ✚ It is a Terminal Access Route of the STAA for large trucks.

- ✚ It is not a part of the Non-Interstate STRAHNET Route or a major connector.
- ✚ It is functionally classified as an other principal arterial.
- ✚ It serves as the “main street” for the City of Los Banos.

## Achievements

- ✚ The Los Banos Bypass is MCAG’s highest priority project. It will move interregional travel including truck traffic around to the north of the City of Los Banos to just below Henry Miller Road. It is currently in the Project Specifications and Engineering/Right of Way (PS&E/RW) phase.
- ✚ HSR has been planned within the SR-152 corridor between Merced and San Jose. The San Jose to Merced section of the 800-mile system is 125 miles long. Projections estimate 7,600 boardings daily in San Jose and about 5,300 in Merced, with travel time between San Jose and Merced estimated at 45 minutes. There are stops at Merced, Gilroy, and San Jose. It is unknown at this time how HSR may alter commute patterns.
- ✚ The SR-152 Trade Corridor Project infrastructure improvements planned for SR-152 between SR-101 and the Santa Clara/Merced County line include a new alignment of SR-152 between U.S. 101 and SR-156, and an eastbound truck climbing lane over Pacheco Pass. The Trade Corridor Project will be helpful in improving transportation of goods through the region.

## Challenges

- ✚ Main Street – The conventional highway portion of SR-152 acts as a main street through the City of Los Banos. The highway brings a great deal of interregional traffic through the middle of the city. This creates traffic congestion and context sensitivity challenges within the community.
- ✚ The Pacheco Boulevard conventional highway portion from College Avenue to Ward Road (within the City of Los Banos limits), which includes a center turn lane and many left and right turn pockets, is already at LOS ‘F’ conditions for at least one hour a day in the peak period. Traffic congestion will increase over time with a growth rate of 1.54 percent per year between the Los Banos Campus college entrance and SR-165. The rate of growth is projected to be 2.65 percent per year between SR-165 and Wards Ferry Road to the east.
- ✚ Gap Closure - SR-152 is an expressway for most of the route; however, it is a four-lane conventional highway for 4.67 miles through the City of Los Banos. This can cause significant delays to interregional traffic. As the UTC for the Bypass is a freeway facility (the Segment III portion), consideration needs to be taken as a component of the IRRS, for SR-152 to eventually be built to freeway standards along the entire corridor between SR-99 and I-5. District 6 has freeway agreements between SR-59 and SR-99. District 4, has freeway agreements for only two small unconnected portions near and aligning with the Merced County line.
- ✚ Los Banos Bypass – The Merced County Association of Government’s (MCAG) RTPs priority project is the Los Banos Bypass. The current transportation system layout in the City of Los Banos has SR-152 (Pacheco Boulevard) configured as the main access to the Los Banos commercial center. The Bypass will function to route interregional traffic around Los Banos reducing congestion in the commercial center. Funding for the complete facility is unavailable at this time.

## State Route 165 (SR-165)

State Route 165 is primarily a north/south rural route that begins at I-5 in Merced County south of Los Banos and it ends in Stanislaus County near Turlock at the SR-99 Interchange. The corridor traverses the flat lands of the Valley and serves the City of Los Banos and the communities of Stevinson and Hilmar. The corridor serves as a connector between Interstate 5 and SR-152 and SR-99. SR-165 serves the communities of Los Banos, Stevinson, Hilmar, and Turlock.

### Characteristics

- ✚ It is not on the IRRS.
- ✚ It is not on the F&E System.
- ✚ It is not eligible for the State Scenic Highway System.
- ✚ It is only on the MAP-21 NHS for two small portions one through the City of Los Banos and the other at the south end where it coincides with the City of Turlock.
- ✚ It is not a part of the Non-Interstate STRAHNET, or major connector under the Federal-Aid Surface Transportation Program.
- ✚ A terminal access route consistent with provisions of STAA.
- ✚ It is a minor arterial from I-5 to Pacheco Boulevard (PM 0.00 to PM 7.782), and from Pacheco Boulevard to approximately Quail Street (PM 7.782-PM 10.740) it is an other principal arterial.
- ✚ From approximately Quail Street up to the City of Turlock limits in Stanislaus County (MER PM 10.740-STA PM 1.400) it reverts back to a minor arterial. At PM 1.400 to its end at PM 1.545 in Stanislaus County at the SR-99 Interchange it is again an other principal arterial.

### Achievements

- ✚ There has been some recent progress on the Hilmar Bypass by Caltrans. There are two overall alternatives that are considered from the Project Study Report (PSR). Although the project is inactive at this time, there are over \$1.5 million in funds set aside for continuing with the PA&ED phase.
- ✚ The Hilmar Community Plan, 2008 addresses the circulation within the town of Hilmar. The plan has strategies to create a local north-south collector system that connect to multiple neighborhoods and destinations within the Community including new gateways into Hilmar.
- ✚ It appears that the Los Banos Bypass, Segment I will offer some congestion relief on SR-165 through the City of Los Banos. Segment I of the bypass is expected to be built before 2030.

### Challenges

- ✚ **Route Conditions** - The Merced River Bridge is a 1,378 ft., twenty foot wide two lane bridge that has been in need of replacement for a very long time. The bridge will require a very high cost in-depth environmental analysis as part of the Project Approval/Environmental Document (PA&ED) Phase.

- ✚ **Age of the Facility Conditions** - Route 165 is almost 100 years old in places, and there is a need for pavement replacement.
- ✚ **Right of Way** – Due to right of way issues through Los Banos, Hilmar, and adjacent to the bridges, improvements will be more difficult to finance.

## **Interstate 205 (I-205)**

I-205 connects I-5 with I-580 through the City of Tracy. I-205 is on the IRRS and is a high emphasis route along the portions that are rural. I-205 serves the District as the primary work commute to the San Francisco Bay Area via the I-580 corridor in District 4, and is a significant freight connection from the San Joaquin Valley to the Port of Oakland.

### **Characteristics**

- ✚ High Emphasis Focus Route on the IRRS.
- ✚ On the NHS.
- ✚ Designated part of the National Network by the STAA for large trucks.
- ✚ A part of the Primary Freight Network by MAP-21.

### **Achievements**

- ✚ Although a high emphasis route in the IRRS, all of I-205 is constructed to freeway standards, and has attained the primary goal of the ITSP.
- ✚ Targeted improvements such as widening the freeway to include auxiliary lanes within the City of Tracy.

### **Challenges**

- ✚ Further widening appears constrained by limited right of way within the City of Tracy, but there is present need to widen the facility to include an HOV lane.

## **State Route 207 (SR-207)**

State Route 207 is a north/south corridor that begins at SR-4 as a two-lane road and heads north to its northern terminus at Mount Reba Ski Area and ends at the Bear Valley parking lot. SR-207 is a 2-lane conventional highway, which feeds into several parking lots along the length of the route. Due to the short length of the road, major improvements to the road are not expected at this time.

### **Characteristics**

- ✚ Major collector not on the FHS.
- ✚ Not a component of STRAHNET.
- ✚ Not a High Emphasis Route and is not on the NHS.

- ✚ Not a scenic route.
- ✚ It is a Terminal Access route consistent with the STAA.
- ✚ It is a part of the California Legal truck Network.

## Challenges

- ✚ Caltrans' primary operation service on SR-207 is snow removal, which totals about a mile and incurs a relatively high maintenance cost.

## State Route 219 (SR-219)

- ✚ SR-219 is an east/west connector between SR-99 (Salida) and SR-108 (Modesto). The facility is a four lane conventional highway.

## Characteristics

- ✚ Not identified on either the IRRS or the F&E.
- ✚ Terminal Access Route.

## Achievements

- ✚ Facility widened to four lanes.

## Challenges

- ✚ Unclear future role in the SHS with the implementation of the proposed North County Corridor to place a four lane expressway to the north.

## Interstate 580 (I-580)

I-580 connects SR-101 in San Rafael to I-5 south of Tracy. I-580 serves the Bay Area with a large share of total commuter traffic and interregional freight transport. Its role in District 10 is somewhat diminished, as much of the commuter and freight traffic travels upon I-205. Within the District, I-580 runs from the intersection with I-205 to I-5.

## Characteristics

- ✚ High Emphasis Focus Route on the IRRS.
- ✚ On the NHS.
- ✚ Designated part of the National Network by the STAA for large trucks.

## Achievements

- ✚ Although a high emphasis route in the IRRS, all of I-580 is constructed to freeway standards, and has attained the primary goal of the ITSP.

✚ There exist no significant targeted improvements for this route.

## Challenges

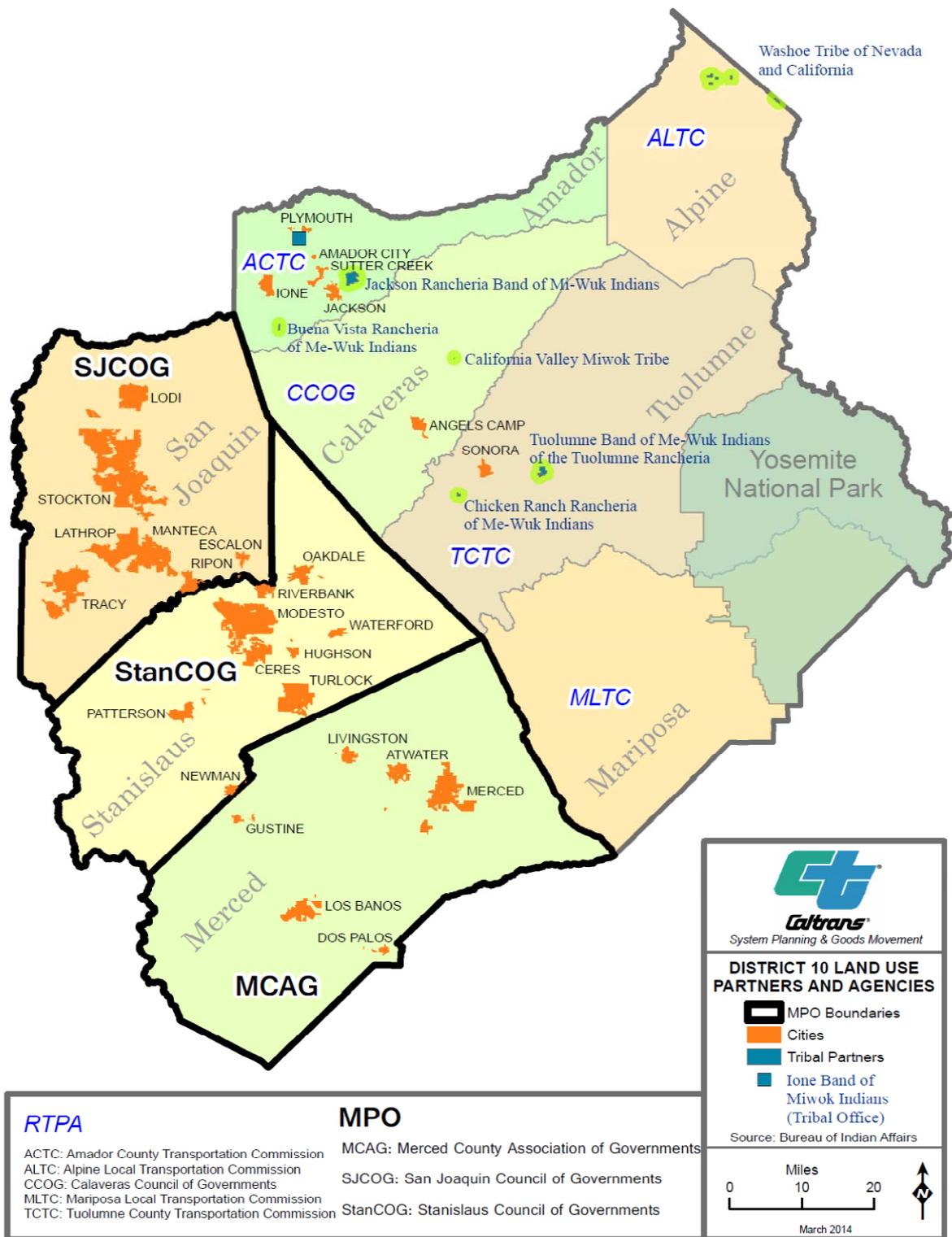
✚ Adequate forecasts of future growth.

# TRANSPORTATION PARTNERS

**Table 5: District 10 Transportation Partners**

<p><b>Metropolitan Planning Organization</b></p>	<p>Merced County Association of Governments (MCAG) San Joaquin Council of Governments (SJCOG) Stanislaus Council of Governments (StanCOG)</p>
<p><b>Regional Transportation Planning Agency</b></p>	<p>Alpine County Local Transportation Commission (ACLTC) Amador County Transportation Commission (ACTC) Calaveras County Transportation Commission (CCOG) Mariposa County Local Transportation Commission (MCLTC) Tuolumne County Transportation Commission (TCTC)</p>
<p><b>Congestion Management Agency</b></p>	<p>Stanislaus Council of Governments (StanCOG)</p>
<p><b>County Transportation Commission</b></p>	<p>Alpine County Local Transportation Commission Amador County Transportation Commission Mariposa County Local Transportation Commission Tuolumne County Transportation Commission</p>
<p><b>Federal, State and Local Agencies</b></p>	<p>Yosemite National Park California Highway Patrol City and county planning and public works departments San Joaquin Regional Transit District Altamont Commuter Express Port of Stockton</p>
<p><b>Tribes</b></p>	<p>Buena Vista Rancheria of Me-Wuk Indians California Valley Miwok Tribe Chicken Ranch Rancheria of Me-Wuk Indians Ione Bank of Miwok Indians Jackson Rancheria Bank of Mi-Wuk Indians Tuolumne Bank of Me-Wuk Indians Washoe Tribe of Nevada and California There are no Tribal Employment Rights Ordinance (TERO) tribes whose territory falls within Caltrans District 10</p>
<p><b>Air District</b></p>	<p>Alpine – Great Basin Unified, Air Pollution Control District ( APCD) Amador – Amador APCD Calaveras – Calaveras County APCD Tuolumne – Tuolumne County APCD Mariposa -- Mariposa County APCD San Joaquin, Stanislaus, Merced Counties – San Joaquin Valley APCD</p>

Figure 28: District 10 Land Use Partners and Agencies



**RTPA**

ACTC: Amador County Transportation Commission  
 ALTC: Alpine Local Transportation Commission  
 CCOG: Calaveras Council of Governments  
 MLTC: Mariposa Local Transportation Commission  
 TCTC: Tuolumne County Transportation Commission

**MPO**

MCOAG: Merced County Association of Governments  
 SJCOG: San Joaquin Council of Governments  
 StanCOG: Stanislaus Council of Governments

# **PLANNING EFFORTS**

## **Transportation Agency Partners**

District 10 consists of eight counties, ranging from the very rural Alpine County with 1,087 residents, to highly urbanized San Joaquin County with 698,414 residents. The District includes approximately 1,638,757 million people according to the 2012 California DOF estimate.

Within District 10, there are three MPOs and five Regional Transportation Planning Agencies (RTPAs):

- ✚ Merced County Association of Governments (MCAG) MPO
- ✚ San Joaquin Council of Governments (SJCOG) MPO
- ✚ Stanislaus Council of Governments (STANCOG) MPO
- ✚ Alpine County Local Transportation Commission (ACLTC) RTPA
- ✚ Amador County Transportation Commission (ACTC) RTPA
- ✚ Calaveras Council of Governments (CCOG) RTPA
- ✚ Mariposa County Local Transportation Commission (MCLTC) RTPA
- ✚ Tuolumne County Transportation Commission (TCTC) RTPA

Each of the three MPOs and the five RTPAs are responsible for preparing the RTP for their respective jurisdictions. The RTP is a long-range (20 years or more) plan that provides a blueprint for future transportation improvements and investments based on specific transportation goals, objectives, policies and strategies.

Key transportation agency partners also include Yosemite National Park (YNP), CHP, city and county planning and public works departments, San Joaquin Regional Transit District (SJRTD), ACE, and the Port of Stockton.

## **Caltrans System Planning Process**

System Planning is Caltrans' long-range (20-years) transportation planning process. It evaluates current and future operating conditions and deficiencies on the State transportation system. The process considers the entire transportation system, including highways and local arterials; transit services; railroad; airports; ports; active, non-motorized modes of transportation (i.e. bicycles and walking); goods movement; ITS and local land use plans.

All system planning activities are conducted in a transparent environment where input is continuously and actively solicited from the District's external partner agencies, particularly the RTPAs and the cities and counties involved with guiding and approving local development. The District's objective is to come to an early consensus with our external partners regarding the capacity of the SHS facilities needed to accommodate local growth, ensuring transportation improvements accompany growth and provide improved mobility for all Californians.

The main products of the system planning process are as follows:

## **District System Management Plan**

The DSMP is District 10's long-range strategic policy planning document describing the District's vision for the SHS's development, maintenance, and management for the next 20 years.

## **Corridor System Management Plans**

CSMPs are developed throughout the State for corridors wherever funding is being used from the Corridor Mobility Improvement Account (CMIA) and Highway 99 Bond Programs created by the passage of the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, approved by the voters as Proposition 1B on November 7, 2006.

CSMPs provide for the integrated management of travel modes and roadways so as to facilitate the movement of people and goods within our most congested transportation corridors. Each CSMP presents an analysis of existing and future traffic conditions and proposes strategies to maintain and enhance mobility within each corridor, primarily focusing on low-cost, operational improvements and daily system operational activities.

The corridor management planning strategy is based on the integration of system planning and system management. Each CSMP addresses State highways, parallel and connecting roadways, regional transit services, bicycle facilities, as well as other regional transportation-related modes pertinent to corridor mobility.

## **Transportation Concept Reports**

The TCR is a long-term planning document that each Caltrans district prepares for every State highway in its jurisdiction. The purpose of the TCR is to determine how the State highway will be improved and managed over a 20-year period so that it maintains a minimum acceptable LOS.

Each TCR presents an overview of the route's current condition, information regarding programmed improvements, significant factors influencing the route's existing and future condition, traffic projections, the concept (minimum acceptable LOS for the 20-year planning horizon) and the State highway facility (concept facility) required to maintain the concept LOS. The TCR also includes an Ultimate Concept, which is a long-term vision for the highway facility beyond the 20-year planning horizon.

The objective is to have local, regional, and State consensus on the future corridor needs so that Caltrans and its partners can plan and develop the improvements needed to maintain the concept LOS. District staff and the external partners can use the TCR as input for general plans, specific plans, regional transportation plans and other planning documents and processes. For routes that have a CSMP, the CSMP serves as the TCR for the overlapping segment.

## **Transportation System Development Program**

System Planning no longer produces the Transportation System Development Program (TSDP) document. The major transportation system improvements needed to maintain regional and interregional mobility and decrease traffic congestion, including, but not limited to, the needed improvements identified in each TCR and in local and regional transportation and transit plans will be appended to the DSMP as a Project List in the future.

The Project List addresses the movement of people and goods in every major transportation corridor in District 10. Caltrans District 10 is responsible for operating and maintaining more 1,328 centerline miles of State highways. Proposed improvements are based on facilitating strategic growth strategies, including the implementation of the Regional Blueprint Planning processes. Although the list is not financially constrained, most of the projects in the list are included in the financially-constrained RTPs prepared by each of the eight regional transportation planning agencies in the District. Effective 2015, the TSDP project list will be added to the DSMP.

## **Complete Streets**

Caltrans views all transportation improvements as opportunities to improve safety, access and mobility for all travelers in California and recognize bicycle, pedestrian and transit modes as integral elements of the Deputy Directive 64-R1, *Complete Streets-Integrating the Transportation System*, as policy to develop integrated multimodal projects in balance with community goals, plans and values. By considering “complete streets” early in the system planning process, a transportation facility that is planned, designed, operated and maintained to provide safe mobility for all users will ensure that travelers of all ages and abilities can move safely and efficiently across a fully integrated transportation network.

## **ENVIRONMENTAL SETTING**

The environmental context of the District 10 is rural. Industrial development is limited to older urban areas such as Stockton and mining districts extracting gold, copper, or asbestos. As a landscape dominated by agriculture in the San Joaquin Valley, and mining and timber harvesting throughout the foothills and mountains, many endangered or threatened species still remain present. Waterways and wetlands, such as the river system connected to the Sacramento and San Joaquin River Delta, along with the marshlands distributed along the San Joaquin River in Merced County, and the vernal pools that dot the Valley upland, occur throughout the region. Human occupation of the region dates back thousands of years to the end of the Pleistocene, providing extensive and numerous prehistoric, proto-historic, and historic cultural resources.

Portions of Interstate 5 and 580, along with State Routes 4, 88, 89, 120 are designated scenic highways. Approximately one third of the area within the District is public land, with uplands dominated by the US Forest Service and the National Park Service, and the lowlands by the Fish and Wildlife Service along with the Bureau of Reclamation. Being an enclosed basin surrounded by mountains, and the presence of inversions and high pressure year round, the San Joaquin Valley often reports the worst air quality nation-wide.

District 10's two Intergovernmental Review (IGR) units address the District's commitment to sustainability with other planning agencies' efforts to best conserve environmental values. Currently, a large number of Habitat Conservation Plans (HCP) are in the process of development for various planning and resource management entities in the region, most recently the joint Department of Water Resources (DWR)/United States Reclamation Services' EIR/EIS for the Bay Delta habitat conservation plan, for which the District has commented.

## **MANAGEMENT PLAN**

### **MISSION, VISION, AND GOALS**

Caltrans' mission is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.

The Department's vision is a performance-driven, transparent and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation, and teamwork. Our District vision also includes a transportation system that is *safe, sustainable, and with interconnectivity that provides transportation choices for the public. This vision also provides a transportation system through an ongoing and collaborative relationship with our transportation partners and the public.*

Our organizational goals are safety--provide the safest transportation system in the nation for users and workers; mobility--maximize transportation system performance and accessibility; delivery--obtain and provide

efficient and economical transportation projects and services; stewardship--preserve and enhance California's resources and assets; and service--promote quality through workforce excellence.

Our values are integrity--we promote trust and accountability through our consistent and honest actions; commitment--we are dedicated to public service and strive for excellence and customer satisfaction; teamwork--we inspire and motivate one another through effective communication, collaboration and partnership; and, innovation--we are empowered to seek creative solutions and take intelligent risks.

## **DISTRICT POLICIES**

The District will work to:

- ✚ Reduce fatalities, serious injuries, and collisions through problem identification, design, implementation of best practices, and education, providing safe mobility for all users, including motorists, bicyclists, pedestrians and transit riders.
- ✚ Implement complete streets policy in all planning, programming, design, construction, operations, and maintenance activities and products on the State Highway System.
- ✚ Manage and operate an efficient, integrated system, providing viable and equitable multimodal choices including the Active Transportation Program, and invests strategically to optimize system performance.
- ✚ Deliver transportation projects and services efficiently.
- ✚ Place an emphasis on sustainability and system preservation through preventive maintenance and rehabilitation strategies, evaluating life cycle costs in project decision making, and employing performance measures to determine need for operational improvements.
- ✚ Practice environmental stewardship and sustainability by integrating environmental considerations in all stages of planning and implementation, conserving natural and cultural resources, and reducing greenhouse gas emissions.
- ✚ Integrate health and social equity in all transportation planning and decision making.
- ✚ Support an efficient transportation system that improves the State's economic activity; enhances freight mobility, and reliability; and increases global competitiveness.

## **Desired Outcomes**

- ✚ Overall reduction in accident occurrence and severity
- ✚ Reduction in vehicle miles traveled
- ✚ Increased non-motorized travel
- ✚ Completion and integration of ITS architecture on all freeways and major expressways
- ✚ Progress in diverting interregional travel from local streets and communities

- ✚ A smaller carbon footprint
- ✚ Preservation or expansion of highway rights of way to enhance transit opportunities for either bus rapid transit or light rail
- ✚ Incorporation of express lanes on all freeways
- ✚ Ramp Metering on all freeway onramps
- ✚ Reduced traveler delay
- ✚ Reduction in commute times

## APPENDIX

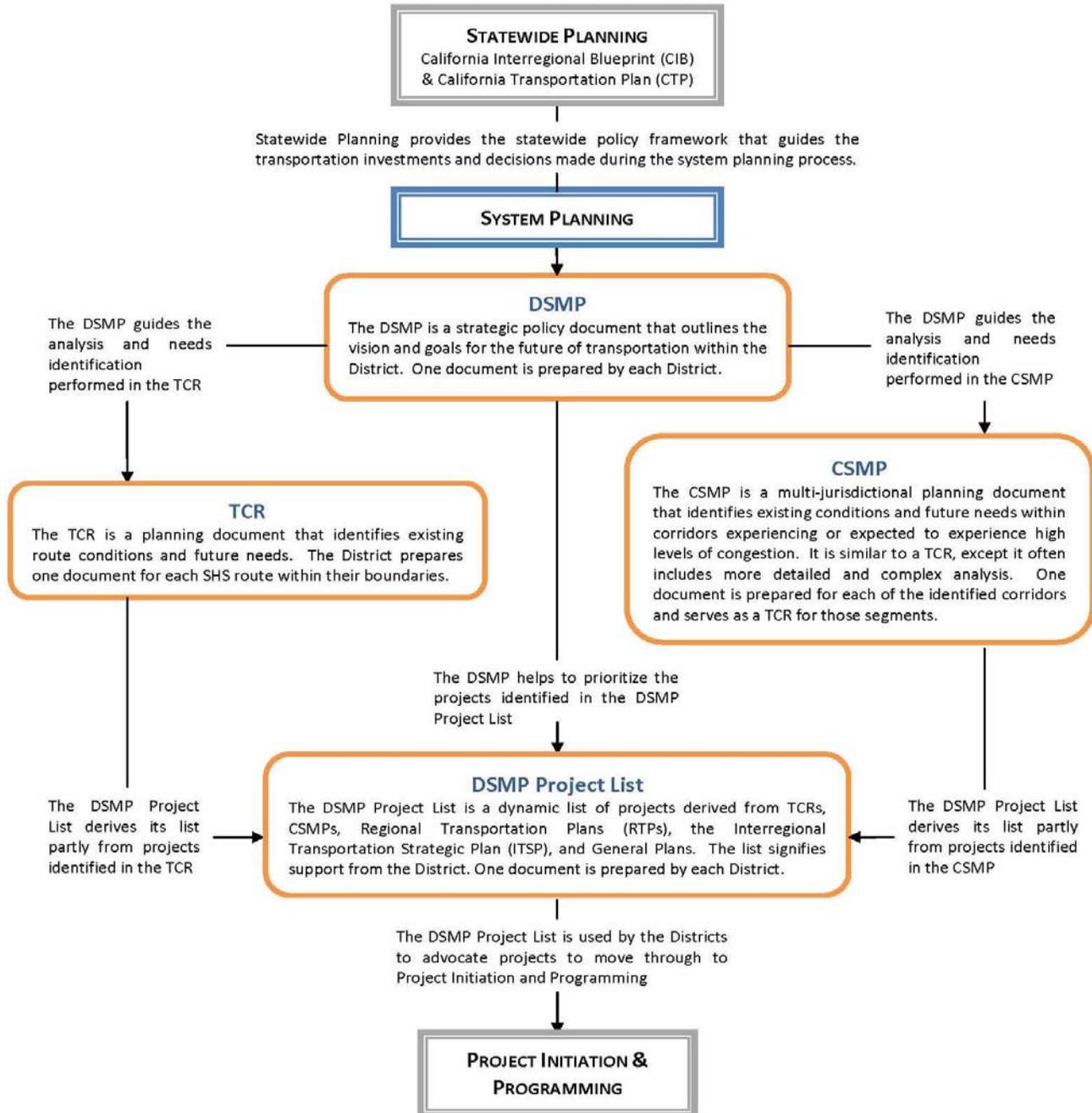
### APPENDIX A: Intercity Rail Project List

TIP Year	District	County	Route	Project Description	Mode	CTC Project Category	Est. Total Cost (\$1000)	Proposed Completion Year	Source Document	Funding Source
Not STIP	4,6,10	Contra Costa, San Joaquin, Stanislaus, Merced, Fresno, Kings, Tulare, Kern	San Joaquin Corridor	Track & Signal: Positive Train Control (Port Charles to Bakersfield)	Intercity Rail	System Preservation	\$24,500	2015	San Joaquin Corridor Service Development Plan (May 2013)	Partially Allocated Prop 1A
Not STIP	10	Merced	SJC	Track & Signal: Merced to Le Grand second main track (segment 1)	Intercity Rail	System Expansion	\$40,400	2018	SJ Corridor SDP (May 2013)	Prop 1A
2012	10	San Joaquin, Merced	SJC	Track & Signal: Stockton to Escalon second main track (segments 3)	Intercity Rail	System Expansion	\$20,500	2018	Segments 3 & 4 separated per DOR STIP 2012 Funding info	STIP, SJCOG RTP
2018	10	San Joaquin, Merced	SJC	Track & Signal: Stockton to Escalon second main track (segments 4)	Intercity Rail	System Expansion	\$33,500	2018	Segments 3 & 4 separated per DOR STIP 2012 Funding info	STIP, SJCOG RTP
2016	10	San Joaquin	SJC	Track & Signal: Stockton Hub Track Upgrades/Related Facilities	Intercity Rail	System Expansion	\$100,000	2018	SJ Corridor SDP (May 2013)	
2014	10	Merced	SJC	Track & Signal: Merced to Le Grand second main track (segment 2-3)	Intercity Rail	System Expansion	\$24,100	2019 to 2040	SJ Corridor SDP (May 2013)	Prop 1A
2018	10	San Joaquin, Merced	SJC	Track & Signal: Stockton to Escalon second main track (segments 1-2)	Intercity Rail	System Expansion	\$22,000	2019 to 2040	SJ Corridor SDP (May 2013)	Prop 1A

## APPENDIX B: System Planning Flow Chart

### SYSTEM PLANNING FLOW CHART

System Planning is Caltrans long-range (20-25 years) transportation planning process to evaluate current & future operating conditions & deficiencies on the State Highway System (CA Gov. Code 65086). The system planning process is made up of four documents, the District System Management Plan (DSMP), the Transportation Concept Report (TCR), the Corridor System Management Plan (CSMP), and the DSMP Project List. System planning is just one aspect of transportation planning that feeds into project initiation and programming, many activities within transportation planning work together to bring projects to completion. The development of all system planning products is guided by a variety of federal, state, regional, local, and tribal plans, policies, and informational sources. For more information on system planning please see the California Corridor Mobility website at: <http://www.dot.ca.gov/hq/tpp/corridor-mobility/index.html>



## APPENDIX C: Glossary of Terms and Acronyms/Definitions

### ACRONYMS

AADT – Annual Average Daily Traffic  
ACE - Altamont Commuter Express  
ADA – Americans with Disabilities Act of 1990  
ADT – Average Daily Traffic  
ACLTC - Alpine County Local Transportation Commission  
ACTC - Amador County Transportation Commission  
ALP-Alpine  
AMA-Amador  
BNSF - Burlington Northern Santa Fe  
CAL-Calaveras  
CALTRANS – California Department of Transportation  
CAPM-Capital Preventive Maintenance  
CCOG - Calaveras County Transportation Commission  
CCTVs - Closed Circuit Television Cameras  
CHP - California Highway Patrol  
CMA – Congestion Management Agencies  
CMAQ-Congestion Mitigation and Air Quality  
CMIA - Corridor Mobility Improvement Account  
CMS - Changeable Message signs  
COOP-Cooperative Agreements  
CSMP - Corridor System Management Plan  
CSS – Context Sensitive Solutions  
CTC-California Transportation Commission  
CTP – California Transportation Plan  
DOF- Department of Finance  
DSMP - District System Management Plan  
DWR - Department of Water Resources  
EB-Eastbound  
EIS-Environmental Impact Statement  
EIR-Environmental Impact Report  
FHWA – Federal Highway Administration  
F&E - Freeway and Expressway  
GHG – Green House Gas  
HAR - (Highway Advisory Radio (HAR)  
HCP – Habitat Conservation Plan  
HOT – High occupancy toll lane  
HOV – High occupancy vehicle lane  
HPP-High Profile Projects  
HSIP-Highway Safety Improvement Program  
HSR - High Speed Rail  
ICES - Intermodal Corridor of Economic Significance  
IGR– Intergovernmental Review  
IIP-Interregional Improvement Program  
IOS - Initial Operating Section

## Acronyms Con't

IRRS- Interregional Road System  
ITS – Intelligent Transportation System  
ITSP-Interregional Transportation Strategic Plan  
ITTS - Interregional Road System  
KM-Kilometer  
KPRA - Kingpin to Rear Axle  
LOS – Level of Service  
M-580-Marine Highway  
MAP-21 – Moving Ahead for Progress in the 21<sup>st</sup> Century  
MCAGs - Merced County Association of Governments  
MCLTC - Mariposa County Local Transportation Commission  
MCTC - Mariposa County Transportation Commission  
MER-Merced  
MPA-Mariposa  
MPO – Metropolitan Planning Organizations  
N/A-Not available  
NHS - National Highway System  
PA&ED - Project Approval/Environmental Document  
PID – Project Initiation Document  
PM - Post Mile  
PPNO-Planning/Programming Number  
PS&E-Plans, Specifications, and Estimates  
PSR – Project Study Report  
RHNA – Regional Housing Needs Allocation  
RIP-Regional Improvement Program  
ROW - Right of Way  
RSTP-Regional Surface Transportation Program  
RTIP – Regional Transportation Improvement Program  
RTIF-Regional Transportation Impact Fee  
RTP – Regional Transportation Plan  
RTPAs - Regional Transportation Planning Agencies  
RTPA – Regional Transportation Planning Agencies  
RWIS - Roadway Weather Information System  
SAFETEA – Safe, Accountable, Flexible and Efficient Transportation Equity Act of 2005  
SB - Senate Bill  
SCS – Sustainable Community Strategies  
SHOPP-State Highways Operations and Protection Program  
SHS - System Highway System  
SJ-San Joaquin  
SICOG - San Joaquin Council of Governments  
SJRTD - San Joaquin Regional Transit District  
SJVGMAP-San Joaquin Valley Goods Movement Action Plan  
SR - State Route  
STA-Stanislaus  
STANCOG - Stanislaus Council of Governments  
STRAHNET - Strategic Highway Network  
STAA - Surface Transportation Assistance Act  
STIP – State Transportation Improvement Program

## Acronyms Con't

TCR - Transportation Concept Report  
TCTC - Tuolumne County Transportation Commission  
TE-Test and Evaluation Project  
TEA-21 – Transportation Equity Act for the 21st Century  
TDM – Transportation Demand Management  
TMC - Transportation Management Centers  
TMS – Transportation Management System  
TSDP-Transportation System Development Program  
TUO-Tuolumne  
US - United States  
UTC - Ultimate Transportation Concept  
UP - Union Pacific  
WIRIS - West Ione Roadway Improvement Strategy  
YARTS - Yosemite Area Regional Transportation System  
YNP - Yosemite National Park

## DEFINITIONS

Annual Average Daily Traffic (AADT) -- the total traffic volume on a given highway or segment in a year divided by 365. The year is from October 1st through September 30<sup>th</sup>. Raw traffic counts are obtained through a sampling program of highway locations throughout the District, rather than continuous sampling throughout the year (though this may not be accurate for PeMS stations that continuously monitor traffic volumes). These counts are adjusted to compensate for daily and seasonal variability compared to previous records.

Base year – the initial year of analysis, usually, the year that recent data is available.

Bikeways:

Class I (Bike Path) – a separate travel right of way for the exclusive use of bicycles, pedestrians, and possibly equestrians.

Class II (Bike Lane) – a lane within a shared right of way for use of bicycles. Usually separated from motorized vehicle traffic by striping, and may permit merging at approached to intersections for right turns.

Class III (Bike Route) – shared right of way between motorized vehicles and bicycles, may have wide shoulders to accommodate separation of the two modes, or may be signed to alert motorists to shared use.

Bottlenecks – a location where the carrying capacity is substantially less than elsewhere on a route. Often this occurs with a lane reduction, or excessive merging and weaving, or driver distraction, or a surge in demand, or a combination of these and other factors.

California Transportation Plan (CTP) – a statewide, long-range transportation plan with a minimum 20-year planning horizon intending to address both future mobility needs and reduce greenhouse gas (GHG) emissions. The CTP defines performance-based goals, policies, and strategies to achieve a collective vision for California's future, statewide, integrated, multimodal transportation system. The CTP is prepared in response to federal and State requirements and is updated every five years.

## Definitions Con't

Capacity – the maximum sustainable hourly flow rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, environmental, traffic, and control conditions.

Concept LOS – the minimum acceptable LOS over the next 20-25 years.

Conceptual Project – an action or a project that needed to maintain mobility or serve multimodal users, but is not included in a fiscally constrained plan and is not programmed. It could be included in a General Plan or in the unconstrained section of a long-term plan.

Corridor – a broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways, bicycle, pedestrian, and transit route alignments. Off system facilities are included as informational purposes and not analyzed in the TCR.

Facility Concept – describes the future highway facility and the strategies that may be needed to be deployed within the next 20-25 years. This can include capacity increasing, State highway, bicycle facility, pedestrian facility, transit facility, non-capacity increasing operational improvements, new managed lanes, conversion of existing managed lanes to another managed lane type or characteristic, TMS field elements, TDM and incident management.

Facility Type – refers to a highway as being either a freeway, expressway, conventional, or a one-way city street.

Freight Generator – any facility, business, manufacturing plant, distribution center, industrial development, or other location (convergence of commodity and transportation system) that produces significant commodity flow, measured in tonnage, weight, carload, or truck volume.

Headway – the time between two successive vehicles as they pass a point on the roadway, measured from the same common feature of both vehicles.

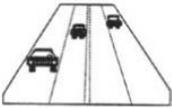
Horizon Year – The year that the future (20-25 years) data is based on.

Intermodal Freight Facility – a location where different transportation modes and networks (air, marine, rail, truck) interconnect and allow freight to be transferred (transloaded) from one mode to another.

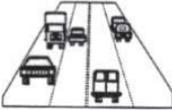
Intelligent Transportation System (ITS)—an integrated network of communications-based information and electronics technologies to collect real time traffic information, process it, and take appropriate actions. The intended outcomes are to improve transportation safety, mobility and to enhance worker productivity by reducing travel delay.

Level of Service (LOS) -- a qualitative measure describing operational conditions within a traffic stream and their perception by motorists. A LOS definition generally describes these conditions in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort, and convenience. Six levels of LOS can generally be categorized as follows:

## Definitions Con't



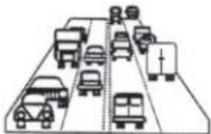
**LOS A** describes free flowing conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway.



**LOS B** is also indicative of free-flow conditions. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.



**LOS C** represents a range in which the influence of traffic density on operations becomes marked. The ability to maneuver with the traffic stream is now clearly affected by the presence of other vehicles.



**LOS D** demonstrates a range in which the ability to maneuver is severely restricted because of the traffic congestion. Travel speed begins to be reduced as traffic volume increases.



**LOS E** reflects operations at or near capacity and is quite unstable. Because the limits of the level of service are approached, service disruptions cannot be damped or readily dissipated.



**LOS F** a stop and go, low speed conditions with little or poor maneuverability. Speed and traffic flow may drop to zero and considerable delays occur. For intersections, LOS F describes operations with delay in excess of 60 seconds per vehicle. This level, considered by most drivers unacceptable often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection.

Multi-modal –the different modes of commuting within a travel corridor (automobile, subway, bus, rail, bicycle, pedestrian, or air).

Park-and-Ride – location where commuters park their personal vehicles and continue their trip by carpool, vanpool, or transit.

## Definitions Con't

Peak Hour – the hour of the day in which the maximum volume occurs across a point on the highway.

Peak Hour Volume – the hourly volume during the highest hour traffic volume of the day traversing a point on a highway segment. It is generally between 6 percent and 10 percent of the ADT. The lower values are generally found on roadways with low volumes.

Peak Period – the part of day during which traffic congestion is at its greatest. Typically, this happens twice a day, in the morning and in the evening during the time most people commute to work or return (rush hour). Peak Period is defined for individual routes, not a District or statewide standard.

Planned Project – a planned improvement or action is a project in a fiscally constrained section of a long-term plan, such as an approved Regional or Metropolitan Transportation Plan (RTP or MTP), Capital Improvement Plan, or measure.

Postmile – a measured location on a route within the State Highway System. Typically measured on routes from county lines, the values of a post mile will increase from south to north, or west to east. When a section of road is relocated, new post miles (usually noted by an alphabetical prefix such as "R" or "M") are established for it. If relocation results in a change in length, "milepost equations" are introduced at the end of each relocated portion so that mileposts on the remainder of the route within the county will remain unchanged.

Programmed Project – an improvement or action identifying funding amounts by year, and included in short term project funding documents such as the State Transportation Improvement Program (STIP) or the State Highway Operation and Protection Program (SHOPP). Programming refers to projects permitted for expenditure of monies allocated for project development and implementation (are subject to oversight by project managers).

Railroads:

Class I – a carrier having annual operating revenues of \$250 million or more. This class includes the nation's major railroads. In California, Class I railroads include Union Pacific Railroad (UP) and Burlington Northern Santa Fe Railway (BNSF).

Class II – a carrier having annual operating revenues between \$250 million and \$20 million. Class II railroads are considered mid-sized freight-hauling railroad in terms of operating revenues. They are considered "regional railroads" by the Association of American Railroads.

Class III – a carrier having annual operating revenues of \$20 million or less. The typical Class III is a short line railroad, which feeds traffic to or delivers traffic from a Class I or Class II railroad.

Route Designation – refers to design standards applicable to a route based upon legislative intent. Typical legislative designations include but National Highway System (NHS), Interregional Route System (IRRS), Freeway and Expressway System, and Scenic Highway System.

Rural – Fewer than 5,000 in population designates a rural area. Limits are based upon population density as determined by the U.S. Census Bureau.

Segment – A portion of a facility between two points.

## Definitions Con't

System Operations and Management Concept – Describe the system operations and management elements that may be needed within 20-25 years. This can include Non-capacity increasing operational improvements (aux. lanes, channelization's, turnouts, etc.), conversion of existing managed lanes to another managed lane type or characteristic (e.g. HOV land to HOT lane), TMS Field Elements, transportation demand management, and incident management.

System Preservation - the unmet needs estimate for preserving the state's transportation system incorporates three elements: preventive maintenance, rehabilitation and reconstruction, and regulatory mandates.

- Preventive maintenance applies cost-effective treatments to existing transportation infrastructure to help preserve it, slowing down future deterioration and maintaining or improving the functional condition of the infrastructure (without significantly increasing the structural capacity). Preventive maintenance strategies are typically applied to assets that are in good condition and have significant remaining service life. This ensures the structural integrity of transportation systems that serve people and freight.
- Rehabilitation and reconstruction strategies are applied to transportation infrastructure that is in fair to poor condition. The goal here is to restore assets to an acceptable operating condition.
- Preservation efforts also include the cost of regulatory mandates. Examples of regulatory mandates include storm water retrofitting required by the Clean Water Act (CWA) and state water quality control boards, and improvements required by the Americans with Disabilities ACTC (ADA).

TDM – transportation Demand Management programs designed to reduce or shift demand for transportation through various means, such as the use of public transportation, carpooling, telework, and alternative work hours. TDM strategies can be used to manage congestion during peak periods and mitigate environmental impacts.

Tier I - partially programmed projects

Tier II - fiscally constrained projects that are not programmed. Projects in this category must be from a fiscally constrained document/list (such as the fiscally constrained project list in an RTP) and not from an unconstrained document (such as a TCR).

Tier III - projects that the District will advocate to be included in fiscally constrained projects lists (RTP, SHOPP) during the 20-25 year planning horizon. These are projects that are not currently in a fiscally constrained project list.

Tier IV - projects that have a demonstrated need within the 20-25 year time horizon and have been identified as high priority by the District but are unlikely to receive funding within the 20-25 year time horizon. These are likely projects that will be programmed if an unexpected funding source becomes available, like an initiative or local measure.

Tier V - other projects identified as needed by the District: these may be within the 20-25 year time horizon, beyond the 20-25 year time horizon, or only conceptual in nature.

## Definitions Con't

Transportation Management System (TMS) -- the business processes and associated tools, field elements and communications systems that help maximize the productivity of the transportation system. TMS includes, but is not limited to, advanced operational hardware, software, communications systems and infrastructure, for integrated advanced TMS and information systems, and for electronic toll collection systems.

Urban – 5,000 to 49,999 in population designates an urban area. Limits are based upon population density as determined by the U.S. Census Bureau.

Urbanized – over 50,000 in population designates an urbanized area. Limits are based upon population density as determined by the U.S. Census Bureau.

Vehicle Miles Traveled (VMT) – the total number of miles traveled by motor vehicles on a road or highway segments.

## APPENDIX D: Resources

### Policy Documents:

- [Related Department Deputy Directives and Director's Policies](#)
- [Caltrans Program Review](#)
- [Caltrans Smart Mobility Framework](#)
- [Moving Ahead for Progress in the 21<sup>st</sup> Century \(MAP-21\)](#)
- [Federal Clean Air Act<sup>1</sup>](#)
- [Americans with Disabilities Act \(ADA\)](#)

### Planning Documents:

- [Goods Movement Action Plan](#)
- [California Transportation Plan](#)
- [California Interregional Blueprint](#)
- [District System Planning Documents \(TCRs, CSMPs, DSMPs, TSDPs\)](#)
- Transportation System Management (TSM) plans including:
  - [High-Occupancy Vehicle \(HOV\) plans](#)
  - [Ramp Metering Development Plan \(RMDP\)](#)
  - [Transportation Management System Master Plan](#)
  - [Mobility Performance Report](#)
  - [Highway Congestion Monitoring Program](#)
  - [Strategic Highway Safety Plan](#)
  - [Traffic Operations Strategies](#)
  - [Other system management planning documents](#)
- [State Highway Operation and Protection Program \(SHOPP\)](#)
- [State Transportation Improvement Program \(STIP\)](#)
- Non-motorized vehicles plans and programs
- [Caltrans Bicycle Program](#)
- [California Aviation System Plan \(CASP\)](#)
- [California State Rail Plan 2007-08 to 2017-18](#)
- [Interregional Transportation Strategic Plan](#)
- [Complete Streets Program](#)
- [Smart Mobility Framework](#)
- Regional Transportation Plans (RTP)
- Regional Transportation Improvement Programs (RTIP)
- Tribal Transportation Plans (TTP)
- [State Implementation Plans \(SIPs\)](#)
- Regional Air Quality Plans
- Local/Regional Transit Plans
- Local General and Specific Plans
- [Caltrans Highway Sequence List](#)
- [Regional Advance Mitigation Planning \(RAMP\)](#)
- [Caltrans Statewide Advance Mitigation Initiative \(SAMI\)](#)
- [ADA Infrastructure Program](#)

