

Transportation Development Act 2006/07 Surplus LTF

Clovis	351,703
Coalinga	77,788
Firebaugh	62,070
Fowler	44,895
Fresno City	1,843,903
Huron	67,931
Kerman	95,572
Kingsburg	103,991
Mendota	81,184
Orange Cove	89,125
Parlier	103,666
Reedley	215,810
Sanger	215,648
San Joaquin	34,660
Selma	212,048
Fresno County	678,640
Total	4,278,634



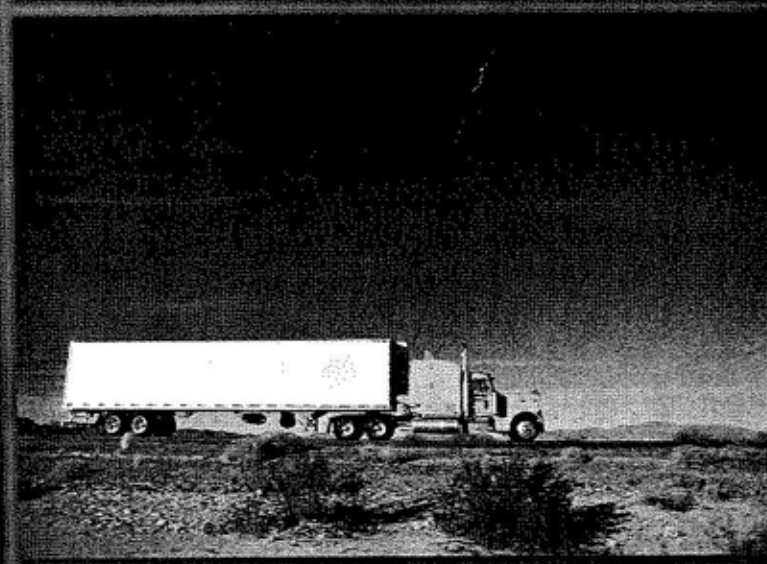
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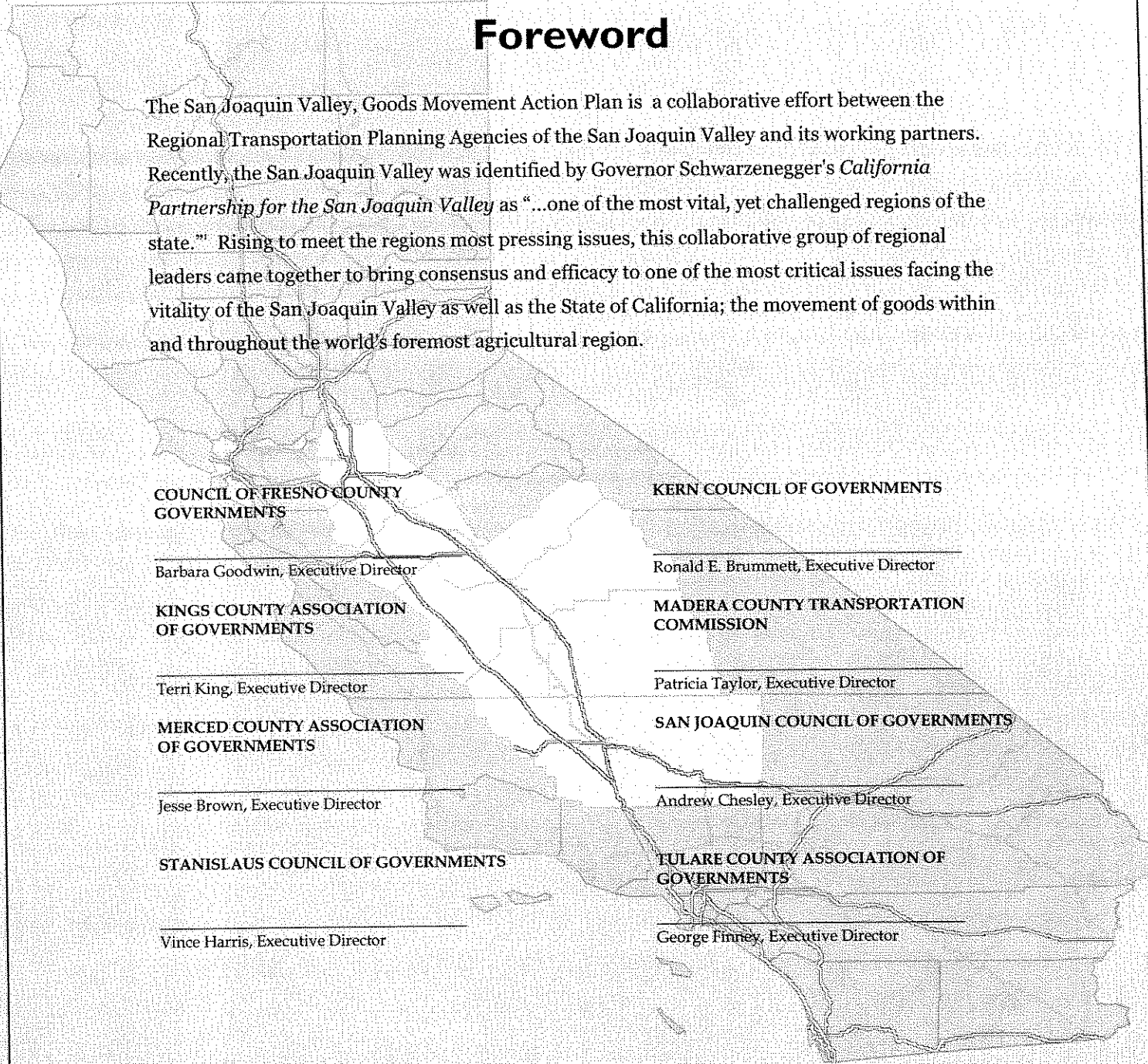
San Joaquin Valley

Regional Goods Movement

Action Plan

2007





Foreword

The San Joaquin Valley, Goods Movement Action Plan is a collaborative effort between the Regional Transportation Planning Agencies of the San Joaquin Valley and its working partners. Recently, the San Joaquin Valley was identified by Governor Schwarzenegger's *California Partnership for the San Joaquin Valley* as "...one of the most vital, yet challenged regions of the state." Rising to meet the regions most pressing issues, this collaborative group of regional leaders came together to bring consensus and efficacy to one of the most critical issues facing the vitality of the San Joaquin Valley as well as the State of California; the movement of goods within and throughout the world's foremost agricultural region.

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San Joaquin Valley Goods Movement Action Plan

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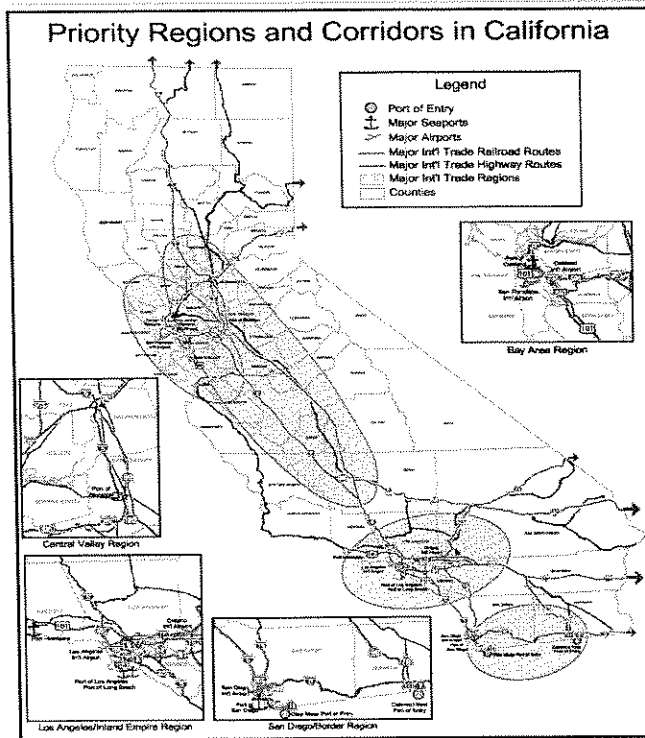
I. Introduction

Located in the geographic center of the State of California, the San Joaquin Valley is truly at the heart of California. The counties of the San Joaquin Valley are home to three of the world's most famous national parks; Yosemite, Sequoia and Kings Canyon. There are numerous institutions of higher learning in the valley including the University of California, Merced, three California State University campuses and numerous community college campuses. Moreover, the San Joaquin Valley is home to the fastest growing population in the state.

On nearly all fronts, this rich and culturally diverse region is taking the lead as one of the most vital regions to the economic well being of the state, including its standing as the largest agricultural region in the world, with nearly \$20 billion in annual sales.

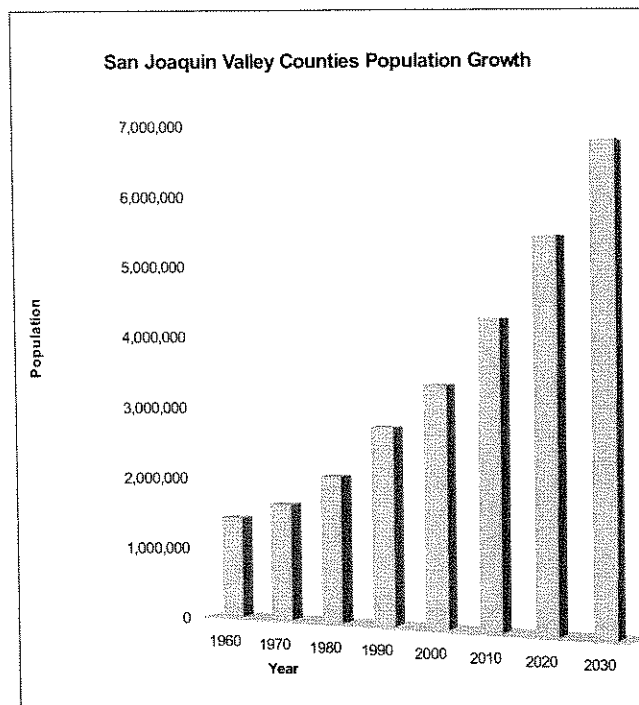
Critical to the valley's agribusiness, however are the San Joaquin Valley's roads and trade corridors which it shares with the rest of the state. Perishable goods such as grapes, tomatoes, peaches, plums, berries, squash, and many others, rely on the interconnected system of regional and state routes, in order to make it from farm to market in a timely manner. This farm to market timeliness has huge economic implications. With the proper implementation of goods movement infrastructure, these products could represent huge international market shares to destinations in East Asia and abroad.

Exhibit I



Source: Business, Transportation and Housing Agency & California Environmental Protection Agency Goods Movement Action Plan (2007)

Chart I



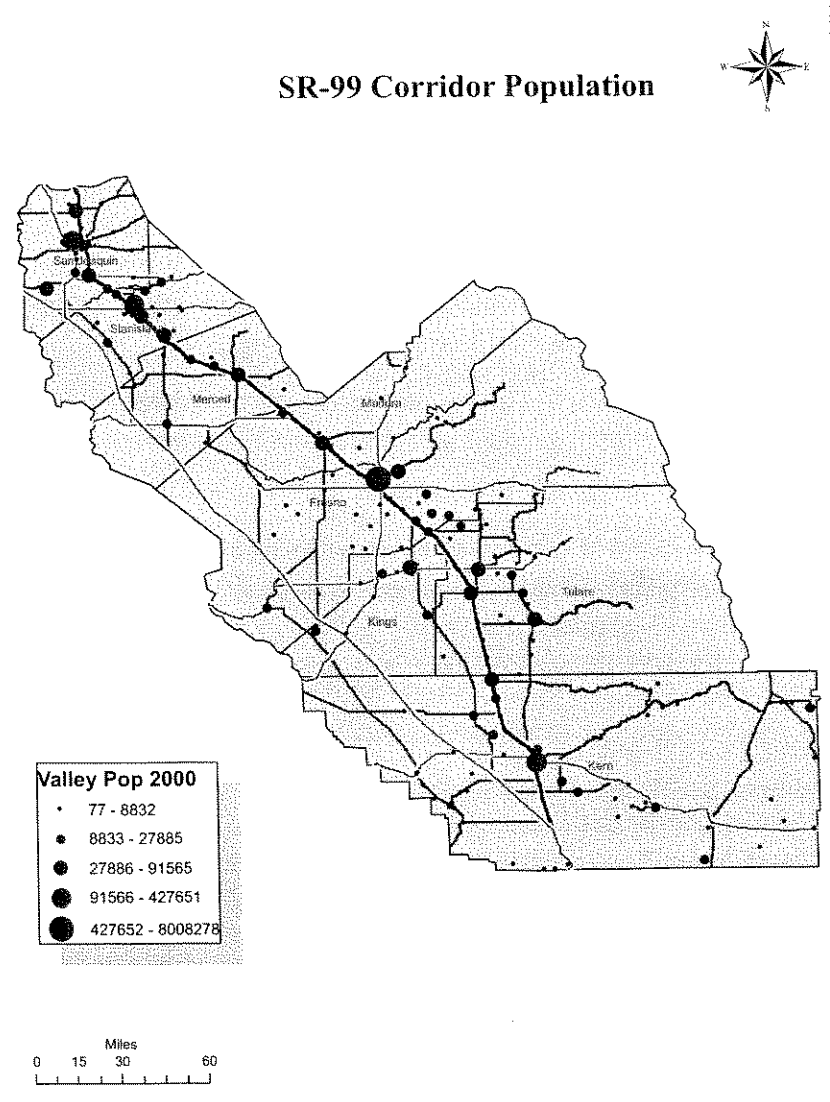
Source: California Department of Finance

In January 2007, the Business, Transportation and Housing Agency (BTH), in a joint effort with the California Environmental Protection Agency (CAL-EPA), prepared a Goods Movement Action Plan, to address growth issues in California. Not surprisingly, the Central Valley Region, was marked as one of four priority regions to the economic vitality of the State of California with strategic corridors of state, national and international significance. See Figure 1. This corridor, which begins at the Port of Oakland, extends through the San Joaquin Valley, and includes the Tehachapi Pass.

In fact, the San Joaquin Valley's roads are **the** most heavily traveled trade corridors in the state. Huge statewide goods movement demand has over-burdened the San Joaquin Valley's trade corridor system.

In part, this is due to the state's geography. The San Joaquin Valley is relatively long, narrow and flat. About 300 miles long and 100 miles wide, it occupies nearly 27,000 square miles of flatland. Lying between mountain ranges to the east and west, the valley serves as the primary trade corridor for the largest metro-politan areas in California San Francisco to the north and Los Angeles south. Already home to nearly 3.6 million people, the San Joaquin Valley is also one of the fastest growing regions in the state, far exceeding state's growth rates during the past ten years. By 2050, the San Joaquin Valley's population is expected to exceed 9.5 million--

Exhibit 2



168% increase. As a desirable and relatively affordable place to live, the San Joaquin Valley is under tremendous population growth pressures from the metropolitan areas to the north and south.

In the southern San Joaquin Valley, Kern County is under growth pressure from Los Angeles. In the north valley, the counties of San Joaquin, Stanislaus and Merced have become virtual bedroom communities for people seeking affordable, owner occupied housing within automobile commuting range of the Bay and

Sacramento Areas.

In fact, recent reports indicated the approximately 70% of the northern San Joaquin Valley's population increase is due to migration, mostly from the Bay Area. As a result, the primary gateways in and out of the San Joaquin Valley are becoming serious bottlenecks. Interstate 205/508 connecting the Bay Area to the valley is one of the most heavily congested inter-regional corridors in and out of the Bay Area. Moreover, the east-west routes throughout the San Joaquin Valley are

heavily congested with goods movement traffic connecting to the San Joaquin Valley's main inter-regional arteries I-5 and SR99.

Unfortunately, the San Joaquin Valley is leading the state in another way--worst air quality. In fact, the San Joaquin Valley is home to the top five cities with the worst air quality in the nation. In large part, this is due to the unique geographic landscape of the San Joaquin Valley, which is shaped like a bowl. Pollution from emissions simply become trapped in the valley. As such, San Joaquin Valley residents have the highest degree of air quality related health problems in the nation.

In fact, residents of the San Joaquin Valley rank among the highest 5% in the nation for pollution-related health risks and the implications are profound. Valley residents regularly suffer asthma attacks, acute bronchitis, lost work days, reduced activity, hospital admissions, school absences, and even premature death because of exposure to air pollution.

As the population of the San Joaquin Valley continues to grow, planning agencies and community leaders are collaboratively engaging in strategic growth planning, turning the situation into part of the solution. Smart growth planning efforts, such as the San Joaquin Valley Regional Blueprint, the San Joaquin Valley Partnership and San Joaquin Valley, Regional Goods Movement Action Plan, are just a few of the efforts underway. Their focus is to not only address current issues and needs, but, to integrate solutions to current needs with those of identified, evolving trends, and to ultimately bring effective, system-wide cohesion.

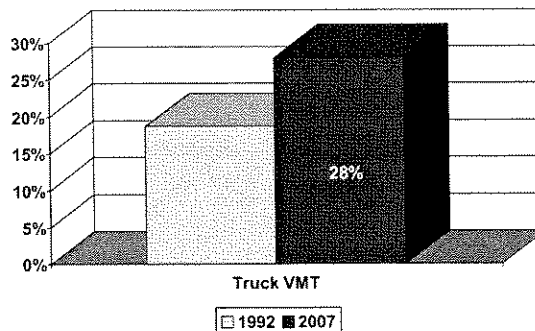
II. San Joaquin Valley Goods Movement System

As the San Joaquin Valley continues to evolve and add population, it will be faced with the challenge of providing both mobility and healthy air quality for its projected 9.5 million people. This growth in population will bring with it, increased freight transportation demand that will create issues that need to be addressed in the transportation and land use planning process. Specifically, development pressures throughout the valley are creating growing concerns about congestion on regional streets and highways. The issue of healthy air quality for the Valley is also intrinsically linked to goods movement due to the Valley's topography and climatology and the proximity of the majority of the Valley's population to State Route 99. In addition, the growing percentage of trucks using SR 99 and I-5 due to the Valley's north-south geography and its strategic location in the "center" of California will serve to accelerate the deterioration of the Valley's street and highway system due to the "loading" factor of heavy-duty trucks.

The factors described above combined with the San Joaquin Valley's standing as the largest agricultural region in the world and the fact that its centralized location is ideal for regional distribution centers, has led to a situation where demand for goods movement is increasing very rapidly. As the number one agricultural region in the world, the intra-county linkage of goods to processing plants, and the inter-county linkage of goods to other regions, manufacturers, and shipping ports is essential. Not only is the San Joaquin Valley a leading agricultural producer, it is also a prominent producer of oil and other minerals. These industries rely heavily on

bulk movement by truck, rail and pipeline. As a great deal of land in the San Joaquin Valley is used for agricultural production, cities tend to be widely separated from each other and developed at low densities due to their origins as locations for north-south railroad stops. A majority of the locally developed road and rail network serves farm-to-market activity. Major transportation facilities in the Valley also serve as conduits between major metropolitan areas in California, and national recreation areas located in the

Chart 2 San Joaquin Valley State Truck VMT



Valley.

Generally, the major transportation facilities in the San Joaquin Valley are located on a north-south axis and include State Route 99, Interstate 5, the Union Pacific Railroad and the Burlington Northern Santa Fe Railroad. The Valley is also home to numerous oil and natural gas pipelines, as well as a myriad of telecommunication facilities, and air travel corridors. East to west transportation facilities in the San Joaquin Valley are less numerous but are critical to the interregional transportation network of the West Coast and the western United States. These east-west

routes include numerous state highways such as State Routes 58, 46, 152, 198, 180, 132, 120 and 205 among others. There are also a number of short line railroads that provide access to the mainline carriers.

Addressing goods movement issues requires a comprehensive understanding of goods movement in the Valley. This understanding can best be achieved by examining all components of the goods movement system including the facilities-streets/highways, rail, ports, intermodal transfer stations; as well as the underlying commodity flows and freight generators. The following sections will address each of these.

Highways

The regional highway system within the San Joaquin Valley plays a critical role in the movement of both people and goods. The Valley's highway network provides east-west and north-south connections to major metropolitan markets in California and beyond. Given the San Joaquin Valley's north-south geographical layout, the most important truck routes in the Valley are State Route 99 and Interstate 5 which together account for 24 of the 25 highest volume truck routes in the system. State Route 99 also serves a dual purpose as the San Joaquin Valley's "Main Street" i.e. connecting the majority of cities within the Valley and as the "primary goods movement corridor" for goods moving from southern/northern California as well as goods that are moving along the 1,400 mile West Coast Corridor from British Columbia on the north to Baja California in the south.

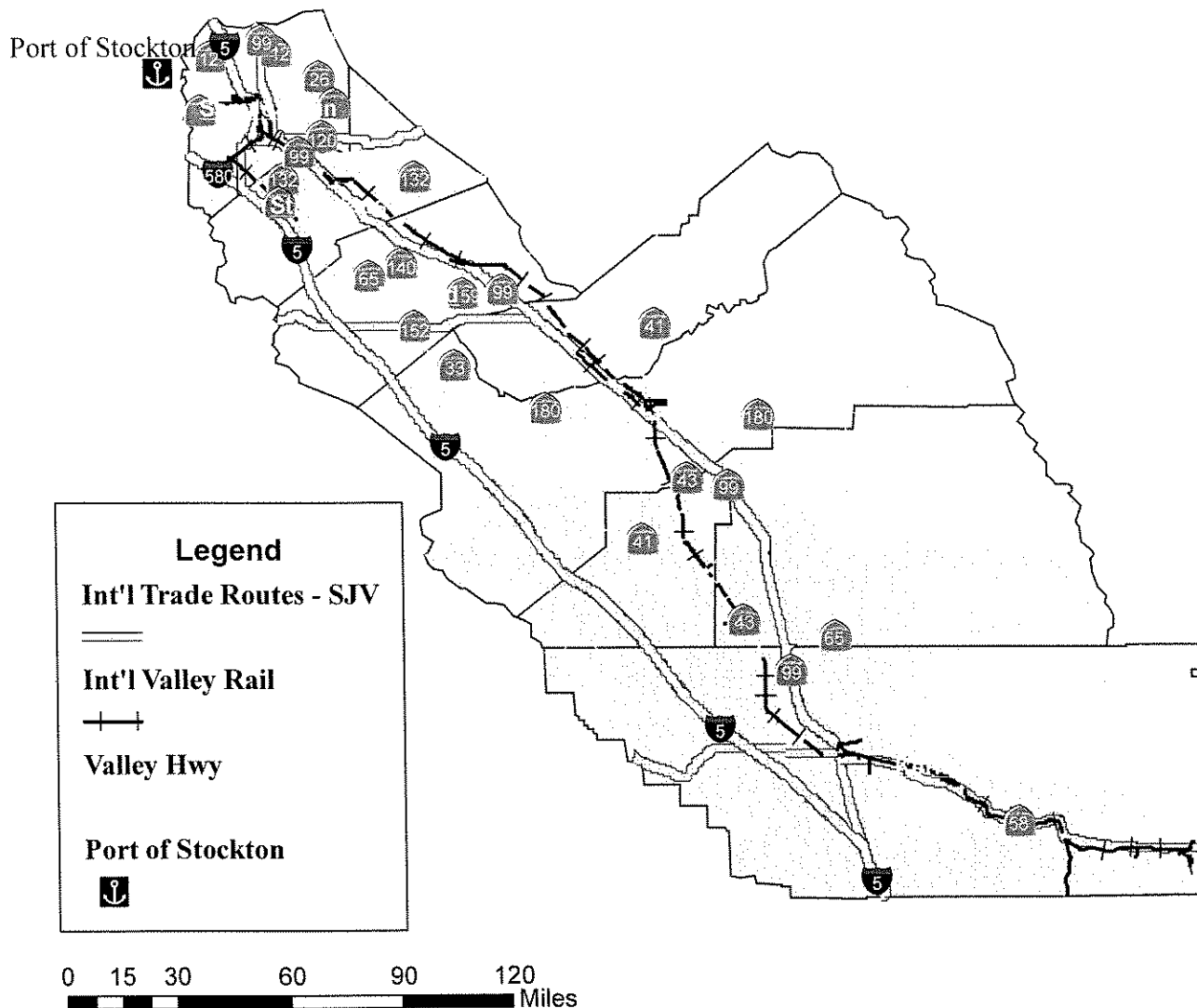
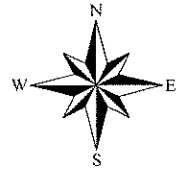
Both facilities carry a mix of different types of traffic, although Interstate-5

appears to carries mostly longer haul interregional traffic while State Route 99 carries both interregional and intra-valley traffic. SR 99 serves as the primary highway providing goods to the vast majority of San Joaquin Valley's residents. In fact, the majority (71%) of the Valley's population is located within five miles of State Route 99.

The \$1 billion for Highway 99 included in Proposition 1B makes a small dent in the nearly \$6 billion in immediate needs identified in

Exhibit 3

San Joaquin Valley Goods Movement System



Caltrans' 99 Business Plan. Far greater funding is needed, however, to bring the "Main Street" and the valley's primary goods movement corridor of the Valley up to a full six lanes from Bakersfield to Sacramento. Widening to six lanes has been a long term goal of the Valley and is necessary to accommodate the forecasted growth and avoid major congestion problems along the SR 99 corridor in the future.

Arguably, the most neglected of the Valley's goods movement street and highway facilities are the east to west highways that serve as our primary farm to market connectors. These facilities carry California produce to domestic and international markets. Highways like State Routes 205, 132, 152, 180, 198 and the 46 are being asked to serve a wider range of purposes today and in the future. In order to accommodate the projected growth in population and goods movement, additional investment in these facilities will be required.

Truck traffic in the Valley is growing at an amazing rate. The following statistics reflect this trend.

Truck traffic accounts for anywhere from 19% in Stanislaus County to 27% in Kern County near I-5 while the statewide average for truck volumes is 9% by segment.

In 1992, truck VMT in the San Joaquin Valley accounted for 18.7% of all statewide truck VMT. In 2007 it has grown to 28% and is climbing.

Over a six-year period from 1997 to 2003, truck traffic grew 33% while the state as a whole grew about 8%.

It is estimated that between 25% and 30% of all truck movements in the San Joaquin Valley are through trips not generated in the Valley.

On Interstate 5 it is estimated that up to 30% of the traffic is trucks, depending upon the location. Truck traffic on State Route 99 is two to three times (18% to 27%) the average for the state.

Large trucks (5+ axle) play a very important role in the region's trucking system, constituting over 20% of total Annual Average Daily Traffic in some locations on SR 99. Surface Transportation Assistance Act (STAA) trucks are the largest trucks (STAA trucks are defined as tractor-trailer combinations more than 65 feet in length or with a kingpin to rear axle length greater than 40 feet) allowed to operate on California's highways and are restricted to a designated STAA roadway network. Unfortunately, the geometry of many of the Valley's interchanges do not easily accommodate these longer trucks which now make up about 70% of the truck fleet. In order to address this situation, additional STAA truck signing and geometric improvements to various interchanges will be required. Additionally, necessary expansion of our roadside rest system is required to deal with truck safety and to reduce the impact of on-street parking by trucks in communities along freeways

As we look forward, several trends are clear, among them are:

The Valley's agricultural industry's reliance on local routes and State highways to move goods from farm-to-market will continue to increase as the Valley's farm production continues to grow in order to meet a growing planet's needs for food and fiber.

The San Joaquin Valley's centralized location lends itself to the location of distribution centers, which in turn leads to more heavy-duty diesel trucks utilizing

our street and highway system, thereby creating more "wear and tear" on the facilities and generating additional emissions.

Forecasted congestion on East-West routes connecting the Bay Area to Stockton and Modesto area will continue to worsen as goods movement increases and Bay Area employees continue to seek affordable housing in the Valley.

Investments that improve access to intermodal transfer points will need to be taken into consideration and funding sought as "Just-in-Time" delivery continues to become the primary business model for many goods movement companies.

The Port of Stockton has emerged as the fourth (effectively tied with the Port of San Diego) largest port in California, but continues to be growth constrained due to access issues on neighborhood surface streets.

At-grade intersections between vehicular traffic and trains are quite numerous in Valley communities and present a safety hazard. Future growth in population and goods movement will only worsen the situation.

Problematic access to large activity centers for large STAA trucks and doubles will increase due to ramp and roadway geometrics as will safety and road maintenance issues associated with truck traffic.

Rail-Track Access to Port Facilities

For intermodal facilities, access to the state's transportation network is a critical factor in the selection of potential facilities. Rail-truck facilities are designed to combine the efficiency of trucks with the economy of rail in two types. The first type facilities combine the direct transfer between freight cars and trucks, the second type facilities move the without immediate transfers. The first type facilities involve more extensive facilities and the complexity of transferring packages as they are loaded on the rail cars. The second type facilities are located in the yards of intermodal services. Grounds are the yard and existing rail facilities. The second type facilities are located between yards. Potentials also include existing equipment, security, facilities and dispatching centers, and other facilities in the field of information. Terminals in the San Joaquin Valley's access to the state's intermodal facilities and for the and for the state's intermodal facilities. The Port of Stockton is located in the San Joaquin Valley's access to the state's intermodal facilities and for the and for the state's intermodal facilities. The Port of Stockton is located in the San Joaquin Valley's access to the state's intermodal facilities and for the and for the state's intermodal facilities.

As the San Joaquin Valley continues to grow, demand for intermodal services will likely grow. Increasing traffic at the potential for local truck congestion problems and access to intermodal facilities could become a critical issue.

PORTS

The Port of Stockton is the only significant port facility in the San Joaquin Valley and an integral part of the state's good transportation network. The Stockton Deepwater Channel, with a 10-foot depth at average low tide and a 40-foot depth at high tide, has the capacity to accommodate 70 percent of the World's Bulk Fleet. Located 75 nautical miles due east of the Golden Gate Bridge, the Port of Stockton owns and operates a diversified and major transportation center that encompasses 600 acres. Port officials estimate that, on average, 450 to 500 vessels use the Port each year. Included among the commodities that the Port handles are: dry bulk commodities, raw bulk cargo (steel coils, steel products), general cargo, and liquid bulk cargoes (fertilizers, molasses, petroleum products, etc.) The Port's Beltline Railroad accesses all Port warehouses, transit sheds, and other facilities. Convenient access by surface transportation to the entire United States is provided by the two transcontinental railroads, UP and BNSF. The Port handles millions of tons of cargo that otherwise would be using the railroads or roadway; however, they continue to rely on both tracks and rail to deliver inbound cargo and distribute outbound cargo.



Rail

Deregulation of the railroads during the 1980s has left the SJV with two Class I railroads, the Burlington-Northern Santa Fe (BNSF) and the Union Pacific (UP). Both of these railroads offer rail-truck intermodal service from a number of locations in the Valley. In addition, several short line rail operators provide connections to the mainline services. UP representatives report that they operate an average of 19 trains a day through the San Joaquin Valley carrying food products, general freight, grain, and lumber. In addition, UP and CSX Transportation are teaming to offer a new service in the San Joaquin Valley for perishable goods.

One of these services known as "The Express Lane" offers two tiers of refrigerated service from the San Joaquin

Valley to New York and Boston. Other rail operations include the San Joaquin Valley Railroad (State Railways Inc.) Which operates a regional rail freight service between Tulare, Fresno, and Kings Counties on 125 miles of leased Union Pacific branch lines connecting outlying areas to mainline carriers. The Modesto and Empire Traction railroad connects with the UP in Modesto and with the BNSF in Empire. These rail systems and a number of local spur lines, move freight through the Valley daily. The majority of cargo shipped by rail are bulk items such as grains, food products, vehicles, and fuels. Rail transport provides the option of specialized rail cars such as flatbeds, refrigerated boxcars, fuel tankers, and piggy back cars. These specialized rail cars allow transport to move a large variety of

goods giving rail an advantage over other modes of transportation for distances over 500 miles or more. Transport by rail is generally less expensive for long hauls than air or truck transport; however rail is limited by speed and by the limitation of fixed rail track. An especially acute example of rail limitation is the rail route over the Tehachapi Summit in Kern County. Some of the route is single track, and although recent work on tunnels now allows for double-stacked containers to pass over the line, opposite traffic is often diverted sidings, creating a freight bottleneck over, into and out of the San Joaquin Valley. allows for double-stacked containers to pass over the line, opposite traffic is often diverted sidings, creating a freight bottleneck over, into and out of the San Joaquin Valley.





Air Service

There are six Federal Aviation Administration (FAA) certificated landing facilities in the San Joaquin Valley including:

- Meadows Field in Bakersfield
- Fresno-Yosemite International
- Merced Municipal
- Modesto City Airport
- Stockton Metropolitan
- Visalia Municipal

All of these facilities can, in theory, handle air cargo in the form of mail shipments and belly cargo carried on passenger flights. Of the six landing facilities, only Fresno Yosemite International airport reports cargo statistics to state and federal agencies. However, while air cargo is still a relatively small component of the regional freight market, it is expected to be an increasingly important mode in the goods movement system.

Air service is characterized by the fast shipment of small bulk items of high value over long distances for high cost. Goods movement by air is an emerging element of freight movement in the San Joaquin Valley. Statewide, 23 out of the 43 commercial air carrier airports account for almost 3 million tons of freight transported by air.

While air freight is a specialized mode of transportation, it accounts for an estimated 60 percent of the export values in California. Air carriers depend heavily on truck transportation to deliver goods for transport. It is important, therefore, to have adequate infrastructure in place for this significant element of the State's economy. According to the Intermodal Transportation Management System GIS database, the commodities most typically Shipped by air to and from the Valley include food and

kindred products, machinery, and miscellaneous manufactured products. Economy. According to the Intermodal Transportation Management System GIS database, the commodities most typically shipped by air to and from the Valley include food and kindred products, machinery, and miscellaneous manufactured products.

A significant feature of air movement is its dependability and very short in-transit time. For businesses seeking to open new markets or dealing in high value items, air shipment is an important means of providing rapid access to distant manufacturing facilities, thereby eliminating large inventory requirements. In such cases, air shipment makes it possible to establish supply lines quickly and significantly lowers the cost of carrying inventory. This offsets the higher cost of the air mode.

III. San Joaquin Valley Commodity Flow Analysis

One of the first steps in understanding goods movement in the San Joaquin Valley is to characterize the flows of commodities that drive freight transportation demand. The best and most detailed available source for commodity flow information is the Caltrans 2002 Intermodal Transportation Management System (ITMS) commodity flow database. Some of the key characteristics of San Joaquin Valley commodity movements as identified in the ITMS are summarized in chart # . As shown in the figures below, four commodity groups account for 77 % of outbound and 59% of inbound commodity shipments by tonnage. These commodity groups include non-metallic minerals, farm products, and food or kindred products. These commodity groups reflect the heavy agricultural orientation of the Valley.

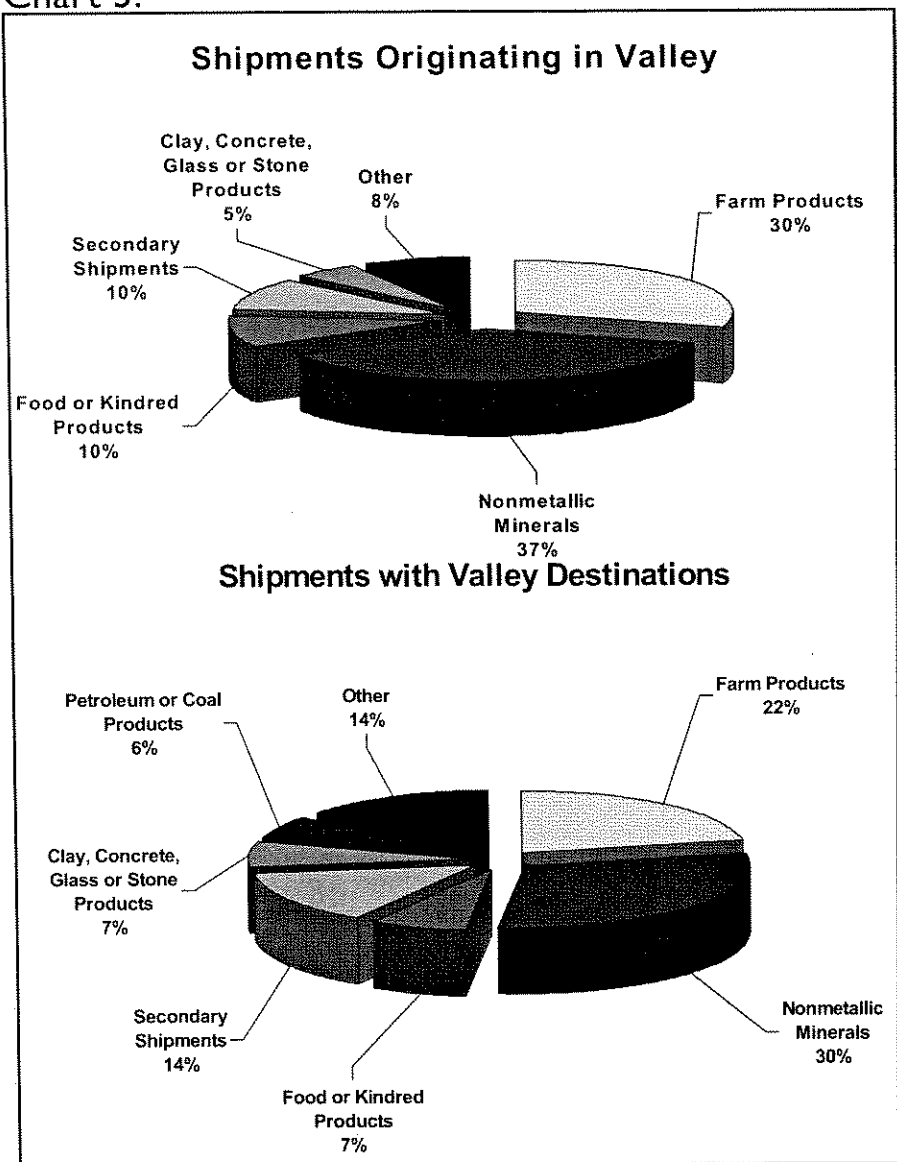
In 2002 almost 170 million tons of commodities were shipped by truck from the San Joaquin Valley, including shipments to other locations within the Valley.

Approximately 93 million tons of commodities were shipped by truck from the Valley to locations outside the Valley.

Nearly 141 million tons of commodities were shipped by truck to the San Joaquin Valley, including shipments to other locations within the Valley.

As one analyzes the commodities flow in the San Joaquin Valley, the role of agriculture can not be understated. ***If it were its own state, the San Joaquin Valley would lead the nation in the value of agricultural production.*** The San Joaquin Valley alone produces \$20 billion in agriculture. A vast diversity of crops is produced in the San Joaquin Valley including fruits and nuts such as apples, almonds, citrus, figs, cherries, raisins, wine

Chart 3.



Source:

Grapes, pistachios, apricots, table grapes, walnuts and melons. Vegetables grown in the Valley include asparagus, cucumbers, tomatoes and onions. Field crops include alfalfa hay, dry beans, cotton, oats, sweet potatoes and wheat. Livestock products include cattle, chickens and eggs, honey, milk, sheep and turkeys.

More fresh fruit produce is grown and shipped from Reedley, California than from any other area of the world. Agricultural production and processing are especially significant to the economy of California's Central Valley where, including ripple effects, they generate 24.2 percent of the private sector employment and 18.5 percent of the private sector labor income. Excluding ripple effects, agriculture directly accounts for 12.6 percent of jobs and 8.4 percent of labor income. (2002).

The most important market for California agricultural production is the United States. The domestic market accounts for about three-quarters of California farm cash receipts. The remaining 26 percent was exported.

Export markets typically take between one-third and two-thirds of California almonds, cotton, walnuts, rice, dried plums and pistachios. The top export destinations in 2004 were the European Union (25%), Canada (21%), Japan (13%), Mexico (8%), China/Hong Kong (7%) and South Korea (4%). Being the number one agricultural region in the world brings with it certain recognition which includes the following:

- The San Joaquin Valley is the largest producer of melons in the nation. During peak melon season, late through October, the region produces about 65% of the melons harvested in the state.

- Approximately 65 million tons of commodities were shipped by truck from outside the Valley.

Trucking is the dominant mode for transporting goods within the Valley as reflected by the following statistics:

- In 2002, approximately 45% of all truck freight shipments that originated in the

Table I .

San Joaquin Valley's Leading Commodities

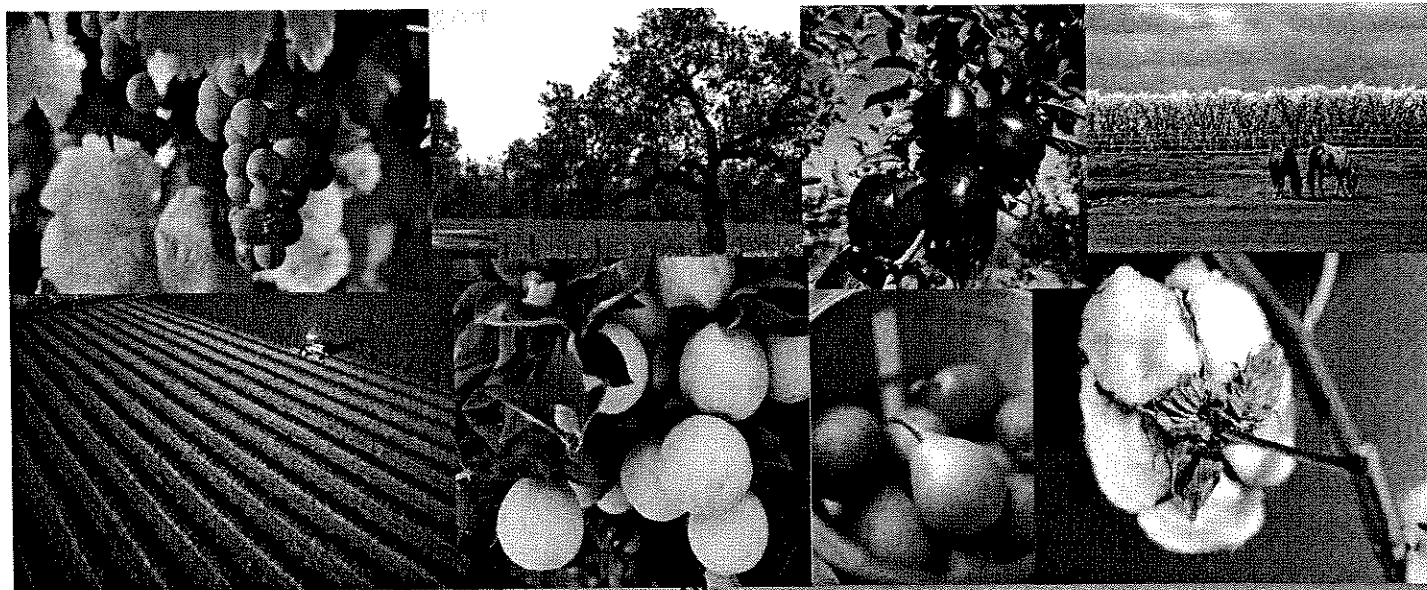
Statewide Rank*	Leading Commodities*	Total Value*
1. Fresno County	Grapes, Almonds, Milk, Tomatoes, Cattle	\$4.64 bil.
2. Tulare County	Milk, Oranges, Cattle, Grapes, Alfalfa/Silage	\$4.36 bil.
3. Kern County	Almonds, Grapes, Milk, Citrus, Pistachios	\$3.54 bil.
5. Merced	Milk, Chicken, Almonds, Cattle, Sweet Potatoes	\$2.38 bil.
6. Stanislaus	Milk, Almonds, Cattle, Chicken, Walnuts	\$1.97 bil.
7. San Joaquin	Milk, Grapes, Almonds, Tomatoes, English Walnuts	\$1.74 bil.
9. Kings	Milk, Cotton, Cattle, Pistachios, Alfalfa	\$1.40 bil.
13. Madera	Almonds, Grapes, Milk, Pistachios, Calves	\$1.10 bil.

*-Information above based on 2004-05 data provided by Agricultural Statistical

- Valley had a destination in the Valley.
- 26% of all truck freight shipments that originated in the Valley were destined for Southern California and 13% were headed for the Bay area.
- In 2002, nearly 60% of truck freight shipped to the Valley, had it origins in the Valley. 18.5% had its origins in Southern California and 13.4 % in the Bay area.
- Commodity movements by truck also

- indicate a strong relationship with the rest of the state with shipments to/from Southern California and the Bay Area constituting the greatest percentage of total tonnage to and from the Valley (26 and 13 percent of the total respectively.)

Above is a county by county list of the leading commodities and their dollar value that are produced and shipped within the eight San Joaquin Valley counties.



Using a combination of existing databases and field surveys, transportation planners have been gathering data to further understand and identify where the key "Freight Generators" are located in the San Joaquin Valley.

Freight generators are defined as manufacturing or other types of locations that generate high volumes of goods movement, and that are most often measure by truck trips to and from the site. Airports, rail intermodal yards, and inland ports are all examples of freight generating sights. Those identified include businesses, such as, food processing plants, packing houses, manufacturing businesses, distribution facilities and warehouses, and motor carrier dispatch facilities. As part of Phase One of the San Joaquin Valley Goods Movement Study, a survey was conducted to identify and locate the most important and representative freight generating sites, map the sites in relation to highway facilities and truck access routes, and lastly to identify specific operating conditions or problems throughout the Valley.

Data collected from the survey shows that processed food products were the most commonly hauled product, followed by farm products, other commodities and mixed freight. Another important characteristic the survey sought to identify was truck trip generation at each site. The average number of truck trips generated per day at the carrier dispatch facilities was 46.27 on an average day and 111.27 during peak periods. Data from both shippers and carriers confirms the presence of seasonal variations in shipping patterns. Both shippers and carriers

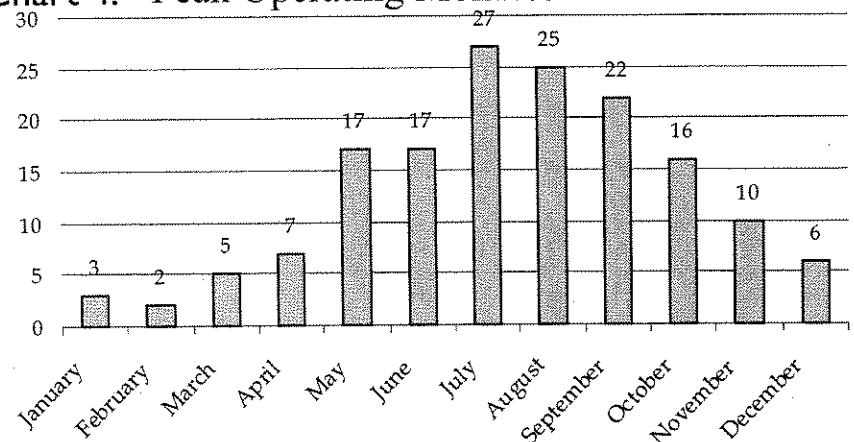
indicated seasonal peaks in the summer and early fall (July to September).

Many of the food processing businesses in the Valley generate sufficiently large volumes of freight destined for long-haul shipping to make rail boxcar shipment a preferred mode given the low cost of this mode relative to trucking. However, availability of boxcars and reliability of service have been ongoing challenges for the railroads. Clearly, the deregulation process that left the western United States with only two Class I rail carriers has taken a toll on service.

Surveys of San Joaquin Valley intermodal shippers suggest continued growth in intermodal market share, however this is likely to occur at the expense of rail carload services instead of truck traffic. This is due to intermodal rates being relatively competitive with trucking. BNSF representatives indicate that the new intermodal terminal in Stockton is necessary to keep up with the growing demand in the Valley for intermodal services and will serve a completely different market than the Joint Intermodal Terminal in Oakland. This growth in intermodal volumes will be primarily long

services and will serve a completely different market than the Joint Intermodal Terminal in Oakland. This growth in intermodal volumes will be primarily long haul shipments and will have little impact on regional truck traffic.

Chart 4. Peak Operating Monthes



IV. The Impact of Goods Movement on the San Joaquin Valley's Air Quality

The San Joaquin Valley experiences poor air quality during many parts of the year. The Environmental Protection Agency (EPA) has designated the entire San Joaquin Valley a nonattainment area. The region faces challenges of severe health, social and economic impacts that are associated with the worst ozone and particulate air pollution in the nation. An April 2006 report card from the American Lung Association ranks Bakersfield as the most ozone-polluted city in the country, with Visalia-Porterville in third place, Fresno-Madera ranked fourth and Merced ranked fifth.

The air pollution problems of the Valley are attributable in part to a more limited air pollution "carrying capacity" than that of any other major air basin in the country. "Carrying capacity" is not a legally defined term, but rather a way of describing differences in regional vulnerability to air emissions from one air basin to another. In simple terms, a low level of emissions in this region can create a serious air pollution problem. Due to the bowl-shaped geography, very hot summer temperatures and temperature inversions, the San Joaquin Valley Air basin is ideal for ozone and PM_{2.5} formation and retention of pollutants. Analysis shows that the Valley is far less tolerant of pollutant emissions than other air basins in California. This is illustrated by the fact that the Valley has comparable 8-hour ozone exceedances to the South Coast despite having only one tenth the emissions density, and more than 7 times the exceedances of the Bay Area despite having only one sixth the emissions density.

Table 2.

		HHDDT Vehicle Miles Traveled in 2010* (1000 miles/day)	NOx Emissions from HHDDT in 2010 (Tons/Day)**	ROG Emissions from HHDDT in 2010 (Tons/Day)**	PM Emissions from HHDDT in 2010 (Tons/Day)**	8-hour Ozone Exceedances in 2006***
Attainment Designation						
San Joaquin Valley	Extreme	8636	212.65	15.73	8.89	86
South Coast	Extreme	6733	140.05	11.79	7.09	85
San Francisco	Marginal	2542	50.36	3.57	2.03	12
San Diego	Basic	1302	25.7	1.94	1.16	14
San Joaquin Valley % of the 4 Corridors	40.0%	44.9%	49.6%	47.6%	46.4%	43.7%

*Source: Air Resources Board, EMFAC Modeling Change Technical Memo, September 2006

**Emissions Inventory from ARB Ozone SIP version 1.06

***ARB ADAM website

Note: For purposes of calculating a percentage for "attainment designation", designations were ranked from 1=Basic to 5=Extreme, with the San Joaquin Valley at 40% (6/15ths).

This low tolerance level for pollutants is being severely burdened by the Valley's role in goods movement. It is estimated that 80% of the Valley's NOx is from mobile sources, and more than half of that is from Heavy Heavy-Duty Diesel Trucks (HHDDT). Much of this truck traffic is from goods movement on Highway 99 and Interstate 5, some from trucks using these as pass-through corridors, leaving behind exhaust emissions while making virtually no contribution to the Valley economy (22% of trucks were last fueled outside of California). As shown in the table below, the Valley carries more truck traffic than any other major goods movement corridor in the State, and the resulting impact on air quality is enormous, causing the Valley to have the highest ranking for NOx, reactive organic gases, particulate matter and 8-hour ozone exceedances

Table 3.

Region	Heavy-duty diesel truck miles per day	Smog violations in 2006
San Joaquin Valley	11.6 million	86
South Coast	9.6 million	85
San Francisco	2.9 million	12
San Diego	1.5 million	14

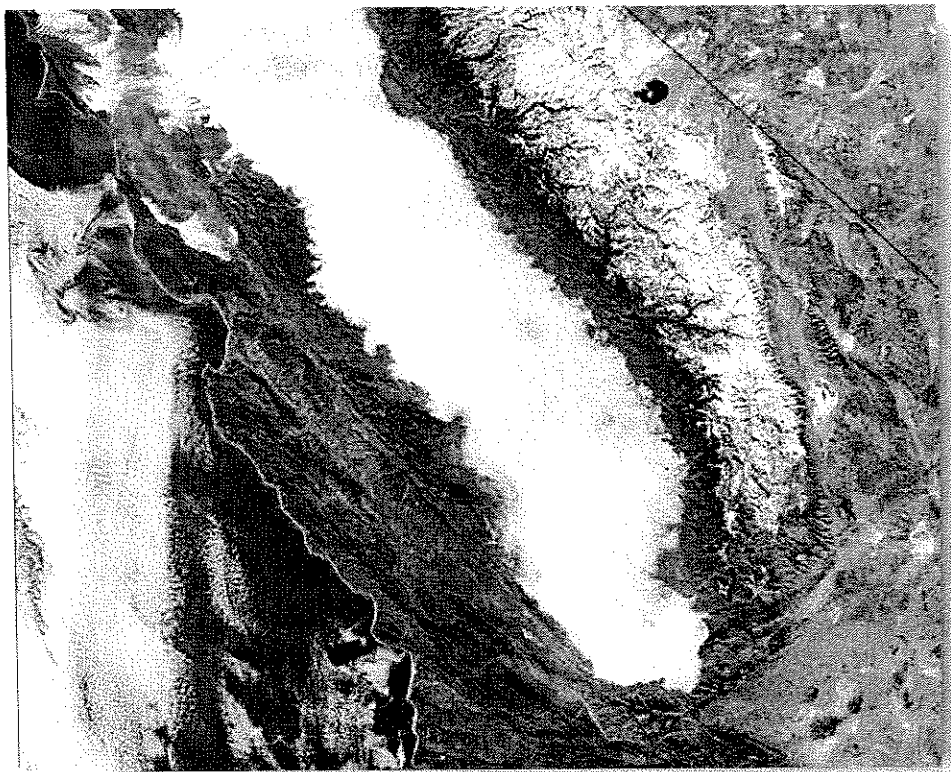
Source: California Air Resources Board - As quoted in Fresno Bee

Health Risks

Residents of the San Joaquin Valley rank among the highest 5% in the nation for pollution-related health risks and the implications are profound. Valley residents regularly suffer asthma attacks, acute bronchitis, lost work days, reduced activity, hospital admissions, school absences, and even premature death because of exposure to air pollution.

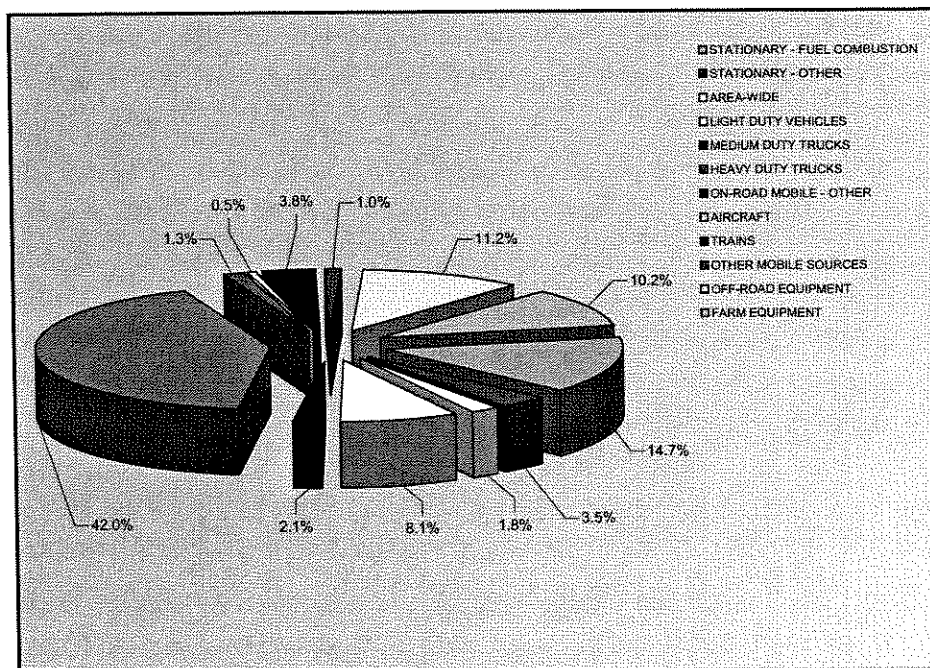
One of the most dangerous forms of primary particulate matter is PM_{2.5} produced by diesel engines. The state of California classifies diesel soot as a toxic air contaminant and ARB estimates that diesel soot from mobile and stationary sources is responsible for about 70% of the cancer risk associated with air pollution. Recent research and regulatory activity at the federal level points to new concerns about PM_{2.5} hotspots. These hotspots typically include roadways and places where many vehicles, especially diesel vehicles, congregate. Research shows that people living and working close to these areas are at higher risk for a range of lung and heart ailments. Residential distance to a freeway is directly linked to higher NO_x concentrations, wheezing, and use of asthma medications. Much of the San Joaquin Valley population lives near major goods movement corridors. Nearly 71% of the Valley's population lives with 5 miles of SR 99 or I-5, the main north-south goods movement routes in the San Joaquin Valley.

Exhibit 4. San Joaquin Valley Geography



Absorption of that *population growth and economic growth in a region that is already grossly exceeding its carrying capacity for air pollution is a major challenge for the Valley.*

Chart 5. 2005 Emissions of Oxides of Nitrogen



Source: California Air Resources Board O₃ SIP v1.03 Emissions Inventory

V. Goods Movement Strategic Action Plan

The counties of the San Joaquin Valley are working collaboratively to bring cost-effective relief to the state's heavily overburdened goods movement infrastructure. Beyond the barrage of traditional, capacity increasing projects, the counties of the San Joaquin Valley are working in unison on a holistic vision for the future of its regional, goods movement system. This system will leverage the San Joaquin Valley's existing infrastructure, and its strategic, geographic location for the flow of statewide, nationwide and international commodities as well as its unique, \$20 billion a year agricultural industry. This will serve to provide statewide systemic relief, while simultaneously bolstering the United States' international trade deficit.

Massive population shifts away from the South Coast and Bay Areas into the San Joaquin Valley require a serious paradigm shift in statewide strategic planning including that of Goods Movement.

Continually, the California Department of Finances (DOF) is revising its population projections to higher forecasts for one of the nations' fastest growing region the San Joaquin Valley. These figures are not only absolute numbers, but, are relative to the states' population percentage as a whole. Simply, the San Joaquin Valley is capturing an increasing percentage of the states' population growth.

This population growth is dramatically changing the socio-economic landscape of the valley, which is in turn affecting the state as a whole. The demand for new housing alone has brought with it enormous changes. The growth in

housing brings with it growth in target industries such as commercial development to support supply and demand. Goods of all kinds, including building materials must be transported on a goods movement system that can handle the demand challenges.

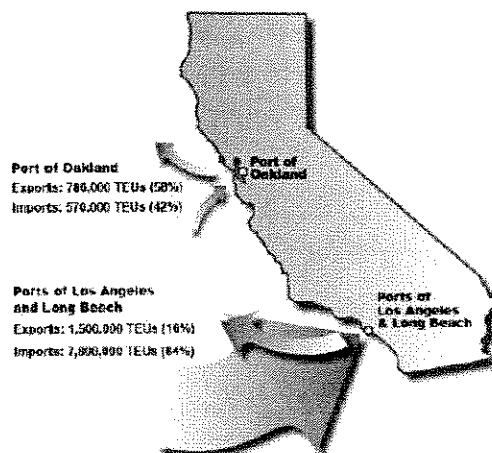
For years, goods movement planning policy in California has been port-centric, focusing extensively on increasing capacity at the points-of-entry to the nation--markedly at the ports of L.A. and Long Beach. While this continues to be an

more port-centric approach simply pushes bottlenecks and chokepoints back, rather than ameliorating the overall system. An integrated, interregional system, with economy of scale, one that builds on resources already in place, is paramount.

The San Joaquin Valley is not working in a vacuum. The current San Joaquin Valley-wide effort underway, includes collaboration with other critical stakeholders throughout the state. In fact, a key component of the San Joaquin Valley strategy, is the use of the Port of Oakland. Unlike the San Pedro Bay Ports, the Port of Oakland has untapped capacity for handling both imports and exports, through additional off-port intermodal changing facilities. These facilities would be set up to reduce the movement of empty containers throughout the state. Such facilities would also be later integrated into intermodal changing facilities primarily from truck to rail and vice versa.

The San Joaquin Valley Goods Movement Plan focuses on removing goods movement choke points into and out of the valley in order to increase statewide throughput. The San Joaquin Valley's \$20 billion agriculture industry will have the outlets it critically needs to get its perishable goods to national and international markets in a timely manner. Simultaneously, national and international freight cargo traveling to and from points east of California can flow through the valley via rail or highway over the Tehachapi Pass and through the Port of Oakland. In

Container Traffic through California's Global Gateway Ports (2000)



indispensable piece of the goods movement system, this approach does not utilize the infrastructure already in place throughout the rest of the state, nor does it address the changing nature of the states' commodity flows. Additionally, the downstream and upstream goods movement capacities must be integrated in a system-wide fashion which accounts for movements beyond corridors with close proximity to the ports. The

addition to highway projects, rail infrastructure and intermodal changing facility for container management are vital.

The Strategic Action Plan for Goods Movement in the San Joaquin Valley consists of three primary components:

1. State Route 99 Corridor Projects
2. East-West Corridor Projects
3. Multi-modal conceptual strategies including short haul rail and short sea shipping.

These highway improvements in combination with alternative multi-modal

Transportation Planning Agencies in the San Joaquin Valley developed the "State Route 99 Business Plan". The overall objective of the Business Plan is to provide decision makers with an implementation plan for the goals identified in the Plan. Those goals include:
Identify major projects that will improve safety, reduce congestion and facilitate efficient goods movement along the corridor.
Achieve consensus among Caltrans and the Regional Transportation Planning Agencies in the San Joaquin Valley on the priority that will be given to projects.
Identify a comprehensive list of major

highway projects to be completed along the corridor.

Determine the proper phasing of construction to most efficiently use transportation funding. Identify the economic benefits associated with an improved transportation corridor.

Today, most of the 274 mile segment covered by the State Route 99 Business Plan is a 4 or 6 lane freeway. Only 23 miles in Madera and Merced counties are considered "freeway gaps" and Caltrans currently has four programmed, which upon completion, will convert these remaining segments to full access-controlled freeway.

An Alternative Route for Exports

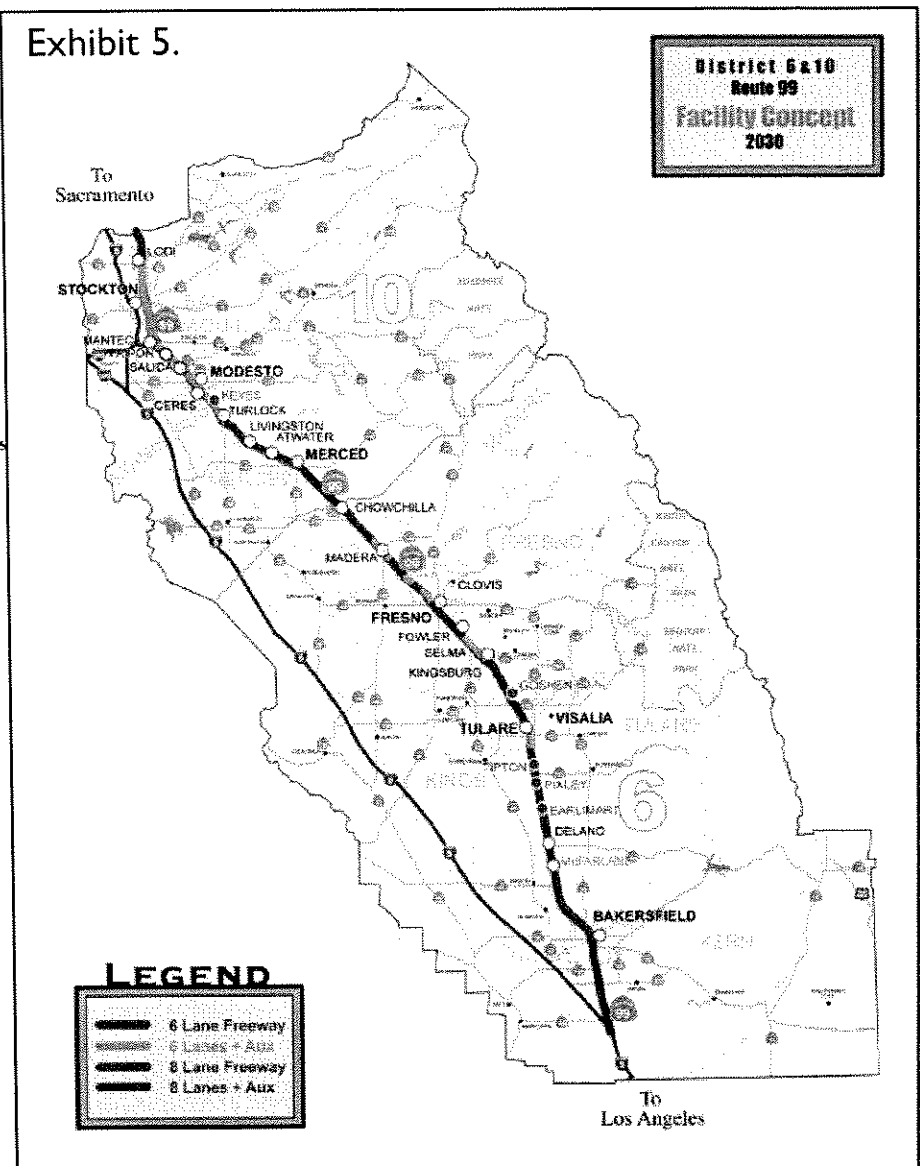


strategies will serve as the foundation for addressing goods movement issues now and in the future.

State Route 99 Corridor Projects:

As highlighted earlier in this document, State Route 99 is "the" most important transportation facility in the San Joaquin Valley. Its role as the Valley's "Mainstreet" and the primary goods movement corridor cannot be understated. In order to preserve and improve the integrity and funding of this route, Caltrans and the eight Regional

Exhibit 5.



San Joaquin Valley State Route 99 Goods Movement Projects - Prop 1B - Funded

Table 4 .

Caltrans District	County	Route	Project	Total Project Cost (\$1,000)	Prop 1B Funding	Planned Constructio n Start
10	San Joaquin	99	4 lanes to 6 lanes Rt. 120 to Arch Rd.	\$252,000	\$135,000	Dec-11
10	San Joaquin	99	S. Stockton widening, 4 lanes to 6 lanes Arch Rd. to Rt. 4	\$244,000	\$147,442	Jul-11
10	Merced	99	4 lane Expressway to 6 lane Fwy. Madera County Line to Buchanan Hollow	\$118,720	\$108,000	Feb-11
10	Merced	99	4 lane Expressway to 6 lane Expressway, Buchanan Hollow to McHenry rd	\$176,087	\$140,300	Jun-10
6	Madera	99	Avenue 12 Interchange	\$68,000	\$48,400	Dec-12
6	Fresno/Madera	99	Widen to 6 lanes, Ashlan Ave to Ave 7	\$93,000	\$93,000	Dec-12
6	Tulare/Fresno	99	Widen to 6 lanes-Goshen to Kingsburg	\$172,636	\$156,400	Jan-11
Total					\$1,124,443	

San Joaquin Valley State Route 99 Goods Movement Projects - Unfunded

Table 5 .

KEY MAP PROJECT NUMBER	CO	RTE	PROJECT DESCRIPTION	TOTAL COSTS PER PROJECT	REGIONAL PRIORITY CATEGORY
7	Tulare	99	Widen From 4F to 6F from Kern Co. Line to South of Tipton	\$127,400	2
8	Tulare	99	Widen From 4F to 6F from South of Tipton to Avenue 200	\$85,500	2
11	Tulare	99	Widen from 4F to 6F from Avenue 200 to Prosperity Ave	\$107,400	2
28	Madera	99	Widen from 4F to 6F from Fresno Co line to Avenue 12	\$63,600	2
32	Madera	99	Widen from 4F to 6F from Avenue 12 to Avenue 16	\$161,000	2
34	Madera	99	Widen from 4F to 6F from Avenue 16 to Avenue 21 1/2	\$76,600	2
38	Madera	99	Widen from 4F to 6F from SR 152 Interchange to Merced Co Line	\$96,600	2
41	Merced	99	Convert 4F to 6F from South of Childs Ave to Black Rascal Creek	\$168,000	2
42	Merced	99	Convert 4F to 6F from Black Rascal Creek to East Atwater OH	\$125,000	2
43	Merced	99	Convert 4F to 6F from East Atwater OH to West Atwater OH	\$68,000	2
45	Merced	99	Convert 4F to 6F from Hammatt Ave to South Turlock OC	\$62,000	2
67	San Joaquin	99	Widen 4F to 6F from Hamey Road to Sacramento Co line	\$168,000	2
Total				\$1,309,100	

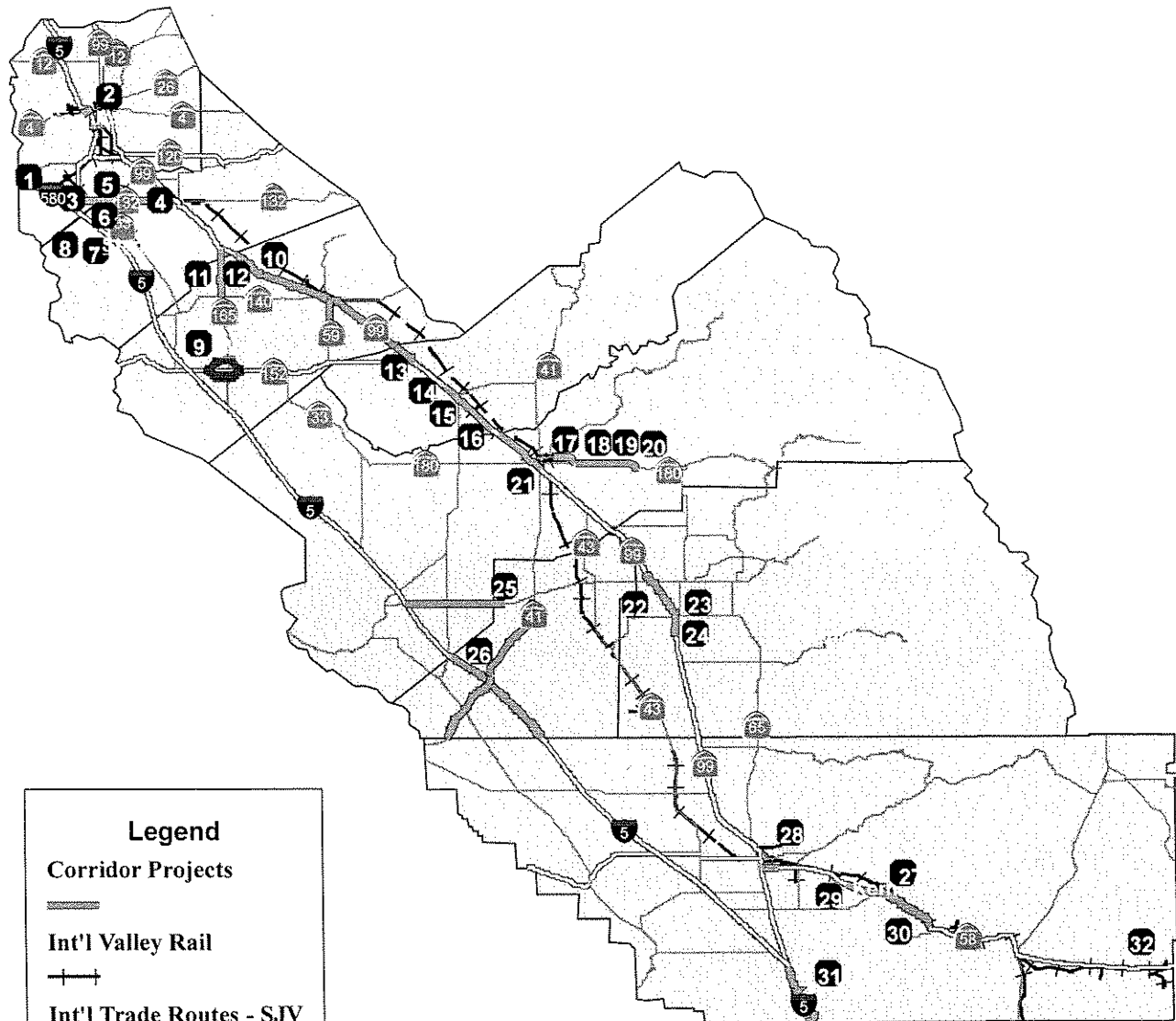
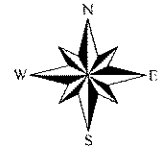
The San Joaquin Valley Regional Transportation Agencies have also identified a number of state highway projects which are critical to the movement of people and goods in the Valley.

Table 6 . San Joaquin Valley Corridor Projects

County	Code	Project	Cost	Match	Total	Phase
San Joaquin						
	1	I-205/I-580 Altamont Pass Westbound Truck Lane	\$200,000,000			
	2	Sperry Road (new Facility) I-5 to 99. Widen Nave Drive to 6 Lanes	\$65,000,000			
	3	132/Bird Road Interchange and 132 Widening I-5 to I-580	\$40,000,000			
	4	SR 4 (Crosstown Freeway) Extension to Port of Stockton	\$217,000,000			
	5	Altamont Pass Rail Corridor / Central Valley Rail Freight Shuttle Demonstration Project	\$300,000,000			
Stanislaus						
	6	The Widening of State Route 132 from State Route 99 to Interstate 580 (a portion of this alignment is in San Joaquin County).	TBD			
	7	Crows Landing Intermodal Rail Facility. The project includes rail improvements along an alignment from the Port of Oakland to the Crows Landing Airfield in Stanislaus County.	TBD			
	8	Port of Oakland to the Crows Landing Airfield in Stanislaus County. These improvements would create a short haul rail operation and build a new Intermodal Rail Facility at Crows Landing.	TBD			
Merced						
	9	SR 152 Bypass around the city of Los Banos	\$510,000,000			
	10	SR 99 Widening from 4 to 6 lanes from county line to county line.	\$441,000,000			
	11	SR 59 Widening from Sandy Mush to SR 99 with a new interchange	\$50,000,000			
	12	SR 165 improvements from SR 140 to SR 99 with new interchange	\$67,500,000			
Madera						
	13	SR 99: 12th Ave to Ellis Ave. widen to 6 lanes	\$115,000,000			
	14	SR 99: 7 th to 12 Ave. Widen to 6 lanes	\$77,000,000			
	15	SR 99: Ellis Ave to 17th Ave Widen to 6 lanes	\$60,000,000			
	16	SR 99: SR 152 to Merced County line, widen to 6 lanes	\$80,000,000			
Fresno						
	17	SR 180 East: Clovis Ave to Temperance Ave	\$101,770,000			
	18	SR 180 East: Temperance Ave to Academy Ave	\$89,000,000			
	19	SR 180 East: Academy Ave to Trimmer Springs Rd.	\$53,200,000			
	20	SR 180 East: Trimmer Springs Rd. to Frankwood Ave.	\$68,700,000			
	21	SR 99: Widen to 8 lanes through urban area				
Tulare						
	22	Route 99: Widen to 6-Lane (Avenue 200 to Prosperity Ave.)	\$142,000,000			
	23	Route 99 Tulare to Goshen Widen to 6-Lane	\$150,130,000			
	24	Betty Drive Realignment and Improvement Project	\$20,000,000			
Kings						
	25	SR 198: Widen to 4 lanes LNAS to I5	TBD			
	26	SR 41: Widen to 4 lanes SR 198 to Kern County Line	TBD			
Kern						
	27	SR 58 Gen Beale Weigh Station	\$20,000,000			
	28	SR 59/99 Connector Ramp	\$15,000,000			
	29	SR 58 Widen from SR 99 to Cottonwood Rd.	\$30,000,000			
	30	SR 58: Truck lanes from Gen Beale Rd. to Tehachapi	\$11,000,000			
	31	I-5: Truck lanes from Grapevine to Fort Tejon	\$6,000,000			
	32	Double Track Rail through Tehachapi	\$85,000,000	\$42,500,000		
Total			\$3,014,300,000			

Exhibit 6.

San Joaquin Valley Goods Movement Corridor Projects



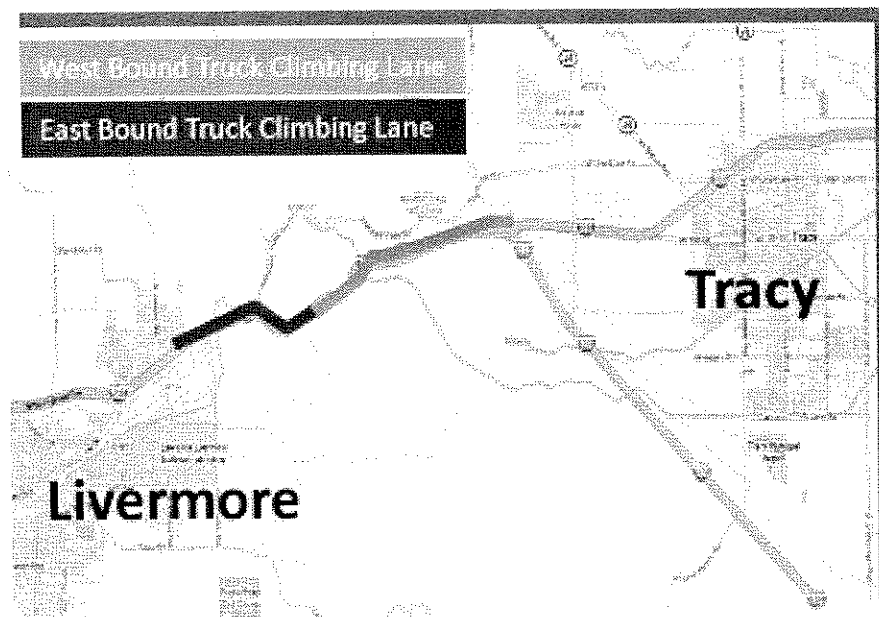
San Joaquin County Corridor Projects

I – 205 / I – 580 Westbound Truck Climbing Lanes

This proposed project involves the construction of a truck bypass lanes in the westbound direction on interstates 205 and 580 over Altamont Pass between Greenville Road (Livermore, Alameda County) and Hansen Road (Tracy, San Joaquin County) to provide operational improvement to the corridor.

Currently, trucks must climb the Altamont Pass grade mixed in with passenger automobiles. The project would relocate these trucks, thus improving system reliability for all motorists. Downstream affects may occur where the truck climbing lanes end and merge back with the main highway, although this would be beyond the uphill grade. This project complements an eastbound truck climbing lane project for trucks climbing the other side of the Altamont Pass.

Exhibit 7.



Project alternatives may include:

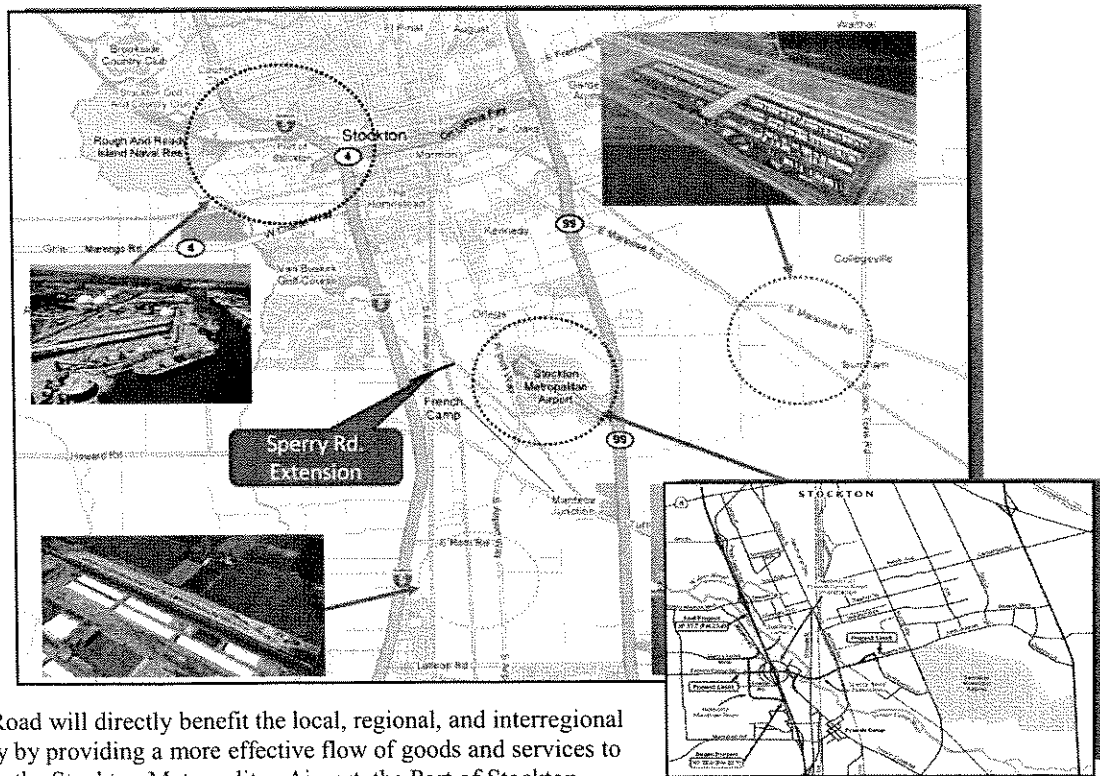
- 1) 5th lane extension of the I-580/I-205 Truck Bypass (Open - March 2010) from approximate 4000 feet west of the I-580 Grantline Road Interchange to the summit of the Altamont Pass.
- 2) Modified I-580 Westbound Truck Bypass (new alignment from approximately the Alameda / San Joaquin County Line to the summit of the Altamont Pass.
- 3) I-205 Westbound Truck Bypass (Completed Precise Plan Report -District 10) - New alignment from Alameda / San Joaquin County Line to I-205 / 11th Street Interchange – optional new alignment extension westbound I-580 in Alameda County to approximately the Vasco Rd. Overcrossing in Livermore.

Sperry Road Extension

East / West Connection between State Route 99 and Interstate 5

Project is located on the southern end of the city of Stockton between State Route 99 and Interstate 5. Project scope involves the extension of Sperry Road (new facility) as a four (4) lane arterial from French Camp Road to the Sperry Road/ Performance Drive intersection resulting in an east/west arterial connection between I-5 and State Route 99. This project includes 3 railroad grade separations.

Exhibit 8.



The extension of

Sperry Road will directly benefit the local, regional, and interregional economy by providing a more effective flow of goods and services to and from the Stockton Metropolitan Airport, the Port of Stockton, Union Pacific (UP) and Burlington Northern Santa Fe (BNSF) freight facilities. This is a priority project because it provides direct access to more than 3,500 acres of commercial/ industrial property. It is also estimated that one-third of all new jobs in the region will be located in this corridor.

Vehicles, primarily large, heavy trucks, using alternate routes are currently traveling 1.5 to 2.8 miles farther to get to these facilities.

The final environmental document has been approved by the City of Stockton.

State Route 132 Corridor

State Route (SR) 132 is one of the two main east/west highway corridors in Stanislaus County that connects commuters to the Bay Area from the City of Modesto and others in Stanislaus County. SR 132 is primarily an interregional commuter and truck route of statewide significance as a connecting link between major freeways SR 99, I-5, and I-580. Increasingly commuter traffic combined with the SR 132 through-traffic has resulted in traffic congestion and an increase in accidents along SR 132 during peak commute periods. In particular, head-on accidents have occurred along the Route due to speeding drivers making unsafe passing attempts during peak traffic periods. The existing highway does not have the capacity to handle existing or projected traffic growth.

Caltrans and the Stanislaus Council of Governments (StanCOG) have cooperatively worked towards identifying several major projects to improve safety and to increase the capacity of the highway by converting the existing two-lane highway to expressway/freeway standards. These planned projects are mapped in exhibit 9.

Crows Landing Intermodal Rail Facility

The Crows Landing Air Facility, located in the western portion of Stanislaus County. It is approximately 1 mile east of I-5, one of the heaviest traveled interstate freeways in the country. Within the County, I-5 is linked between several major existing and proposed developments. Within a few short miles from the Air Facility is the Diablo Grande project, which is a large recreational and commercial development, well under way as an established destination point. This project will accommodate 30,000 residents and will be a major golf and recreation resort. Also, within a short distance of the Air Facility, is a proposed industrial Park adjacent to the County's Waste-to-Energy Plant.

The County will use the Crows Landing Naval Air Facility as an economic development tool which will result in greater job opportunities for valley residents.

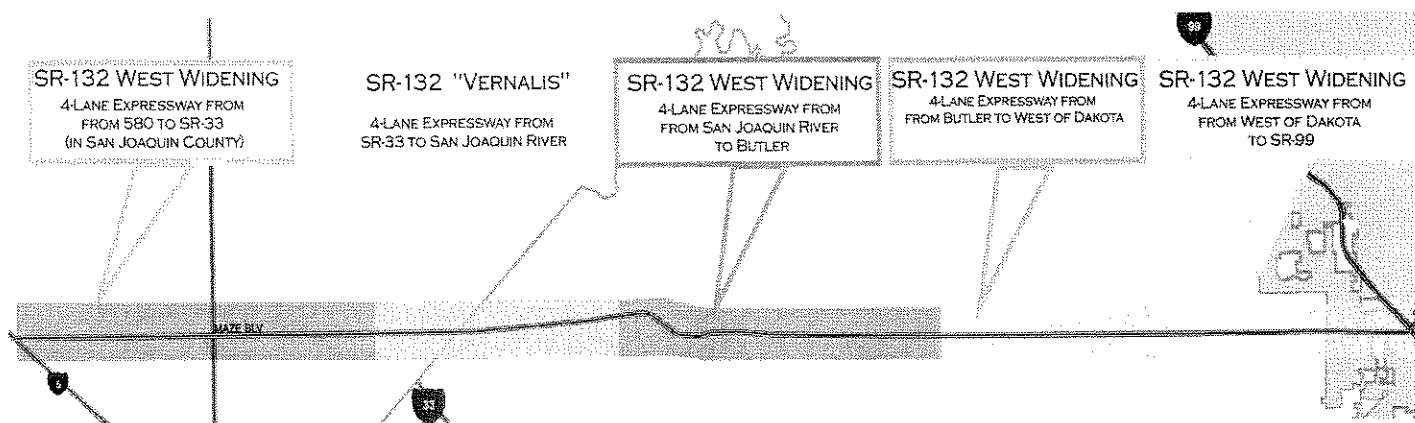
The location of this facility near I-5 and in the heart of the Central Valley makes it an

ideal location for promoting the agricultural, commercial and industrial business enterprise through air and ground distribution of fresh farm products.

Warehousing and distribution is a growth industry in the new economy. The impact of advanced transportation systems and information technology has been so great that the industry is being increasingly defined as a "logistics" specialty. This involves the process of planning, implementing, and controlling the efficient, effective flow and storage of raw materials, in process inventory, finished goods, services and related information from the point of origin to the point of consumption for the purposes of conforming to customer requirements. The Crows Landing Rail Facility will fulfill this purpose.

In addition, as an inland port this will significantly assist in alleviating Bay Area, Port of Oakland, and Northern California goods movement bottleneck.

Exhibit 9. Stanislaus County Goods Movement Corridor Priority



State Route 152 Corridor Improvement

As noted earlier, State Route (SR) 152 is a priority corridor for the state. It is a major international highway route and a high priority focus route in the state's Interregional Improvement Program. Along with the I-580/I-238/I-880 corridor, it is the connection between the Bay Area and the San Joaquin Valley.

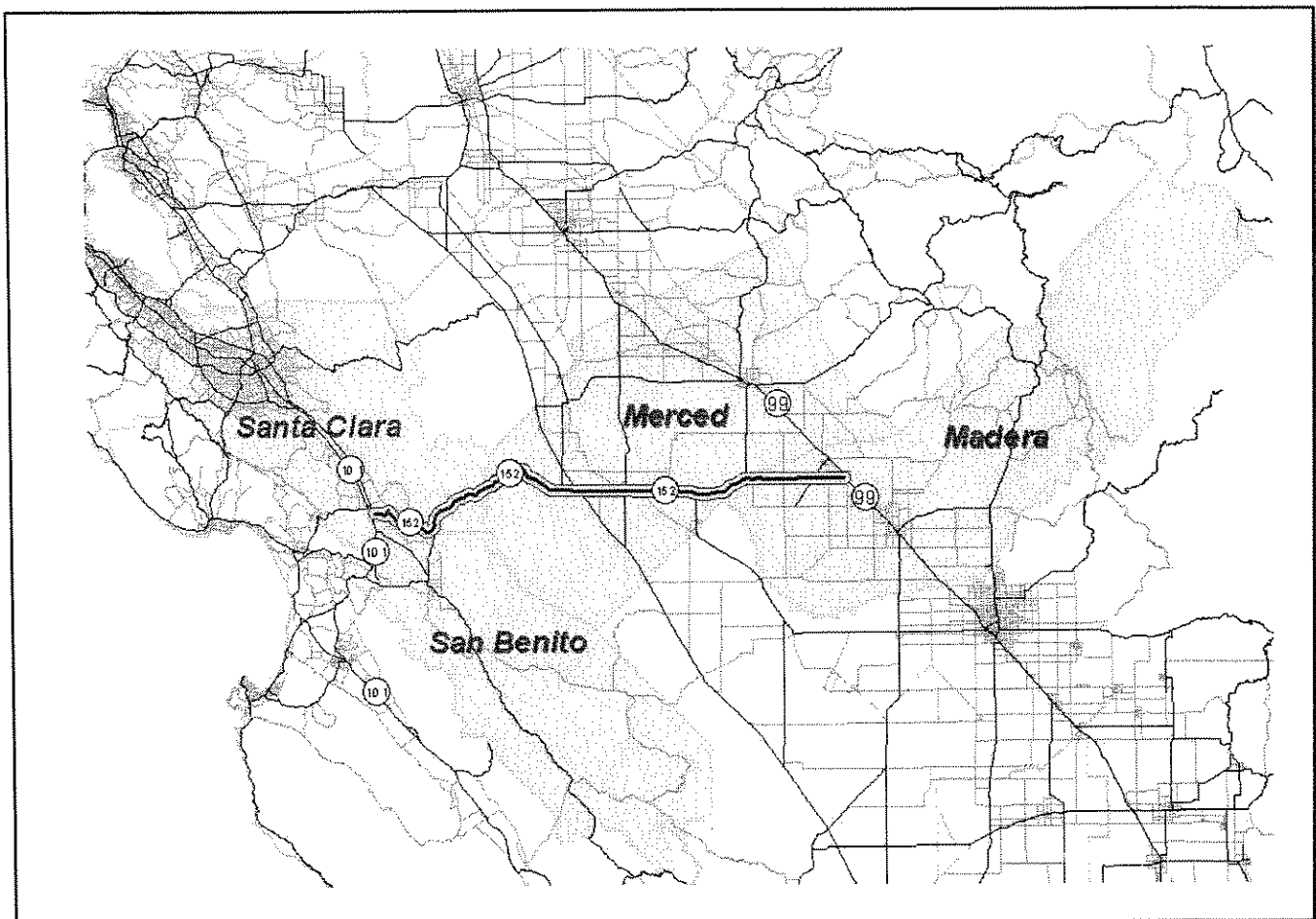
However, the I-580/I-238/I-880 corridor is already heavily congested. This level of congestion significantly diminishes goods movement capabilities, and the state economy suffers as a result. I-580 is the #2 most congested segment in the greater Bay

Area. I-238 experiences congestion throughout the day. Trucks represent 11% of the daily traffic on I-880 with each truck's impact on congestion equal to three automobiles. Traffic traversing the I-580/I-238/I-880 corridor experiences a total of 17,730 hours of delay per day, approximately 25% of total delay in the entire East Bay. SR 152 provides a viable alternative for the forecasted dramatic increases in truck movements between these major areas. Therefore, Santa Clara (a self-help county), San Benito, Merced, and Madera counties are working together to identify strategies for improving 152 to a full freeway, from SR 101 to SR 99. This

would enable reliable, predictable east-west flow of goods and thereby enhance the State's economic vitality.

Since this corridor is extensive and the construction-readiness deadline for TCIF monies is 2013, the State Route 152 Corridor Improvements would be phased. The first phase would include the construction of the State Route 152 Northern Realignment/Bypass around the City of Los Banos. Environmental analysis (PA&ED) is already completed. Design will be completed in 2010, Right-of-Way in 2011, and Construction could commence as early as 2012.

Exhibit 10. Merced County Goods Movement Corridor Priority Projects



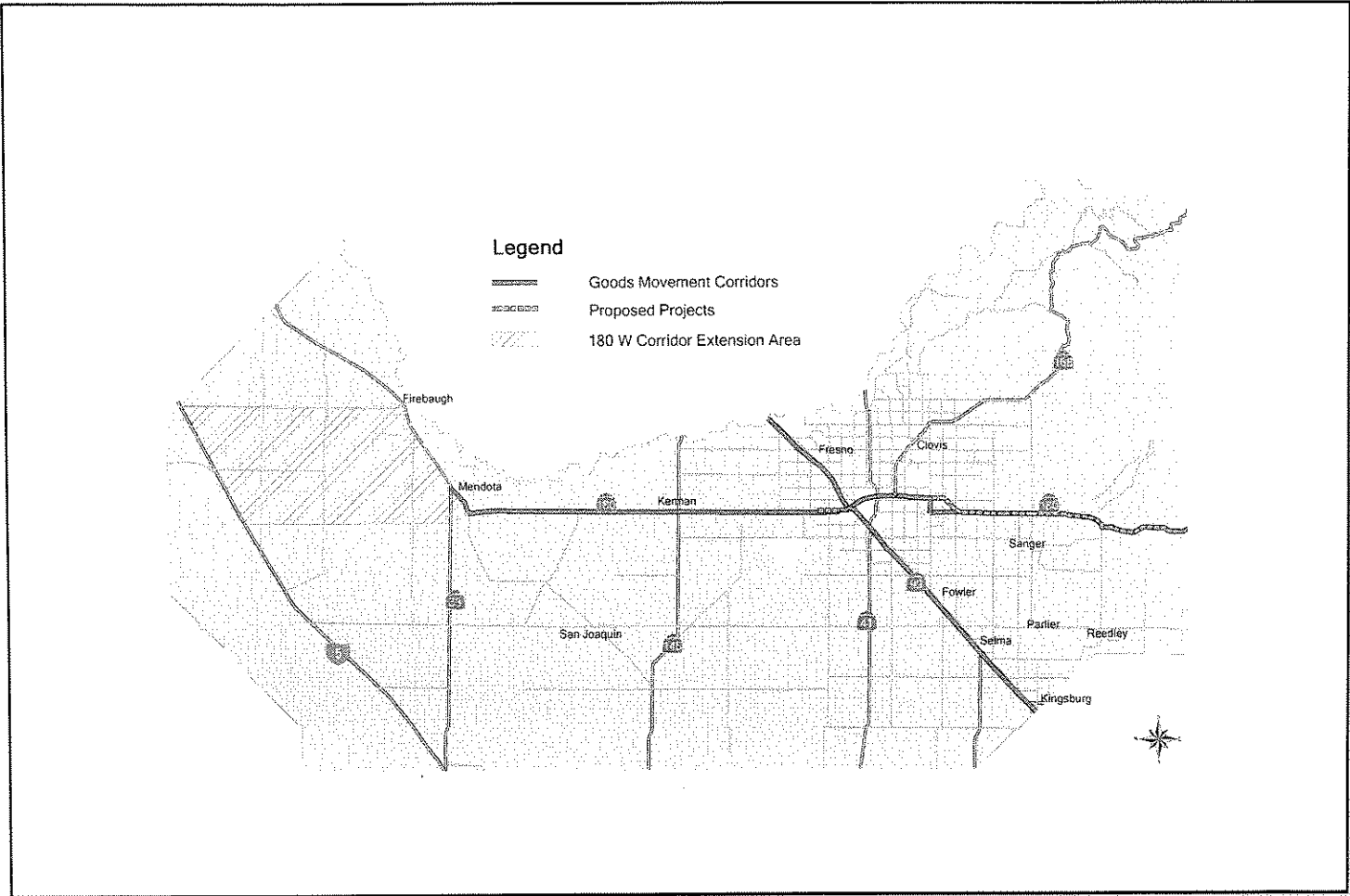
State Route 180 Corridor

The effort to extend State Route 180 from the national parks to west of Fresno is part of a larger effort to create and maintain necessary economic transportation linkages for the San Joaquin Valley. Development of the SR 180 corridor will have a positive and vital benefit for Fresno County cities and communities that depend on a well-linked transportation system. In addition to providing congestion relief for the highly congested State Route 99 corridor and providing much needed air pollution benefits, the State Route 180 corridor

projects provide segments of a long sought after and much needed east-west route that provides connectivity to the only Interstate facility in Fresno County, I-5. Direct benefits of the projects include providing a direct connection to Kings Canyon and Sequoia National Parks and other recreational opportunities in eastern Fresno County, enhancing the movement of farm-to-market shipping opportunities for the region, improving safety conditions and traffic flows across the San Joaquin Valley and providing connections to our major

interregional roads, specifically Interstate 5, State Route 99, and State Route 41. Each of the SR 180 projects will enhance connectivity for the cities of Sanger, Reedley, Clovis and Fresno, and small communities across the Westside to Interstate 5. In addition, each of these projects has the potential to facilitate access to aggregate resources from two large Gravel mines currently under consideration. These potential mines are adjacent to the Kings River east of Fresno, adjacent to State Route 180.

Exhibit 11 Fresno County Goods Movement Corridor Priority Projects



State Route 198 Corridor

State Route (SR) 198 is an interregional corridor that provides a vital east-west connection across the San Joaquin Valley, traversing through Tulare, Kings, and Fresno Counties and connecting SR 99 to Interstate 5. It also connects the central coast area of California to the Sierra Nevada Mountains. This is a high emphasis focus route on the Interregional Road System. SR 198 is part of the National Highway System serving the cities of Lemoore, Hanford and Visalia and is a designated large truck route between Route 5 and the Sequoia National Park boundary, per the Surface Transportation Authority Act of 1982. It also links the previously mentioned cities with the Lemoore Naval Air Station (LNAS), a major strategic military installation in the region.

This corridor is becoming an increasingly important farm-to-market route. The reduction of delays and the increased free flow of goods and services to and from this area are important components to the economic vitality of this region. Efficient goods movement in Kings, Fresno, and Tulare Counties is essential to the vitality of the region's largest agricultural economy. Goods movement also plays a role in efforts to reduce the region's unemployment rate, which is one of the highest in the country.

A large portion of SR 198 is a 2-lane conventional highway, with numerous driveways and cultivated farmland along its entire length. The AADT ranges from a low of 1,500 in the rural areas to a high of 30,000 in the urban areas, with truck volumes ranging from 8 to 16 percent. A project to widen the current 2-lane segment

between SR 99 and SR 43 to a 4-lane expressway has been programmed in the STIP and is scheduled to begin construction in 2009. The segment between SR 43 and LNAS consists mostly of a 4-lane freeway, however new or improved interchanges are needed at several locations. SR 198 once again turns into a 2-lane conventional highway in the segment between LNAS and I-5. Widening this final segment to a 4-lane facility will complete SR 198 as a trade corridor providing a link for interregional truck traffic between SR 99 and I-5. It will also improve mobility and connectivity across the San Joaquin Valley through Tulare, Kings and Fresno counties and provide other benefits as well.

Exhibit I 2 .

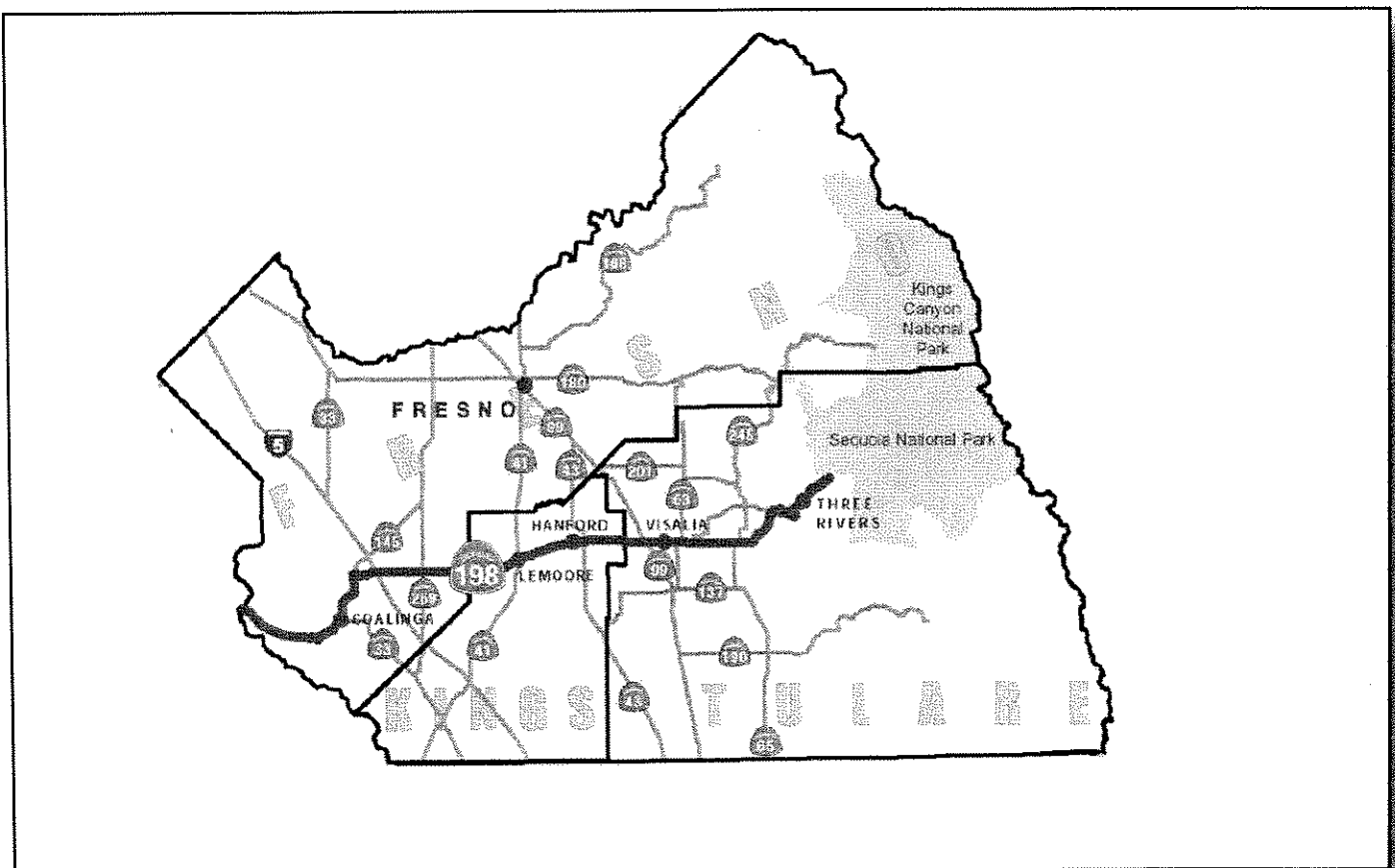
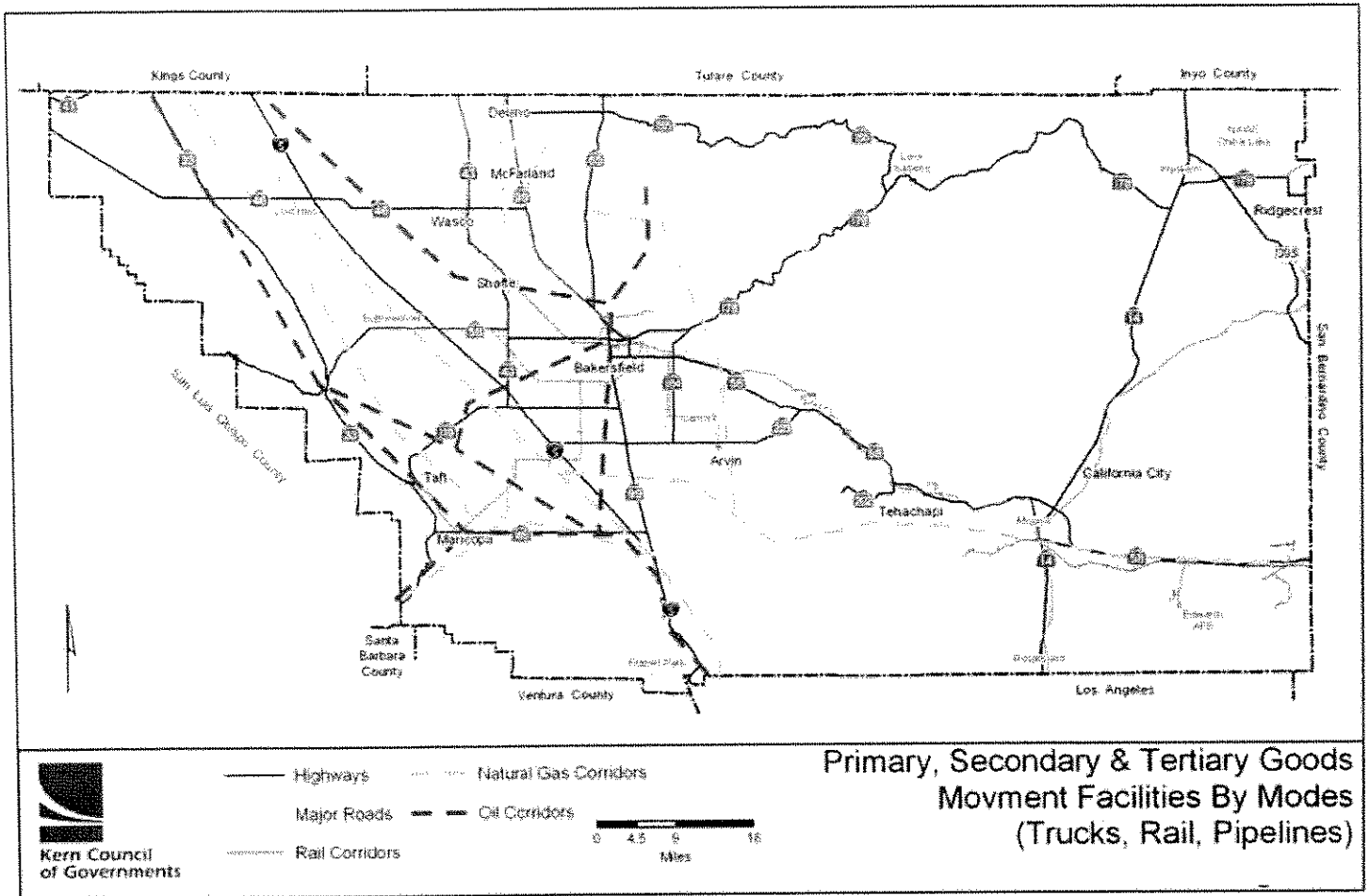


Exhibit I 3.



Kern lies at the crossroads for much of the trucking goods movement throughout the state. The Tejon and Tehachapi Passes are critical facilities for this activity. Preservation of these corridors for trucking is critical to Kern's and California's economic health. Forecasted growth along these corridors is expected to increase dramatically over the next several decades. While Caltrans has proposed additional truck passing lanes through the mountain passes, the number of lanes that can fit in the narrow canyons through the passes is limited.

Options to increase capacity through these passes include adding truck toll lanes that use congestion pricing to create an incentive for trucks to travel at off peak times. Another option is the double tracking of the rail line

over the Tehachapi Pass so that trucks could download at the Shafter Intermodal Rail facility and ship by rail to Los Angeles. This alternative would greatly increase the capacity of the corridor. Coordinating the financing of the all truck lane facilities and the double tracking of the rail corridor could result in more efficient goods delivery over the Pass.

Congestion on State Routes 99 and 58 through metropolitan Bakersfield is impeding freight traffic through the area. A system of beltways surrounding metropolitan Bakersfield will help relieve these corridors. Show on Figure B12 as the dark dashed lines, these facilities should be considered for all truck lane facilities as well.

In order to accommodate goods movement in the San Joaquin Valley, a number of alternatives have been examined in an effort to determine what might be the best approach to mitigate those impacts and provide the necessary capacity and connectivity for the Valley with the Ports of Oakland and Southern California. Those concepts being examined include:

Rail Capacity Increase to the Cross-Tehachapi Pass

This project double tracks a critical statewide rail link between Kern Junction and Mojave that connects Northern California with the rest of the United States and accesses Southern California from the Central Valley. The project consists of construction or modification of several rail bridges and tunnels through the mountains and lengthening of key sidings. While, geographically not in Northern California, the Tehachapi Pass is a critical transportation link for the northern 2/3rds of the state. This project is also a component of the Port of Oakland Access Improvement Program.

California Interregional Intermodal Shuttle Market Assessment & Public Benefit Analysis (CIRIS)

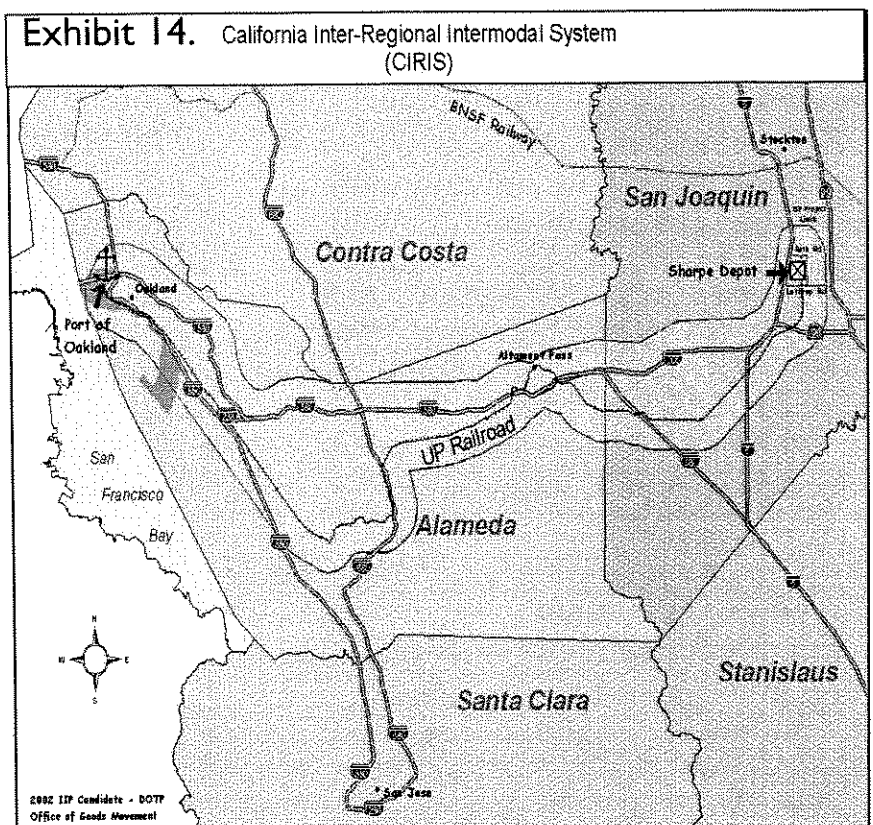
The substantial growth in the San Joaquin Valley as a regional and national distribution center for importers and exporters has created a growing freight transportation link between the San Joaquin Valley and the Port of Oakland. However, this growth is contributing to significant inland transportation and air quality problems. As the primary east-west link between the Valley and the Bay Area, the I-580 corridor is experiencing substantial congestion problems that impact the Valley-to-port traffic. In addition, the valley's major northsouth route State Route 99, is experiencing growing traffic congestion in urban areas. This highway is a major route linking the distribution centers of the Valley to the I-205/I-580 corridor and the Port of

Oakland. Unfortunately a number of significant obstacles stand in the way of alleviating the problems, these include the cost of adding new highway capacity to these corridors; increases in ozone and particulate matter that are brought about by heavy-duty diesel trucks that move goods into and through the Valley; as well as congestion on the local routes that provide access to the Port of Oakland.

With this in mind, the eight San Joaquin Valley Regional Transportation Planning Agencies, Caltrans and the Port of Oakland commissioned Cambridge Systematics to conduct a transportation study that focused on the feasibility of running a short-haul intermodal freight rail shuttle between the Valley and the Port of Oakland as one alternative to the current

motor carrier drayage system.

The study known as CIRIS, would shift goods in the San Joaquin Valley from truck to rail, thereby reducing overall truck traffic volumes on key corridors resulting in reductions in congestion and emissions for the valley. The freight rail service would also increase mobility options for shippers located in the San Joaquin Valley, and could potentially increase the capture area of for the Port of Oakland. The study also sought to determine the market for CIRIS service and examined the potential benefits to the public and identifies how public agencies might best be able to support such a project.



Cal Rail Freight Shuttle Corridor

Establishing a rail-freight shuttle service between the Port of Oakland and inland intermodal facilities for shipping goods from the San Joaquin Valley to overseas markets and the staging of containers for shipment to the Los Angeles area and out of state. Numerous inland port opportunities exist in the interior regions of California that could benefit from regular container rail shuttle infrastructure among the Port of Oakland, Southern California and points east. These opportunities include the intermodal yard in Lathrop; Crows Landing facility near Patterson; and the California Integrated Logistics Center in Shafter and the Southern California Logistics Center in Victorville. Benefits of utilizing a shuttle system that shifts goods from trucks to rail include:

- A decrease in highway congestion
- Fewer truck-related accidents
- Reduction of heavy-duty truck trips will result in fewer dollars required for maintenance and rehabilitation
- An overall decrease in total vehicle emissions
- The San Joaquin Valley, the Bay Area, and Southern California will benefit from the additional jobs and clean air created by more efficient goods movement in and through the region.
- The San Joaquin Valley will have a more cost-effective means to get its products to overseas market, thereby reducing our trade imbalance and strengthening California's economy.
- **Development of a "Western San Joaquin Valley Rail Corridor"**

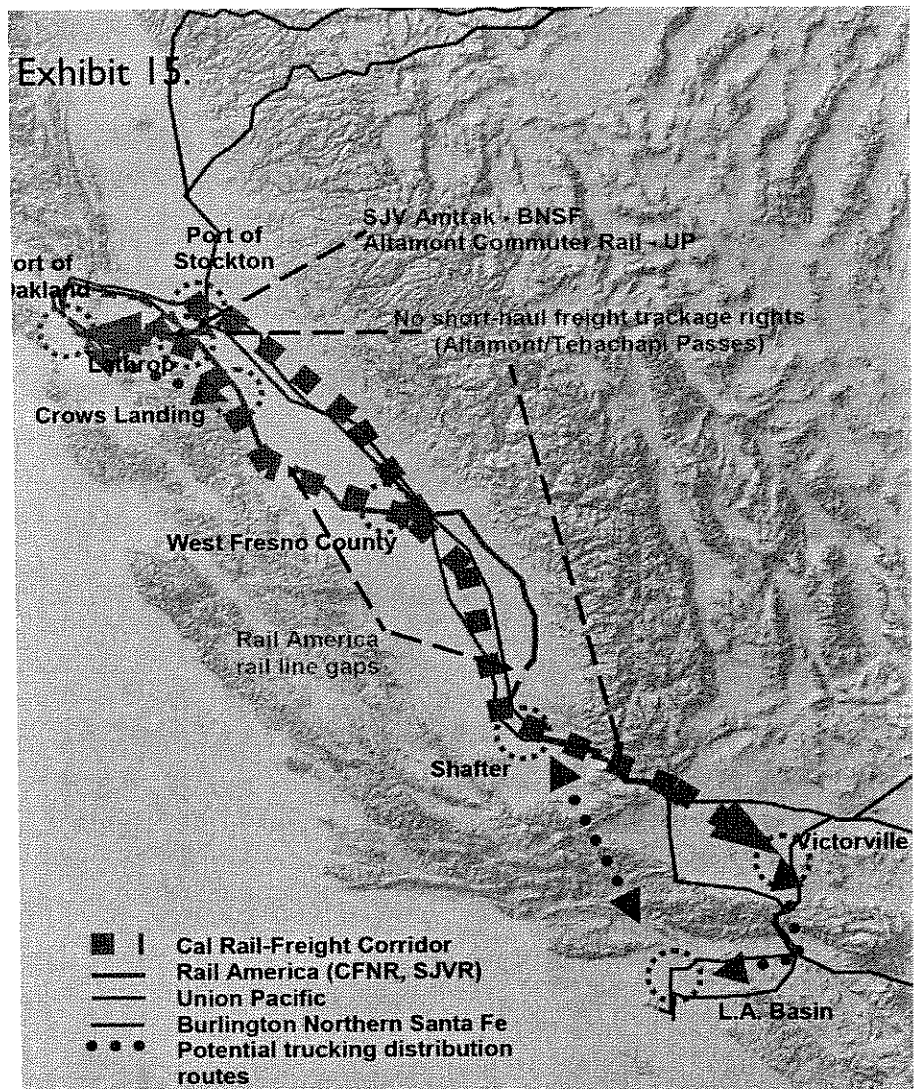
This approach would involve creating a new container freight shuttle using local short haul carriers (San Joaquin Valley

Rail & California Northern Rail or a new rail entity altogether. This concept would potentially require purchase/leasing of trackage rights on the Moccoco or Altamont Pass line from Union Pacific between Tracy and the Port of Oakland. There is also potential for rail line improvements between Los Banos and Firebaugh and Richwood and Fomoso. Under this concept the Fomoso and Shafter intermodal rail facility would need to be built or alternative rights on parallel national lines required.

Leverage Passenger Rail Subsidies w/Combo Train

Create a combo passenger/freight train

service (examples exist in Alaska, New York & Seattle). Use the freight to subsidize up to four express trains per day with stops in Bakersfield, Fresno, Stockton and Oakland. The Combo train could utilize CNG powered freight locomotives that detach and reattach from the passenger train set near the freight intermodal facilities at the adjacent express stops. Passengers from smaller communities would/could take the "milk run" trains to the next major stop and then transfer to or from the express run to cut down the total travel time to their final destination. This concept could work for either Amtrak or the Altamont Commuter Rail.



Short Sea Shipping

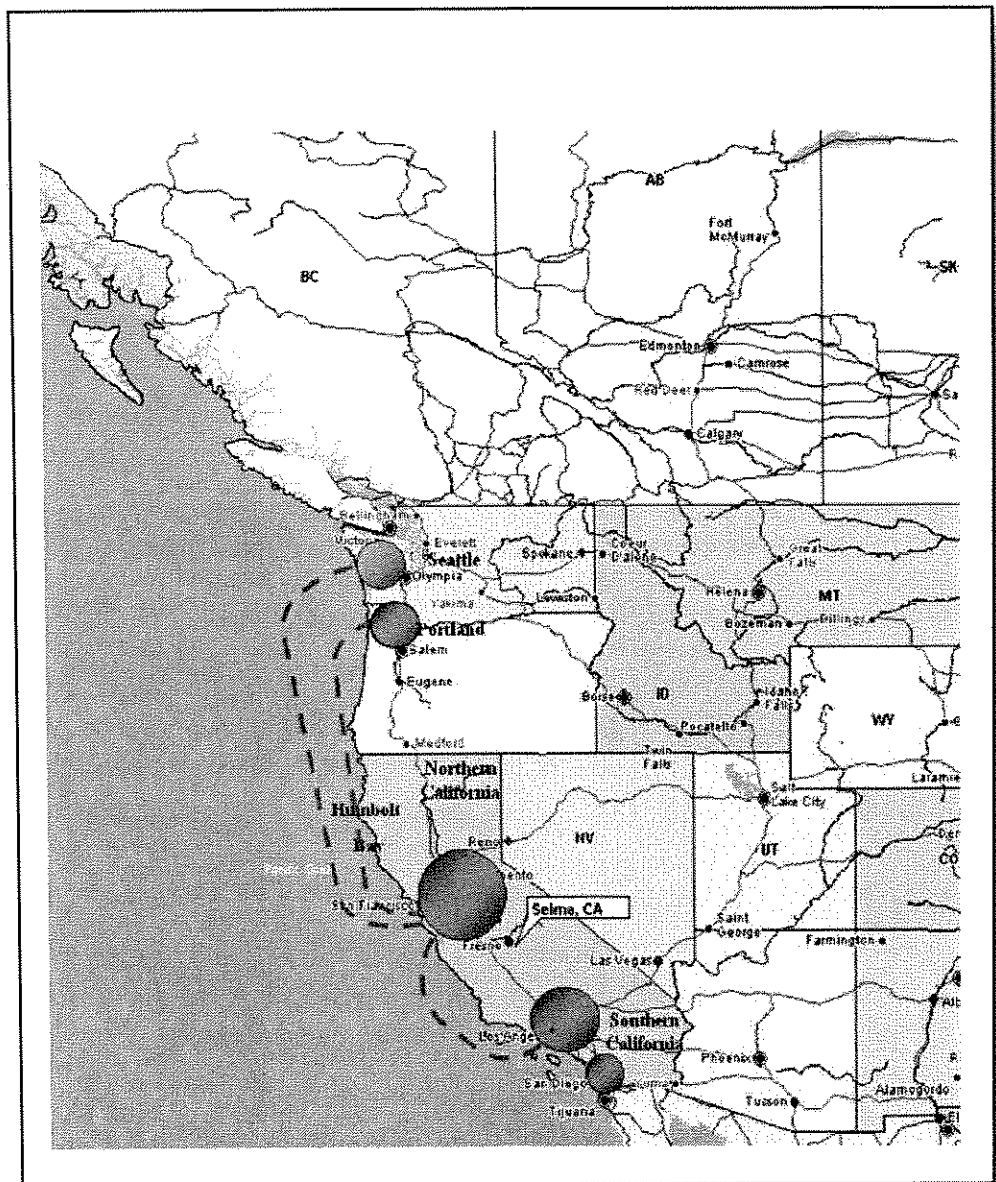
Stated simply, Short Sea Shipping is the diversion of domestic and international cargos that traditionally move by highway from major metropolitan areas to major metropolitan areas by *water* along coastal routes. It also involves the diversion of international cargos from large municipal ports to the smaller ports closer to the cargos' final destination. This provides port congestion relief, and takes trucks off the highways between the ports.

It is estimated that thousands of trucks that currently run on the San Joaquin Valley's highways between these port service areas could be removed from the highways thereby significantly improving the Valley's air quality situation. Early estimates show that an estimated 4,000 to 8,000 tons of NOx and 200 to 400 tons of Particulate Matter can be removed annually. Additional benefits of Short Sea Shipping include:

- The possibility of significantly reducing congestion by removing thousands of long haul trucks off the highway;
- Removing thousands of trucks daily from the highways may lead to significant reductions in truck related accidents thereby improving safety.
- Empty flat bed trucks can be double stacked on the ships when moving empty, thereby taking more trucks off the road;
- Uses half the truck drivers required in over the road system. Critically important considering the anticipated national shortage of qualified truck drivers.
- Local trucks work in shorter routes allowing the opportunity to convert trucks to cleaner alternative fuels such as Liquid Natural Gas (LNG)

- Short Sea Shipping start-up cost approximately 80% less than building comparable new highway capacity;

Exhibit 16 Short Sea Shipping Map



VI. Summary

Summary

In order to better understand the goods movement issues facing the San Joaquin Valley, the eight Regional Transportation Planning Agencies that comprise the San Joaquin Valley along with Caltrans and the San Joaquin Valley Unified Air Pollution Control District have undertaken a series of studies to improve the understanding of the transportation of commodities within and through the Valley. To date there have been three Goods Movement Studies undertaken. Each phase is identified below:

The first phase of the San Joaquin Valley Goods Movement Study was completed in 2000 and focused on documenting the freight transportation system and identifying existing issues and problems of regional goods movement.

The second phase of the study completed in 2004, described the development of a model tool to forecast truck movement within and through the San Joaquin Valley. The truck model is intended to forecast truck trips and vehicle miles traveled, analyze air quality and emissions from heavy-duty trucks, impacts of congestion on major truck routes, and safety and road maintenance issues.

The third phase of the Study initiated in 2006, will provide improvements to the San Joaquin Valley truck model and integration with local models. Ideally this model will provide an analytical basis for evaluating the benefits of transportation investments that impact the movement of goods in the San Joaquin Valley.

In addition to the Valleywide Goods Movement studies that have been conducted. Several "areawide" goods movement studies have been completed by Transportation Planning Agencies throughout the Valley. The Stanislaus Council of Governments (StanCOG) has undertaken such a study with a broad-brush planning study of goods movement for a focused industrial area in Central Stanislaus County called the State Route (SR) 132 Job Center. The industrial area, which is south of Yosemite Blvd. and north of the Tuolumne River in the City of Modesto and the County of Stanislaus, is a major factor in the economic development of the region. Nevertheless, its continued successful growth may be limited by the difficulty of accessing the area. Trucks going to and from SR 99 must travel through downtown using SR 132, or through the

business district in Ceres using Hatch Road or Mitchell Road.

Goods Movement Funding "Gap"

As illustrated throughout this document, there is a tremendous shortfall in funding for transportation projects that are goods movement oriented. Today, over \$4.5 billion dollars in goods movement projects have been identified by the eight San Joaquin Valley Transportation Planning Agencies, unfortunately, only ?? of those projects are funded. This funding shortfall leaves a tremendous "gap" that must be addressed.

As demonstrated by their participation in the development of this Goods Movement Action Plan, each of the SJV Transportation Planning Agencies clearly understand goods movement in their region. The challenge however lies in identifying and obtaining funding, state, federal or local to help implement these projects.

The good news is that with the passage of Proposition 1B in 2006, there is \$2.0 billion dollars in funding available statewide for goods movement projects of national significance. The name of this program is the Trade Corridor Infrastructure Fund. Unfortunately, this funding will not go nearly far enough to cover the multi-billion funding needed for goods movement projects statewide and the San Joaquin Valley will have to compete with other regions in the state as well as the Ports of Los Angeles and Oakland in order to obtain a "fair share" of that funding.

Factors the State Should Take Into Consideration when Programming Proposition 1B Trade Corridor and Air Quality Mitigation Funding

The Air Quality Status of a Region

National ambient air quality standards (NAAQS) are established for primary pollutants and are set to protect sensitive persons (children, elderly, those with respiratory disease, etc.) from air that is harmful. The Environmental Protection Agency (EPA) designates nonattainment areas for those areas that do not meet these standards for 8-hour ozone and PM_{2.5} standards. Areas classified as "Serious", "Severe" or "Extreme" face significant challenges to meeting these standards; the impact of pollution from goods movement is often an important factor. Not attaining air quality standards can cost billions of dollars per year for health, economic

and other related issues.

Criteria to be considered when allocating funds to a region include:

Nonattainment status

Number of days exceeding the air quality standards

% of emissions related to goods movement/heavy-duty vehicles

The Health of Communities within Close Proximity of Trade Corridors

Residential distance to a freeway is directly linked to higher NOx concentrations, wheezing, and use of asthma medications. Recent research and regulatory activity at the federal level points to new concerns about particulate matter (PM2.5) hotspots. These hotspots typically include roadways and places where many vehicles, especially diesel vehicles, congregate. Research shows that people living and working close to these areas are at higher risk for a range of lung and heart ailments. Health issues can include asthma attacks, acute bronchitis, lost work days, reduced activity, hospital admissions, school absences, and even premature death because of exposure to air pollution.

Criteria to be considered when allocating funds to a region include:

Number of communities affected by diesel pollution on the trade corridor

% of population near trade routes or facilities

Incidence of asthma, hospital admissions, school absences and premature death related to air pollution

The Percentage and Projected Growth in Truck Traffic

The state has experienced tremendous growth in goods movement on the trade corridors in California and this growth is expected to continue with the projected growth in population and the continued flow of domestic and international trade. Projected growth in goods movement on the State's trade corridors translates into an increase in the number of heavy-duty truck traffic. The vital role of heavy-duty trucks in moving freight creates an enormous air quality burden. The increase in heavy-duty truck traffic is responsible for compounding the number of toxic pollutants like NOx and diesel PM in the air resulting in negative public health effects. The projected growth in heavy-duty truck traffic on the trade corridors is also directly related to decreased mobility and increased congestion. In addition, increased truck traffic in the Trade Corridors also translates into more wear and tear on the street and highway system and safety issues.

Criteria to be considered when allocating funds to a region include:

Heavy-duty truck miles traveled in the Trade Corridor

Vehicle Hours of Delay in the Trade Corridor

Bonus Points for "California Grown" Products

Agriculture is a major California industry. In 2004 agriculture brought in \$31.8 billion in revenue, making it more than twice the size of any other state's agriculture industry. In fact, California is the world's fifth largest supplier of food and agriculture commodities. There is a significant foreign demand for our domestically produced agricultural products and this will continue. In 2005, exports of goods made in California totaled \$117 billion, of which, agriculture accounted for \$10.9 billion or nearly 11%.

The Agricultural industry relies on local routes and State highways to move goods from farm-to-market and this trend will continue to increase as farm production continues to grow in order to meet a growing planet's needs for food and fiber.

The importance of the Agricultural industry in relation to the State's economy is of utter importance to the current administration. So much so that in August 2002, the state-sponsored "California Grown" campaign debuted. The "California Grown" is a statewide campaign designed to encourage California consumers to support the state's economy by seeking out and buying California grown agricultural products.

Criteria to be considered when allocating funds to a region include:

Bonus points for “California Grown” Products

Expanded Opportunities for Economic Development

One of the fundamental premises of Senate Bill 1266 as it was presented to the voters of California, was the concept of utilizing transportation investments to spur economic growth and development throughout the state. This economic “boost” would come in the form of transportation capital investment channeled into a region along with the construction and ancillary jobs that would be created within a region.

Criteria to be considered when allocating funds to a region include:

Indicators that factor economic development into the evaluation criteria include:

- Average Unemployment Rate
- Average Per Capita Income
- Median Household Income
- Percent of Families Living Below the Poverty Line

In conclusion, the San Joaquin Valley has a long history of working together. The eight Valley COGs have been developing a goods movement plan over the past few years, and this joined with the Blueprint for the San Joaquin Valley and the Governor’s Partnership for the San Joaquin Valley initiative gives us momentum in our effort to shape the San Joaquin Valley to a place ready to accept the next wave of California growth. The Trade Corridor funding has sparked even new partnerships. Kern is a regular participant in Southern California goods movement discussions, and the Northern California Trade Corridor initiative combining the Bay Area, the Sacramento area and the northern San Joaquin Valley is regularly meeting and reaching consensus on specific projects.

By working together the San Joaquin Valley greatly leverages its abilities and opportunities to improve the goods movement system in the Valley. This multi-modal and multi-jurisdictional planning and collaboration will take on even greater significance as we attempt to find the proper balance between growth and economic opportunity while still preserving the Valley’s overall quality of life.

