

## Appendix 2-2.1

**Areas with Heavy Agriculture, Mining, and Timber Production**North State

The 2013 *North State Transportation for Economic Development Study* by System Metrics Group, covers the following 16 counties: Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Nevada, Plumas, Shasta, Sierra, Siskiyou, Tehama, and Trinity. The top three commodity groups by value in these northernmost counties are: agriculture and food products, wood products, and machinery manufacturing. About 85 percent of these commodities leave the region, and of that around 15 percent of those are exported to other countries.

In general, agricultural and food products are mainly produced along the I-5, SR 70/SR 99, SR 299, and SR 395 corridors. Machinery moves along the major routes of I-80, I-5, SR 20, and SR 49. Routes that timber products traverse are generally owned by Caltrans, the US Forest Service, the National Park Service, and the Bureau of Land Management.

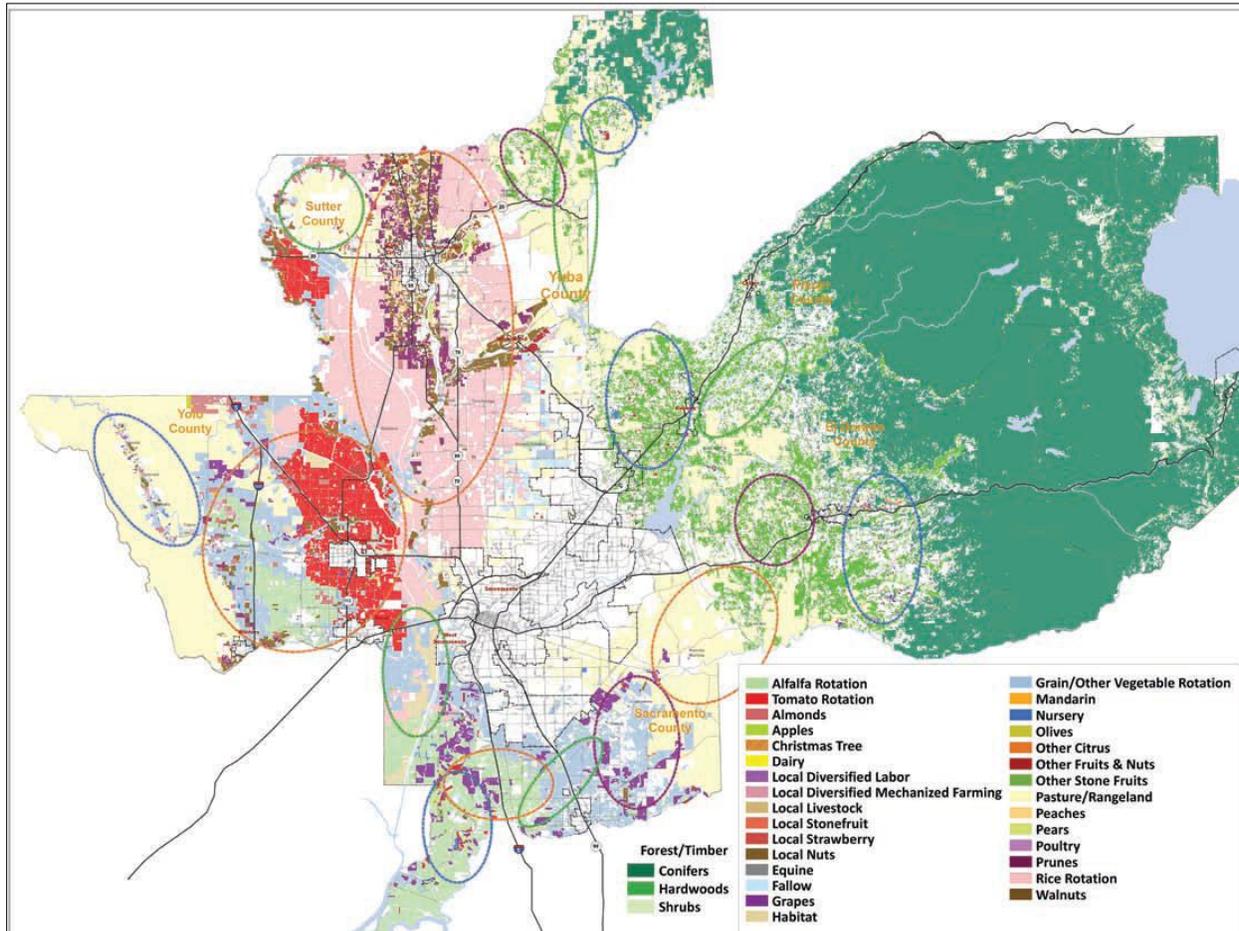
- In Humboldt County, wood product commodities are concentrated around the junction of US 101 and SR 299 and east of US 101 near Miranda.
- Shasta County has intense wood and agriculture products in the vicinity along I-5 close to SR 299, SR 44, and SR 273. Another concentration of wood product activity occurs around the intersection of SR 299 and SR 89.
- Forest and agricultural activity in Siskiyou County is centered around I-5, SR 263, and SR 3 around Yreka.
- Concentrations of timber and agriculture activity in Mendocino County occur along SR 1 surrounding the Fort Bragg area down to around SR 20. In addition, much wood product activity occurs around Ukiah surrounding the US 101/SR 253/SR 20 interchanges.
- Wood products, centered near the intersection of SR 70 and SR 89 are the leading commodities in Plumas County.
- In Lassen County, heavy timber and much agriculture activity takes place along SR 139, US 395, and SR 36. Both lumber and agriculture activity also occurs along the Lassen/Modoc County lines along SR 299 and SR 139 around Adin.
- Both lumber and agriculture activity within Tehama County occurs around the junctions of I-5, SR 99, and SR 36 surrounding Red Bluff area.
- Heavy agriculture and food product activity also occurs in Glenn County around I-5 and SR 162 and in Butte County along SR 70, SR 99, and other State Routes surrounding Oroville.
- By far, the heaviest concentration of vehicles, machinery, and metal products occurs in Nevada County around the junction of SR 20 and SR 49, north of Nevada City and along the northern county border.

Sacramento Valley

According to the Sacramento Area Council of Governments (SACOG) 2011 *Rural-Urban Connections Strategy* (RUCS) report, within the six county Sacramento Region (consisting of El Dorado, Placer, Sacramento, Sutter, Yolo and Yuba), approximately 70 percent of the land is agricultural, forest, or other open space. When comparing the RUCs map with the SACOG

2035 MTP truck intensity map (Figure 9.3), the areas with heavy truck activity closely match areas with concentrated agriculture. Truck traffic and agriculture is dense along the Sutter-Yuba county border, the western Sutter County border, and in the heart of Yolo County as shown in the following RUCS Agricultural Theme map. Forest/timber is heavy in east El Dorado and Placer counties as well as northern Yuba County.

**RUCS Agricultural Theme Map**

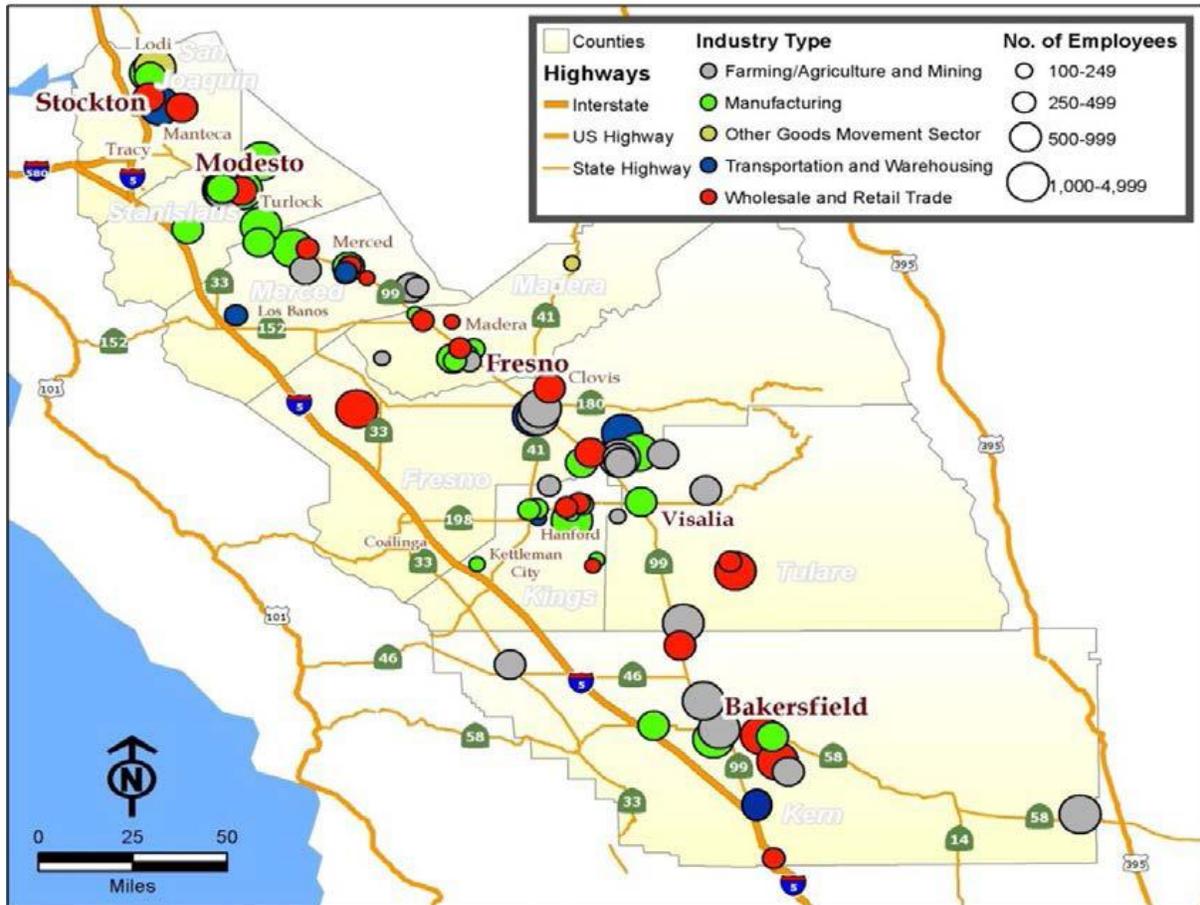


Key:  
 Large-Scale Agriculture (orange)  
 Open Space and Recreation (green)  
 Large Lot Residential (purple)  
 Small-Scale Agriculture and Agritourism (blue)

**Central Valley**

According to the *San Joaquin Valley Goods Movement Plan* prepared for San Joaquin Valley Regional Transportation Planning Agencies by Cambridge Systematics, the largest goods movement-dependent businesses within the SJV include food growing and production, food processing and packaging, oil refineries and mineral mining operations, and trucking, transportation, warehousing, and distribution services. The following map from Task 1 of the study (Figure 4.10) identifies the location of key goods movement industries.

**Locations of Key Goods Movement Businesses in the Valley**



Central Coast

According to the 2012 Association of Monterey Bay Area Governments (AMBAG) *Central Coast California Commercial Flows Study* by Cambridge Systematics, most of the agricultural production/food manufacturing, transportation, and warehousing activities within the five county Central Coast region are clustered along US 101 and SR 1 in Santa Cruz and Monterey counties. Rail lines parallel these highways within the region. The region is so prolific, that the Salinas Valley is nicknamed the “Salad Bowl of the World”. Most truck movement is occurring around the cities of Santa Maria, San Luis Obispo (transportation/warehousing), Salinas, Monterey, and Santa Cruz. Much crop production occurs along the Soledad/Gonzales area. The following maps from the study depict these areas of concentration.

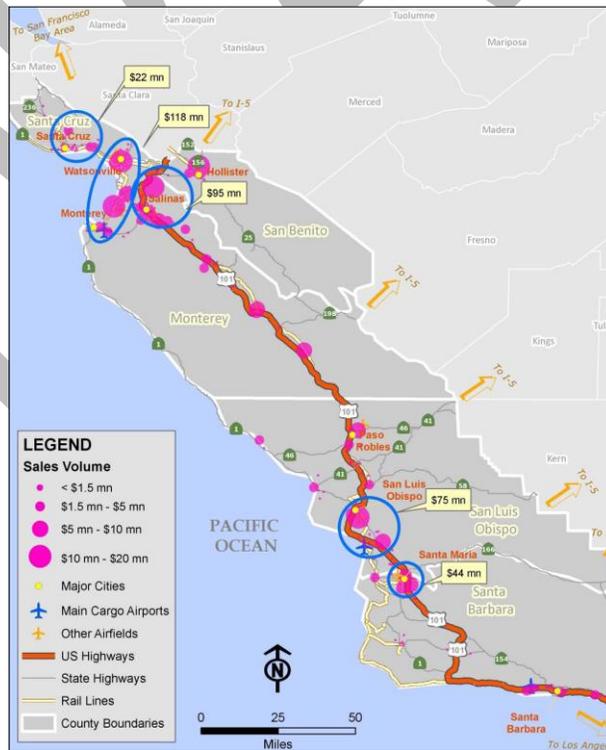
### Crop Production Locations



### Food Manufacturing Locations



### Transportation and Warehousing Industry Locations



### Eastern Sierra/Owens Valley

The southern portion of US 395 runs from the border with Nevada at around Topaz Lake down to where it connects with SR 15 in San Bernardino County near Hesperia. According to the Caltrans 2006 *Goods Movement Study for US 395 Corridor* prepared by Katz, Okitsu and Associates, most (87%) northbound trips originate from Southern California (Fontana, Los Angeles, Ontario, and Riverside) and southbound trips (54%) begin in Nevada (Reno and Sparks). Use of US 395 reflects the heavy concentration of warehousing/distribution centers in San Bernardino and Riverside counties. Results of the above 2006 US 395 study also revealed that the most common types of goods include miscellaneous manufacturing, general freight, food/kindred product, farm products, and empties. Study survey complaints included preference for the speed limit to be raised to match autos and more lanes/passing lanes constructed.

### Southern California/San Diego Regions

Much of the heavy truck traffic within the Southern California SCAG and San Diego regions is due to freight traveling to and from the ports, inland regional distribution centers, manufacturing and materials, delivering consumer goods, and the border with Mexico. In general, there is not much concentrated agriculture activity or timber production. Mining activity mainly includes sand/gravel/crushed stone for construction and oil production.

### **Other Mining Areas**

Scattered throughout the state are mineral producing areas. According to Netstate.com, oil was the number one mined product. California mines all U.S. boron and is the leading producer of diatomite, sand and gravel, and sodium compounds. It was also the top producer of gold, gypsum, magnesium compounds, molybdenum, perlite, potash, and pumice.

## Appendix 2-2.2

**Freight Rail Track Speed**

Higher track speeds allude to better system conditions and faster delivery times – typically equating to more efficient freight movement. The Federal Railroad Administration (FRA) categorizes all tracks into the following six classes, segregated by maximum speed limits:

Class 1	10 mph
Class 2	25 mph
Class 3	40 mph
Class 4	60 mph
Class 5	80 mph
Class 6	110 mph

The California State Rail Plan (CSRP) identifies the following subdivisions in each region where maximum speeds below 40 miles per hour are located. Potential reasons for the slow-downs have also been identified.

**Central Coast California Region**

<u>Subdivision</u>	<u>Track Class</u>	<u>Length</u>	<u>Potential Reason</u>
Ventura	Class 3	29.4 miles	Shared passenger service track with few sidings
Santa Barbara	Class 2	1.4 miles	
	Class 3	111.8 miles	Shared track with few sidings
Coast	Class 2	19.1 miles	
	Class 3	107.0 miles	Shared track with few sidings

**Central Valley California Region**

Bakersfield	Class 3	2.3 miles	Classification yards
Part of Stockton	Class 3	10.0 miles	Classification yards
Fresno	Class 2	1.4 miles	Classification yards
	Class 3	28.0 miles	
Part of Sacramento	Class 2	6.0 miles	Shared track with passenger service
	Class 3	28.0 miles	

**Northern California Region**

Martinez	Class 1	0.7 miles	Heavy traffic including to/from Port of Oakland, residential areas and many grade crossings
	Class 2	3.4 miles	
	Class 3	37.9 miles	
Roseville	Class 2	78.8 miles	Major classification yard – J.R. Davis Yard, tunnels, grade, terrain, and curves
	Class 3	80.6 miles	
Canyon	Class 2	70.3 miles	Steep terrain, cliffs
	Class 3	21.7 miles	
Winnemucca	Class 3	21.2 miles	Curvatures around Sand Pass
Part of Sacramento	Class 2	3.3 miles	Shared track with passenger service
	Class 3	6.1 miles	
Part of Stockton	Class 2	1.5 miles	BNSF Mormon and UP Stockton classification yards
	Class 3	10.9 miles	
Niles Canyon	Class 1	2.5 miles	Port of Oakland traffic, curvatures, grade
	Class 2	1.4 miles	
	Class 3	2.4 miles	
Valley	Class 2	29.5 miles	Many tunnels, terrain

Oakland	Class 3	25.2 miles	
	Class 1	20.7 miles	Coast Line and Stockton traffic on one track
	Class 2	3.9 miles	
Gateway	Class 3	23.0 miles	
	Class 2	48.9 miles	Roadway geometry, topography
	Class 3	38.6 miles	
Tracy	Class 1	2.9 miles	Shared track with passenger service
	Class 2	49.1 miles	
	Class 3	1.6 miles	
Black Butte	Class 2	11.0 miles	Steep grade – Mount Shasta
	Class 3	39.9 miles	

**Southern California Region**

Cajon	Class 3	15.8 miles	High volumes of interstate trains from Los Angeles
Yuma	Class 3	7.4 miles	Port of Los Angeles and Port of Long Beach (POLA/LB) intermodal traffic growth
San Bernardino	Class 2	1.4 miles	High freight and passenger traffic
	Class 3	9.6 miles	
Alameda Corridor	Class 1	1.5 miles	Heavy POLA/LB freight traffic
	Class 2	0.5 miles	
Mojave – UPRR	Class 3	15.3 miles	
	Class 2	24.5 miles	Steep grades, curvature, one track – Tehachapi
	Class 3	45.6 miles	
Mojave – BNSF	Class 2	7.1 miles	Steep grades, curvature, one track – Tehachapi
	Class 2	2.9 miles	Shared track with passenger service
Alhambra	Class 3	1.1 miles	
	Class 1	1.0 miles	Shared track with passenger service
	Class 2	1.8 miles	
Cima	Class 3	2.7 miles	
	Class 2	1.6 miles	Steep terrain – Cima Hill
	Class 3	4.8 miles	
San Diego	Class 1	7.5 miles	Shared track with passenger service
	Class 2	1.0 miles	
	Class 3	6.5 miles	
Orange	Class 3	16.8 miles	Shared track with Metrolink
	Class 2	8.9 miles	Shared track with Metrolink
SCRRA Valley	Class 3	29.6 miles	
	Class 3	5.4 miles	Shared track with Metrolink
Olive	Class 1	1.8 miles	Shared track with Metrolink
	Class 2	1.6 miles	
	Class 3	29.9 miles	Shared track with Metrolink