



2018  
Regional Transportation  
Plan/ Sustainable  
Communities Strategy  
Amendment No.1

Madera

# 2018 Regional Transportation Plan/ Sustainable Communities Strategy Amendment No. 1

Adopted March 20, 2019

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## Transportation Planning Acronyms

AB - ASSEMBLY BILL	MOE - MEASURES OF EFFECTIVENESS
AEIR - ADDENDUM ENVIRONMENTAL IMPACT REPORT	MOU - MEMORANDUM OF UNDERSTANDING
ALUC - AIRPORT LAND USE COMMISSION	MPA - METROPOLITAN PLANNING AREA
AQ - AIR QUALITY	MPG - MILES PER GALLON
ATMS - ADVANCED TRAFFIC MANAGEMENT SYSTEMS	MPO - METROPOLITAN PLANNING ORGANIZATION
ATP - ACTIVE TRANSPORTATION PLAN	MTP - METROPOLITAN TRANSPORTATION PLAN
AVCS - ADVANCED VEHICLE CONTROL SYSTEMS	
AVO - AVERAGE VEHICLE OCCUPANCY	NAAQS - NATIONAL AMBIENT AIR QUALITY STANDARDS
AVR - AVERAGE VEHICLE RIDERSHIP	NAFTA - NORTH AMERICAN FREE TRADE AGREEMENT
	NARC - NATIONAL ASSOCIATION OF REGIONAL COUNCILS
BIA - BUILDING INDUSTRY ASSOCIATION	NCHRP - NATIONAL COOPERATIVE HIGHWAY RESEARCH PROJECT
BLM - BUREAU OF LAND MANAGEMENT (Federal)	ND - NEGATIVE DECLARATION
BRT - BUS RAPID TRANSIT	NEPA - NATIONAL ENVIRONMENTAL POLICY ACT
BSNF - BURLINGTON NORTHERN SANTA FE RAILWAY	NHPP - NATIONAL HIGHWAY PERFORMANCE PROGRAM
BTH - BUSINESS, TRANSPORTATION AND HOUSING AGENCY	NHS - NATIONAL HIGHWAY SYSTEM
	NHTSA - NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
CAA - CLEAN AIR ACT (Federal)	NOP - NOTICE OF PREPARATION (of an environmental document)
CALCOG - CALIFORNIA ASSOCIATION OF COUNCILS OF GOVERNMENTS	NOx - NITROGEN OXIDES
CalEPA - CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY	NO <sub>2</sub> - NITROGEN DIOXIDE
CALFED - CALIFORNIA FEDERAL PARTNERSHIP PROGRAM	NPMRDS - NATIONAL PERFORMANCE MANAGEMENT RESEARCH DATA SET
CALTRANS - CALIFORNIA DEPARTMENT OF TRANSPORTATION	
CARB - CALIFORNIA AIR RESOURCES BOARD (State)	OMB - OFFICE OF MANAGEMENT AND BUDGET (Federal)
CATX - CHOWCHILLA AREA TRANSIT EXPRESS	OPR - OFFICE OF PLANNING AND RESEARCH (State)
CCAA - CALIFORNIA CLEAN AIR ACT (SHER BILL) STATS 1988, CH. 1568	OTS - OFFICE OF TRAFFIC SAFETY
CEAC - COUNTY ENGINEERS ASSOCIATION OF CALIFORNIA	OWP - OVERALL WORK PROGRAM
CEC - CALIFORNIA ENERGY COMMISSION	O <sub>3</sub> - OZONE
CEEP - CENTER FOR ECONOMIC AND ENVIRONMENTAL PARTNERSHIP	
CEQ - COUNCIL OF ENVIRONMENTAL QUALITY	Pb - LEAD
CEQA - CALIFORNIA ENVIRONMENTAL QUALITY ACT	PCI - PAVEMENT CONDITION INDEX (PCI)
CES - CALIFORNIA ENVIRONMENTAL SCREEN	PEIR - PROGRAM ENVIRONMENTAL IMPACT REPORT
CFR - CODE OF FEDERAL REGULATIONS	PHED - PEAK HOUR EXCESSIVE DELAY
CHSRA - CALIFORNIA HIGH-SPEED RAIL AUTHORITY	PM - PERFORMANCE MEASURES
CMAQ - CONGESTION MITIGATION AIR QUALITY FUNDS (ISTEA)	PM 1: HSIP AND SAFETY PERFORMANCE
CNG - COMPRESSED NATURAL GAS	PM 2: PAVEMENT AND BRIDGE CONDITION PERFORMANCE
CO <sub>2</sub> - CARBON DIOXIDE	PM <sub>2.5</sub> - PARTICULATE MATTER 2.5 (Fine Particle)
CO - CARBON MONOXIDE	PM 3: SYSTEM PERFORMANCE/FREIGHT/CMAQ PERFORMANCE
CSAC - CALIFORNIA STATE ASSOCIATION OF COUNTIES	PM <sub>10</sub> - PARTICULATE MATTER 10
CSAC - COUNTY SUPERVISORS ASSOCIATION OF CALIFORNIA	PPM - PARTS PER MILLION
CSFAP - CALIFORNIA SUSTAINABLE FREIGHT ACTION PLAN	PPP - PUBLIC PARTICIPATION PLAN
CTA - CALIFORNIA TRUCKING ASSOCIATION	PUC - PUBLIC UTILITIES COMMISSION (State)
CTC - CALIFORNIA TRANSPORTATION COMMISSION	
CVO - COMMERCIAL VEHICLE OPERATIONS	RFP - REQUEST FOR PROPOSAL OR REASONABLE FURTHER PROGRESS (Air
	RFQ - REQUEST FOR QUALIFICATIONS
DOE - DEPARTMENT OF ENERGY (Federal)	RHNA - REGIONAL HOUSING NEEDS ASSESSMENT
DOF - DEPARTMENT OF FINANCE (State)	ROG - REACTIVE ORGANIC GASES (Air Pollutants)
DOT - DEPARTMENT OF TRANSPORTATION	ROW - RIGHT OF WAY
	RSTP - REGIONAL SURFACE TRANSPORTATION PROGRAM
EA - ENVIRONMENTAL ASSESSMENT	RTIP - REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM (See also FTIP)
EDC - ECONOMIC DEVELOPMENT CORPORATION	RTP - REGIONAL TRANSPORTATION PLAN
EDD - EMPLOYMENT DEVELOPMENT DEPARTMENT (State)	RTP/SCS - REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES
EIR - ENVIRONMENTAL IMPACT REPORT (State)	RTPA - REGIONAL TRANSPORTATION PLANNING AGENCY
EIS - ENVIRONMENTAL IMPACT STATEMENT (Federal)	RWQCB - REGIONAL WATER QUALITY CONTROL BOARD
EJ - ENVIRONMENTAL JUSTICE	
EMFAC - EMISSION FACTORS MODEL	SAFETEA-LU - SAFE ACCOUNTABLE FLEXIBLE EFFICIENT TRANSPORTATION
E.O. - EXECUTIVE ORDER	SAFETY PM - SAFETY PERFORMANCE MANAGEMENT
EPA - ENVIRONMENTAL PROTECTION AGENCY	SB - SENATE BILL
	SCS - SUSTAINABLE COMMUNITIES STRATEGY
FAA - FEDERAL AVIATION ADMINISTRATION	SED - SOCIOECONOMIC DATA
FAR - FLOOR AREA RATIO	SEIR - SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT
FARS - FATALITY ANALYSIS REPORTING SYSTEM	SGR - STATE OF GOOD REPAIR

## Transportation Planning Acronyms

FAST ACT - FIXING AMERICA'S SURFACE TRANSPORTATION ACT	SHOPP - STATE HIGHWAY OPERATION AND PROTECTION PROGRAM
FAT - FRESNO AIR TERMINAL OR FRESNO YOSEMITE INTERNATIONAL	SHS - STATE HIGHWAY SYSTEM
FEMA - FEDERAL EMERGENCY MANAGEMENT ADMINISTRATION	SHSP - STRATEGIC HIGHWAY SAFETY PLAN
FHWA - FEDERAL HIGHWAY ADMINISTRATION	SIP - STATE IMPLEMENTATION PLAN
FIP - FEDERAL IMPLEMENTATION PLAN (Air Quality)	SJVAPCD - SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT
FRA - FEDERAL RAILROAD ADMINISTRATION	SMP - STRATEGIC MANAGEMENT PLAN
FRESNO COG - FRESNO COUNCIL OF GOVERNMENTS	SO <sub>2</sub> - SULFUR DIOXIDE
FSP - FREEWAY SERVICE PATROL	SOI - SPHERE OF INFLUENCE
FTA - FEDERAL TRANSIT ADMINISTRATION	SOV - SINGLE OCCUPANT VEHICLE
FTIP - FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM	SR - STATE ROUTE
	SRTDP - SHORT RANGE TRANSIT DEVELOPMENT PLAN
GDP - GROSS DOMESTIC PRODUCT	SRTP - SHORT RANGE TRANSPORTATION PLAN
GHG - GREENHOUSE GAS	SPMT - SAFETY PERMANENCE MANAGEMENT TARGETS
GIS - GEOGRAPHIC INFORMATION SYSTEMS	SSTAC - SOCIAL SERVICE TRANSPORTATION ADVISORY COMMITTEE
GPS - GLOBAL POSITIONING SYSTEM	STIP - STATE TRANSPORTATION IMPROVEMENT PROGRAM
	STP - SURFACE TRANSPORTATION PROGRAM (ISTEA)
HBRR - HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION	SWITRS - STATEWIDE INTEGRATED TRAFFIC RECORDS SYSTEM
HCD - DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT	SWRCB - STATE WATER RESOURCES CONTROL BOARD
HCM - HIGHWAY CAPACITY MANUAL	
HHS - DEPARTMENT OF HEALTH AND HUMAN SERVICES (Federal)	TAG - TECHNICAL ADVISORY GROUP - CALTRANS
HOT - HIGH OCCUPANCY TOLL	TAM - TRANSPORTATION ASSETS MANAGEMENT
HOV - HIGH OCCUPANCY VEHICLE	TAM - TRANSIT ASSETS MANAGEMENT
HPMS HIGHWAY PERFORMANCE MANAGEMENT SYSTEM	TAMP - TRANSPORTATION ASSET MANAGEMENT PLAN
HSIP - HIGHWAY SAFETY IMPROVEMENT PROGRAM	TAZ - TRAFFIC ANALYSIS ZONE
HSRA - HIGH-SPEED RAIL AUTHORITY	TCM - TRANSPORTATION CONTROL MEASURE
HSST - HIGH-SPEED SURFACE TRANSPORTATION	TCRP - TRAFFIC CONGESTION RELIEF PROGRAM
HUD - DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (Federal)	TDA - TRANSPORTATION DEVELOPMENT ACT
	TDM - TRANSPORTATION DEMAND MANAGEMENT
IGR - INTERGOVERNMENTAL REVIEW	TDZ - TOWARDS ZERO DEATHS
IIP - INTERREGIONAL IMPROVEMENT PROGRAM	TE - TRANSPORTATION ENHANCEMENT
IPG - INTERMODAL PLANNING GRANT	TEA-21 - TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY
IRRS - INTERREGIONAL ROAD SYSTEM	TERM - TRANSIT ECONOMIC REQUIREMENTS MODEL
ISTEA - INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT	TIP - TRANSPORTATION IMPROVEMENT PROGRAM
ITI - INTELLIGENT TRANSPORTATION INFRASTRUCTURE	TNS - TRANSPORTATION NETWORK SERVICES
ITIP - INTERREGIONAL TRANSPORTATION IMPROVEMENT PROGRAM	TOD - TRANSIT ORIENTED DEVELOPMENT
ITS - INTELLIGENT TRANSPORTATION SYSTEM	TPM - TRANSPORTATION PERFORMANCE MANAGEMENT
	TSM - TRANSPORTATION SYSTEM MANAGEMENT
LAFCO - LOCAL AGENCY FORMATION COMMISSION	TTTR - TRUCK TRAVEL TIME RELIABILITY
LCC - LEAGUE OF CALIFORNIA CITIES	
LEED - LEADERSHIP ENERGY AND ENVIRONMENTAL DESIGN	ULB - USEFUL LIFE BENCHMARK
LEP - LIMITED ENGLISH PROFICIENCY	UPRR - UNION PACIFIC RAILROAD
LOS - LEVEL OF SERVICE	UPSP - UNION PACIFIC/SOUTHERN PACIFIC
LRSTP - LONG RANGE STATEWIDE TRANSPORTATION PROGRAM	US DOT - U.S. DEPARTMENT OF TRANSPORTATION
LTF - LOCAL TRANSPORTATION FUND	
	VMT - VEHICLE MILES TRAVELED
MAP-21 - MOVING AHEAD FOR FURTHER PROGRESS IN THE 21ST	
MAX - MADERA AREA EXPRESS	YARTS - YOSEMITE AREA RAPID TRANSIT SERVICES
MCC - MADERA COUNTY CONNECTION	YOE - YEAR OF EXPENDITURE
MCTC - MADERA COUNTY TRANSPORTATION COMMISSION	ZEV - ZERO EMISSIONS VEHICLE



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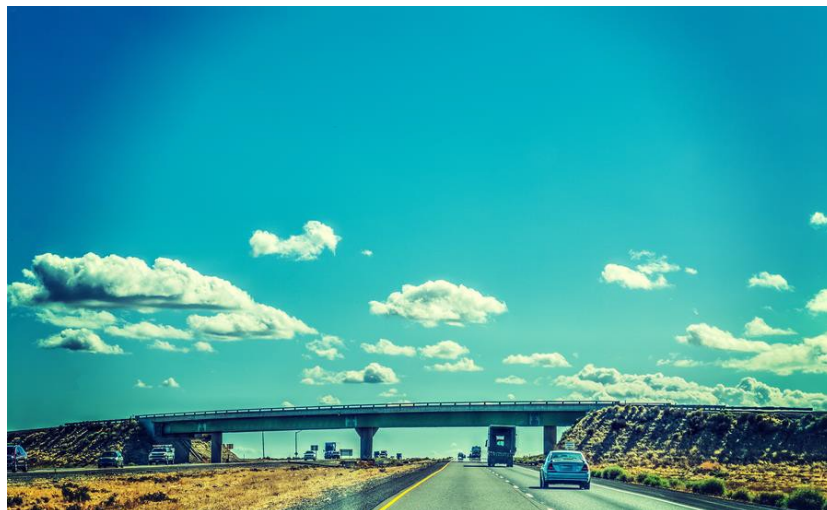
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# **Chapter 1**

## **The 2018 RTP/SCS - A Summary**



## 1. The 2018 RTP/SCS – A Summary

### Background

The Madera County Transportation Commission (MCTC) is required to update the Regional Transportation Plan (RTP) to reflect the existing and future regional transportation system in Madera County. The 2018 Update reflects the horizon or “planning” year of 2042, ensuring that the region’s transportation system and implementation policies/programs will safely and efficiently accommodate growth envisioned in the Land Use Elements of the Cities of Chowchilla and Madera and Madera County, in the RTP and in the Sustainable Communities Strategy (SCS).



### Project Location and Description

Madera County is located in California's San Joaquin Central Valley. Encompassing 2,147 square miles, the County is situated in the geographic center of the State of California along State Route (SR) 99, approximately 18 miles north of Fresno. The County has an average altitude of 265 feet ranging from 180 to 13,000 ft above sea level. The San Joaquin River forms the south and west boundaries with

Fresno County. To the north, the Fresno River forms a portion of the boundary with Merced County. Mariposa County forms the remainder of the northern boundary. The crest of the Sierra Nevada Mountains forms the eastern boundary with Mono County. Generally, the County can be divided into three broad geographic regions – the valley area on the west; the foothills between Madera Canal and the 3,500-foot elevation contour; and the mountains from the 3,500-foot contour to the crest of the Sierra Nevada Mountains.

### *Regional Transportation Plan*

The RTP is a long-range transportation plan providing a vision for regional transportation investments over at least a 20-year period. Using growth forecasts and socioeconomic trends (reference Chapter 3 *The Madera Region – Past, Present, and Future*), the Plan considers the role of transportation including economic factors, quality of life issues, and environmental factors. The RTP provides an opportunity to identify transportation strategies today that address mobility needs for the future. The RTP is updated every four (4) years to reflect changes in economic trends, State and federal project and funding requirements, progress made toward project implementation, and current socioeconomic trends. Transportation projects must be included in the RTP in order to qualify for federal and State funding. The last RTP was adopted by MCTC’s Policy Board in July 2014 and was amended in June 2017. The next RTP Update will be due in 2022. Regional transportation plans (RTPs) are developed by Regional Transportation Planning Agencies (RTPAs) and Metropolitan Planning Organizations (MPOs) in cooperation with the California Department of Transportation (Caltrans) and other stakeholders.

### *Sustainable Communities Strategy*

The SCS is a newer element of the RTP that will demonstrate the integration of land use, transportation strategies, and transportation investments within the RTP. This is the second SCS prepared for Madera County to address requirements set forth with the passage of Senate Bill (SB) 375, with the goal of ensuring that the MCTC region can meet its regional greenhouse gas reduction targets set by the California Air Resources Board (CARB). In 2018, CARB issued emission reduction targets to each of the eight (8) MPOs in the San Joaquin Valley including MCTC. The targets included a percentage reduction of greenhouse gas (GHG) emissions from 2005 of 5% by the year 2020 and a reduction in GHG emissions of 10% by the year 2035. Developing the SCS requires meaningful collaboration with each of the three (3) local governments, as well as stakeholders to identify land-use and transportation opportunities around the region that will address the needs of the growing population and ensure compliance with State and federal requirements.

### *RTP and SCS Contents*

The RTP and SCS consists of various elements referenced in federal statutes and in the State RTP Guidelines including:



- ✓ [Chapter 1: The 2018 RTP/SCS – A Summary](#) – provides a brief summary of the RTP/SCS reflecting the major findings and recommendations found in each chapter of the Plan.
- ✓ [Chapter 2: Requirements, Trends, and Contents](#) – describes the purpose of the RTP/SCS process, associated mandates, the existing transportation system in Madera County, and the contents of the Plan itself.
- ✓ [Chapter 3: The Madera Region: Past, Present, and Future](#) – provides a comprehensive overview of the Region including growth and development, and planning forecasts and assumptions.
- ✓ [Chapter 4: A Shared Vision](#) - provides a comprehensive listing of goals, objectives, and strategies that address the short- and long-term mobility and accessibility needs and planning requirements for the County.
- ✓ [Chapter 5: Delivering the Plan for Change](#) - provides a comprehensive assessment of needs and issues considering the goals and objectives contained in Chapter 4 – *A Shared Vision*, describes the air quality conformity requirements and issues, includes a multimodal element addressing the needs and issues, inventory, accomplishments, and an assessment of future demand for all modes of transportation including highways and arterials, mass transportation, aviation, non-motorized systems, goods movement, Transportation Demand Management (TDM), and Intelligent Transportation System (ITS) needs and analysis. The Element also contains the actions necessary to support the goals and objectives referenced in Chapter 4 and in the needs assessment of this chapter.
- ✓ [Chapter 6: Creating a Sustainable Future](#) - Involves working with our partners, local governments, and stakeholders to identify a transportation system supported by a land use pattern that reduces vehicle trips, vehicle miles traveled (VMT), and greenhouse gas emissions and addresses requirements set forth in SB 375.
- ✓ [Chapter 7: Investing In Change](#) - provides a thorough assessment of project costs and revenue assumptions for each mode of transportation. The RTP must be financially constrained in accordance with air quality conformity requirements. As such, this chapter must ensure that projects, which are needed to enhance mobility and accessibility throughout the County, are also financed within the timeframe of the Plan (year 2042) and reduce air emissions consistent with reduction targets. This chapter also includes a description of unmet transportation needs, maintenance and operation needs, and the potential for new financing strategies/sources of funding to address revenue shortfalls, if applicable.
- ✓ [Chapter 8: Public Involvement for Change](#) – includes a thorough review of the public involvement and community outreach program for the Plan.
- ✓ [Chapter 9: System Performance](#) – provides an overview of the performance-based planning process focusing on the achievement of performance outcomes or measures including safety, bridge and pavement condition, congestion/system performance, and transit asset management.
- ✓ [Chapter 10: Addressing Environmental Justice](#) – provides a description of MCTC’s environmental justice program that ensures early and continued public involvement, and an equal distribution of transportation projects to all areas of the region, paying close attention to the needs of low income and minority populations.



## Demographic Changes

### Current Population and Employment

Historical demographic trends and projections of both population and employment are essential to development of the RTP. Population estimates are referenced in Table 1-1 and Figure 1-1 and were identified from U.S. Bureau of the Census, California Department of Finance (DOF), California Employment Development Department (EDD), Central California Futures Institute, or from other data and are consistent with assumptions used in the Madera County Regional Traffic Model.

TABLE 1-1

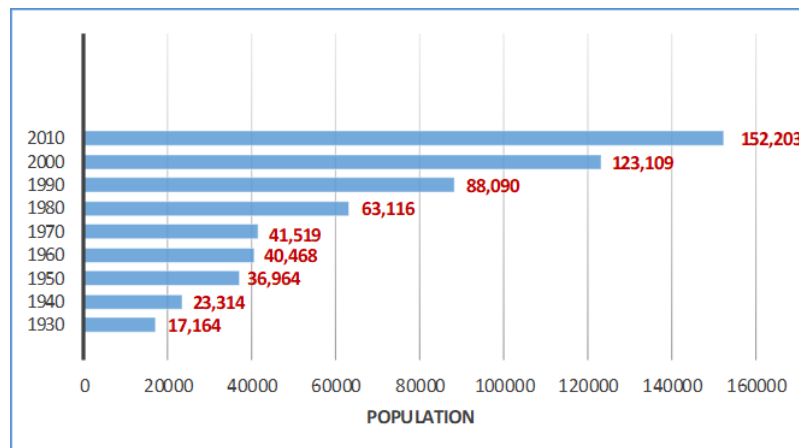
Madera County Historical Population Growth: Years 1930 - 2010

YEAR	POPULATION	% INCREASE	AVERAGE ANNUAL INCREASE
1930	17,164		
1940	23,314	35.8	3.1
1950	36,964	58.5	4.7
1960	40,468	9.5	0.9
1970	41,519	2.6	0.2
1980	63,116	52	4.3
1990	88,090	39.6	3.4
2000	123,109	39.8	4
2010	152,203	23.6	2.36

Source: U.S. 2010 Census, 2010 Population excludes group quarters population

FIGURE 1-1

Madera County Historical Population Growth: Years 1930 - 2010



### Future Population and Employment Projections

Population and employment estimates/projections for Madera County are presented in Table 1-2 and Figure 1-2. These estimates/projections are provided for Years 2010, 2020, 2035 and 2042.

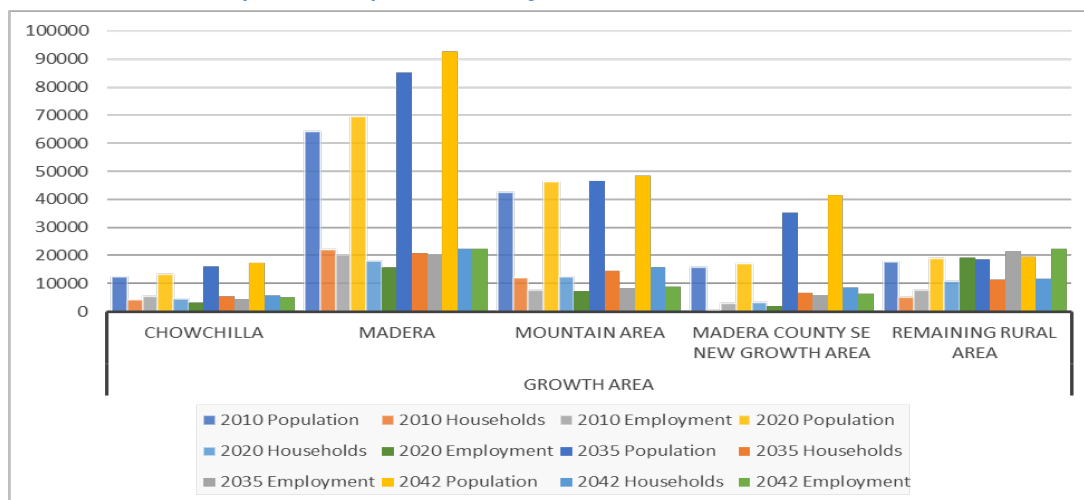
**TABLE 1-2**  
Madera County Development Projections - 2010, 2020, 2035, and 2042

Socioeconomic Factor	Year	Growth Area					Total
		Chowchilla	Madera	Mountain Area	Madera County SE New Growth	County Valley	
Population	2010	12,116	64,275	42,545	15,775	17,492	152,203
	2020	13,121	69,609	46,076	17,085	18,944	164,834
	2035	16,047	85,132	46,606	35,183	18,621	201,590
	2042	17,454	92,601	48,298	41,535	19,390	219,277
Households	2010	3,964	21,963	11,922	433	5,022	43,304
	2020	4,432	18,035	12,190	3,011	10,683	48,351
	2035	5,241	20,893	14,593	6,763	11,423	58,913
	2042	5,617	22,215	15,712	8,514	11,764	63,822
Employment	2010	5,384	20,154	7,552	2,924	7,533	43,547
	2020	3,211	15,640	7,289	1,979	19,067	47,186
	2035	4,397	20,240	8,223	5,610	21,362	59,832
	2042	4,950	22,386	8,659	6,375	22,425	64,795

Source: MCTC 2016 Transportation Model and VRPA Technologies, Inc.  
Includes group quarters population

**FIGURE 1-2**

Madera County Development Projections - 2010, 2020, 2035, and 2042



Source: MCTC 2010 Transportation Model and VRPA Technologies, Inc.

## Existing Transportation System

### *Highways and Arterials*

Regional access to Madera County is provided by six state highways -- State Routes (SR) 41, 49, 99, 145, 152 and 233, with SR 41 and SR 99 carrying the bulk of North-South travel (reference Figure 2-2 – Madera County Regionally Significant Road System in Chapter 2). Madera County's street network generally consists of a series of freeways, expressways, arterials, and collectors including: Roads 4, 9, 16, 23, 26, 36, 200, 223, 274, 400, 415, 600, Avenues 7, 7 ½, 9, 12, 14, 18 ½, 21, and 26, and Firebaugh and Children's Boulevards.

#### ✓ Regionally Significant Roads System

MCTC, in conjunction with its member agencies and Caltrans, has developed the "Regionally Significant Road System" for transportation modeling purposes based on the Federal Highway Administration (FHWA) Functional Classifications System of Streets and Highways. In general, the classification systems used by local agencies coincide with the FHWA Functional Classification System. However, design standards and geometrics for particular streets within local jurisdictions, are subject to specific design criteria of the local agency.

#### ✓ Level of Service Analysis

Results of the level of service (LOS) analysis indicates that thirteen (13) segments along the Regionally Significant Road System are currently operating at LOS "D" through "F" for State Routes and at LOS "E" or "F" along local routes. The resultant list of existing deficient facilities along the Regionally Significant Roads System and other important facilities provides an opportunity for MCTC, Caltrans, and local agencies to focus on projects that will improve the overall LOS of the regional network in the future.

### *Existing Public Transportation*

Madera County's public transportation services span large urban and rural geographic areas in the Valley and foothills. These services include Madera Area Express and Dial-a-Ride serving urbanized areas and Madera County Connection, Eastern Madera Senior Bus, Escort Program serving primarily rural communities. Chowchilla Area Transit Express serves the City of Chowchilla and portions of the County. Specialized social service transportation services, Greyhound, vanpool and taxi service also play a role in serving County travel demand.

#### ✓ Social Service Transportation Providers

Transportation is provided by social service agencies serving clients or patrons. Those agencies (listed on Table 2-1 in Chapter 2) provide transportation mostly to program-specific clients and sites.

✓ **Other Transportation Providers**

Inter-city and inter-county services are provided by a variety of public and private-sector providers. They include Greyhound, Madera Cab Company, Yosemite Area Regional Transit (YARTS), CalVans and Uber and Lyft. Private medical transit services also are available within the County.

✓ **Passenger Rail and Support Facilities**

Madera is served by Amtrak's San Joaquin with eight daily round-trips between Oakland or Sacramento and Bakersfield. Amtrak operates on the Burlington Northern & Santa Fe tracks located at 18770 Road 26 (Avenue 15½ and Road 29) east of Madera. Amtrak also provides thruway bus service from various rail stations along the San Joaquin route to cities that are not accessible by rail, including Los Angeles, San Francisco and San Jose.

### *Aviation*

The City of Madera owns and operates the Madera County Municipal Airport, which provides aviation services to approximately 88 fixed-base operators. The City of Chowchilla operates the Chowchilla Municipal Airport with 18 fixed-base operators. Fresno Yosemite International Airport (FYI or FAT) in Fresno County is the primary passenger airport facility in the region



### *Non-Motorized Systems*

The Cities of Chowchilla and Madera, and Madera County continue to be involved in implementing bicycle facilities. A variety of funding sources are used in conjunction with funds from Congestion Mitigation and Air Quality (CMAQ), State Active Transportation Program (ATP) Account, and other funding programs to implement elements of the Madera Active Transportation Plan (ATP) recently prepared and adopted in May 2018 by MCTC.

### *Goods Movement*

Goods movement in Madera County is primarily provided by trucking and freight rail services. The trucking industry includes common carrier, private carrier, contract carrier, drayage and owner-operator services, which handle both line-haul and pick-up and delivery services. A number of trucking facilities are located in Madera County including the public highway system, truck terminal facilities, freight forwarders, truck stops, and maintenance facilities. These facilities are especially concentrated along SR 99.

### *Transportation Demand Management*

Transportation Demand Management (TDM) programs in Madera County primarily consist of the voluntary rideshare program, the park & ride facilities program, the alternative fuels program, and other programs that provide for congestion relief and enhanced travel.

### *Intelligent Transportation Systems*

In addition to planning for specific modes of transportation that will serve the needs of existing and future residents, the integration of advanced transportation technologies is also important. The use of new technologies [Intelligent Transportation Systems (ITS)] will allow maximum use of the transportation infrastructure including streets and highways and transit. Further, the need for traveler information is critical in order to lessen the impacts of accidents and other events in the region. Real-time traveler information can make traveling in Madera County more enjoyable and reduce delay and congestion.

## Goals

Development of the RTP goals and objectives was a key step during preparation of the plan. The RTP Roundtable developed the set of goals and objectives based on an extensive review and consideration of their vision of the regional transportation system over the next 24 years, along with input from the public. Results obtained during the public outreach effort provided the Roundtable with additional information needed to refine the goals and objectives.

The following goals are intended to guide MCTC in its pursuit of quality growth and highly integrated transportation systems, reflective of the “Principles to Success” noted above. The goals are broad policy statements that describe the purpose of the plan.

1. To support equitable access to effective transportation options for all, regardless of race, income, national origin, age, location, physical ability, or any other factor.
2. To promote intermodal transportation systems that are fully accessible, encourage quality and sustainable growth and development, support the region’s environmental resource management strategies, and are responsive to the needs of current and future travelers.
3. To promote and develop transportation systems that stimulate, support, sustain, and enhance the movement of people and goods to foster economic competitiveness of the Madera region.
4. To enhance transportation system coordination, efficiency, and intermodal connectivity to keep people and goods moving and meet regional transportation goals.
5. To maintain the efficiency, safety, and security of the region’s transportation system.
6. To improve the quality and sustainability of the natural and human built environment through regional cooperation of transportation systems planning activities.



7. To maximize funding to maintain and improve the transportation network.
8. To identify reliable transportation choices through the public participation process approved by MCTC.
9. To protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).



## Future Transportation System

To assess the needs in the region, a review of future travel characteristics projected for the year 2042, and how the individual components of the system can meet future needs are provided in this chapter. The systems analyzed include:

- ✓ Highways and Arterials.
- ✓ Public or Mass Transportation (local bus systems, inter-regional bus systems, and passenger rail).
- ✓ Aviation (use of public and private airports and access to regional passenger airport facilities).
- ✓ Active Transportation or Non-Motorized Travel (bicycles, trails and walking).
- ✓ Goods Movement (truck and freight rail).
- ✓ Transportation Demand Management (telecommuting, car-pooling, off-peak commuting, staggered work days also known as Transportation Control Measures or TCMs, and Transportation System Management or TSM strategies, which are designed to improve traffic flow such as signal coordination, bus turn-outs, etc.).
- ✓ Intelligent Transportation Systems or ITS (technology-based improvements that improve the efficiency of the multi-modal transportation systems).

These systems are discussed separately but must operate as an interconnected system.

## Projected 2042 Travel Characteristics

The Regionally Significant Road System is reflected in Figure 5-1 in Chapter 5. These facilities, along with other major streets and highways, are included in the Madera County Regional Traffic Model network for the year 2042. The forecast of traffic generated by the projected population, housing and employment indicates that total vehicle trips will increase by about 81% between 2010 and 2042. This is attributed to continued use of major transportation corridors in the region by future growth and

development. Furthermore, vehicle miles of travel (VMT) in the year 2042 are forecast to increase by approximately 27% from VMT in year 2010. Much of the increase in VMT is due to longer distance trips; especially commute trips to and from Fresno for employment opportunities.

In addition to street and highway impacts, major impacts on other modes of transportation would also be realized. Without implementation of planned mass transportation, aviation, active or non-motorized, goods movement, and other transportation-related improvements, the transportation/circulation system would be impacted. These impacts would further reduce the ability of local agencies in Madera County, Caltrans, and the associated Air Basin to improve levels of congestion and delay and meet air quality standards. A major objective of this RTP/SCS is to identify a transportation strategy that will improve mobility between 2018 and 2042, while at the same time reducing the negative environmental impacts of travel.

### *Highways and Arterials*

It is assumed that the regional street and highway system will continue to carry the vast majority of person-trip travel and will be an important part of the freight movement system. Streets and highways also will be the same routes for buses, and carpools and vanpools, resulting in a highway network that is an integral part of the public transit system. Finally, the street and highway system will also serve the needs of tourist travel and recreational travel.

Because the highway system must continue to provide reasonable service throughout the plan period, it is essential to keep it well maintained. It is also important to plan for capacity increases only where future traffic will exceed capacity and where highway expansion is determined to be the best solution that will enhance travel safety.

#### ✓ *Capacity-Increasing Street and Highway Project Needs and Actions*

New freeway and other street and highway capacity-increasing improvement projects have the greatest potential for causing significant adverse environmental effects versus other modes of transportation. This RTP/SCS proposes the widening or modification of existing streets and highways, changes to the designation of regional streets and highways, and new interchange facilities along new or existing freeways. Other projects include signalization improvements (new signals, signal modifications, and signal synchronization).

The RTP and SCS contains over \$1.004 billion in capacity-increasing highway and arterial improvement projects. This cost includes lane widenings, interchange improvements, new signals, and signal coordination systems associated with individual projects. Approximately \$679.2 million has been allocated for State Highway improvements along SR 41, SR 49, SR 99, SR 145 and SR 233. In addition, new or improved interchange projects are planned along SR 41, SR 99 and SR 233. These projects are intended to relieve bottlenecks during peak use, to close gaps, and to increase capacity

along congested freeways, such as SR 41 and SR 99, which provide access to major population and employment opportunities within the San Joaquin Valley.

✓ **Level of Service Analysis**

Results of the LOS analysis for the RTP indicate that some facilities will fall deficient between years 2010/2018 and year 2042. Improvement projects to improve these deficient levels of service would include lane widening and other operational improvements; however not all of the projects are included in the 2018 RTP/SCS “financially-constrained” program.

✓ **Street and Highway Rehabilitation/Safety Project Needs and Actions**

In addition to LOS deficiencies, Caltrans and local agencies are also facing the difficult task of maintaining regional streets and highways with inadequate funding. With increased congestion expected in the future, the typical road will require some maintenance every five to ten years, and major rehabilitation every ten to 20 years. If rehabilitation and maintenance activities are not implemented, residents will continue to experience increased accident rates and reduced system-wide efficiency.



**Mass Transportation**

Public transit services in Madera County evolved from small demand-response services for specialized riders to more diverse transit systems over the past 25 years. The Cities of Madera and Chowchilla and Madera County provide a total of six different public transit services. Other transportation services offered in Madera County include Amtrak passenger rail service, Yosemite Area Regional Transportation System (YARTS), CalVans vanpool services, taxis, and transportation network services (TNS) including Uber and Lyft. Madera County public transit operators have increased services in response to demand in both urban and rural areas of the County and

beyond. Regional inter-County connectivity has been improved to key destinations in response to market analysis and public outreach and continues to be evaluated for benefits to County residents.

✓ **Mass Transportation Needs and Actions**

An on-going challenge for public transit operators is maintaining current levels of service while also addressing future operational and infrastructure needs and requirements. Identifying these needs and developing attractive services and infrastructure will require reliable analysis of demand and public input to ensure broad community acceptance.

Today public transit operators nationwide face many diverse operational, economic, technological and innovative competitive challenges. These include declining transit service levels and quality, rising fares, lower fuel prices, rising vehicle ownership, and the popularity of transportation network companies or ride-hailing services such as Uber and Lyft. Transit investments therefore must be prudently planned and directed to meet these multi-faceted challenges in providing attractive and responsive transit services.

Public transit in Madera County will continue to play an important role in the mobility of those who are dependent on transit as a lifeline service and increasingly for those residents seeking reliable, convenient, and cost-effective transportation options. As demand for more alternative transportation options grows, public and private-sector transportation services and institutions in the County will have unique opportunities to offer creative and collaborative services. Transit operators will need to continue to integrate effective technologies in public outreach and marketing and scheduling. Examples include the use of smartphone applications, user-friendly websites, and electronic information signage on buses and at key locations.

More targeted, destination-driven or express services and inter-community and inter-county services should be considered where warranted. For example, affordable express service from Madera to educational institutions and vocational centers such as Madera Community College Center, Fresno State University, and Madera County Workforce Assistance Center could attract new users and expand the use of public transit. This concept would be particularly attractive with potential subsidies and/or free usage or reduced transit fares. Managing the first and last mile of a transit trip has long been a challenge for transit patrons. Some agencies are partnering with ride-hailing Uber and Lyft type services to help serve riders access transit stops. Agencies also are promoting innovative multimodal approaches, including bike sharing and are adopting smartphone technology offering mobile ticketing and real-time rider information and trip scheduling.

Table 5-6 in Chapter 5 reflects a total of \$236.1 million in 2042. Of this total, \$70.6 million or 30% of transit expenditures are projected for transit enhancements above and beyond current operating and fleet costs projected through 2042. Operating costs are assumed to increase three percent annually and include enhanced services at projected intervals.

## *Aviation*

Increased air service demand will continue to occur in Madera County. This projected demand will increase the need for airport improvements. A number of these improvements are identified in the RTP including land acquisition for future improvements, runway and taxiway renovations and extensions, etc. These improvements have been identified to address aviation system needs described in the *Regional Aviation System Plan*

## Active Transportation or Non-Motorized Systems

MCTC recognizes that increased bicycling, walking and equestrian activities can reduce traffic congestion, air and noise pollution and fuel consumption. As a result, these modes effectively contribute to the quality of life in the region. Bicycle travel has emerged as an increasingly popular form of recreation in the region. Commuting to work has also increased in the urbanized areas of Madera County. Bicycles are essentially pollution-free, use no fossil fuels, are quiet, and take up very little space either in operation or in storage. Bicycling is of interest to the individual because it promotes health, is enjoyable and inexpensive, and, in the congested areas of the County, bicycling can be the fastest way of getting to work or to any destination, especially during the peak periods.

### ✓ Active Transportation/Non-Motorized System Needs and Actions

The Cities of Chowchilla and Madera and Madera County have prepared bicycle plans. Those plans were considered as MCTC prepared its 2018 Madera Active Transportation Plan (ATP). Figures 5-7 through 5-9 in Chapter 5 identify the planned routes for bike lanes and paths as designated in the ATP. The ATP stresses the importance of making the road system compatible for bicycle and pedestrian transportation. The ATP addresses the needs of commuting, school, and recreational cyclists throughout the County, identifies safe and convenient routes to key locations throughout the County, and suggests needed improvements and additions to the bikeway routes and facilities. In coordination with its member agencies, MCTC staff will focus on the implementation program of the Plan.

In addition, the State of California has been working to improve and promote on-street bicycle commuting to urban cores and to support safe bicycle access to transit and passenger rail modes and to schools. It recently published its first ever statewide plan for active modes of transportation – *Toward an Active California, State Bicycle and Pedestrian Plan*, in May 2017. Caltrans has set ambitious targets to double walking, triple bicycling, and double transit use in the State between 2010 and 2020. *Toward an Active California* is considered supplemental to the region's ATP.

### ✓ Bicycle and Trail Improvements

To enable the vision of active transportation linkages to activity centers within the region, the local agencies have requested approximately \$54.5 million for non-motorized projects in the 2018 RTP/SCS (reference Table 5-8 in Chapter 5), representing a 51% increase in funding for non-motorized improvement projects from the 2014 RTP.

### ✓ Pedestrian Improvements

There are a number of strategies consistent with the 2018 Madera ATP that will serve to improve conditions for existing pedestrians and to induce others to join them. In general, all new roadway projects and all reconstruction projects should be constructed to provide increased safety and mobility for all users, including people who walk and bike. In addition, local agencies have identified



general streetscape projects within their jurisdictions to promote walkability within activity centers; especially in downtown areas and along major corridors. These and other projects that will reduce GHG emissions, which may be funded through various funding programs.

### *Goods Movement*

Goods movement in Madera County is primarily made along the network of highways and railroads. After many years of decline due to increased competition from trucks, rail freight is reasserting itself as an important component of the transportation system. While cartage by truck will remain an important component of a competitive and multimodal freight network, an efficient, high capacity freight rail system is also essential to ensure the seamless movement of goods between



Madera County and markets and manufacturers in the north, south and east. While local freight distribution within the San Joaquin Valley, including Madera County, will continue to be handled mostly by trucks, railroads will serve some industries along the railroad lines. Improvements made to rail rights-of-way, generally for passenger travel, should also help the freight railroads by allowing faster, smoother travel.

#### ✓ *Goods Movement Needs and Actions*

Development of a modern, efficient goods movement system for the Region is a cooperative venture, including all of the freight modal providers, airport operators, the federal, State, and local governments, and many other parties. While air cargo operations at the Chowchilla and Madera Municipal Airports are desirable, the feasibility of transporting goods by air is questionable. According to the *Regional Aviation System Plan* for Madera County, most of the products from agribusiness are transported by truck or by train.

### *Transportation Demand Management*

Transportation Demand Management (TDM) is the all-inclusive term given to a variety of measures used to improve the efficiency of the existing transportation system by managing travel demand. Travel behavior may be influenced by mode, reliability, frequency, route, time, and costs, support programs/facilities and education. TDM strategies encourage the use of alternatives to the single occupant vehicle such as carpools, vanpools, bus, rail, bikes, and walking. Alternative work hour programs such as compressed work week programs, flextime, and telecommuting (teleworking) are also known as Transportation Control Measures (TCMs) and include parking management tactics such as

preferential parking for carpools and parking pricing. TDM strategies that improve traffic flow are also known as Transportation Systems Management (TSM) projects.

### *Intelligent Transportation Systems*

In addition to traditional lane widening and signal system improvements, the need to further enhance the capacity of the existing and future system using ITS will be important. ITS represents a means of applying new technological breakthroughs in detection, communications, computing and control technologies to improve safety and performance of the surface transportation system. This can be done by using the technologies to manage the transportation system to respond to changing operating conditions, congestion or accidents. ITS technology can be applied to arterials, freeways, transit, trucks and private vehicles. ITS includes Advanced Traffic Management Systems (ATMS), Advanced Vehicle Control Systems (AVCS) and Commercial Vehicle Operations (CVO).

## The Sustainable Communities Strategy

The MCTC 2018 RTP/SCS details how the region will reduce GHG emissions to State-mandated levels over time. The inclusion of the SCS is required by SB 375 and stresses the importance of meeting GHG per capita emission reduction targets set by the California Air Resources Board (CARB). MCTC has approached development of the SCS as an “opportunity” to enhance the integration of transportation, land use and the environment in the Madera region. Chapter 6 of the RTP/SCS outlines the approach to develop the Sustainable Communities Strategy (SCS). This is the second time that this chapter has been included in the RTP and is provided in response to SB 375 requirements. SB 375 requires that MCTC incorporate the SCS into the RTP. The SCS:

- ✓ Is intended to show how integrated land use and transportation planning can lead to lower GHG emissions from autos and light trucks.
- ✓ Resulted in increased transit use and mode share, all of which have led to both mobility and air quality improvements.
- ✓ Encourages changes to the urban form that improve accessibility to transit, and create more compact development, thereby yielding a number of transportation benefits to the region. These include reductions in:
  - Travel time
  - Vehicle miles traveled (VMT)
  - Vehicle hours traveled (VHT)
  - Vehicle hours of delay

SB 375 was passed by the California Legislature, signed by the Governor, and became law effective September 30, 2008. The legislation requires regions within California to work together to reduce GHG

emissions from cars and light trucks. SB 375 requires the integration of transportation, land use, and housing planning with the next updates of the RTPs and Regional Housing Needs Assessments (RHNAs). The goal of the SCS is to plan for more sustainable communities that will result in transportation modes that reduce the use of single occupant vehicles. Transportation strategies contained in the RTP including Transportation System Management (TSM), Transportation Control Measures (TCM) and multi-modal transportation system improvements, are major components of the SCS, along with the preferred land use scenario. Transportation and land use integrated together results in less vehicle trip making, especially resulting from increased density, mixed-use, and land use intensity.

### *Madera County GHG Targets*

For the 2014 RTP/SCS, CARB issued a 5% reduction target to each of the eight (8) Metropolitan Planning Organizations (MPOs) in the San Joaquin Valley, including MCTC. CARB agreed that the targets would be applicable to each MPO independently of other Valley MPOs. The targets included a percentage reduction of greenhouse gas emissions from 2005 of 5% by the year 2020 and a reduction in GHG emissions of 10% by the year 2035. For the 2018 RTP/SCS, CARB decided to retain the same targets but will be revising the targets for the 2022 RTP/SCS.



### *Alternative SCS Scenarios*

MCTC began with the land use modeling process developed for the 2014 RTP/SCS using UPLAN. MCTC developed several land use scenarios (*Status Quo*, *Hybrid* or the preferred 2014 SCS scenario, and the *Moderate Change*), which were modeled and presented to the local agencies, stakeholders and the public. The result of this effort was the selection of the preferred *Moderate Change* scenario. The *Moderate Change* Scenario represents an increase in densities compared to the *Hybrid* Scenario developed for the 2014 RTP/SCS.

### *The Choice Scenario*

On April 12, 2018, the RTP/SCS Roundtable reviewed results of the alternative scenario modeling process and agreed that the *Moderate Change Scenario* was the preferred SCS scenario. The Roundtable's recommendation to incorporate the *Moderate Change Scenario* in the 2018 RTP/SCS was forwarded to the MCTC Policy Board for its consideration on April 16, 2018. On April 9, 2018, VRPA Technologies, Inc. and MCTC conducted an open house workshop to review and discuss the alternative SCS scenarios with the general public and stakeholders. At the April 16, 2018 MCTC Board meeting, the Policy Board reaffirmed the Roundtable's recommendation and approved the *Moderate Change*

*Scenario* as the scenario that should be reflected in the RTP/SCS and implemented to reduce GHG emissions in Madera County.

## Financing the Regional System

Chapter 7 of the RTP/SCS specifically identifies current and anticipated revenue and strategies to fund transportation projects described in Chapter 5 – *Delivering the Plan for Change*. Primary transportation modes addressed are highways, local streets and highways, public transit, active transportation or non-motorized systems (bicycle and pedestrian), rail projects and others.

The RTP/SCS is required to be “financially constrained,” reflecting those projects that can be realistically funded based on projected revenue and funding opportunities. Projects identified as needed but for which funds have not been identified are also included as unconstrained projects and would receive priority should funding become available. Challenges posed by this Plan become evident as the cost of identified transportation needs exceeds projected funding.

### *Projected Revenues and Expenditures*

A projection of reasonably available revenue is required to determine how many proposed projects can be fully funded through 2042. Table 1-3 shows the cumulative available transportation revenue in constant dollars for all modes. \$1.608 billion is projected for the planning period (year 2018 through 2042). Table 1-4 provides a summary of expenditures by mode. Table 5-2 in Chapter 5 of this Plan shows the delivery schedule and funding sources applied to develop the constrained capacity increasing street and highway improvement projects.

TABLE 1-3  
Revenues by Mode 2018 – 2042 (\$ Millions)

Mode	Total	Percent
Streets & Roads	\$1,219.5	75 %
Public Transit	\$271.07	17 %
Non-Motorized	\$90.02	6 %
Other*	\$27.42	2 %
Total	\$1,608.00	100%

\* Includes no and low-emission vehicle projects; electric charging stations; traffic signals; and various transportation control measures/transportation systems management projects, etc.

**TABLE 1-4**  
**Expenditure Summary by Mode 2018 – 2042 (\$ Millions)**

Mode	Total	Percent
Streets & Highways – Rehab & Safety	\$215.38	13%
Streets & Highways – Capacity Increasing Projects	\$1,004.12	62%
Subtotal: Streets & Highways	\$1,219.50	
Public Transit	\$271.07	17%
Active Transportation or Non- Motorized Projects/Programs	\$90.02	6%
Other Projects/Programs*	\$27.42	2%
Total	\$1,608.00	100%

*\* Includes no and low-emission vehicle projects; electric charging stations; traffic signals; and various transportation control measures, transportation systems management projects, and other.*

## Public Participation

The MCTC Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) plays a major role in establishing goals and objectives and guide development of infrastructure improvements. Extensive efforts were made to achieve consultation and coordination with all transportation providers, facility operators, appropriate federal, state, and local agencies, Native American Tribal Governments, environmental resource agencies, air districts, pedestrian and bicycle representatives, and adjoining MPOs/RTPAs according to the requirements of 23 CFR 450.316 and the 2017 MCTC Public Participation Plan (PPP) (PPP – Reference Appendix A). The 2018 RTP/SCS public participation program built on the success of previous public outreach campaigns to ensure widespread dissemination of information to a geographically and socially diverse population. Since the last RTP/SCS update in 2014 and RTP/SCS Amendment No. 1 in 2017, MCTC staff has continued to engage the public through workshops, public meetings, and presentations at service clubs and professional organizations. Educating the public about the regional transportation planning process and opportunities for continued public participation and input remains a priority for MCTC.







## System Performance

The Moving Ahead for Progress in the 21st Century Act (MAP-21) is the Federal transportation funding bill signed into law in 2012. A key feature of MAP-21 is the establishment of a performance- and outcome-based program, known as “Performance Based Planning,” with the objective to invest in projects that will make progress toward the achievement of the national goals for the transportation. The

most recent Federal transportation bill, Fixing America’s Surface Transportation Act of 2016 (FAST Act), carries forward the same performance management framework. These acts established new performance management requirements to ensure that state Departments of Transportation and MPOs improve project decision-making through performance-based planning and programming to choose the most efficient investments for Federal transportation funds and beginning in 2018 will be required to implement the Federal performance measures.

## Environmental Justice

The goal of environmental justice is to avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations and to ensure the full and fair participation by all potentially affected communities in the transportation decision making process.

Title VI of the 1964 Civil Rights Act provides one of the principle legal underpinnings for environmental justice. Title VI states that “No person . . . shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Title VI prohibits recipients of Federal funds from actions that reflect ‘intentional discrimination’ or that exhibit ‘adverse disparate impact discrimination’ on the basis of race, ethnicity or national origin.” Title VI also prohibits discrimination in the form of the denial of meaningful access for limited English proficient (LEP) persons.

Considering all the analyses as a whole as documented in Chapter 10 of the RTP/SCS – *Addressing Environmental Justice*, it is sufficient to conclude that the *RTP and SCS does meet the environmental justice requirements*: ensuring that all residents of Madera County are subject to proportionate benefits and detriments of transportation investment.



# **Chapter 2**

## **Requirements, Trends & Contents**



## 2. Requirements, Trends, and Contents

### Background

MCTC is required to update the Regional Transportation Plan (RTP) to reflect the existing and future regional transportation system in Madera County. The 2018 Update reflects the horizon or “planning” year of 2042, ensuring that the region’s transportation system and implementation policies/programs will safely and efficiently accommodate growth envisioned in the Land Use Elements of the Cities of Chowchilla and Madera and Madera County in the RTP and in the Sustainable Communities Strategy (SCS). As the Regional Transportation Planning Agency (RTPA) and Metropolitan Planning Organization (MPO) for Madera County, MCTC is responsible for development of the RTP/SCS (reference Chapter 6 - *Creating a Sustainable Future*).

Madera County Transportation Commission’s role is to:

- ✓ Foster intergovernmental coordination.
- ✓ Undertake comprehensive regional planning with an emphasis on transportation issues.
- ✓ Provide a forum for citizen input into the planning process.
- ✓ Provide technical services to its member agencies.

In all these activities the Commission works to develop a consensus among its members with regards to multi-jurisdictional transportation issues and understands the importance of input and consensus and utilizes a collaborative process to create each RTP and with this latest RTP, the SCS as well. Throughout development of the RTP, MCTC sought the opinion and feedback of interested parties, including local governments, State and federal agencies, environmental and business communities, tribal governments, non-profit organizations, other stakeholders, and the general public. Each of the local, State and federal agencies, as well as other stakeholders were invited to become members of the MCTC 2018 RTP/SCS Roundtable and were involved in development of the RTP/SCS beginning in September 2017. Over the course of four (4) Roundtable meetings, MCTC gained insight into their transportation, land use and environmental issues and needs.

In addition, a series of public workshops and Environmental Justice (EJ) events were held to receive input from the general public (reference Chapter 8 - *Public Involvement for Change*). The Workshops were held during preparation of the SCS scenarios and to review the final set of scenarios for consideration by the MCTC Policy Board. The EJ events were held throughout the County and were conducted in Spanish to ensure that the needs of the EJ Community were understood and considered during development of the RTP/SCS. The end result of this collaborative process is this RTP/SCS, which reflects public consideration and addresses the region’s needs. The RTP/SCS is further described below.

## Regional Transportation Plan

The RTP is a long-range transportation plan providing a vision for regional transportation investments over at least a 20-year period. Using growth forecasts and socioeconomic trends (reference Chapter 3 *The Madera Region: Past, Present, and Future*), the Plan considers the role of transportation including economic factors, quality of life issues, and environmental factors. The RTP provides an opportunity to identify transportation strategies today that address mobility needs for the future. The RTP is updated every four (4) years to reflect changes in economic trends, State and federal project and funding requirements, progress made toward project implementation, and current socioeconomic trends. Transportation projects must be included in the RTP in order to qualify for federal and State funding. The last RTP was adopted by MCTC's Policy Board in July 2014 and was amended in June 2017. The next RTP Update will be due in 2022. RTPs are developed by RTPAs and MPOs in cooperation with Caltrans and other stakeholders. MCTC has prepared the 2018 RTP consistent with the following mandates:

- ✓ Section 65080 et seq., of Chapter 2.5 of the California Government Code.
- ✓ Federal transportation reauthorizations and requirements including MAP-21 (Moving Ahead for Progress in the 21st Century Act), and the Fixing America's Surface Transportation (FAST) Act. These acts require that RTPs include only those projects which can actually be delivered with funds expected to be available (i.e., financially constrained), and that those projects will help attain and maintain air quality standards consistent with the Clean Air Act Amendments of 1991 and other federal mandates noted below (reference Chapter 7 - *Investing in Change*).
- ✓ Transportation Conformity for the Air Quality Attainment Plan per 40 CFR Part 51 and 40 CFR Part 93 (reference the separate conformity finding document and Chapter 5 - *Delivering the Plan for Change*).
- ✓ Assembly Bill 32, the California Global Warming Solutions Act of 2006.
- ✓ California Transportation Commission (CTC) RTP Guidelines (adopted by the Commission in January 2017 plus an Addendum addressing Climate Change and Greenhouse Gas Emissions adopted by the Commission on May 29, 2008) to assist in the preparation of RTPs pursuant to Section 14522 of the Government Code.

RTPs are prepared to provide a clear vision of the regional transportation goals and objectives. In addition, RTPs have many specific functions including:

- ✓ Providing an assessment of the current modes of transportation and the potential for new travel options within the region.
- ✓ Predicting the future needs for travel and goods movement.
- ✓ Identification and documentation of specific actions necessary to address the region's mobility and accessibility need.

- ✓ Identification of guidance and documentation of public policy decisions by local, regional, State and federal officials regarding transportation expenditures and financing.
- ✓ Identification of needed transportation improvements.
- ✓ Promotion of consistency between the California Transportation Plan (CTP), the RTP and other transportation plans developed by the cities, the county, districts, private organizations, tribal governments, and State and federal agencies in responding to statewide and interregional transportation issues and needs.
- ✓ Providing a forum for 1) participation and cooperation and 2) to facilitate partnerships that reconcile transportation issues, which transcend regional boundaries.
- ✓ Involving the public, federal, State and local agencies, as well as local elected officials, early in the transportation planning process to facilitate discussions and decisions on the social, economic, air quality and environmental issues related to transportation.

### *Sustainable Communities Strategy*

The SCS is a newer element of the RTP that will demonstrate the integration of land use, transportation strategies, and transportation investments within the RTP. This is the second SCS prepared for Madera County to address requirements set forth with the passage of SB 375, with the goal of ensuring that the MCTC region can meet its regional greenhouse gas reduction targets set by the California Air Resources Board (CARB). In 2018, the California Air Resources Board (CARB) issued emission reduction targets to each of the eight (8) Metropolitan Planning Organizations (MPOs) in the San Joaquin Valley, including MCTC. The eight MPOs in the Valley also cooperate regarding transportation issues which are referenced in the *Draft San Joaquin Valley Region Overview* (Appendix A of this RTP/SCS). The targets included a percentage reduction of greenhouse gas emissions from 2005 of 5% by the year 2020 and a reduction in GHG emissions of 10% by the year 2035. Developing the SCS requires meaningful collaboration with each of the three (3) local governments, as well as stakeholders to identify land-use and transportation opportunities around the region that will address the needs of the growing population and ensure compliance with State and federal requirements.

The SCS is a comprehensive regional vision implemented by the local agencies. Some of the key land-use policies and strategies that MCTC has identified through its RTP/SCS Roundtable to achieve the goals of SB 375, through the SCS, are:

- ✓ Focusing growth in existing and emerging centers and along major transportation corridors.
- ✓ Creating areas of low and moderately dense and mixed-use development and walkable communities.
- ✓ Preserving existing agricultural and open spaces throughout Madera County.

Details regarding the SCS can be found in Chapter 6 of this RTP/SCS.

## Project Location and Description

Madera County is located in California's San Joaquin Central Valley (reference Figure 2-1). Encompassing 2,147 square miles, the County is situated in the geographic center of the State of California along State Route (SR) 99, approximately 18 miles north of Fresno. The County has an average altitude of 265 feet ranging from 180 to 13,000 ft above sea level. The San Joaquin River forms the south and west boundaries with Fresno County. To the north, the Fresno River forms a portion of the boundary with Merced County. Mariposa County forms the remainder of the northern boundary. The crest of the Sierra Nevada Mountains forms the eastern boundary with Mono County. Generally, the County can be divided into three broad geographic regions – the valley area on the west; the foothills between Madera Canal and the 3,500-foot elevation contour; and the mountains from the 3,500-foot contour to the crest of the Sierra Nevada Mountains.

The Valley area is generally flat and ranges in elevation from 45 to 1,000 feet. This area contains approximately two-thirds of the County's population and includes the cities of Chowchilla and Madera, as well as the unincorporated communities of Fairmead, Madera Ranchos, and Bonadelle Ranchos. A well-developed agricultural economic base characterizes this area.

The foothill area contains the remaining one-third of the County population residing in the unincorporated communities of Oakhurst, Ahwahnee, North Fork, Coarsegold, Raymond and Yosemite Lakes Park.

The agricultural base in this area is primarily grazing. Much of the area's employment base is involved in the tourist-related services with a significant commuter component going to Fresno, Madera and other valley employment and service centers.

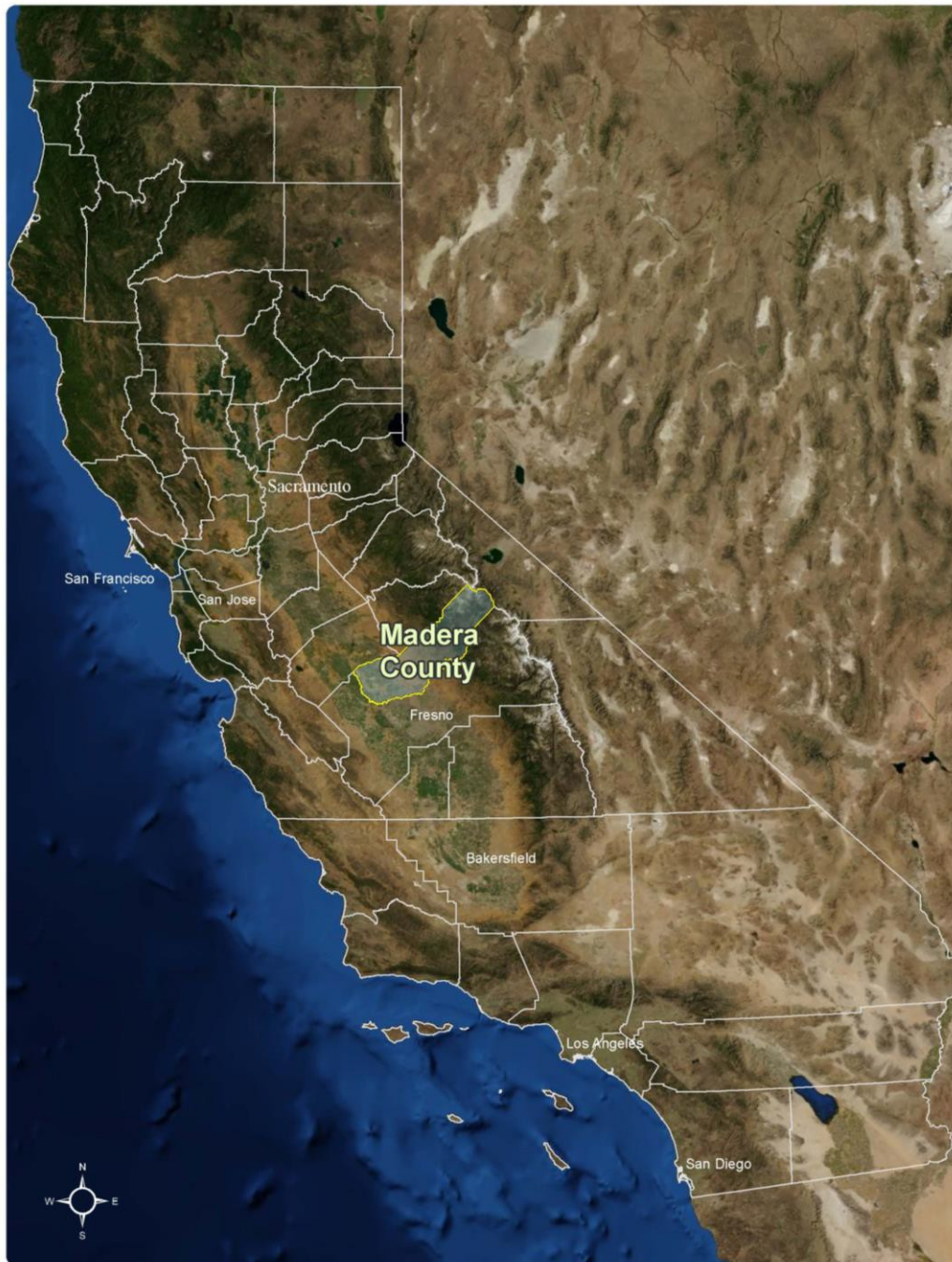
The mountain area is essentially uninhabited with most of the land located in the Sierra National Forest, Yosemite National Park, Devils Postpile National Monument, and the Ansel Adams and John Muir Wilderness Areas. Historically, the national forest area has supported a strong lumber-based economy; however, this has been seriously curtailed by recent environmental actions.

## The Existing Transportation System

### *Highways and Arterials*

Regional access to Madera County is provided by six state highways -- State Routes (SR) 41, 49, 99, 145, 152 and 233, with SR 41 and SR 99 carrying the bulk of North-South travel.

FIGURE 2-1  
Madera County within the State of California





Madera County's street network generally consists of a series of freeways, expressways, arterials, and collectors including: Roads 4, 9, 16, 23, 26, 36, 200, 223, 274, 400, 415, 600, Avenues 7, 7 ½, 9, 12, 14, 18 ½, 21, and 26, and Firebaugh and Children's Boulevards.

The City of Chowchilla is located in north-central Madera County along the west side of SR 99, straddling SR 233 (Robertson Boulevard). The City of Madera is located in central Madera County and straddles both sides of SR 99 and SR 145 (Madera, Gateway and Yosemite Avenues). Other major arterials in the City of Madera include: Avenue 12, Avenue 14 (Howard Road and Olive Avenue), Cleveland Avenue, Road 23, and other sections of Gateway Drive.

In addition, SR 41 provides access to the communities of Coarsegold and Oakhurst, leading into the Sierra Nevada Mountains towards Yosemite National Park. SR 49 branches off SR 41 in Oakhurst providing access to the community of Ahwahnee. Each of these major streets and highways, in addition to others depicted on Figure 2-2, are part of the Madera County Regionally Significant Road System.

#### ✓ Regionally Significant Roads System

MCTC, in conjunction with its member agencies and Caltrans, has developed the "Regionally Significant Road System" for transportation modeling purposes based on the FHWA Functional Classifications System of Streets and Highways. In general, the classification systems used by local agencies coincide with the FHWA Functional Classification System. However, design standards and geometrics for particular streets within local jurisdictions, are subject to specific design criteria of the local agency.

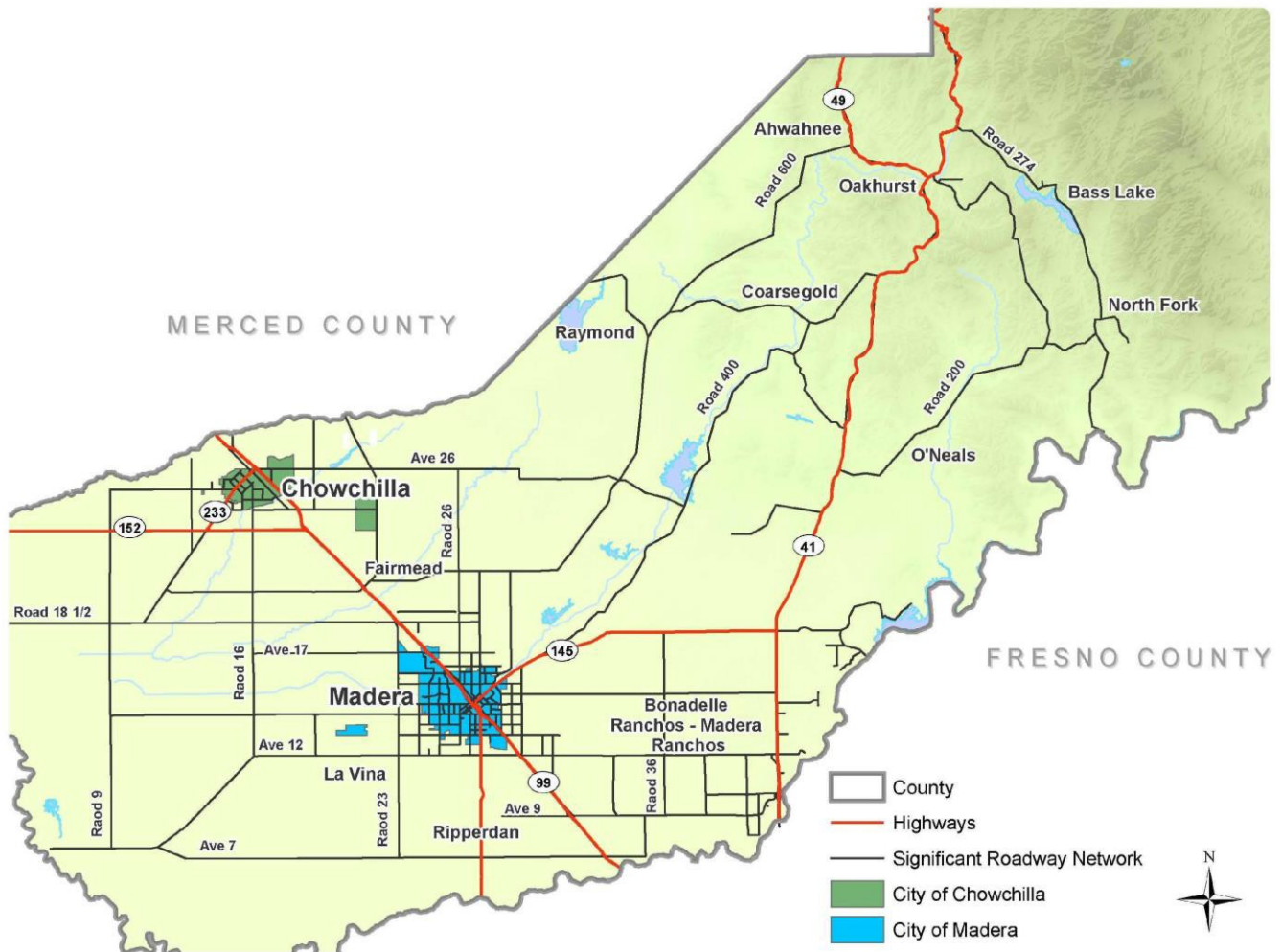
There is a significant distinction between the Regionally Significant Road System and the Countywide Network. Regionally significant projects are statutorily required to be treated separately for air quality reasons.

#### ✓ Functional Classification System

Functional classification is the process by which streets and highways are grouped into classes according to the type of service they are intended to provide. Fundamental to this process is the recognition that individual streets and roads do not serve travel independently in any major way.

Functional classifications define the channelization process by defining the area that a particular road or street should service through a highway network.

FIGURE 2-2  
Madera County Regionally Significant Road System



✓ **Inventory**

Currently there are standards for road facilities falling into five (5) functional classifications:

- **Freeways** - provide high speed, through traffic movement on limited access, continuous routes. This class of facility provides connections to other regional highways and carries high traffic volumes at maximum legal speeds. Access is strictly controlled and conforms to State standards for rural freeways with interchanges spaced at two mile or greater distances. There is no direct access provided to adjacent properties. Freeways are typically developed within a 180- to 200-foot right-of-way.
- **Expressways** - very similar in function to freeways with the primary difference found in points of access. Expressways provide limited access via at grade intersections with arterial streets, which are usually spaced at one-mile intervals. Expressways are developed as four lane divided facilities within a 100 to 120-foot right-of-way.
- **Arterials** - primary purpose is to provide mobility. Arterials are designed to carry through traffic on continuous routes and to connect major traffic generators, freeways, and other arterials. Access is allowed under specific conditions and in conformance with local standards. Urban arterials are designed to accommodate four travel lanes and can be either divided or undivided. Rural arterials are generally two-lane facilities, which serve to connect rural communities to urbanized areas or freeways. Arterials are developed within a 100-foot right-of-way.
- **Collectors** - primary purpose is to provide access to local land uses. Collectors provide for internal traffic movement and connect local roads to higher level facilities such as arterials. Urban collectors may be four lanes but are usually two-lane facilities within an 80-foot right-of-way. Rural collectors are two lanes constructed within an 80-foot right-of-way.
- **Local Roads** - provide direct access to adjoining properties and connect with collector and arterial roads. Local roads are developed as two-lane facilities within a 60-foot right-of-way.

This hierarchy of classifications is a general guide to the major elements of the circulation system. Many times a street will serve several functions providing both mobility and access. Street width does not always correspond to streets regional function. This is especially true in the rural areas where rights of way and pavement width on major regional routes can be considerably less than ideal standards.

✓ **State Highways**

Parts of six (6) State highways pass through Madera County, including one (1) unconstructed route:

- **State Route 99** - a four-lane freeway from the Fresno County Line to Avenue 21 and from SR 152 to the Merced County Line. The segment between Avenue 21 and SR 152 was widened to a six-lane freeway. SR 99 is the primary inter-regional corridor within the San Joaquin Valley.

It provides a critical linkage for shipment of agricultural goods to markets outside of the Valley; provides for through traffic between major metropolitan areas of California; and during the summer months has significant recreational access function.

- **State Route 41** – a four-lane freeway between the Fresno County Line and Avenue 10 and extends in a north/south direction through eastern Madera County to the Mariposa County Line as a two-lane highway with the exception of a four-lane section within the Community of Oakhurst. SR 41 has regional and national importance as an access to Yosemite National Park and the recreational areas of the east county. With residential growth in the SR 41 corridor, most notably in the Oakhurst, Coarsegold, Yosemite Lakes, and the Ranchos area, this route is becoming increasingly important as a commuter link to the Fresno-Clovis Metropolitan Area (FCMA).
- **State Route 49** – a two- to four-lane highway in eastern Madera County extending 9 miles north and west from its intersection with SR 41 in Oakhurst. This facility provides local circulation within the general Oakhurst/Ahwahnee area and regional access to the California “Gold Country” and Yosemite National Park.
- **State Route 145** – a two- and four-lane highway extending north/south from the Fresno County Line to the City of Madera, then east/west to its intersection with SR 41, SR 145 provides a secondary access to Yosemite National Park via SR 41, and provides an important linkage to both SR 99 and Interstate 5 (I-5) for farm to market shipping.
- **State Route 152** – a four-lane divided expressway extending east/west from the Merced County Line to SR 99. SR 152 is a primary access route from the central San Joaquin Valley to Monterey and Santa Clara Counties. It is an important agricultural, commercial, and recreational access route.
- **State Route 233** – a two- and four-lane highway extending four miles northeasterly from its intersection with SR 152 to the interchange with SR 99. This route serves primarily to provide for northbound traffic movement from SR 152 and SR 99, as well as local access to Chowchilla.

#### ✓ Level of Service Analysis

Level of Service (LOS) standards are used to quantitatively assess the Regionally Significant System's performance. To determine the type and number of transportation projects to accommodate Madera County's expected growth, LOS was assessed along the existing Regionally Significant Roads System.

According to the 2010 Highway Capacity Manual (HCM), LOS is categorized by two parameters of traffic, uninterrupted and interrupted flow. Uninterrupted flow facilities do not have fixed elements such as traffic signals that cause interruptions in traffic flow. Interrupted flow facilities have fixed elements that cause an interruption in the flow of traffic such as stop signs, signalized intersections,

and arterial roads<sup>1</sup>. According to goals and objectives described in Chapter 3, the goal is to maintain acceptable levels of service along the highways, streets and roads network.

For purposes of this environmental analysis, a minimum LOS of "D" was assumed along local streets and roads. Caltrans minimum LOS for the State routes is LOS "C". To determine the existing LOS for each segment along the Regionally Significant Roads System and other facilities where current traffic volumes were available, segment LOS was estimated using the 2010 MCTC calibrated and validated Traffic Model and other LOS methodologies. The model was also applied to develop estimated 2018 LOS results. The worst-case Peak Hour is during the PM Peak Hour. Figures 2-3 through 2-8 for year 2010 and then 2018 provide a graphic display of the PM Peak Hour LOS results.

Detailed LOS results are provided below for both the AM and PM Peak Hours. Results of the LOS analysis indicates that segments along the Regionally Significant Road System along SR 41 and SR 99 are currently operating at LOS "D" through "F" for State Routes and a few other local street and highway segments are operating at LOS "E" or "F". The resultant list of existing deficient facilities along the Regionally Significant Roads System and other important facilities noted below provides an opportunity for MCTC, Caltrans, and local agencies to focus on projects that will improve the overall LOS of the regional network in the future.

- |  |  |
|--|--|
| ✓ <u>2010 AM LOS Chowchilla</u>                                  | ➤ SR 41 between Avenue 12 and north of Avenue 10 (LOS F) |
| ➤ No deficiencies  |  |
| ✓ <u>2010 AM LOS County</u>                                      | ✓ <u>2010 PM LOS Madera</u>                              |
| ➤ SR 99 between Avenue 12 and north of Avenue 17 (LOS D)         | ➤ 4th Street between J Street and D Street (LOS D)       |
| ✓ <u>2010 PM LOS Chowchilla</u>                                  | ✓ <u>2018 AM LOS Chowchilla</u>                          |
| ➤ No deficiencies  | ➤ No deficiencies  |
| ✓ <u>2010 PM LOS County</u>                                      | ✓ <u>2018 AM LOS County</u>                              |
| ➤ SR 41 between Yosemite Springs Parkway and N Fork Road (LOS D) | ➤ SR 41 between Road 406 and north of Road 208 (LOS D)   |
| ➤ SR 41 between N Fork Road and Road 208 (LOS E)                 | ➤ SR 99 between Avenue 20 and Avenue 12 (LOS D)          |
| ➤ SR 41 between Road 208 and SR 145 (LOS D)                      | ✓ <u>2018 AM LOS Madera</u>                              |
|  | ➤ No additional deficiencies                             |

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<sup>1</sup> Transportation Research Board, 2010

FIGURE 2-3  
2010 PM Peak Hour Level of Service Results – County

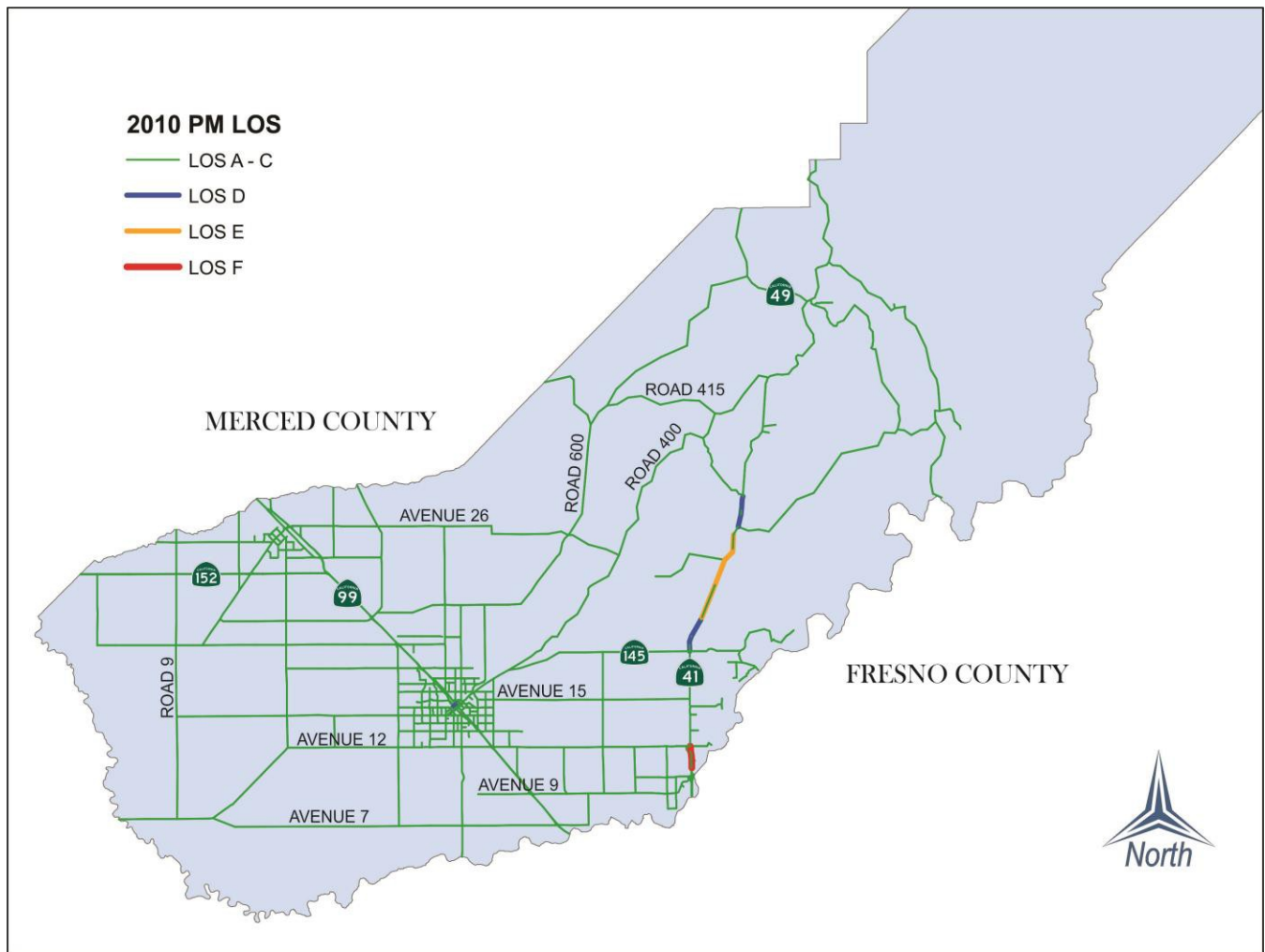




FIGURE 2-4  
2018 PM Peak Hour Level of Service Results – County

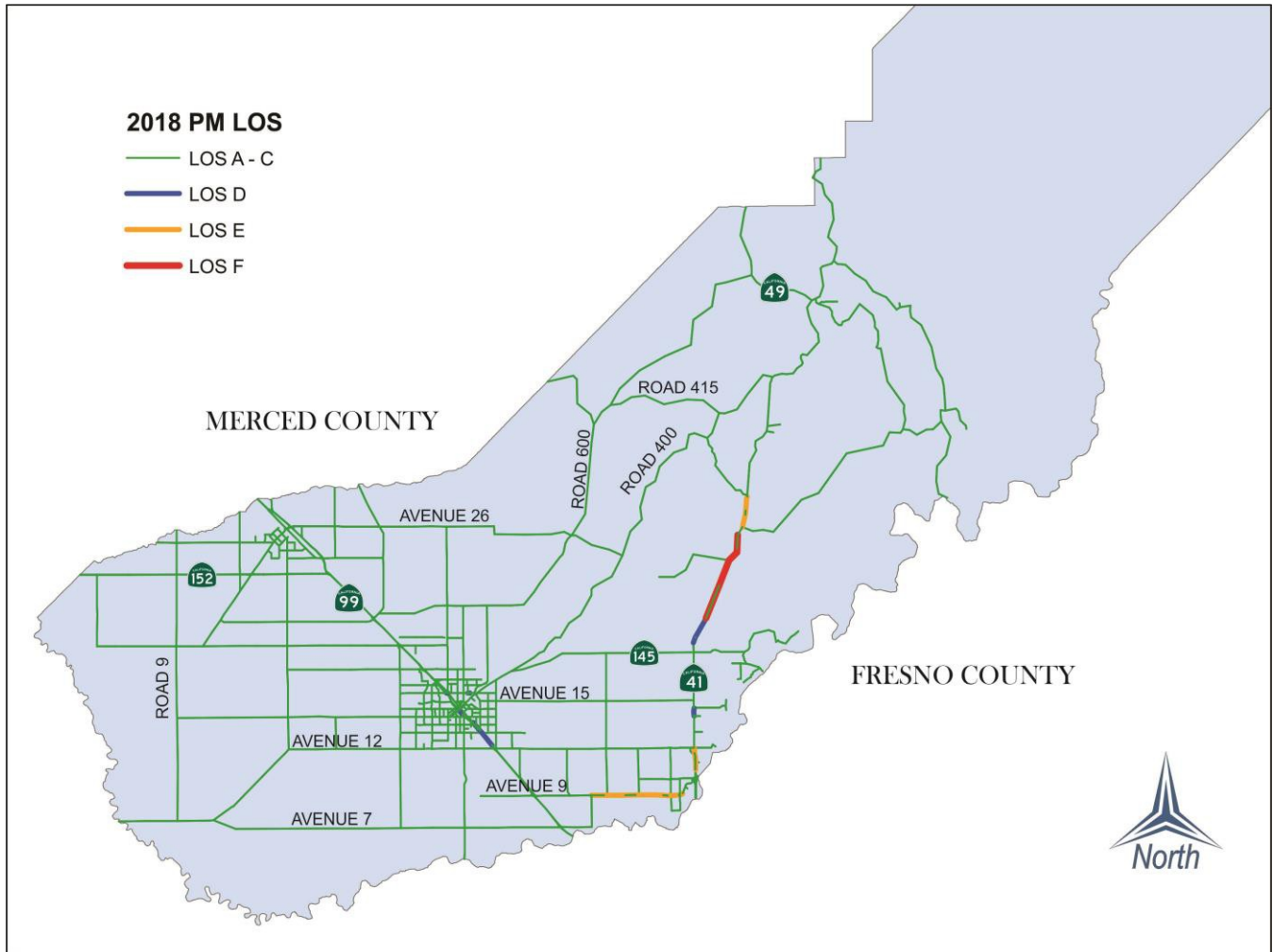


FIGURE 2-5  
2010 PM Peak Hour Level of Service Results – Madera

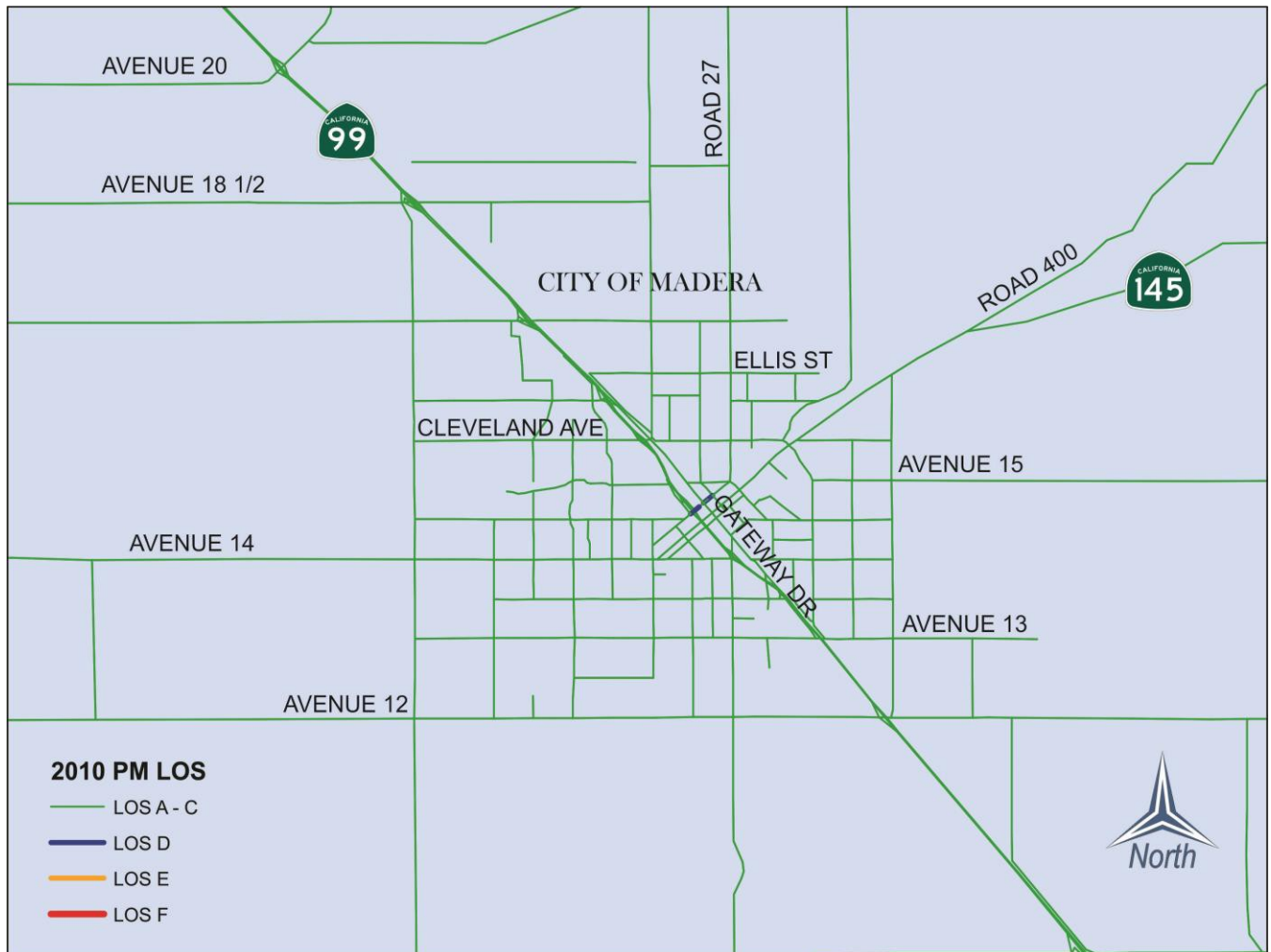


FIGURE 2-6  
2018 PM Peak Hour Level of Service Results - Madera

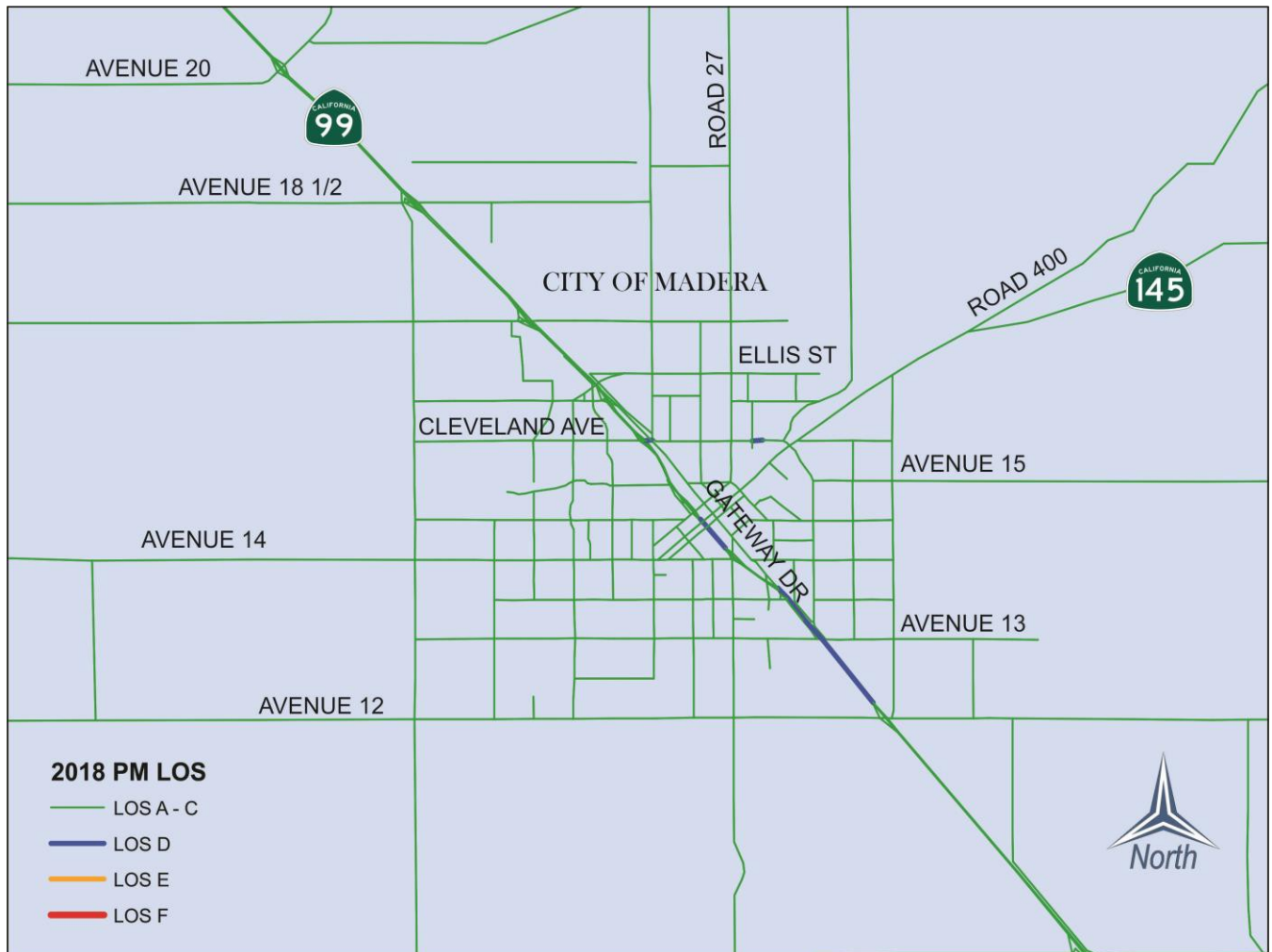


FIGURE 2-7  
2010 PM Peak Hour Level of Service Results - Chowchilla

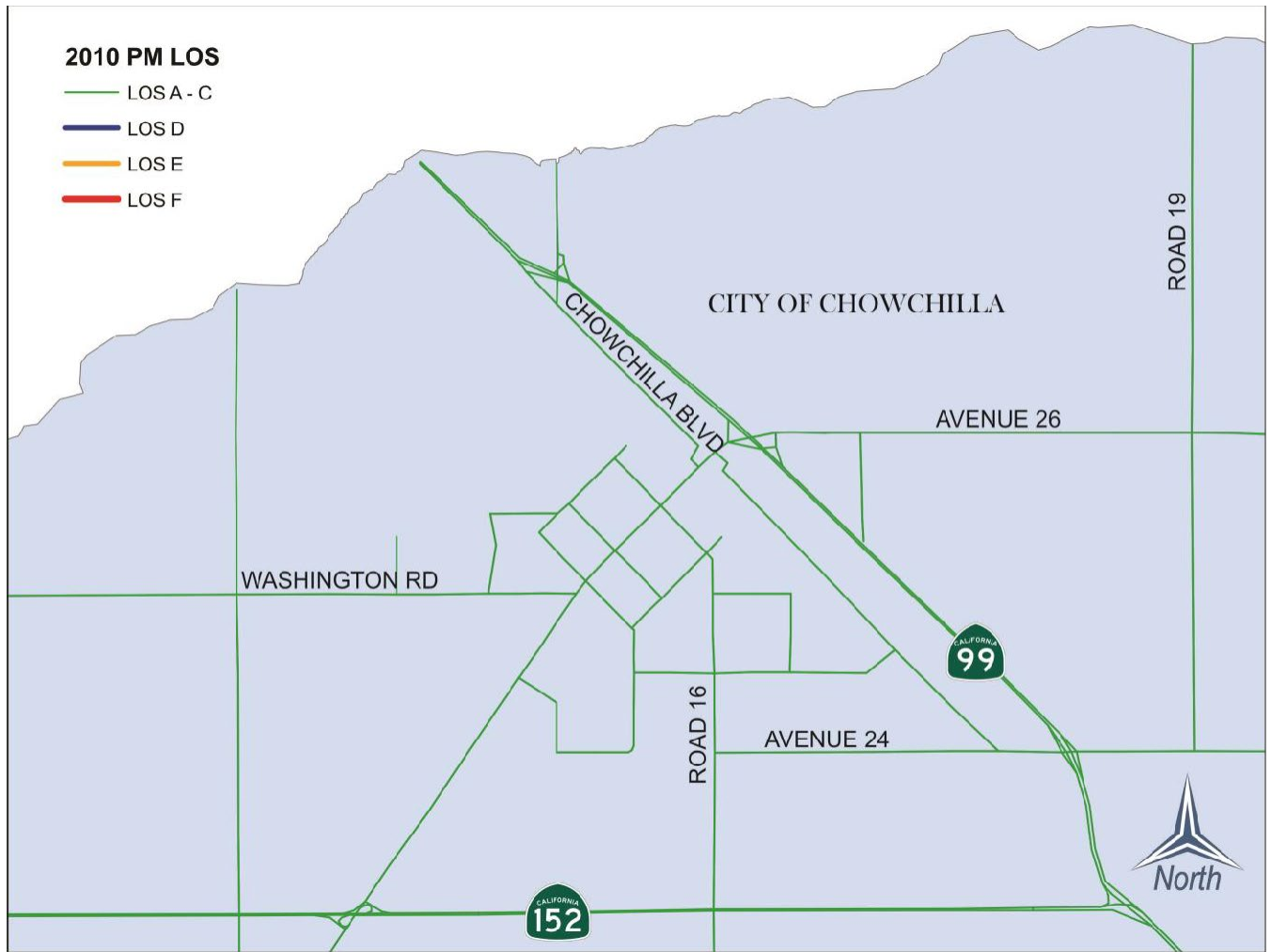
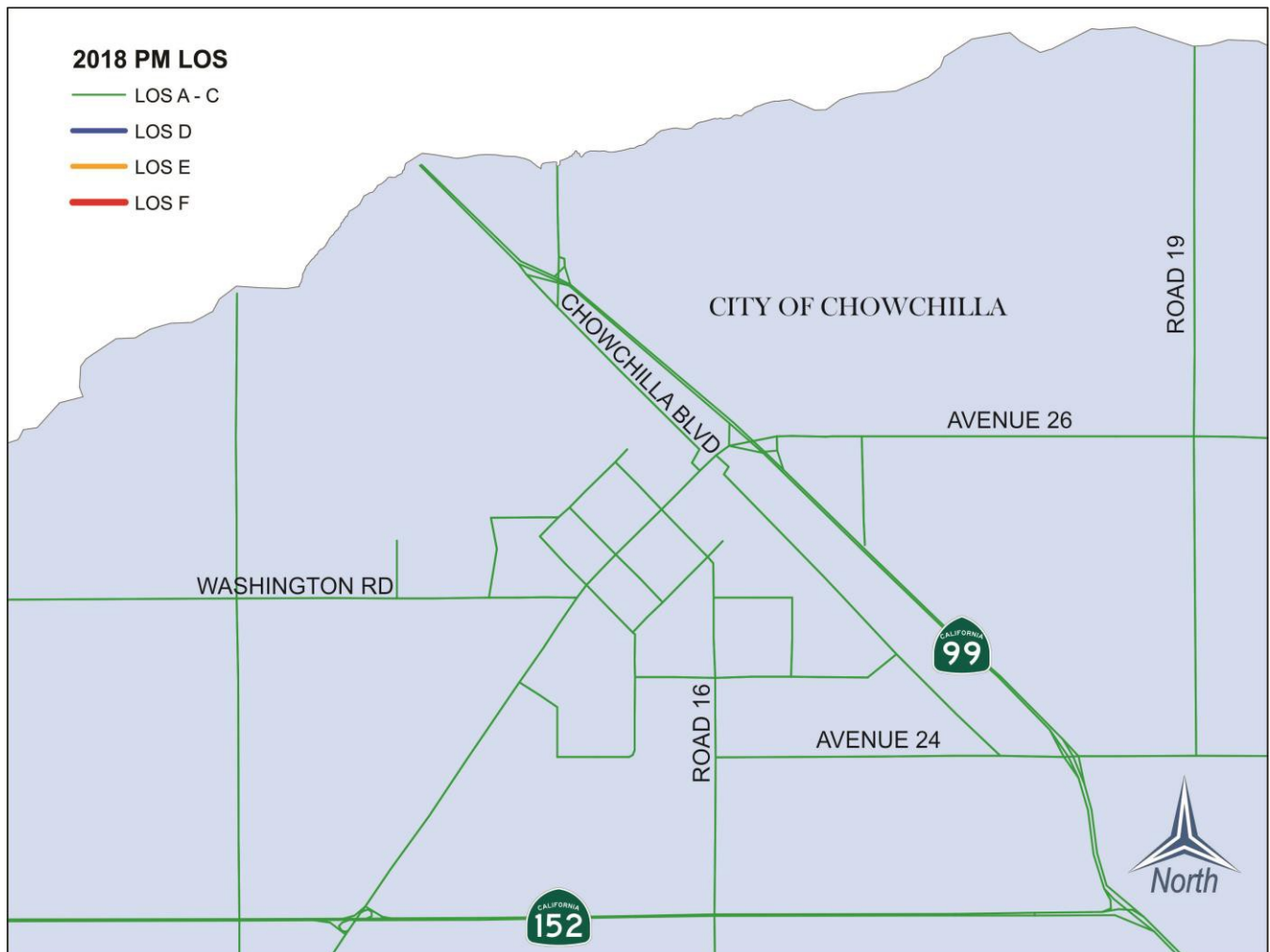


FIGURE 2-8  
2018 PM Peak Hour Level of Service Results - Chowchilla



- ✓ 2018 PM LOS Chowchilla
  - No deficiencies
- ✓ 2018 PM LOS County
  - SR 41 between Yosemite Springs Parkway and N Fork Road (LOS E)
  - SR 41 between south of N Fork Road and Road 208 (LOS F)
  - SR 41 between Road 208 and north of SR 145 (LOS D)
  - SR 41 between Road 204 and Avenue 14 (LOS D)
  - SR 41 between Avenue 12 and north of Avenue 10 (LOS E)
- Avenue 9 between Road 40 1/2 and Road 35 (LOS E)
- ✓ 2018 PM LOS Madera
  - SR 99 between Avenue 12 and Olive Avenue (LOS D)
  - SR 99 between Avenue 14 and 4th Street (LOS D)
  - Cleveland Avenue between SR 99 and Gateway Drive (LOS D)
  - Cleveland Avenue between N Lake Street and Tulare Street (LOS D)

### *Existing Public Transportation*

Madera County's public transportation services span large urban and rural geographic areas in the Valley and foothills. These services include Madera Area Express and Dial-a-Ride serving urbanized areas and Madera County Connection, Eastern Madera Senior Bus, Escort Program serving primarily rural communities. Chowchilla Area Transit Express serves the City of Chowchilla and portions of the County. Specialized social service transportation services, Greyhound, vanpool and taxi service also play a role in serving County travel demand.

#### ✓ City of Madera

The City operates the Madera Area Express (MAX) fixed-route system and Dial-A-Ride, a general public demand-responsive system. Services are contracted out to a third-party contractor. MAX operates two fixed routes weekdays from 7:00 a.m. to 6:30 p.m., Saturdays from 9:00 a.m. to 4:00 p.m., and Sundays from 8:30 a.m. to 2:30 p.m. The City also introduced a new MAX route to Madera Community College in January 2018.



Service operates primarily within the City limits, as shown in Figure 2-9 and Figure 2-10. The general public cash fare is \$0.75 with plans to increase the fare to \$1.00 beginning in October 2018. No service is available on six holidays. The system transports over 103,000 riders annually.



FIGURE 2-9  
MAX Existing Transit Routes

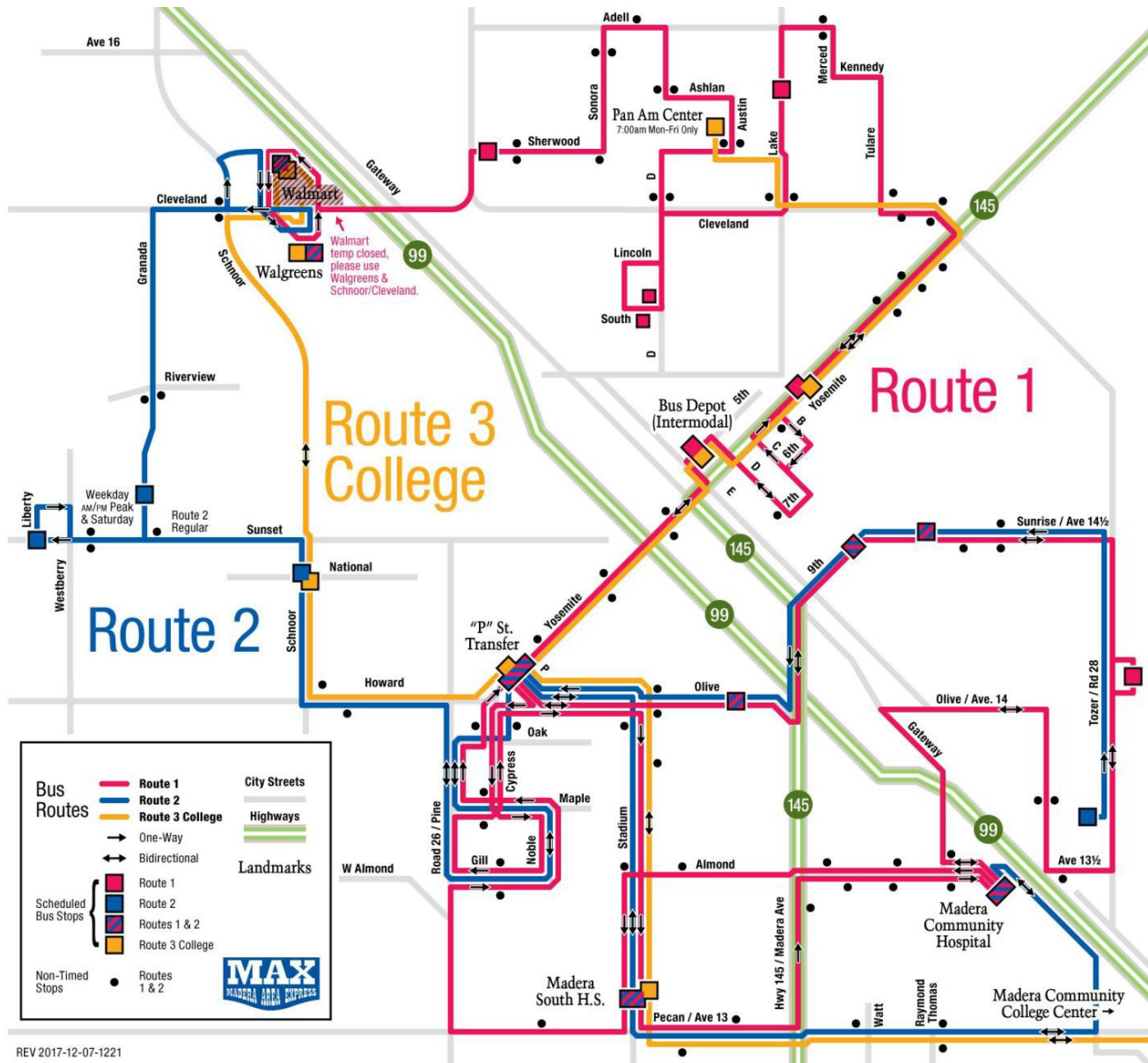
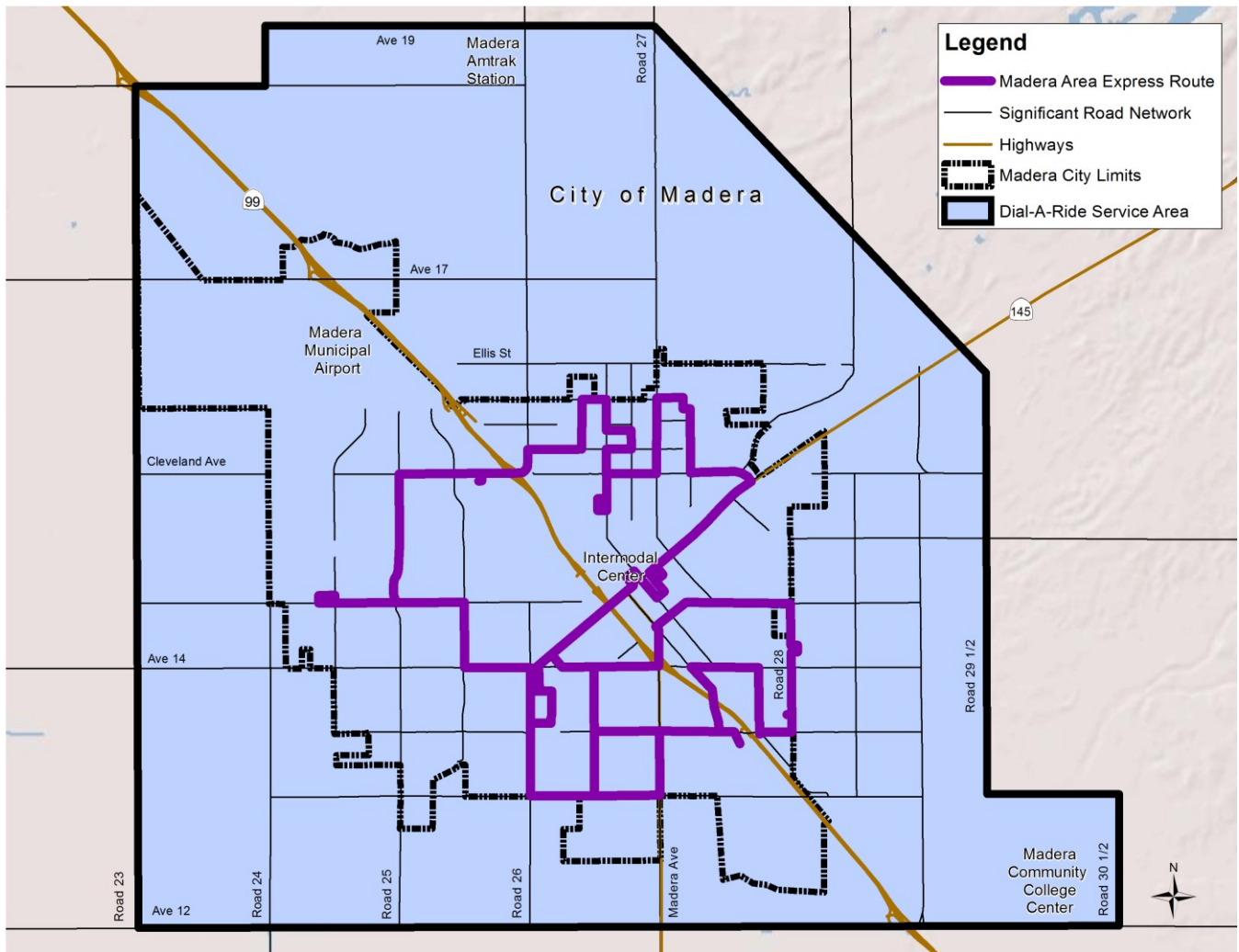


FIGURE 2-10  
Madera Area Express and Madera Dial-A-Ride Service Areas



Dial-A-Ride is a general public system primarily serving the elderly and disabled. Service is provided weekdays from 7:00 a.m. to 6:30 p.m., Saturdays from 9:00 a.m. to 4:00 p.m. and Sundays from 8:30 a.m. to 2:30 p.m. The system operates within the Madera urbanized area and a five-mile radius from Downtown Madera, as depicted on Figure 2-6. The general public cash fare is currently \$2.00 with plans to increase the fare to \$3.00 in October 2018. Dial-A-Ride transports 36,000 riders annually and includes residents in unincorporated portions of the County under a cooperative agreement.

✓ **City of Chowchilla**

The City of Chowchilla operates Chowchilla Area Transit Express (CATX), a general public, demand-responsive service. Service is offered weekdays from 7:30 a.m. to 5:00 p.m. within two zones. Zone 1 is generally bounded by Road 13 to the west, Highway 152 to the south, Road 19 to the east, and Avenue 26 to the north. Zone 2 is generally bounded by Road 12 to the west, Avenue 20 to the south, Santa Fe Drive to the east, and Ash Slough to the north. Two paratransit buses are used.



The County of Madera funds CATX service in unincorporated portions of the service area. As shown in Figure 2-11, the CATX service area encompasses the City and contiguous unincorporated areas, including Fairmead. The general public cash fare is \$1.50 in Zone 1 and \$2.00 in Zone 2. No service is offered on eleven holidays. CATX transports 12,000 riders annually.

✓ **County of Madera**

Three transit services are operated by Madera County--Madera County Connection (MCC) fixed-route service; Eastern Madera Senior Bus demand-response service for seniors and disabled; and Escort Program demand-response service for medical trips. The MCC operates general public, inter-city fixed-route service providing access within a large service area.

As shown in Figure 2-12, MCC provides access to the communities of Madera, Chowchilla, Fairmead, La Vina, Ripperdan, Eastin Arcola, Ranchos, Yosemite Lakes Park, Coarsegold, Oakhurst, North Fork, Madera Community College Center, and Children's Hospital of Central California. Service operates weekdays from 6:00 a.m. to 8:00 p.m. and transports 23,000 riders annually. The Senior Bus serves

the communities of Oakhurst, Coarsegold, Bass Lake and Ahwahnee and transports 3,700 riders annually. The Escort Program provides trips to Madera, Fresno, and Clovis and transports 490 riders annually.

- ✓ **Social Service Transportation Providers**  
Transportation is provided by social service agencies serving clients or patrons. Those agencies listed on Table 2-1 provide transportation mostly to program-specific clients and sites.



FIGURE 2-11  
Chowchilla Service Area

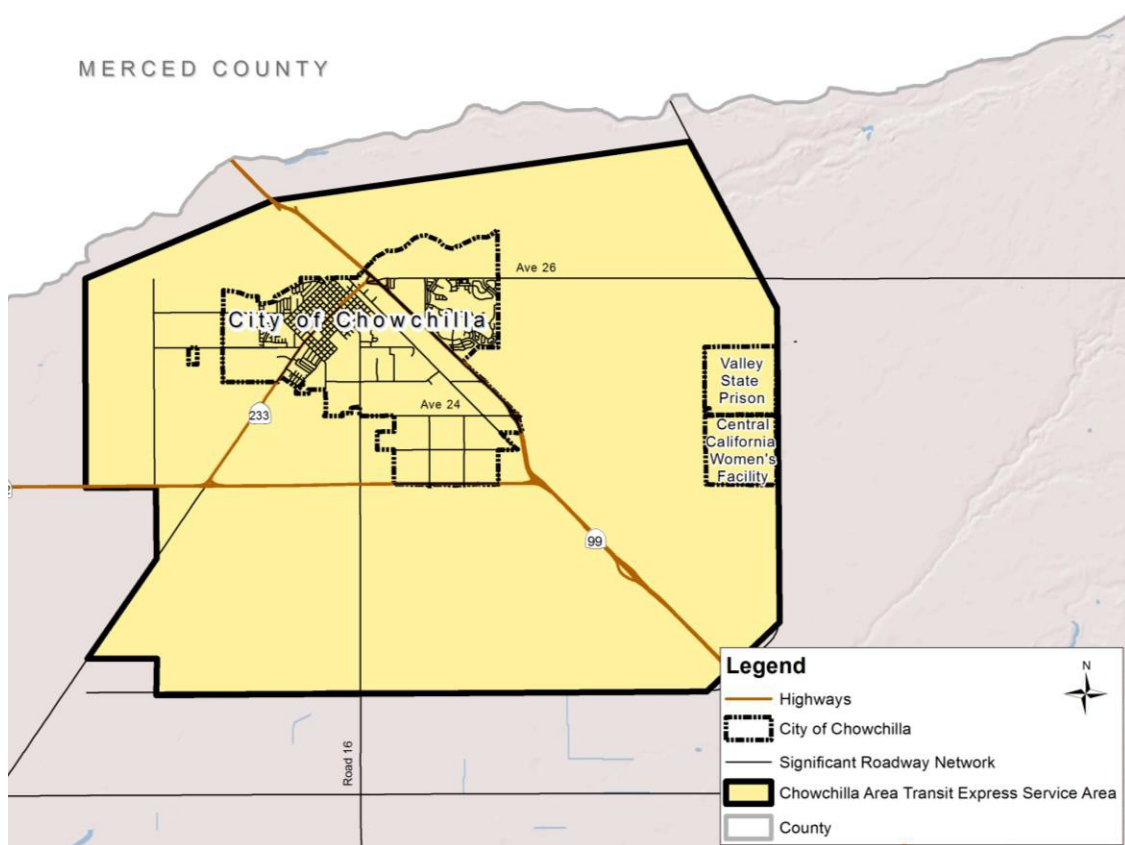
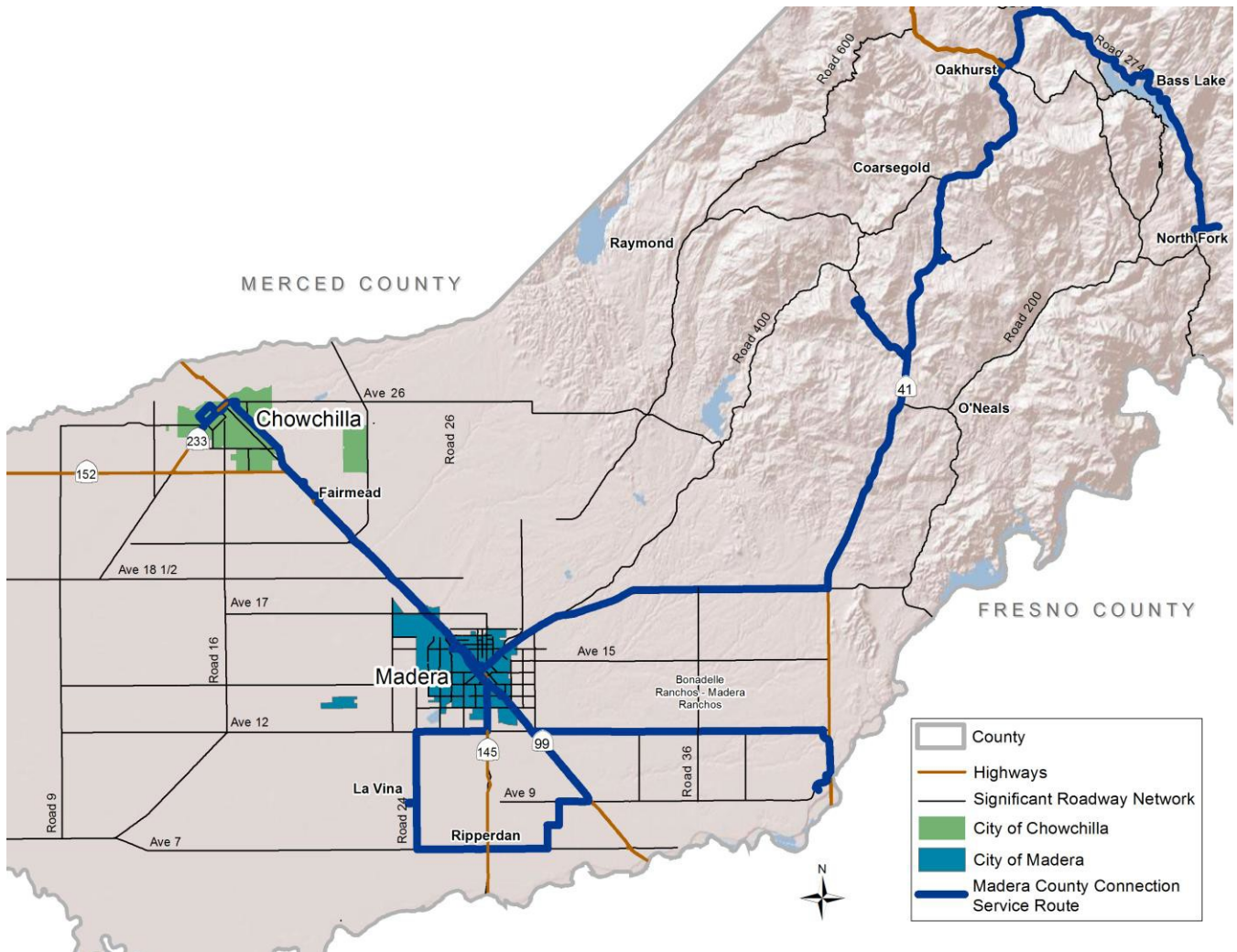




FIGURE 2-12  
Madera County Connection Service Routes



**TABLE 2-1**  
**Social Service Transportation Providers in Madera County**

SOCIAL SERVICE AGENCY	TRANSPORTATION PROVIDED
Heartland Opportunity Center	<ul style="list-style-type: none"> <li>✓ Demand-response service</li> <li>✓ Serves disabled persons over 18 years old</li> </ul>
Community Action Partnership of Madera County – Head Start	<ul style="list-style-type: none"> <li>✓ Fixed-route transportation to schools</li> <li>✓ Serves Head Start students</li> </ul>
Pacific Family Health, Inc.	<ul style="list-style-type: none"> <li>✓ Demand-response service</li> <li>✓ Serves dialysis patients</li> </ul>
Madera County Behavioral Health	<ul style="list-style-type: none"> <li>✓ Service as needed to and from the Madera Counseling Center in the greater Chowchilla, Madera, and Oakhurst communities</li> <li>✓ Counseling Center clients</li> </ul>
American Cancer Society	<ul style="list-style-type: none"> <li>✓ Volunteer driver program using private vehicles</li> <li>✓ Serves ambulatory cancer patients</li> </ul>

Source: MCTC “2015 Madera County Coordinated Public Transit Human Services Transportation Plan” (July 2015).

#### ✓ Other Transportation Providers

Inter-city and inter-county services are provided by a variety of public and private-sector providers. They include Greyhound, Madera Cab Company, Yosemite Area Regional Transit (YARTS), CalVans and Uber and Lyft. Private medical transit services also are available within the County.

Greyhound operates seven days a week from the City of Madera’s Downtown Intermodal Center on North “E” Street. Madera Cab Company provides service in Madera County seven days a week, 24 hours a day. YARTS operates seasonally to Yosemite National Park via Highway 41 from mid-May to the end of September. CalVans is a multi-county vanpool authority for commuters available to the general public. Uber and Lyft offer personalized door-to-door transportation with local drivers generally through smartphone scheduling.

#### ✓ Passenger Rail and Support Facilities

Madera is served by Amtrak’s San Joaquin with eight (8) daily round-trips between Oakland or Sacramento and Bakersfield. Amtrak operates on the Burlington Northern & Santa Fe tracks located at 18770 Road 26 (Avenue 15½ and Road 29) east





of Madera. Northbound service runs from 4:50 a.m. to 7:37 p.m. while southbound service operates from 9:08 a.m. to 9:24 p.m.

Amtrak also provides thruway bus service from various rail stations along the San Joaquin route to cities that are not accessible by rail, including Los Angeles, San Francisco and San Jose. Figure 2-13 provides the location of existing passenger rail and support facilities, airports, and non-motorized facilities in Madera County.

### Aviation

The City of Madera owns and operates the Madera County Municipal Airport, which provides aviation services to approximately 88 fixed-base operators. The City of Chowchilla operates the Chowchilla Municipal Airport with 18 fixed-base operators. Table 2-2 provides the total operations per year for each of these airport facilities. Fresno Yosemite International Airport (FYI or FAT) in Fresno County is the primary passenger airport facility in the region. Both airports are depicted in Figure 2-13 below.

**TABLE 2-2**  
**Madera County Airport Operations – Nov. 2017**

AIRPORT	OPERATIONS PER YEAR
Madera Municipal	50,950
Chowchilla Municipal	6,700
<b>TOTAL</b>	<b>57,650</b>

Source: Airport IQ

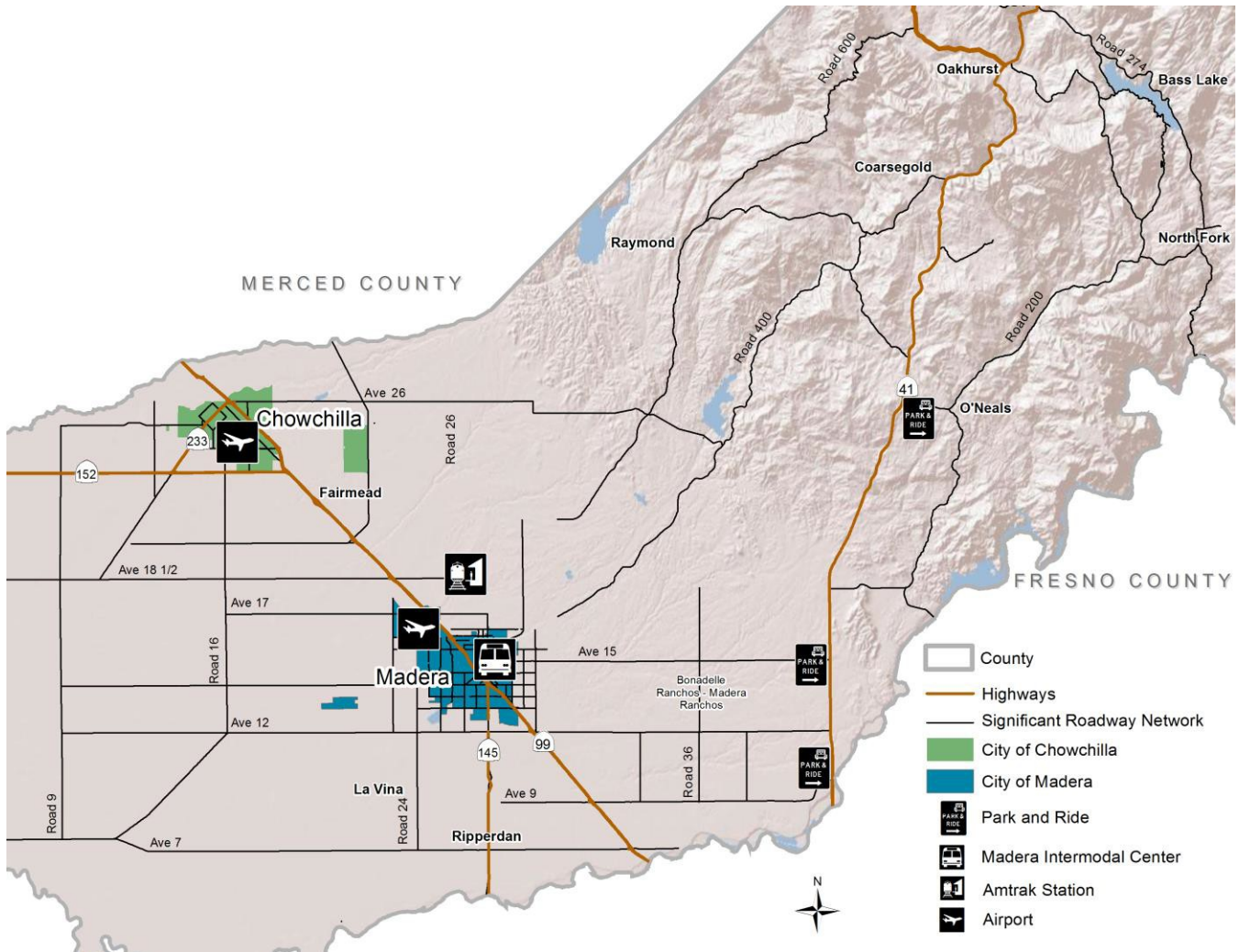
### Non-Motorized Systems

The Cities of Chowchilla and Madera, and Madera County continue to be involved in implementing bicycle facilities. The City of Madera annually reserves a portion of its Local Transportation Fund (LTF) proceeds for the construction of bicycle and pedestrian facilities. These funds are used in conjunction with funds from the Congestion Mitigation and Air Quality (CMAQ), State Active Transportation Program (ATP) Account, and other programs to implement elements of the Madera ATP recently prepared and adopted in May 2018 by MCTC.

### Goods Movement

Goods movement in Madera County is primarily provided by trucking and freight rail services. The trucking industry includes common carrier, private carrier, contract carrier, drayage and owner-operator services, which handle both line-haul and pick-up and delivery services. A number of trucking facilities are located in Madera County including the public highway system, truck terminal facilities, freight forwarders, truck stops, and maintenance facilities. These facilities are especially concentrated along SR 99.

**FIGURE 2-13**  
Existing Passenger Rail and Transit Support Facilities,  
Airports, and Park-and-Ride Facilities



## *Transportation Demand Management*

Transportation demand management (TDM) programs in Madera County primarily consist of the voluntary rideshare program, the park & ride facilities program, the alternative fuels program, and other programs that provide for congestion relief and enhanced travel. Details regarding these TDM programs are provided below.

### ✓ *Voluntary Rideshare Program*

Central Valley Rideshare is a program provided by the Fresno County Council of Governments (Fresno COG) and services Fresno, Kings, Madera, and a portion of Tulare counties. The program provides computerized matching, employer outreach and marketing.

### ✓ *Park & Ride Facilities*

There are currently three Caltrans owned/maintained Park & Ride lots along the SR 41 corridor (reference Figure 2-13) at its intersection with:

- Road 200
- SR 145
- Avenue 10

### ✓ *Alternative Fuels Program*

The Cities, County of Madera, and Madera Unified School District have installed Compressed Natural Gas (CNG) fueling facilities and have some alternative fuels projects focused on the purchase of CNG-fueled vehicles (passenger cars, trucks, dump trucks, utility vehicles, etc.) for city and County operations. MCTC will discuss expanding the program with its member agencies to include companies and agencies that maintain large fleets of vehicles which might be converted to zero emission vehicles and the installation of solar panels for charging the vehicles. The County and cities continue to utilize and expand their CNG fueling facilities as they continue to implement an alternative fuels program to include city, County, and school district fleet vehicles.

## *Intelligent Transportation Systems*

In addition to planning for specific modes of transportation that will serve the needs of existing and future residents, the integration of advanced transportation technologies is also important. The use of new technologies [Intelligent Transportation Systems (ITS)] will allow maximum use of the transportation infrastructure including streets and highways and transit. Further, the need for traveler information is critical in order to lessen the impacts of accidents and other events in the region. Real-time traveler information can make traveling in Madera County more enjoyable and reduce delay and congestion. According to information provided through the San Joaquin Valley ITS Study, there are a number of ITS strategies referenced in the ITS Plan including surveillance and red-light running equipment at high accident locations in Madera, emergency vehicle dispatching systems in rural areas of the County, traveler information, restructuring and optimization of rural demand-responsive transit service, and analysis tools including geographic information systems (GIS).

Chapter 5 contains a list of ITS strategies (consistent with the Valley ITS Plan) that are applicable to public transit projects in Madera County.

## Plan Development

### Overview

The 2018 RTP/SCS is a planning guide that contains transportation policy and projects for the next 24 years (to year 2042). The RTP/SCS includes programs and policies for congestion management, transit, bicycles and pedestrians, roadways, freight and finances. The RTP must be revised at least every four (4) years, since the County is designated as non-attainment for federal air quality standards.

The RTP's primary use is as a regional long-range plan for federally funded transportation projects, and it also serves as a comprehensive, coordinated transportation plan for all the governmental jurisdictions within the region. Different jurisdictions have different transportation implementation responsibilities under the plan. These include Caltrans, the County of Madera, and the Cities of Chowchilla and Madera.

The process to approve the 2018 RTP included assessing Madera County's transportation needs, preparation of the SCS, identifying projects to address the needs, evaluating the projects considering the benefit vs. cost and other performance objectives, addressing air quality conformity requirements, conducting public hearings on the 2018 RTP/SCS by MCTC, certification of the RTP/SCS Draft and Final Program Environmental Impact Report (PEIR) by MCTC, and approval of a resolution passed by MCTC approving the RTP/SCS. Public involvement was encouraged throughout the RTP/SCS development process.

### RTP/SCS Contents

The RTP/SCS consists of various elements referenced in federal statutes and in the State RTP Guidelines including:

- ✓ [\*Chapter 1: The 2018 RTP/SCS – A Summary\*](#) – provides a brief summary of the RTP/SCS reflecting the major findings and recommendations found in each chapter of the Plan.
- ✓ [\*Chapter 2: Requirements, Trends and Contents\*](#) – describes the purpose of the RTP/SCS process, associated mandates, the existing transportation system in Madera County, and the contents of the Plan itself.
- ✓ [\*Chapter 3: The Madera Region: Past, Present, and Future\*](#) – provides a comprehensive overview of the Region including growth and development, and planning forecasts and assumptions.
- ✓ [\*Chapter 4: A Shared Vision\*](#) - provides a comprehensive listing of goals, objectives, and strategies that address the short- and long-term mobility and accessibility needs and planning requirements for the County.

- ✓ [\*Chapter 5: Delivering the Plan for Change\*](#) - provides a comprehensive assessment of needs and issues considering the goals and objectives contained in Chapter 4 – *A Shared Vision*, describes the air quality conformity requirements and issues, includes a multimodal element addressing the needs and issues, inventory, accomplishments, and an assessment of future demand for all modes of transportation including highways and arterials, mass transportation, aviation, non-motorized systems, goods movement, TDM, and ITS needs and analysis. The Element also contains the actions necessary to support the goals and objectives referenced in the Policy Element and in the needs assessment.
- ✓ [\*Chapter 6: Creating a Sustainable Future\*](#) - Involves working with our partners, local governments, and stakeholders to identify a transportation system supported by a land use pattern that reduces vehicle trips, vehicle miles traveled (VMT), and greenhouse gas emissions and addresses requirements set forth in SB 375.
- ✓ [\*Chapter 7: Investing In Change\*](#) - provides a thorough assessment of project costs and revenue assumptions for each mode of transportation. The RTP must be financially constrained in accordance with air quality conformity requirements. As such, this chapter must ensure that projects, which are needed to enhance mobility and accessibility throughout the County, are also financed within the timeframe of the Plan (year 2042) and reduce air emissions consistent with reduction targets. This chapter also includes a description of unmet transportation needs, maintenance and operation needs, and the potential for new financing strategies/sources of funding to address revenue shortfalls, if applicable.
- ✓ [\*Chapter 8: Public Involvement for Change\*](#) – includes a thorough review of the public involvement and community outreach program for the Project.
- ✓ [\*Chapter 9: System Performance\*](#) – provides an overview of the performance-based planning process focusing on the achievement of performance outcomes or measures including safety, bridge and pavement condition, congestion/system performance, and transit asset management.
- ✓ [\*Chapter 10: Addressing Environmental Justice\*](#) – provides a description of MCTC’s environmental justice program that ensures early and continued public involvement, and an equal distribution of transportation projects to all areas of the region, paying close attention to the needs of low income and minority populations.
- ✓ [\*Appendices\*](#) - includes the San Joaquin Valley Regional Transportation Overview and technical and other supportive information.

### *RTP/SCS Scope*

Upon approval, the RTP/SCS serves as the region’s main policy tool designating future road improvements and extensions, addresses non-motorized, transit, rail, and aviation transportation needs, and identifies funding strategies. The intent of the RTP/SCS is to:

- ✓ Describe the transportation needs and issues within the County, including regional relationships that affect the Region’s transportation system.
- ✓ Identify a preferred SCS scenario and transportation system that results in reduced GHG emissions.



- ✓ Describe the proposed traffic circulation system in terms of classification, location, cost and need.
- ✓ Consider as essential, alternatives other than the single occupant vehicle in providing services and access to facilities.
- ✓ Support policies that coordinate the circulation system with planned land uses and provide direction for future decision-making in the realization of the RTP/SCS goals and objectives.
- ✓ Develop implementation strategies and identify funding sources to provide for the timely implementation of recommendations referenced in the 2018 RTP/SCS.

### *Relationship to Other Plans and Programs*

The 2018 RTP/SCS, in conjunction with General Plan Circulation Elements adopted by the Cities of Chowchilla and Madera and Madera County, designates the location and scale of existing and proposed transportation systems integrated with future land use allocations consistent with those general plans and policies. Transportation improvements and land use allocations shown in the RTP/SCS are generalized and are not intended to show specific alignments or sites for future land use development.





# **Chapter 3**

## **The Madera Region: Past, Present, & Future**



### 3. The Madera Region: Past, Present and Future

#### Current Population and Employment

Historical demographic trends and projections of both population and employment are essential to development of the RTP/SCS. The population estimates and projections that are referenced in Tables 3-1 through 3-4 and Figures 3-1 through 3-3 were identified from U.S. Bureau of the Census, California Department of Finance (DOF), California Employment Development Department (EDD), Central California Futures Institute, or from other data and are consistent with assumptions used in the Madera County Regional Traffic Model.

TABLE 3-1

Madera County Historical Population Growth: Years 1930 - 2010

YEAR	POPULATION	% INCREASE	AVERAGE ANNUAL INCREASE
1930	17,164		
1940	23,314	35.8	3.1
1950	36,964	58.5	4.7
1960	40,468	9.5	0.9
1970	41,519	2.6	0.2
1980	63,116	52	4.3
1990	88,090	39.6	3.4
2000	123,109	39.8	4
2010	152,203	23.6	2.36

Source: U.S. 2010 Census, 2010 Population excludes group quarters population

FIGURE 3-1

Madera County Historical Population Growth: Years 1930 - 2010

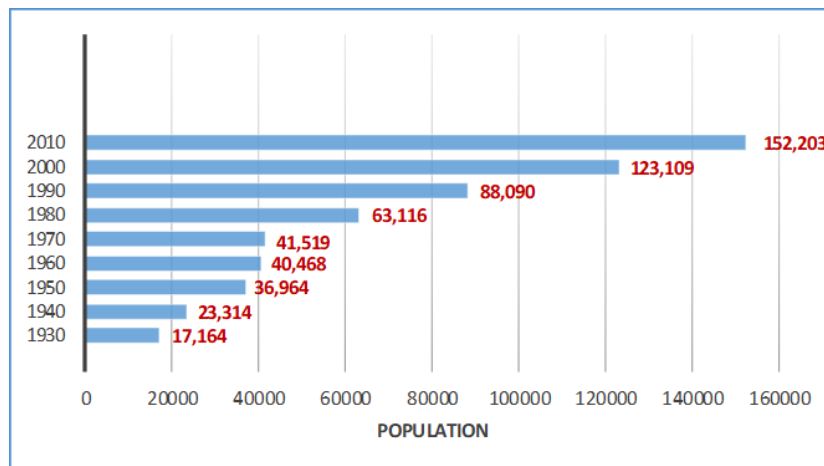


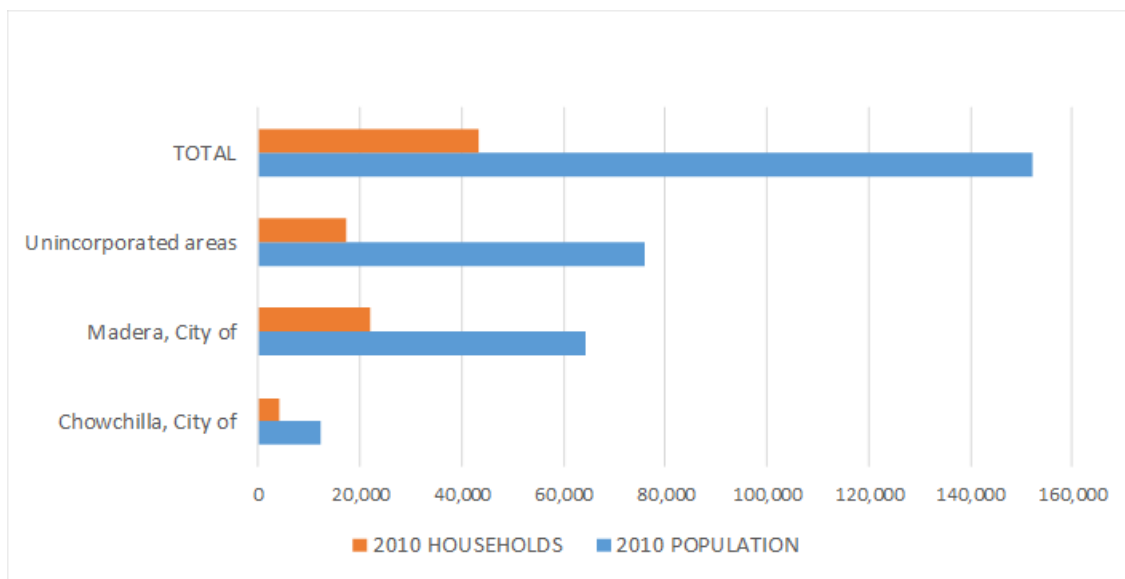
TABLE 3-2  
January 1, 2010 Population and Households

AREA OF MADERA COUNTY	2010 POPULATION	2010 HOUSEHOLDS
Chowchilla, City of	12,116	3,964
Madera, City of	64,275	21,963
Unincorporated areas	75,812	17,376
TOTAL	152,203	43,303

Source: U.S. 2010 Census

2010 Population excludes group quarters population

FIGURE 3-2  
January 1, 2010 Population and Households



Source: U.S. 2010 Census

2010 Population excludes group quarters population

Based on data from the U.S. Economic Census, the California DOF, the California EDD, and input from MCTC and Madera County staff, Table 3-3 and Figure 3-3 provide information on employment by major industrial category.

## Other Socioeconomic Factors

In addition to population, households, and employment, it is important to understand the other socioeconomic factors that help identify the uniqueness of Madera County including household median income, age characteristics, and ethnicity. According to the 2010 U.S. Census:

- ✓ The median household income in 2010 was \$47,937, which was relatively similar to other Central Valley counties.
- ✓ 48.6% of the population in Madera County was male and 51.4% was female.
- ✓ 34.1% was under the age of eighteen.
- ✓ 53.4% were between the ages of 20 and 65.
- ✓ 12.2% of the population was 65 years of age or older.
- ✓ 86.4% of the population was white.
- ✓ 55.2% was Hispanic.
- ✓ 4.1% was African-American.
- ✓ 4.6% was American Indian, Eskimo, or Aleut.
- ✓ 2.5% was Asian or Pacific Islander.

**TABLE 3-3**  
**Employment By Industry Category – 2010 - 2042**

Employment Sector	2010	2017	2020	2035	2042
Agriculture, Forestry, Fishing and Hunting	15501	14657	14350	14991	16235
Mining, Quarrying, Oil and Gas Extraction	2	3	3	9	9
Utilities	76	87	92	130	140
Construction	948	1269	1399	2258	2445
Manufacturing	2290	1811	1625	940	1018
Wholesale Trade	498	685	759	1257	1361
Retail Trade	2122	2545	2717	3992	4323
Transportation and Warehousing	6236	6506	6625	8218	8900
Information	353	608	710	1326	1436
Finance and Insurance	186	329	386	739	800
Real Estate, Rental and Leasing	313	381	409	608	658
Professional, Scientific, and Technical Services	719	789	819	1083	1173
Management of Companies and Enterprises	2	1	1	4	5
Administrative & Support, Waste Management and Remediation Services	572	613	630	812	880
Educational Services	3077	3542	3732	5252	5687
Health Care and Social Assistance	4772	5034	5147	6487	7025
Arts, Entertainment and Recreation	1729	1586	1533	1490	1614
Accommodation	715	777	803	1057	1145
Food Services	1039	1744	2025	3763	4075
Other Services Except Public Administration	1311	1687	1840	2874	3113
Public Administration	1086	1439	1580	2543	2754
<b>TOTAL:</b>	<b>43547</b>	<b>46094</b>	<b>47186</b>	<b>59832</b>	<b>64795</b>

Source: U.S. Economic Census, State of California DOF and EDD, MCTC and VRPA

## Future Population and Employment Projections

Population and employment estimates/projections for Madera County are presented in Table 3-4 and Figure 3-3. These estimates/projections are provided for Years 2010, 2020, 2035 and 2042. The estimates/projections of population, households and employment were allocated to the broad geographic areas presented in the table and further allocated to 473 traffic analysis zones (TAZs) as part of the Madera County Regional Traffic Model process. Socioeconomic conditions for each of these years is important for purposes of establishing the modeling base year or Year 2010, future years 2020 and 2035 or years for which the SCS has been developed to determine the greenhouse gas (GHG) emission reductions, and future year 2042, which is the horizon year for development of the RTP/SCS. It should be noted that population projections for the year 2042 between the 2014 RTP/SCS and the 2018 RTP/SCS have decreased by approximately 79,000 people. This reduction has significantly reduced level of service (LOS) deficiencies throughout the County.

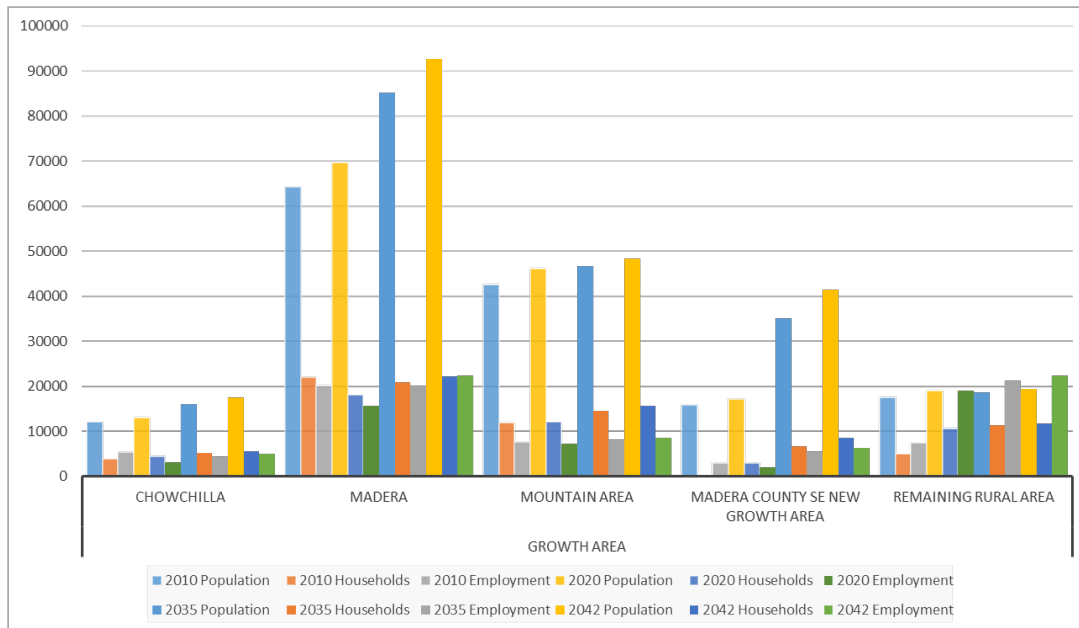
**TABLE 3-4**  
**Madera County Development Projections**  
**2010, 2020, 2035, and 2042**

Socioeconomic Factor	Year	Growth Area					Total
		Chowchilla	Madera	Mountain Area	Madera County SE New Growth	County Valley	
Population	2010	12,116	64,275	42,545	15,775	17,492	152,203
	2020	13,121	69,609	46,076	17,085	18,944	164,834
	2035	16,047	85,132	46,606	35,183	18,621	201,590
	2042	17,454	92,601	48,298	41,535	19,390	219,277
Households	2010	3,964	21,963	11,922	433	5,022	43,304
	2020	4,432	18,035	12,190	3,011	10,683	48,351
	2035	5,241	20,893	14,593	6,763	11,423	58,913
	2042	5,617	22,215	15,712	8,514	11,764	63,822
Employment	2010	5,384	20,154	7,552	2,924	7,533	43,547
	2020	3,211	15,640	7,289	1,979	19,067	47,186
	2035	4,397	20,240	8,223	5,610	21,362	59,832
	2042	4,950	22,386	8,659	6,375	22,425	64,795

Source: MCTC 2016 Transportation Model and VRPA Technologies, Inc.

Includes group quarters population

FIGURE 3-3  
Madera County Development Projections  
2010, 2020, 2035, and 2042



Source: MCTC 2010 Transportation Model and VRPA Technologies, Inc.

Based upon the information presented in Tables 3-1, through 3-4, and Figures 3-1 through 3-3, socioeconomic conditions between 2010 and 2042 in Madera County are expected to increase as noted below:

- ✓ Population will Increase by 44% or by 67,074 people.
- ✓ Households are expected to increase by 47% or by 20,518 households.
- ✓ Employment will increase by 49% or by 21,248 jobs.



# **Chapter 4**

## **A Shared Vision**



## 4. A Shared Vision

### Introduction

This Element directly reflects the legislative, planning, financial and institutional history that has shaped the region's transportation system. This Element is intended to frame and drive actions that will affect the direction and nature of transportation, and its impact on Madera County. This can be accomplished by either reinforcing positive opportunities and trends already in place or stimulating change in a new direction to achieve desired outcomes. This is the second RTP document to also contain a Sustainable Communities Strategy (SCS) in accordance with Senate Bill (SB) 375. The word “sustainable” is defined as follows:

*We work with our partners, local governments, and stakeholders to achieve a quality of life, inclusive of economic well-being, that provides resources for today's generation while preserving an improved quality of life for future generations.*

### The 2018 RTP and SCS

The overall vision for the 2018 Regional Transportation Plan (RTP) is: “A sound multimodal transportation system facilitating a vibrant economy, enhancing the physical and cultural environment, and ensuring a high quality of life for citizens in Madera County”. This vision can be achieved by promoting the development of an integrated multimodal transportation system that is designed considering land resource management strategies and air quality and greenhouse gas emission reduction goals or targets to address SCS requirements of SB 375. This vision has not changed between the 2001 version of the Plan and the 2018 Update. The vision of where we want to be through the year 2042 will help public and private decision-makers make informed choices on transportation, land use, and environmental matters.

It is understood that the State of California, Madera County, the cities of Chowchilla and Madera, and the Madera County Transportation Commission (MCTC), must work together to find a common set of principles, goals and objectives that will address the requirements set forth in various transportation, land use, environmental, and housing laws and regulations related to preparation of the RTP, the Sustainable Communities Strategy (SCS), the Program Environmental Impact Report (PEIR), and other related plans and programs, some of which present hard choices and changes to the ways in which transportation projects are planned and programmed from this point forward. As the Regional Transportation Planning Agency (RTPA) and Metropolitan Planning Organization (MPO), MCTC is mandated by State and federal law to prepare the RTP and SCS, the Air Quality Conformity document, the Regional Housing Needs

Assessment (RHNA), System Performance Objectives, an Environmental Justice (EJ) Analysis, and the accompanying PEIR.

This Element provides a comprehensive listing of principles, goals, and objectives that address the short- and long-term mobility and accessibility needs and planning requirements within the County. The principles and goals must be reflective of the public's desire for a viable future transportation system, while at the same time supportive of basic/possible system-level performance measures reflected in the federal and State transportation and other legislation – Section 65080 et seq.,



of Chapter 2.5 of the California Government Code, federal guidelines pursuant to new requirements established in the federal surface transportation reauthorization, “Moving Ahead for Progress in the 21<sup>st</sup> Century” (MAP-21) and the Fixing America’s Surface Transportation (FAST) Acts, Transportation Conformity for the Air Quality Attainment Plan per 40 CFR Part 51 and 40 CFR Part 93, and requirements set forth in *Assembly Bill 32, The California Global Warming Solutions Act of 2006*, and *Senate Bill 375 The Sustainable Communities and Climate Protection Act of 2008*. Finally, the California Transportation Commission (CTC) has prepared guidelines (most recently adopted by the CTC on January 18, 2017) to assist in the preparation of the RTP/SCS and they have also completed the California Transportation Plan (CTP) 2040. A number of goals and policies contained in that plan are consistent with the goals and policies of this RTP/SCS. These goals and policies have been considered during preparation of this regional plan. Caltrans is currently in the process of preparing CTP 2050, which will be reflected in the next update of this RTP/SCS (year 2022).

Map 21 identifies seven (7) strategies that must be considered as the RTP is prepared and implemented over time:

- ✓ **Economic Vitality** (Enabling competitiveness, productivity, and efficiency of the transportation system to enhance the economy and reduce user costs).
- ✓ **Safety** (All modes of transportation are physically safe and secure).
- ✓ **Security** (The public is satisfied with the function and performance of the transportation system).

- ✓ **Accessibility and Mobility** (Travel along the transportation system is enhanced and the public has reasonable access to all modes of transportation).
- ✓ **Enhance the Environment** (The transportation system improves the environment through energy conservation, improving the quality of life, and promoting consistency between transportation improvements, planned growth, economic development, and environmental justice issues).
- ✓ **Integration and Connectivity** (The transportation system is integrated and connected across and between modes throughout the region for the movement of people and freight).
- ✓ **Management and Operation** (The transportation system can be operated and maintained over the life of the Plan).

Strategies highlighted in the FAST Act include:

- ✓ **Improve mobility on America's highways.**
- ☐ **Create jobs and support economic growth.**
- ☐ **Accelerate project delivery and promote innovation.**

The overall transportation strategy focuses on maintaining and improving the existing system and establishing a balanced set of transportation improvements. The challenge is to develop a transportation system that provides efficient choices, improves access to opportunities and continually improves the existing infrastructure. It should also support regional and local land resource management strategies and contribute to the region's attainment of national air quality standards and SCS greenhouse gas emission targets. The plan must balance the needs of the urban and rural areas, enhance the region's competitiveness, and minimize negative social and environmental impacts.

To address these outcomes, MCTC has implemented a comprehensive public outreach program and formed the RTP Roundtable. This committee considered the seven (7) MAP-21 strategies reflected above, as well as Title VI of the Civil Rights Act of 1964, which addresses environmental justice requirements. Federal legislation presents an opportunity to express and carry out a transportation vision for the Madera region in this and succeeding RTPs. This vision should build on the current system, working to make it comprehensive and fully integrated, and emphasizing the need for a balanced range of transportation options comprised of many modes, including auto, transit, non-motorized, rail, truck, and air.

This Plan advocates four (4) principles to success and seven (7) goals with accompanying objectives based on the information provided in federal and State legislation, as well as plans, guidelines, and recommendations developed by State and regional agencies. Additional detail focusing on implementation strategies is provided in Chapter 5 – *Delivering the Plan for Change* for each mode of transportation. The 2018 RTP/SCS principles, goals and objectives described below, are also structured to address requirements in the RTP Guidelines related to the inclusion of “performance-based measures or criteria” in the development and implementation of the RTP/SCS.

## Principles to Success

The following four (4) principles will guide the Madera County Transportation Commission (MCTC) as it endeavors to achieve its Vision and improve the overall quality of life in Madera County through an integrated multimodal transportation system and supportive land use footprint.

- ✓ **Improved Quality of Life** - MCTC's plans, programs, and policies will work to improve the quality of life in the Madera County region by integrating transportation systems that promote access to affordable housing, education resources, jobs, and recreational facilities.
- ✓ **Prosperity** - MCTC's plans, programs, and policies will facilitate enhanced economic viability of the region by increasing access to education and new job opportunities. A more educated population combined with a low cost of living can attract new investment in the Madera region.
- ✓ **Cultural Diversity** - MCTC's plans, programs, and policies will respect the region's wide variety of cultures and subcultures (each having unique needs and perspectives) by facilitating a range of transportation modes and housing choices designed to benefit the County's diverse population.
- ✓ **Health and Environment** - MCTC's plans, programs, and policies will enhance economic prosperity in ways that ensure the health of its citizens, maintain and enhance the surrounding environment (cultural and socioeconomic resources), and those ways that enhance the region's financial stability over time including the equitable distribution of transportation funding sources.

## Goals

Development of the RTP/SCS goals and objectives was a key step during preparation of the plan. The RTP/SCS Roundtable developed the set of goals and objectives based on an extensive review and consideration of their vision of the regional transportation system over the next 24 years, along with input from the public. Results obtained during the public outreach effort provided the Roundtable with additional information needed to refine the goals and objectives.

It is important to remember that goals and objectives will, at times, compete with one another. The framework presented by the goals and objectives below should be viewed by the public as a set of guidelines against which the RTP/SCS can be assessed, while individual projects contribute to the ability of the RTP/SCS to meet these goals and objectives, and the project level information is useful in reviewing the projects, they should not be used to rank the projects against one another. The projects, policies, and systems together create the RTP/SCS.



The following goals are intended to guide MCTC in its pursuit of quality growth and highly integrated transportation systems, reflective of the “Principles to Success” noted above. The goals are broad policy statements that describe the purpose of the plan.

1. To support equitable access to effective transportation options for all, regardless of race, income, national origin, age, location, physical ability, or any other factor.
2. To promote intermodal transportation systems that are fully accessible, encourage quality and sustainable growth and development, support the region’s environmental resource management strategies, and are responsive to the needs of current and future travelers.
3. To promote and develop transportation systems that stimulate, support, sustain, and enhance the movement of people and goods to foster economic competitiveness of the Madera region.
4. To enhance transportation system coordination, efficiency, and intermodal connectivity to keep people and goods moving and meet regional transportation goals.
5. To maintain the efficiency, safety, and security of the region’s transportation system.
6. To improve the quality and sustainability of the natural and human built environment through regional cooperation of transportation systems planning activities.
7. To maximize funding to maintain and improve the transportation network.
8. To identify reliable transportation choices through the public participation process approved by MCTC.
9. To protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).

## Objectives

The objectives below establish specific actions that support the goals. Together, the goals and objectives provide the policy framework for transportation decision-making. It is vital to translate the MCTC region’s objectives into realistic land use and transportation strategies and investments, measured against a carefully defined set of evaluation criteria that respond to regional needs.



1. Provide adequate public notice of public participation activities and time for public review and comment at key decision points, including but not limited to, a reasonable opportunity to comment on the proposed Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS).
2. Conduct effective outreach to ensure fiscally sound transportation investments that result in improved system mobility and safety.
3. Promote and conduct the effective dialogue with agencies, developers, and users or potential users to help guide investment discussions and maintain and improve the effectiveness of the transportation system.
4. Coordinate land use decisions and transportation systems with other affected agencies and the public.
5. Ensure planning for projects that benefit disadvantaged communities and vulnerable groups is transparent and actively engages affected communities.
6. Include criteria to prioritize transportation improvement projects that benefit disadvantaged communities.
7. Identify transportation needs in disadvantaged communities through meaningful engagement in decision-making about project design and project implementation.
8. Identify innovative solutions that address the needs of disadvantaged communities and vulnerable groups.
9. Support access to areas of opportunity (jobs, education, etc.), healthy food, clinics and hospitals, and parks, regardless of race, income, national origin, age, location, physical ability, or any other factor.
10. Maintain partnership-based planning to achieve a social, economic and environmental well-being.
11. Enhance the importance of transportation equity, public health, natural resource protection and smart growth during update of the RTP/SCS.
12. Provide the Madera region with transportation mobility options necessary to carry out essential daily activities and support equitable access to the region's assets.
13. Shift investment strategies towards a variety of modes.
14. Improve and maintain an integrated transportation network that reduces congestion and minimizes safety issues.
15. Strive to create a fully "seamless" intermodal transportation system by addressing critical linkages between modes based upon public needs.
16. Maintain, repair and rehabilitate the existing and future regional transportation system.
17. Undertake transportation investments that enhance the future economic viability and performance of the transportation system.
18. Reduce the cost of doing business by providing for the efficient movement of goods, people and information.
19. Combine elements of priority projects to maximize funding and provide for a well-connected and seamless transportation system.

20. Support transportation improvements that connect residents to activity centers such as green spaces and community centers.
21. Invest in modern regional aviation, public transit, and passenger rail systems to maintain the region's economic competitiveness with other regions, and to ensure continued economic prosperity.
22. Support the study of first-mile last mile linkages near transit stops throughout the County. Coordinate with local jurisdictions to identify solutions and prioritize for funding, with a priority on high-volume transit and on transit that serves EJ communities.
23. Promote community design that supports transit use and increases non-motorized transportation while still meeting the mobility needs of residents and employees.
24. Support transportation improvements that provide access to affordable housing options connected to transit.
25. Support transportation improvements that provide healthy and safe routes for children to schools and between activity centers consistent with the ATP.
26. Support goals contained in city and county general plans that strive to enhance urban and community centers, promote the environmentally sensitive use of lands in Madera County, revitalize distressed areas, and collaborate with agencies to ensure that new growth areas are planned in a well-balanced manner focusing on walkability and livability.
27. Invest in the development of walkable communities that offer citizens the ability to access residences, jobs, retail, recreation, and other community amenities without the need to rely on an automobile consistent with provisions contained in the 2018 ATP.
28. Encourage transportation systems that enhance walking or bicycling and that can help people increase physical activity, resulting in significant potential health benefits and disease prevention.
29. Ensure that new project motorized, and active transportation or non-motorized transportation plans are enacted in the first phase of the project.
30. Improve the integration of land use, urban design, transportation, rural and environmental feature preservation, and economic development policies and decisions through incentives and/or policies.
31. Directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that effectively utilizes new transportation funds, alleviates traffic congestion and related impacts, and improves air quality.
32. Use the Regional Housing Needs Assessment (RHNA) consistent with the SCS, to prioritize local resource allocation, and to decide how to address existing and future housing and transportation needs resulting from population, employment and household growth.
33. Build communities that encourage healthy lifestyles and active living for all ages.
34. Increase efforts to improve the form and function of transportation corridors in order to contribute to the "sense of place." Such investments can: improve attractiveness to visitors or prospective businesses or residents; complement existing natural and cultural resources; and improve the function of the road for a variety of modes.

35. Work with local agencies to develop strategies that minimize the loss of natural lands, working lands, and groundwater recharge areas, related to construction of transportation projects.
36. Encourage local agencies to coordinate Transportation and Sustainable Communities Strategy Planning with Groundwater Sustainability Planning.
37. Fulfill national and State mandates for environmentally sensitive planning, including the development of attractive alternatives to single-occupant driving and support for walking and bicycling consistent with provisions contained in the 2018 Active Transportation Plan (ATP).
38. Coordinate with Caltrans and local agencies to mitigate the potential environmental impacts of projects consistent with mitigation measures contained in the RTP/SCS environmental documents.
39. Support cooperative interagency and public-private environmental conservation efforts.
40. Make transportation decisions that are compatible with air quality conformity objectives and the preservation of key regional ecosystems.
41. Avoid disproportionately high adverse environmental impacts upon low-income individuals, the elderly, persons with disabilities or minority populations consistent with Title VI regulations.
42. Consider how transportation policies, programs, and investment strategies affect the overall health of people and the environment including reduction of greenhouse gas and air quality emissions, physical activity, and other environmental resources consistent with California and federal environmental requirements as well as SB 375 objectives and requirements.
43. Coordinate with Caltrans and the local agencies (during development of the RTP/SCS and the associated environmental document) to protect the region's habitat, agricultural land and other natural resources for future and current generations.
44. Support accessible and effective transportation options for seniors and persons with physical disabilities.
45. Improve marketing and the promotion of successful existing transportation services.
46. Embrace promising and fiscally responsible transportation and information technologies (Intelligent Transportation Systems) that serve to interconnect systems and provide information to residents and travelers.
47. Develop appropriate funding mechanisms to finance significant regional facilities. Such funding would be held in trust for future projects.
48. Encourage development in existing communities.
49. Encourage local agencies to promote public transit, walking, bicycling, and ridesharing as viable and convenient alternatives to driving as referenced in the adopted ATP and Complete Streets Policy.

## RTP Element Consistency

Chapter 5 – *Delivering the Plan for Change*, Chapter 6 – *Creating A Sustainable Future*, and Chapter 7 - *Investing In Change* provide a list of actions needed to address the vision, principles for success, goals and objectives listed above. These actions have been compared to the goals and objectives in Table 4-1. Table 4-1 clearly identifies that the RTP's actions address the stated goals and objectives resulting in an achievable vision for the region.

**TABLE 4-1**  
**Relationship of Goals to RTP and SCS Actions**

Goals	Highways & Arterials			Regional Transit		Aviation		Active Transportation/Non-Motorized Facilities		Goods Movement		TDM		ITS	Land Use Coord.	Other Projects	Envir. Review	SCS Planning									
	Mixed Flow	Land Use Coordination	O&M	Transit Services	Passenger Rail	Institutional	Airport Expansion	Airport Maintenance	Non-Motorized Facilities	Non-Motorized Incentives	RR Grade Crossings	Main Line Productivity	Carpool Coordination	Park & Ride Improvements	ITS Improvements	Land Use Planning	Supportive Facilities	Envir. Mitigation	SCS Scenarios	Resource Areas & Farmland	Public Involvement	Preferred Scenario	RHNA Consistency	LAFCO Policies	Social Equity	Public Health	CEQA Streamlining
1. To support equitable access to effective transportation options for all, regardless of race, income, national origin, age, location, physical ability, or any other factor.	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2. To promote intermodal transportation systems that are fully accessible, encourage quality growth and development, support the region's environmental resource management strategies, and are responsive to the needs of current and future travelers.	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3. To promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to foster economic competitiveness of the Madera region.	X			X	X	X	X	X	X	X	X	X	X	X			X										
4. To enhance transportation system coordination, efficiency, and intermodal connectivity to keep people and goods moving and meet regional transportation goals.	X			X	X	X	X	X	X	X	X	X	X	X			X										
5. To maintain the efficiency, safety, and security of the region's transportation system.	X			X	X	X	X	X	X	X	X	X	X	X			X	X							X	X	
6. To improve the quality of the natural and human built environment through regional cooperation of transportation systems planning activities.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7. To maximize funding to maintain and improve the transportation network.	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	
8. To identify reliable transportation choices through the public participation process approved by MCTC.		X																X	X	X	X				X	X	
9. To protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).	X			X	X	X		X	X			X	X	X	X	X	X	X	X	X	X	X	X		X	X	X

# **Chapter 5**

## **Delivering the Plan**



## 5. Delivering the Plan for Change

### Introduction

This chapter discusses the various components of the transportation system that will serve population and employment in Madera County to the year 2042, as well as identify the travel trends and the changing demands of the multi-modal transportation system. This chapter focuses on transportation system accomplishments, needs, and actions required to address existing deficiencies and recommendations for studies and projects that seek ways to satisfy future unmet transportation needs.



Travel to and from Madera County extends well beyond its borders. Traveling by car is not the only type of travel that links Madera County with others. Freight movement extends well past the borders of Madera County, into adjoining regions, other states, and even to other countries. Non-work trips for recreational travel and personal business also reach past the Madera County boundary. As a result, the transportation system must be capable of adequately meeting a wide range

of needs. But there are often different ways of meeting these needs, some of which are more or less efficient than others, and some of which are more or less expensive than others. To assess the needs in the region, a review of future travel characteristics projected for the year 2042, and how the individual components of the system can meet future needs are provided in this chapter. The systems analyzed include:

- ✓ Highways and Arterials.
- ✓ Public or Mass Transportation (local bus systems, inter-regional bus systems, and passenger rail).
- ✓ Aviation (use of public and private airports and access to regional passenger airport facilities).
- ✓ Active Transportation or Non-Motorized Travel (bicycles, trails and walking).
- ✓ Goods Movement (truck and freight rail).
- ✓ Transportation Demand Management (telecommuting, car-pooling, off-peak commuting, staggered work days also known as Transportation Control Measures or TCMs, and Transportation System Management or TSM strategies, which are designed to improve traffic flow such as signal coordination, bus turn-outs, etc.).



- ✓ Intelligent Transportation Systems or ITS (technology-based improvements that improve the efficiency of the multi-modal transportation systems).

These systems are discussed separately but must operate as an interconnected system.

## Projected 2042 Travel Characteristics

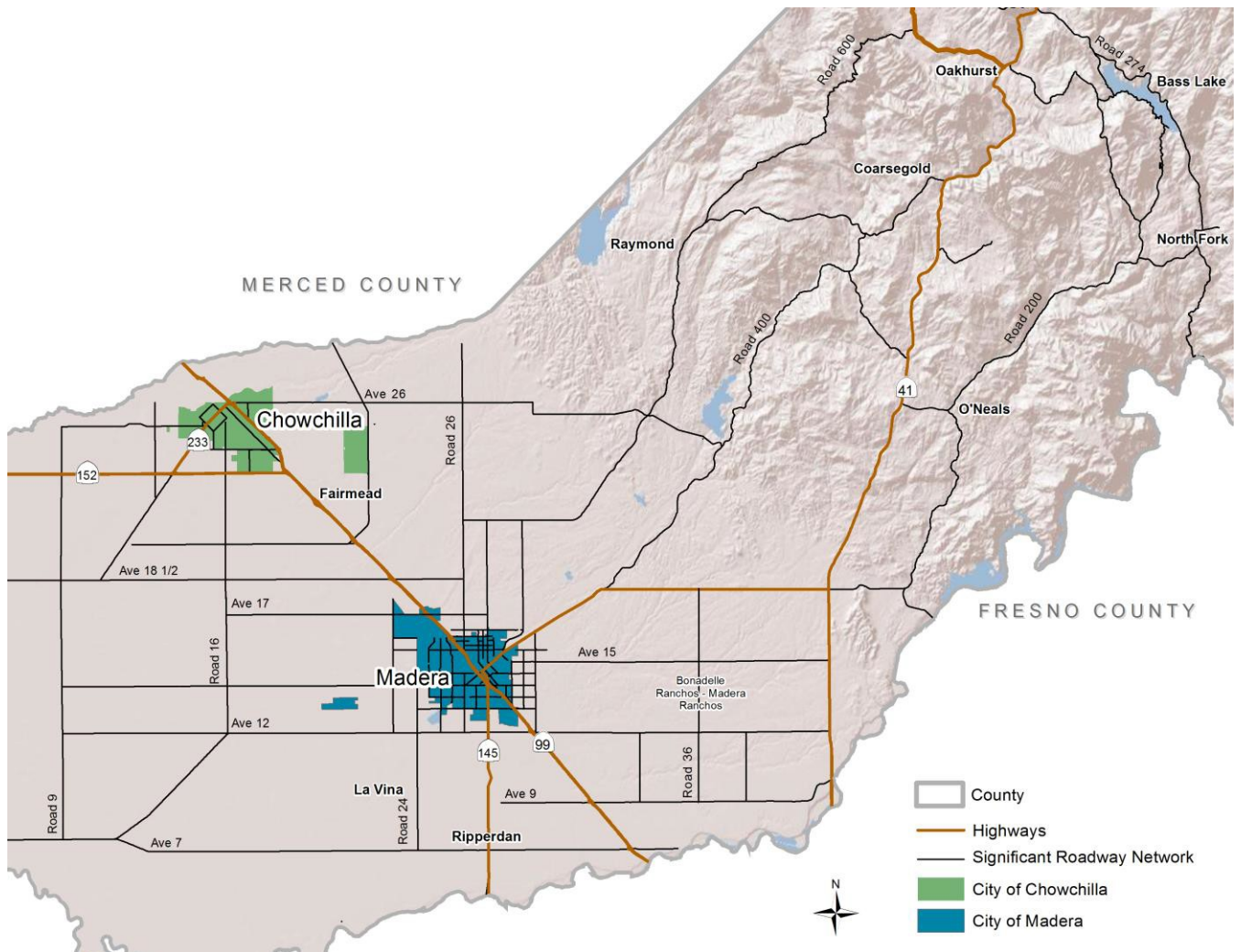
The Regionally Significant Road System is reflected in Figure 5-1. As stated in Chapter 2, these facilities are consistent with the Functional Classification System developed by the Federal Highway Administration (FHWA). These facilities, along with other major streets and highways, are included in the Madera County Regional Traffic Model network for the year 2042. The traffic model was calibrated and validated in 2010 and has been adjusted to reflect expected growth and development within the County as projected by the State Department of Finance (DOF) and derived by the Madera County Transportation Commission (MCTC) and other local agency staff. The model was calibrated and validated for the year 2010 to reflect existing traffic conditions considering actual traffic counts taken along major street and highway segments throughout the region. In addition, the street and highway network was revised to accurately reflect the required street and highway improvements needed to accommodate traffic to the year 2042.

The future year (2042) socioeconomic data (SED) forecasts used to generate vehicle trips along the street and highway network are reflected in Table 5-1. The forecast of traffic generated by the projected population, housing and employment indicates that total vehicle trips will increase by about 81% between 2010 and 2042. This is attributed to continued use of major transportation corridors in the region by future growth and development. Furthermore, vehicle miles of travel (VMT) in the year 2042 are forecast to increase by approximately 27% from VMT in year 2010. Much of the increase in VMT is due to longer distance trips; especially commute trips to and from Fresno for employment opportunities.

Under a “No-Build” scenario, if additional street and highway projects are not identified beyond those improvement projects already scheduled for construction through year 2019, the street and road system is projected to experience significant congestion by the year 2042, given the expected increase in population, housing and employment referenced in Chapter 3 – *The Madera Region: Past, Present and Future*. Specifically, a number of segments along the Regionally Significant Road System would experience level of service (LOS) deficiencies or congestion resulting from the implementation of a No Build scenario. These impacts are considered to be significant given the amount of average daily traffic (ADT) that is projected by the year 2042. Significant delay and congestion, well beyond the traffic capacity of these segments, would be realized, resulting in significant environmental and economic impacts.

In addition to street and highway impacts, major impacts on other modes of transportation would also be realized. Without implementation of planned mass transportation, aviation, active or non-motorized, goods movement, and other transportation-related improvements, the transportation/circulation system would be impacted.

FIGURE 5-1  
Regionally Significant Road System



**TABLE 5-1**  
**Regional Traffic Model Socioeconomic Data Forecasts**

Socioeconomic Factor	Year	Growth Area					Total
		Chowchilla	Madera	Mountain Area	Madera County SE New Growth	County Valley	
Population	2010	12,116	64,275	42,545	15,775	17,492	152,203
	2020	13,121	69,609	46,076	17,085	18,944	164,834
	2035	16,047	85,132	46,606	35,183	18,621	201,590
	2042	17,454	92,601	48,298	41,535	19,390	219,277
Households	2010	3,964	21,963	11,922	433	5,022	43,304
	2020	4,432	18,035	12,190	3,011	10,683	48,351
	2035	5,241	20,893	14,593	6,763	11,423	58,913
	2042	5,617	22,215	15,712	8,514	11,764	63,822
Employment	2010	5,384	20,154	7,552	2,924	7,533	43,547
	2020	3,211	15,640	7,289	1,979	19,067	47,186
	2035	4,397	20,240	8,223	5,610	21,362	59,832
	2042	4,950	22,386	8,659	6,375	22,425	64,795

These impacts would further reduce the ability of local agencies in Madera County, Caltrans, and the associated Air Basin to improve levels of congestion and delay and meet air quality standards. A major objective of this RTP/SCS is to identify a transportation strategy that will improve mobility between 2018 and 2042, while at the same time reducing the negative environmental impacts of travel.

## RTP Multi-Modal System Accomplishments, Needs and Actions

Individual components of the regional transportation system, including highways and arterials, mass transportation, active or non-motorized transportation systems, aviation systems, goods movement, TDM, and ITS, are addressed in the following sections. These systems comprise the Region's multi-modal transportation system and identify the ways in which they will meet future demand and needs.

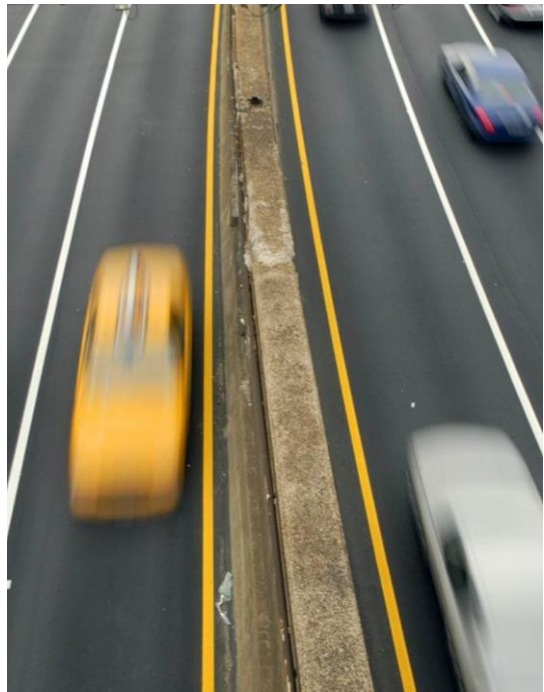
MCTC will consider a number of new studies during development of the next Overall Work Program (OWP) in coordination with its member jurisdictions and Caltrans that could enhance the existing and future transportation multi-modal system including a road diet study, parking requirement revision study, access management study, and a workflow study to reduce project delays.

## Highways and Arterials

It is assumed that the regional street and highway system will continue to carry the vast majority of person-trip travel and will be an important part of the freight movement system. Streets and highways also will be the same routes for buses, and carpools and vanpools, resulting in a highway network that is an integral part of the public transit system. Finally, the street and highway system will also serve the needs of tourist travel and recreational travel.

Because the highway system must continue to provide reasonable service throughout the plan period, it is essential to keep it well maintained. It is also important to plan for capacity increases only where future traffic will exceed capacity and where highway expansion is determined to be the best solution that will enhance travel safety. The functional classification system will be an important guide for street and highway improvements. It will be important for the region and the State to identify those streets and highways that are of strategic importance for commerce, tourism, and commuter travel.

From a traffic service perspective, the purpose of these strategic streets and highways will need to be tailored to their location in the region. In both the urban and rural areas of Madera County, this type of system will, for the most part, be comprised of existing routes with available opportunity for expansion. There should also be improvements to relieve bottlenecks at intersections and efforts made to allow passing opportunities around slow-moving vehicles in the mountain areas of the County. This will particularly help with goods movement. The ability to receive and send deliveries in a timely fashion is essential if the area is to remain regionally and nationally competitive. It is therefore, important to plan for trucks carrying a variety of cargo (manufactured goods, raw materials, and fuels) to have direct and safe access to the region's principal streets and highways.



### *Highway and Arterial Accomplishments*

Since approval of the 2014 RTP, a few major street and highway projects have been implemented. These improvements have improved mobility in the County and have increased safety. The following list is not comprehensive but provides a listing of the major improvements that should be recognized in this RTP update.

- ✓ SR 41 SR 145 to Road 200 - Passing Lanes (Measure T Project)
- ✓ Ave 12 SR 99 to Road 30 ½ - 2 Lanes to 4 Lanes (Measure T Project)
- ✓ Ave 12 West of SR 41 (Developer funded)
- ✓ SR 99 Fresno County Line to Avenue 7 - 4 Lanes to 6 Lanes
- ✓ SR 99 Avenue 12 Interchange- Reconstruct Interchange (Measure T Project)

### *Highway and Arterial Performance*

To assess highway and arterial needs, MCTC developed a process to evaluate candidate capacity-increasing and rehabilitation/safety projects considering performance-based measures and level of service (LOS) analysis. A description of each type of process is provided below.

#### ✓ *Project Prioritization Criteria*

The RTP Guidelines identify the requirements for “performance-based” planning. To comply with RTP Guidelines, MCTC prepared quantification and qualification performance criteria. The criteria were applied to evaluate the street and highway capacity increasing projects. Once a full range of candidate regional highway and arterial projects was identified for the 2018 RTP/SCS by each of the local agencies, an analysis framework consisting of measurable criteria was developed to establish project priorities. Emphasis was given to identifying key differences between the candidate projects and the tradeoffs that need to be weighed in the decision-making process. Over 50 candidate regional transportation capacity-increasing projects were identified and evaluated.

#### ✓ *RTP Guidelines*

According to the RTP Guidelines, each Regional Transportation Planning Agency (RTPA) should define a set of “program level” transportation system performance measures that reflect the goals and objectives adopted in the RTP/SCS. These performance measures are used to evaluate and select Plan alternatives. Government Code Section 14530.1(b)(5) requires more detailed project specific “objective criteria for measuring system performance and the cost effectiveness of candidate projects” in the State Transportation Improvement Program (STIP) Guidelines. The program level performance measures in the RTP set the context for judging the effectiveness of the Regional Transportation Improvement Program (RTIP), in furthering the goals and objectives of the RTP, while the STIP Guidelines address performance measurements of specific projects. As noted in Chapter 6 - *Creating a Sustainable Future*, a number of performance indicators or measures were developed and applied to compare various RTP/SCS scenarios including those indicators that identify how well the street and highway system will perform. In addition, Chapter 9 - *System Performance* provides an overview of the performance-based planning process focusing on the achievement of performance outcomes or measures including safety, bridge and pavement condition, congestion/system performance, and transit asset management.



✓ **Capacity-Increasing Street and Highway Project Needs and Actions**

New freeway and other street and highway capacity-increasing improvement projects have the greatest potential for causing significant adverse environmental effects versus other modes of transportation. This RTP/SCS proposes the widening or modification of existing streets and highways, changes to the designation of regional streets and highways, and new interchange facilities along new or existing freeways. Other projects include signalization improvements (new signals, signal modifications, and signal synchronization).

Based upon the results of the performance evaluation process described above and other finance and programming considerations noted in Chapter 7 – *Investing In Change*, a list of candidate capacity-increasing street and highway projects (proposed to be implemented by the year 2042) was prepared and is reflected in Table 5-2 and depicted in Figures 5-2 through 5-4.

Referencing Table 5-2, this RTP contains over \$1.004 billion in capacity-increasing highway and arterial improvement projects. This cost includes lane widenings, interchange improvements, new signals, and signal coordination systems associated with individual projects. Approximately \$679.2 million has been allocated for State Highway improvements along SR 41, SR 49, SR 99, SR 145 and 233. In addition, new or improved interchange projects are planned along SR 41, SR 99 and SR 233. These projects are intended to relieve bottlenecks during peak use, to close gaps, and to increase capacity along congested freeways, such as SR 41 and SR 99, which provide access to major population and employment opportunities within the San Joaquin Valley.

Strategic capacity improvements can be combined with improved management of the regional freeway system and peak period travel demand reduction strategies to effectively meet the Region's travel needs. The region needs innovative capacity enhancements, but as always, innovations must meet a benefit-cost test. MCTC will stay apprised of such innovations through its contacts with other MPOs, through the Valleywide Regional Planning Directors Group and through other conferences and state and federal studies. MCTC will relay information learned to its member agencies including Caltrans and assist in those agencies to integrate the improvements with standard practice. MCTC will also work in tandem to improve traffic circulation and/or safety by recommending innovative capacity enhancements to Caltrans and its member agencies, focusing on those that are cost effective.

For implementation purposes, it is understood that Caltrans and the local agencies have the discretion to program projects from Table 5-2 considering the availability of funding. While funding timeframes have been identified in Table 5-2, the years shown are only estimates of when funding may become available and programmed for a certain project.



The following needs are described to identify why the projects referenced in Table 5-2 are necessary and how the projects will help meet regional transportation needs over the life of the Plan.

✓ **Level of Service Analysis**

To identify potential impacts of the planned street and highway system, the level of service (LOS) for each major facility was measured. Minimum LOS for purposes of the RTP is LOS "D" for local streets and road facilities and LOS "C" for State Routes. The LOS analysis was determined using the MCTC Traffic Model and other HCM-based methodologies. For segments along the future RTP system, year 2042 traffic volumes estimated by the MCTC Regional Traffic Model, were applied. Results of the 2018 RTP LOS analysis indicate whether or not planned improvements contained in the Chapter 7 – *Investing in Change* will meet minimum LOS policies.

Results of the LOS analysis for the RTP indicate that some facilities will fall deficient between years 2010/2018 and year 2042. Existing LOS results are referenced in Chapter 2 – *Requirements, Trends and Contents*. Future LOS results considering Average Daily Traffic are provided in Table 5-3. Figures 5-5 and Figure 5-6 also provide a graphic display of the resulting deficient levels of service in the year 2042 for the PM Peak Hour, which reflects the street and highway facilities with the highest levels of congestion in the County and within the City of Madera. No deficiencies are identified in the City of Chowchilla. Improvement projects to improve these deficient levels of service would include lane widening and other operational improvements; however not all the projects are included in the 2018 RTP/SCS “financially-constrained” program.

✓ **Major Corridor Deficiencies/Needs/Actions**

Major deficiencies identified in the LOS analysis for Year 2042 with RTP projects include those shown in Figures 5-5 and 5-6 and additional LOS deficiencies in Table 5-3 and further described below. These deficiencies/needs set the stage for a set of actions that will be carried out by MCTC and the affected local agencies and Caltrans over the next 24 years.

- **North SR 41 Corridor** – The level of service will continue to deteriorate along SR 41 north of Avenue 15 as shown in Figure 5-6; however, funding realities dictate that improvements will be limited to necessary operational improvements and limited development of passing lanes for the segment north of SR 145. The County and Caltrans will coordinate to discuss appropriate improvements for the other deficient segment between Avenue 15 and SR 145.
- **SR 99 Corridor** - MCTC will coordinate with Caltrans, Madera County and the City of Madera to address the LOS deficiency along SR 99 between Avenue 12 and Avenue 17. This facility is a High Emphasis, Focus Route on the Interregional Road System (IRRS), making it eligible for Interregional Improvement Program (IIP) funding as part of the State's 25% share of State Transportation Improvement Program (STIP) funds.

Table 5-2  
Capacity Increasing Project Table

Projects Amended		FUNDING SOURCE										
Project #	Agency	Route	Project Limits	Planned Improvement	Total Cost	Project Opening Year	Measure T Regional	Measure T Flexible	Future Measure T	Local TIF and Other	STIP	Other Fed/State
1	Chowchilla	SR 233 (Robertson Blvd)	15th St to Palm Pkwy	Restripe to 4 Lanes	\$ 1,000,000	2022				\$ 1,000,000		
2	Chowchilla	SR 99	SR 233 Interchange	Interchange Operational Improvements	\$ 16,000,000	2024	\$ 7,600,000	\$ 4,900,000		\$ 3,500,000		
3	Chowchilla	Ave 26	SR 99 to Coronado St	2 Lanes to 4 Lanes	\$ 10,000,000	2025				\$ 10,000,000		
4	Chowchilla	Fig Tree Rd	SR 99 Overcrossing	2 Lane Overcrossing to Chowchilla Blvd	\$ 14,000,000	2030			\$ 4,000,000	\$ 10,000,000		
5	County	Oakhurst Midtown Bypass	Rd 427 to SR 41	New 2 Lane	\$ 13,350,000	2020	\$ 4,080,000	\$ 4,270,000				\$ 5,000,000
6	County	Rd 40	Ave 10 to Ave 12	2 Lanes to 4 Lanes	\$ 11,100,000	2020				\$ 11,100,000		
7	County	Ave 9	SR 99 to Rd 33 1/2	2 Lanes to 4 Lanes	\$ 8,100,000	2020				\$ 8,100,000		
8	County	SR 41	SR 145 to Rd 208 (tie into new constructed Passing Lanes )	Passing Lanes	\$ 11,000,000	2022				\$ 11,000,000		
9	County	SR 41	Ave 10 1/2 to Ave 12	3 Lane to 4 Lane Expressway	\$ 39,000,000	2023				\$ 39,000,000		
10	County	SR 41	Ave 12 to 15	2 Lanes to 4 Lanes	\$ 56,000,000	2023				\$ 56,000,000		
11	County	Ave 9	Rd 38 to Children's Blvd	2 Lanes to 4 Lanes	\$ 9,730,000	2025				\$ 9,730,000		
12	County	SR 41	Madera County Line to Ave 10	4 Lanes to 6 Lanes	\$ 5,800,000	2025				\$ 5,800,000		
13	County	Ave 12	Rd 30 1/2 to Rd 36	2 Lanes to 4 Lanes	\$ 21,100,000	2030			\$ 10,550,000	\$ 10,550,000		
14	County	Ave 12	Rd 38 to SR 41	2 Lanes to 4 Lanes	\$ 13,450,000	2030			\$ 6,725,000	\$ 6,725,000		
15	County	Ave 12 By-Pass	Rd 36 to Rd 38	New 2 Lanes	\$ 38,700,000	2030			\$ 9,675,000	\$ 29,025,000		
16	County	Ave 12	SR 41 to Flagbarn Rd	2 Lanes to 4 Lanes	\$ 4,250,000	2030				\$ 4,250,000		
17	County	Rio Mesa Blvd.	Ave 12 to Ave 15	New 4 Lanes Road	\$ 16,250,000	2030				\$ 16,250,000		
18	County	SR 49	Meadow Vista Dr. to Westlake Dr	2 Lanes to 4 Lanes	\$ 7,000,000	2035			\$ 3,500,000	\$ 3,500,000		
19	County	Rio Mesa Blvd.	Children's Blvd to Ave 12	2 Lanes to 4 Lanes	\$ 9,750,000	2035				\$ 9,750,000		
20	County	SR 41	Ave 14 to 15	4 Lanes Conventional to 4 Lanes Expressway	\$ 85,000,000	2037				\$ 85,000,000		
21	County	SR 41	Ave 10 to Ave 12	6 Lanes Freeway / Interchange at Ave 12	\$ 101,000,000	2040			\$ 40,250,000	\$ 60,750,000		
22	County	Ave 10	Rd 40 to Lanes Bridge	Widen to 4 Lanes	\$ 8,200,000	2040				\$ 8,200,000		
23	County	Children's Blvd	SR 41 NB Ramps to Crocket Way	4 Lanes to 6 Lanes	\$ 6,600,000	2040			\$ 3,300,000	\$ 3,300,000		
24	County	SR 41	Ave 15 to SR 145	2 Lanes to 4 Lanes	\$ 45,000,000	2040			\$ 11,250,000	\$ 13,878,712	\$ 19,871,288	
25	Madera	Olive Ave	Gateway to Roosevelt	2 Lanes to 4 Lanes	\$ 6,000,000	2019				\$ 6,000,000		
26	Madera	Sharon Blvd	Ave 17 to 1320 feet South	New 4 Lane road	\$ 3,700,000	2019				\$ 3,700,000		

Table 5-2  
Capacity Increasing Project Table

Madera	Ave 17	Rd 23 to Golden State Blvd	2 Lanes to 4 Lanes	\$ 3,000,000	2021				\$ 3,000,000		
Madera	Lake St	4th St to Cleveland Ave	2 Lanes to 4 Lanes	\$ 5,000,000	2022				\$ 5,000,000		
Madera	Ave 17	SR 99 Interchange	Interchange Improvements/Widen Structure	\$ 56,686,000	2023				\$ 56,686,000		
Madera	Rd 23	Ave 15 1/2 to Ave 17	2 Lanes to 4 Lanes	\$ 15,000,000	2023				\$ 15,000,000		
Madera	Cleveland Ave	Sharon Ave to Tozer St	Restripe to 4 Lanes	\$ 500,000	2025				\$ 500,000		
Madera	Aviation Dr	Extend to Ave 17	New 2 Lane	\$ 1,500,000	2025				\$ 1,500,000		
Madera	Yeager Dr	Falcon Dr to Aviation Dr	New 2 Lane	\$ 1,500,000	2025				\$ 1,500,000		
Madera	Ellis St	Rd 26 to Krohn St	2 Lanes to 4 Lanes	\$ 5,875,000	2025				\$ 5,875,000		
Madera	Westberry Blvd	At Fresno River	New 4 Lane bridge	\$ 13,000,000	2025				\$ 13,000,000		
Madera	Cleveland Ave	Schnoor St to SR 99	4 Lanes to 6 Lanes	\$ 3,750,000	2026	\$ 1,600,000	\$ 1,800,000		\$ 350,000		
Madera	Gateway Dr	Yosemite Ave to Cleveland Ave	2 Lanes to 4 Lanes	\$ 8,600,000	2027	\$ 2,940,000	\$ 3,160,000		\$ 2,500,000		
Madera	Gateway Dr	Olive to 9th	2 Lanes to 4 Lanes	\$ 2,671,000	2030				\$ 2,671,000		
Madera	Ellis St	Rd 26 to Lake St	2 Lanes to 4 Lanes	\$ 3,915,000	2030				\$ 3,915,000		
Madera	Schnoor St	Trevor Wy to Sunset Ave	Overlay/restripe to 4 Lanes	\$ 1,107,000	2030				\$ 1,107,000		
Madera	Sharon Blvd	1320 feet South of Ave 17 to Ellis St.	New 4 Lane road	\$ 5,000,000	2030				\$ 5,000,000		
Madera	Granada Dr	At Fresno River	Widen Structure 2 Lanes to 4 Lanes	\$ 6,500,000	2030				\$ 6,500,000		
Madera	Westberry Blvd	Cleveland Ave to Ave 16	2 Lanes to 4 Lanes	\$ 2,717,000	2030				\$ 2,717,000		
Madera	Howard Rd	Westberry Blvd to Granada Dr	2 Lanes to 4 Lanes	\$ 4,674,000	2030				\$ 4,674,000		
Madera	Pecan Ave	Golden State Blvd to Stadium Rd	2 Lanes to 4 Lanes	\$ 4,674,000	2030				\$ 4,674,000		
Madera	Pine St	Almond Ave to Madera South High School Driveway	2 Lanes to 4 Lanes	\$ 2,000,000	2030				\$ 2,000,000		
Madera	Sunrise Ave	B Street to Rd 28	2 Lanes to 4 Lanes	\$ 3,000,000	2030				\$ 3,000,000		
Madera	Sunset Ave	4th St to Westberry Blvd	2 Lanes to 4 Lanes	\$ 3,000,000	2035			\$ 3,000,000			
Madera	O St	Clark St to Adell St	2 Lanes to 4 Lanes	\$ 1,500,000	2035				\$ 1,500,000		
Madera	Rd 29	Olive Ave to Ave 13	2 Lanes to 4 Lanes	\$ 8,099,000	2035			\$ 1,938,576	\$ 6,160,424		
Madera	Rd 29	Ave 12 to Ave 13	2 Lanes to 4 Lanes	\$ 8,100,000	2035				\$ 8,100,000		
Madera	Rd 29	Ave 14 to Ave 15	2 Lanes to 4 Lanes	\$ 4,721,000	2035				\$ 4,721,000		
Madera	SR 145	Ave 12 to Ave 13 1/2	2 Lanes to 4 Lanes	\$ 4,015,000	2035			\$ 1,500,000	\$ 1,415,000	\$ 1,100,000	
Madera	SR 145	SR 99 to Yosemite Ave	2 Lanes to 4 Lanes	\$ 5,537,000	2035			\$ 1,500,000	\$ 2,873,884	\$ 1,163,116	
Madera	Stadium Rd	Pecan Ave to Maple St	2 Lanes to 4 Lanes	\$ 1,210,000	2035				\$ 1,210,000		
Madera	Tozer St/Rd 28	Ave 13 to Knox St	2 Lanes to 4 Lanes	\$ 2,000,000	2035			\$ 2,000,000			
Madera	Howard Rd	Pine St to Schnoor St	4 Lanes to 5 Lanes	\$ 5,000,000	2040			\$ 5,000,000			
Madera	Ave 17	Rd 26 to Rd 27	2 Lanes to 4 Lanes	\$ 3,000,000	2040			\$ 3,000,000			
State	SR 99	Ave 12 to Ave 17	4 Lanes to 6 Lanes	\$ 81,395,000	2022		\$ 4,850,000		\$ 1,545,000		\$ 75,000,000
State	SR 99	Ave 7 to Ave 12	4 Lanes to 6 Lanes	\$ 188,000,000	2028				\$ 8,631,025		\$ 179,368,975
State	SR 99	Ave 17 to Ave 21 1/2	4 Lanes to 6 Lanes	\$ 50,000,000	2036			\$ 5,000,000	\$ 23,243,021		\$ 21,756,979
				\$1,077,326,000		\$ 16,220,000	\$ 18,980,000	\$112,188,576	\$ 593,258,020	\$ 55,553,450	\$ 281,125,964

FIGURE 5-2  
Capacity Increasing Street and Highway Improvement Projects – County

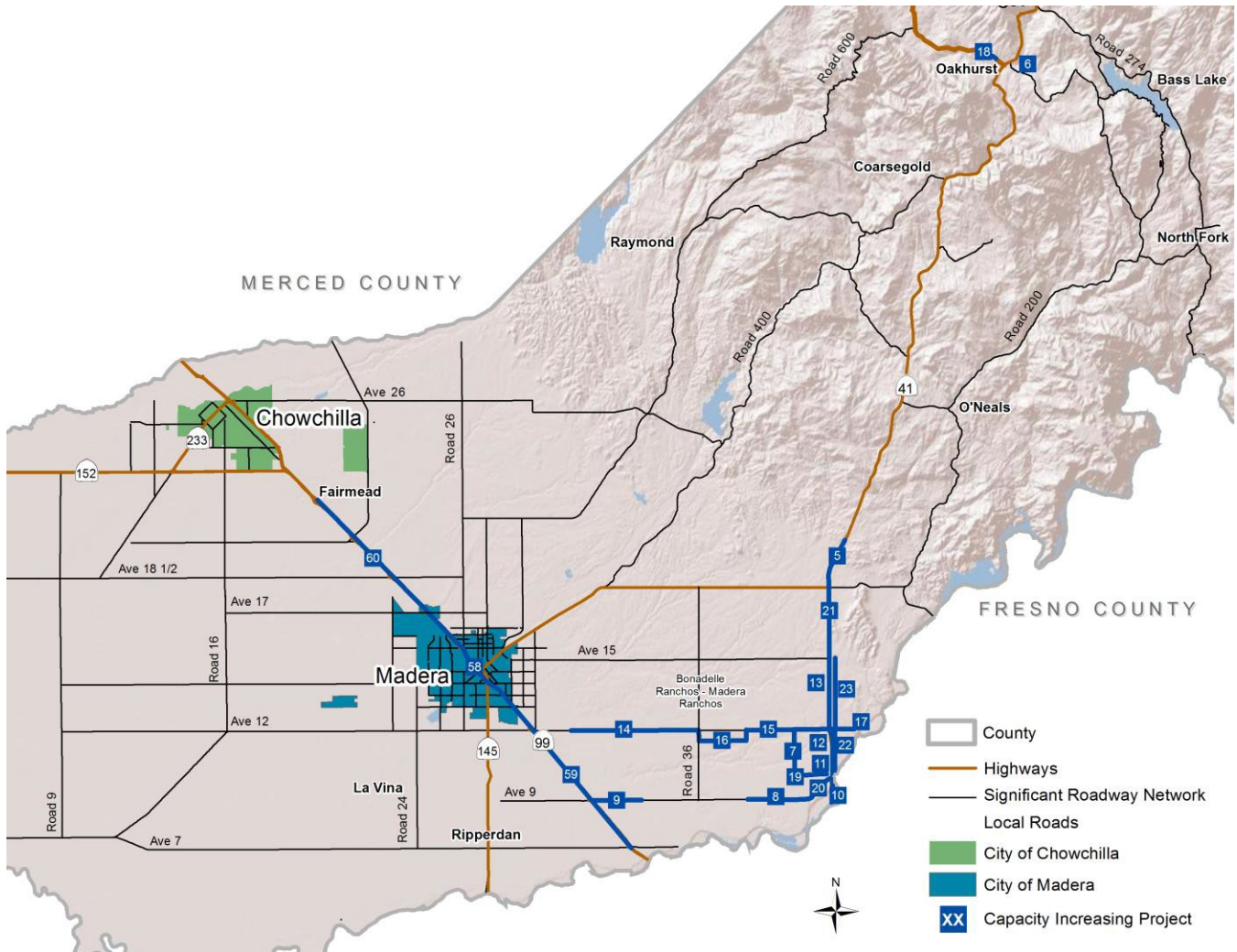


FIGURE 5-3  
Capacity Increasing Street and Highway Improvement Projects - Chowchilla

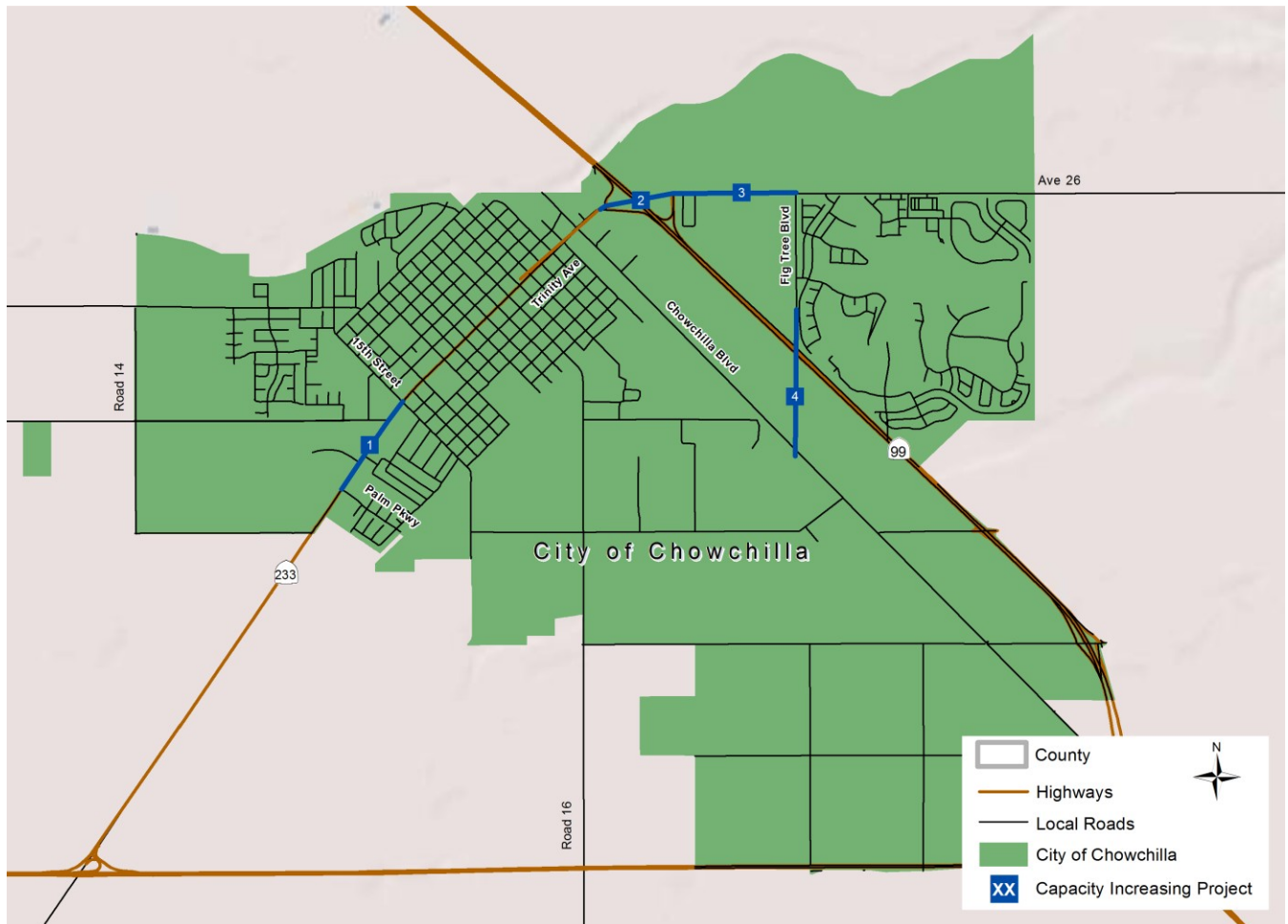
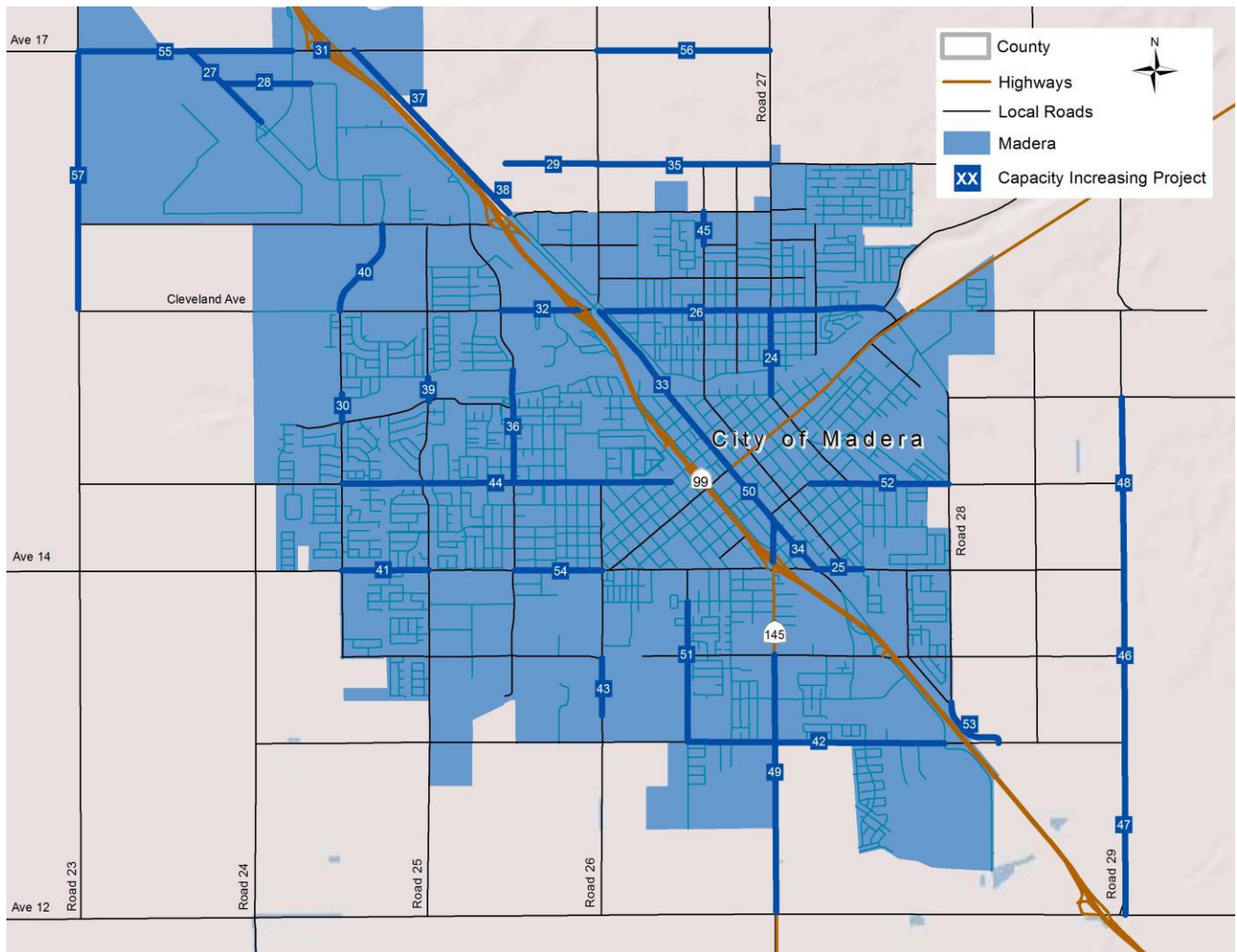


FIGURE 5-4

Capacity Increasing Street and Highway Improvement Projects – City of Madera





**TABLE 5-3**  
**Year 2042 Capacity Increasing Street and Highway Level of Service Results**

Project #	Agency	Project Name	Project Limits	Planned Improvement	With Project			
					Roadway Classification	Roadway Capacity at LOS E (ADT)	V/C Ratio	Level of Service
1	Chowchilla	SR 233	15th St to Palm Pkwy	Restripe to 4 Lanes	Arterial	28,000	0.46	C
2	Chowchilla	SR 99	SR 233 Interchange	Interchange Operational Improvements	N/A	N/A	N/A	N/A
3	Chowchilla	Ave 26	SR 99 to Coronado St	2 Lanes to 4 Lanes	Arterial	28,000	0.41	C
4	Chowchilla	Fig Tree Rd	SR 99 Overcrossing	2 Lane Overcrossing to Chowchilla Blvd	Arterial	12,000	0.39	C
5	County	SR 41	SR 145 to Rd 208 (tie into new constructed passing lanes)	Passing Lanes	Rural Hwy, Rolling Terrain, 40% Passing Lanes	36,000	0.78	C
6	County	Oakhurst Midtown Bypass	Rd 427 to SR 41	New 2 Lane	Arterial	12,000	0.23	C
7	County	Rd 40	Ave 10 to Ave 12	2 Lanes to 4 Lanes	Arterial	28,000	0.11	C
8	County	Ave 9	Rd 38 to Children's Blvd	2 Lanes to 4 Lanes	Arterial	28,000	0.39	C
9	County	Ave 9	SR 99 to Rd 33 1/2	2 Lanes to 4 Lanes	Arterial	28,000	0.15	C
10	County	SR 41	Madera County Line to Ave 10	4 Lanes to 6 Lanes	Freeway	120,000	0.48	C
11	County	SR 41	Ave 10 to Ave 12	6 Lane Freeway/Interchange at Ave 12	Freeway	120,000	0.41	C
12	County	SR 41	Ave 10 1/2 to Ave 12	3 Lane to 4 Lane Expressway	Expressway	40,000	1.23	F
13	County	SR 41	Ave 12 to 15	2 Lane Conventional to 4 Lane Expressway	Expressway	40,000	0.64	C
14	County	Ave 12	Rd 30 1/2 to Rd 36	2 Lanes to 4 Lanes	Arterial	28,000	0.83	D
15	County	Ave 12	Rd 38 to SR 41	2 Lanes to 4 Lanes	Arterial	28,000	0.91	E
16	County	Ave 12 By-Pass	Rd 36 to Rd 38	New 4 Lanes	Arterial	12,000	1.66	C
17	County	Ave 12	SR 41 to Flag Barn Wy	2 Lanes to 4 Lanes	Arterial	28,000	0.68	C
18	County	SR 49	Meadow Vista Dr to Westlake Dr	2 Lanes to 4 Lanes	Arterial	28,000	0.70	C
19	County	Ave 10	Rd 40 to Lanes Bridge	Widen to 4 Lanes	Arterial	28,000	0.12	C
20	County	Children's Blvd	SR 41 NB Ramps to Crocket Way	4 Lanes to 6 Lanes	Arterial	42,000	0.43	C
21	County	SR 41	Ave 15 to SR 145	2 Lanes to 4 Lanes	Arterial	28,000	0.82	D
22	County	Rio Mesa	Children's Blvd to Ave 12	2 Lanes to 4 Lanes	Arterial	28,000	0.31	C
23	County	Rio Mesa	Ave 12 to Ave 15	New 4 Lane	Arterial	28,000	0.26	C
24	Madera	Lake St	4th St to Cleveland Ave	2 Lanes to 4 Lanes	Arterial	28,000	0.48	C
25	Madera	Olive Ave	Gateway to Roosevelt	2 to 4 Lanes	Arterial	28,000	0.46	C
26	Madera	Cleveland Ave	Sharon Ave to Tozer St	Restripe to 4 Lanes	Arterial	28,000	0.65	C
27	Madera	Aviation Dr	Extend to Ave 17	New 2 Lane	Arterial	12,000	0.22	C
28	Madera	Yeager Dr	Falcon Dr to Aviation Dr	New 2 Lane	Arterial	12,000	0.71	C
29	Madera	Ellis St	Rd 26 to Krohn St	2 Lanes to 4 Lanes	Arterial	28,000	0.49	C
30	Madera	Westberry Blvd	At Fresno River	New 4 Lane bridge	Arterial	28,000	0.25	C
31	Madera	Ave 17	SR 99 Interchange	Interchange Improvements/Widen Structure	N/A	N/A	N/A	N/A
32	Madera	Cleveland Ave	Schnoor St to SR 99	4 Lanes to 6 Lanes	Arterial	42,000	0.60	C
33	Madera	Gateway Dr	Yosemite Ave to Cleveland Ave	2 Lanes to 4 Lanes	Arterial	28,000	0.57	C
34	Madera	Gateway Dr	Olive to 9th	2 Lanes to 4 Lanes	Arterial	28,000	0.60	C
35	Madera	Ellis St	Rd 26 to Lake St	2 Lanes to 4 Lanes	Arterial	28,000	0.32	C
36	Madera	Schnoor St	Trevor Wy to Sunset Ave	Overlay/restripe to 4 Lanes	Arterial	28,000	0.29	C
37	Madera	Sharon Blvd	Ellis St to Ave 17	New 4 Lane road	Arterial	28,000	0.17	C
38	Madera	Sharon Blvd		New 4 Lane road	Arterial	28,000	0.13	C
39	Madera	Granada Dr	At Fresno River	Widen Structure 2 Lanes to 4 Lanes	Arterial	28,000	0.26	C
40	Madera	Westberry Blvd	Cleveland Ave to Ave 16	2 Lanes to 4 Lanes	Arterial	28,000	0.26	C
41	Madera	Howard Rd	Westberry Blvd to Granada Dr	2 Lanes to 4 Lanes	Arterial	28,000	0.35	C
42	Madera	Pecan Ave	Golden State Blvd to Stadium Rd	2 Lanes to 4 Lanes	Arterial	28,000	0.18	C
43	Madera	Pine St	Almond Ave to Madera High School South Driveway	2 Lanes to 4 Lanes	Arterial	28,000	0.08	C
44	Madera	Sunset Ave	4th St to Westberry Blvd	2 Lanes to 4 Lanes	Arterial	28,000	0.23	C
45	Madera	D St	Clark St to Adell St	2 Lanes to 4 Lanes	Arterial	28,000	0.09	C
46	Madera	Rd 29	Olive Ave to Ave 13	2 Lanes to 4 Lanes	Arterial	28,000	0.16	C
47	Madera	Rd 29	Ave 12 to Ave 13	2 Lanes to 4 Lanes	Arterial	28,000	0.27	C
48	Madera	Rd 29	Ave 14 to Ave 15	2 Lanes to 4 Lanes	Arterial	28,000	0.09	C
49	Madera	SR 145	Ave 12 to Ave 13 1/2	2 Lanes to 4 Lanes	Arterial	28,000	1.18	F
50	Madera	SR 145	SR 99 to Yosemite Ave	2 Lanes to 4 Lanes	Arterial	28,000	0.83	D
51	Madera	Stadium Rd	Pecan Ave to Maple St	2 Lanes to 4 Lanes	Arterial	28,000	0.08	C
52	Madera	Sunrise Ave	B Street to Rd 28	2 Lanes to 4 Lanes	Arterial	28,000	0.18	C
53	Madera	Tozer St/Rd 28	Ave 13 to Knox St	2 Lanes to 4 Lanes	Arterial	28,000	0.11	C
54	Madera	Howard Rd	Pine St to Schnoor St	4 Lanes to 5 Lanes	Arterial	28,000	0.75	C
55	Madera	Ave 17	Rd 23 to Golden State Blvd	2 Lanes to 4 Lanes	Arterial	28,000	0.07	C
56	Madera	Ave 17	Rd 26 to Rd 27	2 Lanes to 4 Lanes	Arterial	28,000	0.13	C
57	Madera	Rd 23	Ave 15 1/2 to Ave 17	2 Lanes to 4 Lanes	Arterial	28,000	0.16	C
58	State	SR 99	Ave 12 to Ave 17	4 Lanes to 6 Lanes	Freeway	120,000	0.67	D
59	State	SR 99	Ave 7 to Ave 12	4 Lanes to 6 Lanes	Freeway	120,000	0.87	C
60	State	SR 99	Ave 17 to Ave 21 1/2	4 Lanes to 6 Lanes	Freeway	120,000	0.63	C
#	County	East of SR 41 resulting from Rio Mesa Traffic Analysis Study	Various if warranted. Study to be complete in April/May 2018	Various as warranted				

FIGURE 5-5  
2042 Moderate Growth Scenario - Madera Metropolitan Area  
PM Peak Hour Level of Service

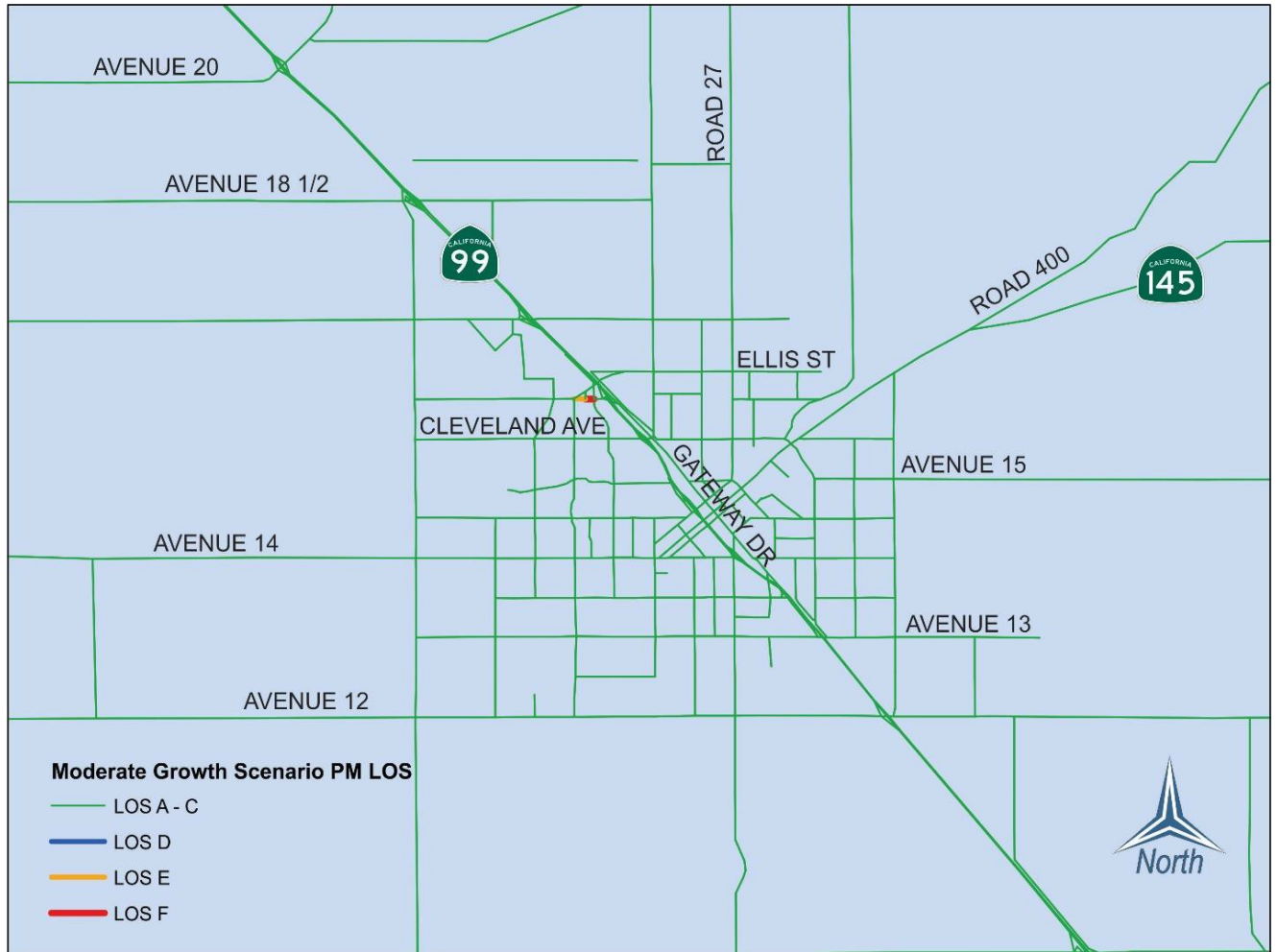
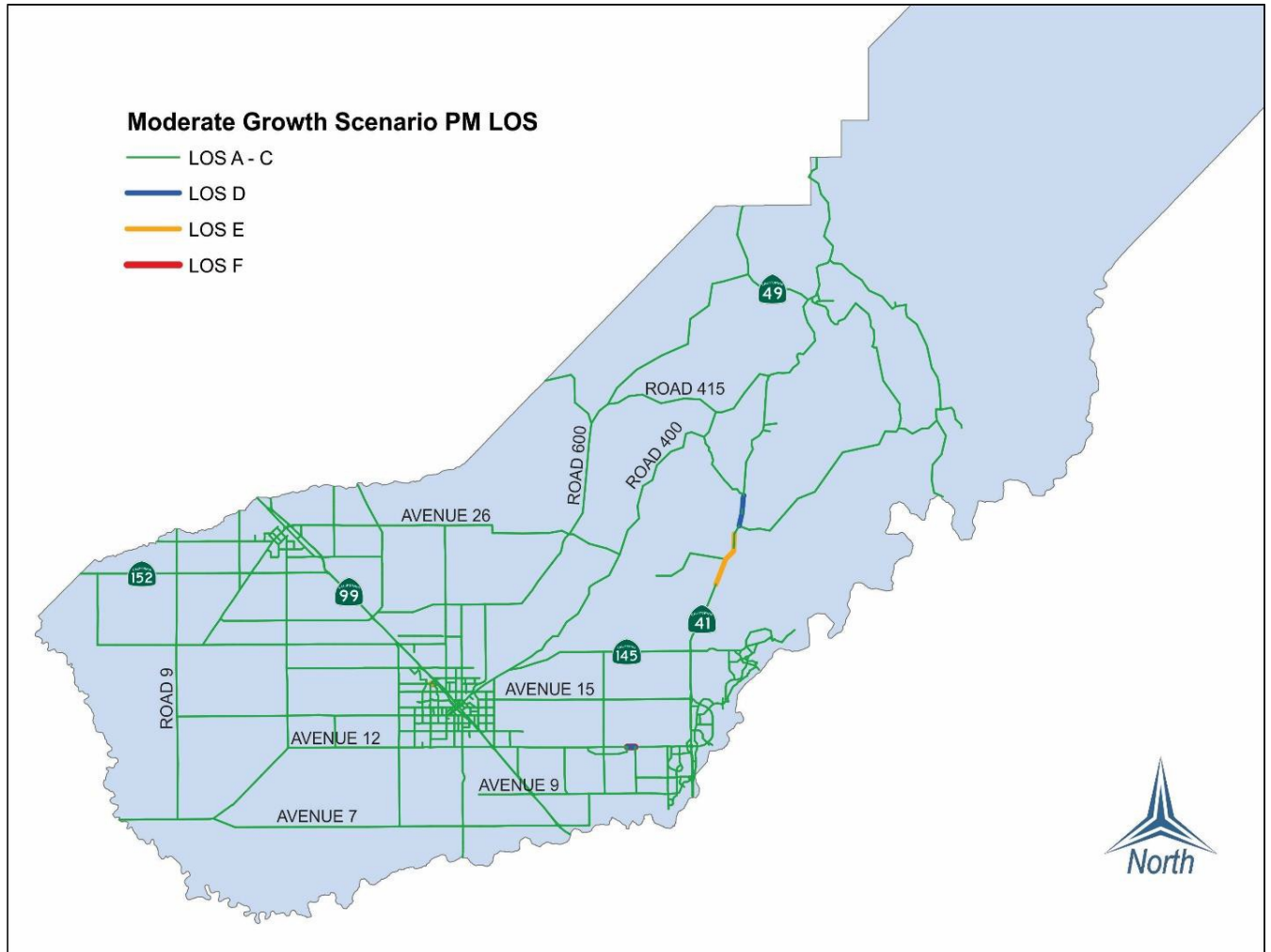


FIGURE 5-6  
2042 Moderate Growth Scenario - Rural Area  
PM Peak Hour Level of Service



- *SR 145* - MCTC will coordinate with Caltrans, Madera County and the City of Madera to address the LOS deficiencies shown along SR 145. Funding realities dictate that improvements will be limited to necessary operational improvements or the segment of SR 145 between SR 99 and Yosemite.
- *Avenue 12* – MCTC will work with the County of Madera to address the very short LOS deficiency along the Avenue 12 corridor east of the Madera Ranchos, where the proposed Avenue 12 By-Pass meets with Avenue 12. It is assumed that this short segment may be addressed as part of the By-Pass improvement project. Coordination will also be required to address the deficiency between Road 38 and SR 41.
- *Local Facilities*  
Urban arterial, rural highway, and mountain arterial streets and roads within Madera County carry a majority of all traffic and account for a vast majority of the County’s roadway system. As it becomes more difficult to add lanes to the SR 41 and SR 99 freeway systems, maximizing the capacity of the Region’s arterials will become a priority.

Referencing Table 5-2 and Figures 5-2 through 5-4, numerous arterial improvements within each subarea of the County are planned, including lane widening on Avenues 9, 12, and 17, the Oakhurst Midtown Connector, and others. Other major streets such as Gateway, Cleveland, Howard, Tozer in the Cities of Madera and Chowchilla are also planned. One local street segment within the City of Madera along Kennedy Street between SR 99 and Ellis Street is shown as deficient by the year 2042. MCTC will work with the City of Madera to address this deficiency through operational improvements. The project is listed in Chapter 7 of this Plan (Table 7-5), the Unconstrained Street and Highway Improvement Project List.

Finally, in addition to lane widening, interchange enhancements, and arterial widening projects, new traffic signals and signal coordination systems are planned within the County as part of the Transportation Systems Management (TSM) program. In addition to the SR 41 Impact Fee Program, the County of Madera has a Countywide Local Transportation Impact Fee program and addresses corridors such as Avenues 9, 10, 12, Road 40 and 400, and others throughout the County. The Fee Program is in the process of being updated with completion anticipated in 2018. The Fee Program Update may identify additional deficiencies that would be addressed in the 2022 RTP/SCS.

✓ Other Issues/Actions

■ *East/West Corridor*

Information presented in this chapter indicates that with the candidate projects listed in Table 5-2, which add lanes to SR 145, and Avenues 9 and 12, projected east-west traffic demand can be accommodated. Fresno COG and MCTC worked together to address travel demand in both counties with studies including the Herndon Avenue Specific Study and the Fresno-Madera County East/West Corridor Study.

Phase 1 and 2 of the East-West Corridor Study have been completed. Phase 1 identified four corridor alternatives to be further evaluated as part of Phase 2. Phase 2 focused on an evaluation of a bridge crossing along the San Joaquin River between the SR 41 San Joaquin River Bridge and Rank Island to the north. No projects or a single preferred alignment has been chosen by either County.

The need for communication between Fresno agencies and Madera County regarding east/west circulation is recognized and continues through participation in many collaborative working groups referenced in this RTP. It is through involvement in these transportation planning groups and in special studies that MCTC ensures a comprehensive, coordinated transportation planning process.

■ *Emergency Access in Mountain Communities*

To address the issue of emergency access in the mountain communities of Madera County, the County prepared a study, which recommended projects to improve emergency access in Oakhurst and a few other areas. To address the issue of emergency access, the County:

- Requires new development to have two points of access.
- Has established a maximum cul-de-sac length.
- Implements projects to improve access as funds are available.

It should be noted that there are many public right-of-way roads in the mountain areas that are not on the County maintained list of roads. They were built prior to when the design requirements listed above were established. The County has limited funding sources to address roads that are not on its maintained street and road listing. The County of Madera has established maintenance districts throughout the unincorporated areas to partially address road maintenance needs.

- *Land Use Coordination*

Over the next 24 years, it will be important for MCTC and its member agencies (the cities and the County) to coordinate with responsible agencies (federal, State, and other local agencies, including those in other counties) to address requirements set forth by AB 32 and SB 375 and to ensure that issues regarding the impact of growth and development on the transportation system that connects the counties can be defined and addressed.

It is important to note that MCTC is involved in various groups that ensure effective communication and coordination with other Valley counties on issues related to land use, air quality, and transportation. These groups include the San Joaquin Valley Regional Planning Agencies' Directors' Committee, San Joaquin Valley Regional Policy Council, the Valley Modelers Group, and others. In addition, the eight San Joaquin Valley counties have already implemented an aggressive program of coordinated Valleywide planning. In September of 1992, the eight Valley RTPAs, including MCTC, entered into a memorandum of understanding (MOU) to ensure a coordinated regional approach to transportation and air quality planning efforts.

The MOU goes well beyond the requirements of State and federal transportation planning acts by establishing a system of coordination of plans, programs, traffic and emissions modeling, transportation planning, air quality planning, and consistency in data analysis/forecasting. Development of the MOU and the ongoing process of coordinated planning have improved upon an already close working relationship between the eight Valley RTPAs and the representatives of Caltrans, the California Air Resources Board (CARB), State Office of Planning and Research (OPR), the San Joaquin Valley Air Pollution Control District (SJVAPCD), the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

- *Private Development Improvements*

Several street and road improvements listed in Table 5-2 will be partially financed through local development contributions as conditions of approval. Additional improvements to address remaining LOS deficiencies will be necessary and are assumed to be either addressed through private funding as new development in the respective plan areas takes place or through operational improvements noted above.

- *Ramp Metering*

Caltrans, through its correspondence with the County, has indicated that it intends to meter all on-ramps to State routes in such a manner as to mimic traffic patterns. Caltrans' primary concern is to maintain the best operating condition on the mainline highways. The use of ramp meters, according to Caltrans, helps to improve the flow of traffic on the mainline.



There is concern however, that while improving the mainline freeways within Madera County, significant back-up or queuing of traffic will occur on the local streets and roads that connect to the freeway system. Further coordination between Caltrans and affected local agencies should be provided regarding operations of the potential use of ramp meters along the State freeway system in Madera County.

✓ **Street and Highway Rehabilitation/Safety Project Needs and Actions**

In addition to LOS deficiencies, Caltrans and local agencies are also facing the difficult task of maintaining regional streets and highways with inadequate funding. With increased congestion expected in the future, the typical road will require some maintenance every five to ten years, and major rehabilitation every ten to 20 years. If rehabilitation and maintenance activities are not implemented, residents will continue to experience increased accident rates and reduced system-wide efficiency.

✓ **Enhanced Rehabilitation and Safety Improvements**

With the current backlog of highway and arterial maintenance and the pavement deterioration that goes with an aging roadway system, costs will increase dramatically through the RTP horizon year (2042) to keep the highway system operational. The RTP/SCS identifies additional funds principally for arterials that minimize roadway and bridge decay. Recent studies have also identified the increased cost to users as under-maintained roadways degrade tires and shock absorbers, creating wear and tear on engines and connections throughout the vehicle.

Providing additional funding to improve pavement conditions before roadbed deterioration requires full rehabilitation would result in substantial maintenance savings to the region. Preliminary analysis indicates that the benefits of an investment in proper ongoing maintenance would pay dividends of more than triple the cost. The funding estimates for this RTP/SCS call for approximately \$259 million in investments for rehabilitation and safety projects (reference Table 5-4). A variety of federal, State, and local funds are used for maintaining the existing transportation network including Regional Surface Transportation Program (RSTP) funds received by MCTC and Measure T, Madera County's half-cent transportation sales tax program.

**TABLE 5-4**  
**Street and Highway Rehabilitation/Safety Improvement Projects**

Agency	Project #	Route	Project Limits	Project Description	Estimated Cost	Funding Year	Funding Source
<b>Chowchilla</b>							
CHOWCITY	1	Road 16	Ave 25 to Basin	Drainage Improvements	\$430,000	2020	Measure T
CHOWCITY	2	Various	Area bounded by 15th Street, Robertson, Mariposa Avenue, and Front Street	Storm Drain system serving Entire roadway network in sw quadrant of city	\$600,000	2020	Measure T
CHOWCITY	3	Humboldt 13th Street	3rd St to 6th St	Reconstruct	\$345,000	2020	Measure T
CHOWCITY	4	City Streets	3rd, 5th, 15th, & Ventura	Overlay, curb, gutter, sw	\$465,000	2020	Measure A
CHOWCITY	5	Humboldt Ave/13th Street	6th St to 12th	Reconstruct	\$852,000	2025	Measure T
CHOWCITY	6	Humboldt Ave/13th Street	12th to 13th	Reconstruct	\$142,000	2025	Measure T
CHOWCITY	7	Humboldt Ave/13th Street	13th St to 15th St Mariposa Ave to Orange Ave	Reconstruct 2-Lane Collector incl. curb, gutter, sw, ramps etc.	\$1,083,000	2030	Measure T
CHOWCITY	8	13th Street	Orange Ave to Kings Ave	Majority Reconstruct 2-Lane Collector incl. curb, gutter, sw, ramps etc./Part Overlay	\$300,000	2030	Measure T
CHOWCITY	9	13th Street Monterey Ave	Kings Ave to Ventura Ave 3rd St to 4th St	Majority Reconstruct 2-Lane Collector incl. curb, gutter, sw, ramps etc./Part Overlay	\$800,000	2030	Measure T
CHOWCITY	10	Monterey Ave	4th St to 7th St	Reconstruct 2-Lane Collector incl. curb, gutter, sw, ramps etc.	\$516,000	2030	Measure T
CHOWCITY	11	Monterey Ave	7th St to 12th St	Reconstruct 2-Lane Collector incl. curb, gutter, sw, ramps etc.	\$1,091,000	2030	Measure T
CHOWCITY	12	Monterey Ave	12th St. to 15th St	Reconstruct	\$681,000	2030	Measure T
CHOWCITY	13	Various	To Be Determined	Regional Recon/Rehab	\$1,080,000	2018-2027	Measure T/RSTP/LPP
CHOWCITY	14	Various	To Be Determined	Rehab/Maint/Operations	\$1,120,000	2018-2027	Measure T/RSTP
CHOWCITY	15	Various	To Be Determined	Regional Recon/Rehab	\$5,435,000	2028-2042	Measure T/RSTP/LPP
CHOWCITY	16	Various	To Be Determined	Rehab/Maint/Operations	\$5,555,000	2028-2042	Measure T/RSTP
<b>Subtotal:</b>					<b>\$20,495,000</b>		
<b>Madera</b>							
MADCITY	17	Almond	Granada to Commerce	Rehab/Overlay	\$160,000	2018-2023	Measure T
MADCITY	18	Clinton	Lilly to Fig	Rehab/Overlay & ADA facilities	\$195,000	2018-2023	Measure T
MADCITY	19	D Street	4th to 9th	Rehabilitate Roadway, Minor Concrete Repair, ADA facilities	\$500,000	2018-2023	Measure T
MADCITY	20	Granada	Almond to Howard	Rehab/Overlay	\$600,000	2018-2023	Measure T
MADCITY	21	Pecan	Schnoor to Pine	Rehab	\$800,000	2018-2023	Measure T
MADCITY	22	Pine Street	Howard to 4th	Reconstruct/Overlay, & Intersection Improvements, Ped Facilities	\$600,000	2018-2023	Measure T
MADCITY	23	Pine	Almond to Pecan	Rehab/Overlay Roadway	\$310,000	2018-2023	Measure T
MADCITY	24	Sunrise	Lilly to Tozer	Rehab/Overlay	\$95,000	2018-2023	Measure T
MADCITY	25	Various	To be Determined	Regional Rehab/Reconstruct & Safety	\$1,000,000	2018-2023	Measure T
MADCITY	26	9th	B to Gateway	Rehab/Reconstruct/Overlay	\$800,000	2020-2024	Measure T
MADCITY	27	Kennedy	Lake to Adams	Reconstruct	\$1,200,000	2020-2024	Measure T
MADCITY	28	Central	Gateway to Lake	Rehab/Reconstruct/Overlay	\$340,000	2020-2024	Measure T
MADCITY	29	Almond	Stadium to Madera Ave (145)	Reconstruct/Rehab Roadway	\$600,000	2020-2024	Measure T
MADCITY	30	Various	To Be Determined	Regional Rehab/Reconstruct & Safety	\$1,000,000	2020-2024	Measure T
MADCITY	31	Cleveland	Sharon to Tozer	Rehabilitate & Overlay	\$1,020,000	2025-2029	Measure T
MADCITY	32	Owens	Cleveland to Adell	Rehabilitate & Overlay/Reconstruct	\$1,000,000	2025-2029	Measure T
MADCITY	33	Schnoor	Almond to Industrial	Rehab/Overlay	\$195,000	2025-2029	Measure T
MADCITY	34	Stadium	Almond to Pecan	Rehab/Overlay	\$310,000	2025-2029	Measure T
MADCITY	35	Avenue 17	Airport to E. city limits	Rehab/Overlay	\$335,000	2025-2029	Measure T
MADCITY	36	Riverside	Sharon to Lake	Rehab/Overlay & ADA facilities	\$500,000	2025-2029	Measure T
MADCITY	37	Sharon	Riverside to Cleveland	Overlay	\$310,000	2025-2029	Measure T
MADCITY	38	Various	To Be Determined	Regional Rehab/Reconstruct & Safety	\$2,620,000	2018-2027	Measure T/RSTP/LTF
MADCITY	39	Various	To Be Determined	Rehab/Maint/Operations	\$8,500,000	2018-2027	Measure T/RSTP/LTF
MADCITY	40	Various	To Be Determined	Regional Rehab/Reconstruct & Safety	\$28,290,000	2028-2042	Measure T/RSTP/LTF
MADCITY	41	Various	To Be Determined	Rehab/Maint/Operations	\$42,300,000	2028-2042	Measure T/RSTP/LTF
<b>Subtotal:</b>					<b>\$93,580,000</b>		
<b>Madera County</b>							
MADCO	42	Ave 18 1/2	Golden State and Rd 24	PE/Reconstruct 2 lanes	\$725,000	2018-20	Measure T
MADCO	43	Ave 7 1/2	"Y" Ave 12 - Firebaugh	Overlay	\$1,391,000	2018-20	Measure T
MADCO	44	Rd 16	Ave 12 - Ave 18 1/2	Overlay	\$1,565,000	2018-20	Measure T
MADCO	45	Robertson Blvd.	SR 152 - Ave 18 1/2	Overlay	\$580,000	2018-20	Measure T
MADCO	46	Ave 12	Rd 16 - Rd 23	PE & Reconstruct 2 Lns	\$10,752,000	2021-25	Measure T
MADCO	47	Ave 9	SR 99 - Rd 33 1/2	Overlay	\$1,558,000	2026-30	Measure T
MADCO	48	Rd 26	Ave 18 - Ave 19	PE/Reconstruct 2 lanes/widen	\$1,870,000	2026-30	Measure T
MADCO	49	Various	To Be Determined	Regional Recon/Rehab	\$14,660,000	2018-2027	Measure T/RSTP/LTF
MADCO	50	Various	To Be Determined	Rehab/Maint/Operations	\$40,000,000	2018-2027	Measure T/RSTP/LTF
MADCO	51	Various	To Be Determined	Regional Recon/Rehab	\$14,640,000	2028-2042	Measure T/RSTP/LTF
MADCO	52	Various	To Be Determined	Rehab/Maint/Operations	\$57,000,000	2028-2042	Measure T/RSTP/LTF
<b>Subtotal:</b>					<b>\$144,741,000</b>		
<b>TOTAL:</b>					<b>\$258,816,000</b>		

✓ **Projected Operation and Maintenance Costs**

There are currently over 3,680 lane miles of streets and highways in the Madera County region, including over 2,000 lanes miles on the regionally significant road network. By 2042, the lanes miles on the regionally significant road system will increase to well over 2,500 miles.

In 2014, the California Statewide Local Streets and Roads Needs Assessment was conducted by the California State Association of Counties (CSAC), League of California Cities (League), and the County Engineers Association of California (CEAC). The results of the study provided pavement conditions and funding needs for Madera County, including an assessment of the overall County road network. Using the pavement condition index (PCI) as a metric to rate the quality of the pavement area, the study determined a statewide average PCI of 68 on a scale of 0 (failed) to 100 (excellent). In Madera County, the average PCI rating of 47 indicates “poor” pavement conditions. The Assessment also included a 10-year estimate of pavement funding needs for Madera County of approximately \$1.02 billion. The 24-year estimate of available revenues for maintenance and rehabilitation activities is approximately \$259 million, indicating a total funding shortfall greater than \$760 million. MCTC will continue to seek leveraging opportunities through the Measure T local sales tax program in an effort to maximize and prioritize available funding for local road maintenance and operations.

## Mass Transportation

Public transit provides many benefits, including accessible transportation options to the general public, and reduces road congestion and energy use while



promoting a healthy environment for residents. The local economy also benefits by increasing access to services, employment, and educational opportunities throughout the region. Investments in transit are essential to the future of Madera County as it generates benefits for all economic sectors.

Public transit services in Madera County evolved from small demand-response services for specialized riders to more diverse transit systems over the past 25 years. The Cities of Madera and Chowchilla and Madera County provide a total of six different public transit services. Other transportation services offered in Madera County include Amtrak passenger rail service, Yosemite Area Regional Transportation System (YARTS), CalVans vanpool services, taxis, and transportation network services (TNS) including Uber and Lyft. Madera County public transit operators have increased services in response to demand in both urban and rural areas of the County and beyond. Regional inter-County connectivity has been improved to key destinations in response to market analysis and public outreach and continues to be

evaluated for benefits to County residents. As reflected in Table 5-5, two fixed-route systems and four demand-responsive services are operated.

**TABLE 5-5**  
**Madera County Public Transit Services**

PROVIDER	FIXED ROUTE	DEMAND RESPONSE	DESCRIPTION
<u>City of Madera:</u> ✓ Madera Area Express (MAX) ✓ Madera Dial-A-Ride	<b>X</b>	<b>X</b>	City of Madera Madera Urbanized Area
<u>Madera County:</u> ✓ Madera County Connection (MCC) ✓ Senior Bus Program ✓ Escort Service ✓ Yosemite Area Regional Transportation System (YARTS)	<b>X</b>   <b>X Seasonal</b>	 <b>X</b> <b>X</b>	Inter-City Eastern Madera County Inter-City SR 41 Corridor
<u>City of Chowchilla:</u> ✓ Chowchilla Area Transit Express (CATX)		<b>X</b>	City of Chowchilla

The Mass Transportation Action Element provides an overview of public transportation accomplishments and future needs, challenges, and opportunities.

### *Mass Transportation Accomplishments*

Madera County transit operators place a high priority in providing quality transit investments. Over the past four years, many proactive fixed-route and demand-response operating improvements were implemented in response to public needs and requests, as shown below.

Major capital infrastructure improvements were completed to address growing operational, maintenance, and administrative needs. These infrastructure improvements include intermodal transit facility enhancements; development of new maintenance facilities; dedicated transit administrative facilities; and new bus shelters and amenities to ensure delivery of effective, accessible, and reliable delivery of services.

#### ✓ *City of Madera*

- MAX operations were enhanced with extension of Route 1 to address ridership demand.
- A new Route 3 was initiated in January 2018 to provide students with more direct service to Madera Community College Center.
- Simpli, a Dial-A-Ride dispatching program, was initiated for improved efficiencies.

- The design and construction plans for development of a new transit and maintenance facility were completed representing the initial phase of a 20-acre joint public works facility project.
- The MAX and Dial-A-Ride fleet was expanded, and older buses replaced.
- New bus shelters were installed throughout the City consistent with on-going phased efforts to improve bus stops.
- Planning was initiated for potential relocation and design of the MAX stop at the Walmart shopping center.
- A new system-wide fare structure was proposed for initiation in FY 2018/19.
- Efforts to update system-wide branding, market collateral and expand public outreach efforts have been initiated with programming of FTA grant funds.

✓ *Madera County*

- Service to Children's Hospital of Central California was enhanced with additional mid-day hours based on increasing demand and a high number of inter-county transfers.
- Service to the City of Chowchilla was enhanced with additional morning hours.
- A new MCC logo was created for branding of buses and collateral materials.
- A new website was developed for easier, user-friendly access to MCC information, real-time bus locations, and links to other key transportation sites in the region.
- The County's Bus Shelter Improvement Plan was updated, and FTA funding secured for new bus shelters and amenities.
- A new on-line smart phone application, Swiftly, was created providing on-demand bus schedules and real-time bus travel.
- New bus shelters were installed on MCC routes.
- The Transit Bus Facility located at the County Road Yard was fully enclosed and accommodates up to four buses.
- New MCC buses were purchased and deployed with new branding.
- Improvements to the Senior Bus and Escort Program services include increasing daily trips and replacing a van.
- The Escort Program was expanded in August 2017 to serve the community of Raymond.

✓ *City of Chowchilla*

- Transition of CATX services from a third-party contractor to in-house operations was initiated in FY 2017/18.
- CatLinX service to the City of Merced was discontinued for greater cost efficiencies.
- CATX operations and monitoring were enhanced with the installation of new dispatch software.

✓ *Other Accomplishments*

- [Short-Range County-Wide Transportation Needs](#) – MCTC updated the Madera County Short-Range Transit Development Plan (SRTDP) in 2017 through a cooperative process with member agencies. The SRTDP describes existing public transit services and identifies short-range or five-

year issues and concerns; operational and capital strategies and approaches, and proposed funding opportunities. SRTDP recommendations will help guide County transit operators in a common vision to improve and coordinate their services.

- **Unmet Transit Needs within Madera County** – Public comments were received during the MCTC’s annual Unmet Transit Needs process promoting greater understanding of the County’s public transit strengths and weaknesses. Transit improvements were initiated in response to unmet transit needs comments, including service expansions and operational improvements.
- **Yosemite Area Rapid Transit Service (YARTS) Bus Service from Fresno-Madera to Yosemite National Park** – YARTS services to Yosemite has established itself as a reliable accessible inter-county transportation alternative. Coordination between YARTS and MCTC agencies has been on-going to maximize routing connections and bus stop sites where feasible with existing Madera County transit services.
- **Transit Forum** - MCTC initiated a Transit Forum that provides an opportunity for County transit operators and YARTS and social service agencies’ representatives to meet on a regular basis to discuss key transit topics and issues. This forum allows for exchange of information between agencies that promotes collaboration and increased understanding of service coordination opportunities.
- **Passenger Rail** – The California High-Speed Rail (CHSR) Authority’s Draft 2018 Business Plan projects that construction of high-speed rail from San Francisco to Los Angeles via the San Joaquin Valley will cost \$77.3 billion with initiation in 2033. The HSR Business Plan has indicated the connection between the California High-Speed train and the National Amtrak system will be in Madera at the Madera Amtrak station location. Funding has been identified through a Transit and Intercity Rail Capitol Program to assist in the creation of a new Madera Amtrak station best suited to accommodate this high-level passenger rail connection. In addition to construction jobs, the HSR is expected to have far-reaching positive transportation, geographic and economic benefits that ripple throughout the San Joaquin Valley. MCTC and its member agencies monitor and participate in California High-Speed Rail Authority meetings to ensure coordination and provide Madera County perspectives on key issues to maximize economic development opportunities and future regional transit infrastructure and services to promote increased connectivity.

### *Mass Transportation Intelligent Transportation Systems (ITS) Opportunities*

Integration of ITS technologies in Madera County transit services is expected to advance and evolve rapidly over the next 25 years. Transit ITS encompasses techniques and methods for improving



productivity of transit services and passenger safety and supplements or enhances services through diverse means including information processing, communications technologies, advanced control strategies, and electronics. ITS generally is most effective with systematic integration of information that can be shared seamlessly and with interoperable systems.

ITS comprises different technology-based systems that fall into two categories.

✓ Key intelligent infrastructure systems include:

- Transit management
- Emergency management
- Electronic payment and pricing
- Traveler information
- Information management
- Intelligent vehicle systems

✓ Key intelligent vehicle systems include:

- Collision avoidance systems
- Driver assistance systems
- Collision notification systems
- Self-driving vehicles

More than ever, information and communications technology is increasing the public's expectations for quality transportation services and a comfortable, seamless experience. Anticipating and responding to rider needs and expectations is paramount to retain riders and maintain relevance in an increasingly tech-driven environment. The Federal Transit Administration (FTA) and Caltrans, both major sources of transit funding, fully support innovative applications of ITS technologies in multi-faceted areas of transit. Consistent with U.S. Department of Transportation (USDOT) and FTA goals, Madera County supports the following key ITS goals:

- ✓ *Safety*: Enhance public health and safety by eliminating transportation-related deaths and injuries.
- ✓ *Mobility*: Provide public transportation that transports riders quickly, reliably and comfortably to their destinations.
- ✓ *Efficiency*: Offer efficient transit service through productive use of transit resources.
- ✓ *Economic Growth and Trade*: Facilitate services that enable economic growth and development.
- ✓ *Environmental Stewardship*: Promote transit services that enhance communities and protect natural and man-made environments.
- ✓ *Security*: Provide safe, secure services that are prepared for and respond to emergencies and natural disasters.
- ✓ *Organizational Excellence*: Ensure effective implementation, management, and oversight of ITS projects through quality staff and processes.

Madera County transit operators must be responsive to growing challenges as transit helps propel and shape the future of the County. These challenges include the ability to respond to the rapid pace of technological advances and the increase in transit alternatives, including the growth of transportation network companies such as Uber and Lyft, the migration of transit users to outlying areas with less transit service, fluctuations in fuel prices, and rising vehicle ownership.

Transit ITS improvements to be considered include:

- ✓ Electronic fare media and payment systems
- ✓ Automated dispatching
- ✓ On-line demand-response scheduling
- ✓ Real-time schedules via global positioning systems
- ✓ Electronic signage
- ✓ Automatic passenger counters
- ✓ Automatic voice annunciators
- ✓ Collision-avoidance systems
- ✓ Driver-assistance systems
- ✓ Advanced design elements (i.e., including those that help address challenges of persons of all ages and abilities, such as sensors and location beacons)
- ✓ Other interoperable systems improvements consistent with DOT and FTA

Longer-range ITS technologies will likely include self-driving vehicles once support infrastructure and safety are established and with widespread public acceptance.

## *Mass Transportation Needs and Actions*

### *Operational and Infrastructure Needs*

An on-going challenge for public transit operators is maintaining current levels of service while addressing future operational and infrastructure needs and requirements. Identifying these needs and developing attractive services and infrastructure will require reliable analysis of demand and public input to ensure broad community acceptance.

The California Air Resources Board (CARB) long-term goal to attain a zero-emission transit fleet in California to help meet health-based air quality standards and to reduce greenhouse gas will place additional challenges on transit operations. The current CARB draft Innovative Clean Transit Regulation Document released in December 2017 calls for 25 percent of bus purchases to be zero emissions starting in 2020. Vehicles with electric batteries and fuel-cell batteries are being tested at many agencies along with infrastructure and maintenance. Madera County Transit operators will need to monitor CARB requirements to determine applicability and to allow sufficient lead time to undertake

appropriate action. CARB recognizes to date that there is no zero-emission cutaway and that it is unclear when one that qualifies will become available.

Operational, fleet, and other capital needs should be formalized through thoughtful short-term and long-term capital improvement planning, budgeting, and programming. Predictable multi-year transit funding will be critical to not only help comply with regulatory requirements but to ensure that investment in public transit is well managed to help boost the County's local economy and movement of people.

### New Challenges and Opportunities

Today public transit operators nationwide face many diverse operational, economic, technological and innovative competitive challenges. These include declining transit service levels and quality, rising fares, lower fuel prices, rising vehicle ownership, and the popularity of transportation network companies or ride-hailing services such as Uber and Lyft. Transit investments therefore must be prudently planned and directed to meet these multi-faceted challenges in providing attractive and responsive transit services. Public transit in Madera County will continue to play an important role in the mobility of those who are dependent on transit as a lifeline service and increasingly for those residents seeking reliable, convenient, and cost-effective transportation options. As demand for more alternative transportation options grows, public and private-sector transportation services and institutions in the County will have unique opportunities to offer creative and collaborative services. Transit operators will need to continue to integrate effective technologies in public outreach and marketing and scheduling. Examples include the use of smartphone applications, user-friendly websites, and electronic information signage on buses and at key locations.

In 2015, MCTC approved the *Coordinated Public Transit Human Services Transportation Plan*, which was prepared to identify and refine existing implementable strategies that increase mobility for individuals with disabilities, older adults, and people with low incomes through public and stakeholder input for the period of 2015 to 2020. The strategies were developed in coordination with the public transit operator's private transportation providers, non-profit transportation providers and tribal transportation providers.

### Innovative and Responsive Services

Madera County transit systems are expected to evolve in response to projected growth, including demographic changes and the location and type of regional developments. Transit services must be able to adapt and structure services in response to demand for specific types of rider mobility—i.e., for commuters, students, seniors and disabled. This demand can be assessed based on a variety of factors, including age and income characteristics, accessibility, origins and destinations, trip lengths, availability of alternative forms of transportation, prevailing technologies, and design and condition of the County road network. Opportunities should be identified to improve coordination between public transit and private-sector operators and social service transportation agencies to avoid duplication of services. A

better understanding of service duplication, service gaps, and key origins and destinations allows for development of more cost-effective service solutions.

More targeted, destination-driven or express services and inter-community and inter-county services should be considered where warranted. For example, affordable express service from Madera to educational institutions and vocational centers such as Madera Community College Center, Fresno State University, and Madera County Workforce Assistance Center could attract new users and expand the use of public transit. This concept would be particularly attractive with potential subsidies and/or free usage or reduced transit fares. Managing the first- and last-mile of a transit trip has long been a challenge for transit patrons. Some agencies are partnering with ride-hailing Uber and Lyft type services to help serve riders with access to transit stops. Agencies also are promoting innovative multi-modal approaches, including bike sharing and are adopting smartphone technology offering mobile ticketing and real-time rider information and trip scheduling.

### **Stable Funding Sources**

Meeting growing operational needs, fleet replacement and expansion, infrastructure needs and evolving technological advances will require stable funding sources. Funding historically has been readily available for bus purchases and other non-vehicle projects but not to operate or maintain them. Transit operators must not only budget and control costs wisely but must be vigilant and creative in seeking new funding while focusing on attracting and maintaining ridership with reasonable fares. Strategies to leverage and maximize funding will be imperative in developing quality services that attract loyal ridership.

### **Projected Operating and Capital Costs**

Projected transit services and capital improvements in Madera County over the 24-year timeframe of the RTP/SCS Plan will be diverse. They will include maintenance of the current level of operations and potential enhanced services and capital projects. Capital projects will encompass fleet replacements and expansion; bus stop improvements; development of new facilities; renovation of older facilities; and intelligent transportation systems enhancements, such as computerized dispatching, electronic fareboxes and/or updated fare media technology; wi-fi service; automatic passenger counters; automated bus stop announcements; etc.

Table 5-6 reflects a total of \$236.1 million in 2042. Of this total, \$70.6 million or 30 percent of transit expenditures is projected for transit enhancements above and beyond current operating and fleet costs projected through 2042. These cost projections assume implementation of the “Moderate Scenario,” continuation at a minimum of current levels of transit services for all systems in the County, and initiation of enhanced transit service to be implemented based on demand. Projected short-term and long-term capital improvements are summarized below. Operating costs are assumed to increase three percent annually and include enhanced services at projected intervals.

**TABLE 5-6**  
**2018 RTP/SCS Candidate Transit Projects**

Agency/System	Funding Year	Projected		Total
		Operating	Capital	
City of Madera	2018	\$ 1,632,769		\$ 1,632,769
	2018		\$ 2,204,434	\$ 2,204,434
	2019	\$ 1,655,689		\$ 1,655,689
	2019		\$ 4,882,374	\$ 4,882,374
	2020	\$ 2,260,032		\$ 2,260,032
	2020		\$ 1,194,338	\$ 1,194,338
	2021	\$ 2,372,426		\$ 2,372,426
	2021		\$ 396,633	\$ 396,633
	2022	\$ 2,491,924		\$ 2,491,924
	2022		\$ 237,218	\$ 237,218
	2023	\$ 2,566,681		\$ 2,566,681
	2023		\$ 1,975,907	\$ 1,975,907
	2024	\$ 2,643,682		\$ 2,643,682
	2024		\$ 1,329,628	\$ 1,329,628
	2025	\$ 3,412,500		\$ 3,412,500
	2025		\$ 580,503	\$ 580,503
	2026	\$ 3,514,875		\$ 3,514,875
	2026		\$ 448,214	\$ 448,214
	2027	\$ 3,620,321		\$ 3,620,321
	2027		\$ 263,408	\$ 263,408
	2028	\$ 3,728,931		\$ 3,728,931
	2028		\$ 2,290,617	\$ 2,290,617
	2029	\$ 3,840,799		\$ 3,840,799
	2029		\$ 1,541,403	\$ 1,541,403
	2030	\$ 4,695,651		\$ 4,695,651
	2030		\$ 672,963	\$ 672,963
	2031	\$ 4,836,521		\$ 4,836,521
	2031		\$ 519,602	\$ 519,602
	2032	\$ 4,981,617		\$ 4,981,617
	2032		\$ 305,362	\$ 305,362
	2033	\$ 5,131,065		\$ 5,131,065
	2033		\$ 2,655,453	\$ 2,655,453
	2034	\$ 5,284,997		\$ 5,284,997
	2034		\$ 1,786,909	\$ 1,786,909
	2035	\$ 6,300,979		\$ 6,300,979
	2035		\$ 774,459	\$ 774,459
	2036	\$ 6,490,008		\$ 6,490,008
	2036		\$ 602,362	\$ 602,362
	2037	\$ 6,684,709		\$ 6,684,709
	2037		\$ 353,998	\$ 353,998
	2038	\$ 6,885,250		\$ 6,885,250
	2038		\$ 3,078,398	\$ 3,078,398
	2039	\$ 7,091,807		\$ 7,091,807
	2039		\$ 2,071,517	\$ 2,071,517
	2040	\$ 7,162,220		\$ 7,162,220
	2040		\$ 904,405	\$ 904,405
	2041	\$ 7,523,698		\$ 7,523,698
	2041		\$ 398,428	\$ 398,428
	2042	\$ 7,749,409		\$ 7,749,409
	2042		\$ 410,381	\$ 410,381
<b>Subtotal: City of Madera</b>		<b>\$ 114,558,560</b>	<b>\$ 31,878,914</b>	<b>\$ 146,437,474</b>

TABLE 5-6 (Cont.)  
2018 RTP/SCS Candidate Transit Projects

Agency/System	Funding Year	Projected		Total
		Operating	Capital	
Madera County	2018	\$ 1,226,848		\$ 1,226,848
	2018		\$ 1,898,736	\$ 1,898,736
	2019	\$ 1,263,653		\$ 1,263,653
	2019		\$ 128,000	\$ 128,000
	2020	\$ 1,301,563		\$ 1,301,563
	2020		\$ 1,914,814	\$ 1,914,814
	2021	\$ 1,648,258		\$ 1,648,258
	2021		\$ 353,350	\$ 353,350
	2022	\$ 1,697,706		\$ 1,697,706
	2022		\$ 239,814	\$ 239,814
	2023	\$ 1,748,637		\$ 1,748,637
	2023		\$ 471,023	\$ 471,023
	2024	\$ 1,801,096		\$ 1,801,096
	2024		\$ 311,084	\$ 311,084
	2025	\$ 1,855,129		\$ 1,855,129
	2025		\$ 436,034	\$ 436,034
	2026	\$ 1,910,783		\$ 1,910,783
	2026		\$ 299,410	\$ 299,410
	2027	\$ 1,968,106		\$ 1,968,106
	2027		\$ -	\$ -
	2028	\$ 2,027,149		\$ 2,027,149
	2028		\$ 894,459	\$ 894,459
	2029	\$ 2,087,964		\$ 2,087,964
	2029		\$ -	\$ -
	2030	\$ 2,150,603		\$ 2,150,603
	2030		\$ 505,483	\$ 505,483
	2031	\$ 2,215,121		\$ 2,215,121
	2031		\$ 347,098	\$ 347,098
	2032	\$ 2,281,574		\$ 2,281,574
	2032		\$ 390,223	\$ 390,223
	2033	\$ 2,788,654		\$ 2,788,654
	2033		\$ 1,001,252	\$ 1,001,252
	2034	\$ 2,872,314		\$ 2,872,314
	2034		\$ -	\$ -
	2035	\$ 2,958,483		\$ 2,958,483
	2035		\$ 585,993	\$ 585,993
	2036	\$ 3,047,238		\$ 3,047,238
	2036		\$ 839,432	\$ 839,432
	2037	\$ 3,138,655		\$ 3,138,655
	2037		\$ -	\$ -
	2038	\$ 3,232,814		\$ 3,232,814
	2038		\$ 1,160,725	\$ 1,160,725
	2039	\$ 3,329,799		\$ 3,329,799
	2039		\$ -	\$ -
	2040	\$ 3,429,693		\$ 3,429,693
	2040		\$ 1,168,823	\$ 1,168,823
	2041	\$ 3,306,476		\$ 3,306,476
	2041		\$ -	\$ -
	2042	\$ 3,405,670		\$ 3,405,670
	2042			\$ -
<b>Subtotal: Madera County</b>		<b>\$ 58,693,986</b>	<b>\$ 12,945,753</b>	<b>\$ 71,639,739</b>



TABLE 5-6 (Cont.)  
2018 RTP/SCS Candidate Transit Projects

Agency/System	Funding Year	Projected		Total
		Operating	Capital	
City of Chowchilla/CATX	2018	\$ 408,749		\$ 408,749
	2018		\$ 441,677	\$ 441,677
	2019	\$ 421,011		\$ 421,011
	2019		\$ 121,724	\$ 121,724
	2020	\$ 433,642		\$ 433,642
	2020		\$ 125,375	\$ 125,375
	2021	\$ 446,651		\$ 446,651
	2021		\$ -	\$ -
	2022	\$ 460,051		\$ 460,051
	2022		\$ -	\$ -
	2023	\$ 473,852		\$ 473,852
	2023		\$ 137,001	\$ 137,001
	2024	\$ 488,068		\$ 488,068
	2024		\$ 188,989	\$ 188,989
	2025	\$ 502,710		\$ 502,710
	2025		\$ 145,345	\$ 145,345
	2026	\$ 517,791		\$ 517,791
	2026		\$ -	\$ -
	2027	\$ 533,325		\$ 533,325
	2027		\$ -	\$ -
	2028	\$ 549,324		\$ 549,324
	2028		\$ 217,048	\$ 217,048
	2029	\$ 565,804		\$ 565,804
	2029		\$ 163,587	\$ 163,587
	2030	\$ 582,778		\$ 582,778
	2030		\$ 168,494	\$ 168,494
	2031	\$ 600,262		\$ 600,262
	2031		\$ -	\$ -
	2032	\$ 618,270		\$ 618,270
	2032		\$ 65,214	\$ 65,214
	2033	\$ 636,818		\$ 636,818
	2033		\$ 184,118	\$ 184,118
	2034	\$ 655,922		\$ 655,922
	2034		\$ 189,642	\$ 865,242
	2035	\$ 675,600		\$ 695,868
	2035		\$ 195,331	\$ 195,331
	2036	\$ 695,868		\$ 716,744
	2036		\$ 73,039	\$ 73,039
	2037	\$ 716,744		\$ 738,246
	2037		\$ -	\$ -
	2038	\$ 738,246		\$ 760,394
	2038		\$ 219,847	\$ 219,847
	2039	\$ 760,394		\$ 760,394
	2039		\$ 219,847	\$ 219,847
	2040	\$ 783,205		\$ 783,205
	2040		\$ 308,246	\$ 308,246
	2041	\$ 806,702		\$ 806,702
	2041		\$ -	\$ -
	2042	\$ 830,903		\$ 830,903
	2042		\$ -	\$ -
<b>Subtotal: City of Chowchilla</b>		<b>\$ 14,902,690</b>	<b>\$ 3,164,524</b>	<b>\$ 18,067,214</b>
<b>GRAND TOTAL</b>		<b>\$ 188,155,236</b>	<b>\$ 47,989,191</b>	<b>\$ 236,144,427</b>

- ✓ *City of Madera* – The cost of transit services and capital improvements in the City of Madera from FY 2017-18 through FY 2041-42 are projected at \$146.4 million. MAX and Dial-A-Ride transit enhancements during this period total \$53.6 million. Projects include:
  - Development of a new Transit Operations and Maintenance Facility and other improvement phases
  - Intermodal renovations
  - Fleet replacement and expansion
  - Bus shelters and amenities
  - Bus stop and station lighting and security
  - Installation of schedule kiosks and signage
  - ITS improvements (i.e., smart cards/electronic fareboxes; GPS system; refined Google Transit information; on-line real-time transit data; wi-fi service; signal synchronization; etc.)
  
- ✓ *Madera County* - A total of \$71.6 million in transit services and improvements is projected for Madera County. This cost includes on-going operating and capital replacements for MCC, the Senior Bus, and Escort Program and transit enhancements totaling \$17.0 million, including:
  - Development of a new Transit Operations and Maintenance Facility; other improvement phases
  - Fleet replacement and expansion
  - Bus shelters and amenities
  - Bus stop lighting and station lighting and security
  - Installation of schedule kiosks and signage
  - ITS improvements (i.e., smart cards/electronic fareboxes; GPS system; refined Google Transit information; on-line real-time transit data; wi-fi service; signal synchronization; etc.)
  
- ✓ *City of Chowchilla* - A total of \$18.1 million is projected for public transit services in the City of Chowchilla. These costs reflect on-going operating and capital replacement costs for CATX, including:
  - Fleet replacement and expansion
  - Bus shelters and amenities
  - Bus stop lighting and security
  - Upgraded on-board technology
  - Transit facility construction/renovations
  - ITS improvements
  
- ✓ *Intercity Commuter Rail* – A total of \$123.6 million is projected for commuter rail service improvements in Madera County between 2020 and 2028. The San Joaquin Joint Powers Authority (SJJPA) have initiated a project to relocate the Amtrak Station in Madera County. The new station would accommodate passengers of the current San Joaquins Amtrak system and future state High Speed Train system. The Project site is located a mile north of Avenue 12 in Madera County, between the BNSF Railroad tracks to the east and the California High Speed Rail (HSR) Project Corridor (under construction) to the west. Environmental work on the project begins in 2020.

The Project would be constructed and operated in two phases. In the “Project Interim Build” phase, project elements related to the relocation of the San Joaquins Madera Station, currently located in the Madera Acres area, would be constructed at a new station near Avenue 12 along the BNSF railroad corridor. Once complete, the San Joaquins Rail Service would utilize this new station. The existing San Joaquins Madera Station would no longer be used for San Joaquins operations.

The “Project Full Build” phase of the Project includes the construction of HSR station facilities to allow for future HSR service, related Merced-Bakersfield HSR Interim Operating Segment of the California High-Speed Rail Authority (CHSRA) Project, to access and serve the new Madera Station. Once HSR service is operating between Merced and Bakersfield (with intermediate stops at Madera, Fresno, and Kings/Tulare), Merced is expected to be the San Joaquins southern terminus where the San Joaquins will directly connect to HSR. SJJPA expects to operate the interim HSR service on CHSRA’s infrastructure between Merced and Bakersfield, leasing slots from the CHSRA.

The Project funding source is Transit and Intercity Rail Capital Program Cap and Trade funds. Table 5-6A depicts a total cost of \$123.6 million applied towards Commuter Rail Projects.

**TABLE 5-6A**  
**2018 RTP/SCS Commuter Rail Projects**

Agency	Project		Total Cost	Opening Year	Funding Source
San Joaquin Joint Powers Authority	Madera Station Relocation	Phase 1	\$ 26,588,000	2023	TIRCP Grant
		Phase 2	\$ 96,981,000	2028	
Subtotal			\$ 123,569,000		

- ✓ *Other Future Transit Improvements* – Current federal, State, and local funding sources are assumed to continue at their current level inflated annually by a minimum of three percent through 2042. New or additional funding sources would allow for more enhanced services and operational and capital improvements. For example, County transit operators could pursue the use of competitive federal Congestion Mitigation and Air Quality (CMAQ) funds, new State and local proposition funds dedicated to transit and/or transportation, new Federal Transit Administration programs, and

potential future funds earmarked for public transit to further advance their services through 2042. A wide range of future improvements may be considered, including:

- **Operations Improvements**

- Increased days and hours of operation
- Increased number of routes
- Improved headways/bus frequencies
- Expanded service area
- Accessible real-time internet schedule information
- Express bus service
- Commuter service
- Feeder service
- Partnerships with transportation network companies (i.e., Uber, Lyft)
- Partnerships with CalVans
- Bus rapid transit (BRT)

- **Capital Improvements**

- Larger vehicles
- Alternative-fuel/zero emission vehicles
- Electric vehicle infrastructure
- Electronic signage
- Bus shelters and amenities
- Upgraded on-board technology
- Improved scheduling/dispatching technology
- Automated passenger counters
- Automatic voice annunciators

### Unmet Transit Needs

Long-term commitments to transit services and allocated funding will evolve through the planning development process. Given the shortfall in funds for all transportation improvements identified in the RTP/SCS, local government bodies must continue to prioritize projects based on valid criteria, combined with major community input and collaboration. The Unmet Transit Needs process took place during the development of the 2018 RTP/SCS. Because of this, steps were taken to incorporate public participation in the unmet needs process during the second series of RTP/SCS workshops. Staff presented to workshop attendees the importance of the annual unmet needs analysis and how it ties into the RTP/SCS. Transit investments need to be carefully planned to meet the unique challenges in providing responsive and attractive transit services. These challenges include rising fares, lower fuel prices, rising vehicle ownership, and the popularity of Uber and Lyft. Future operational and infrastructure needs are continually addressed and to identify these needs, public input and analyses are required to ensure broad community acceptance.

Part of the unmet needs process is to notify the public about the hearing and workshops through mailers, fliers, and traditional media and social media. The mailing list consists of many different individuals and organizations including private and public sector representatives, social service agency

Increased air service demand will continue to occur in Madera County. This projected demand will increase the need for airport improvements. A number of these improvements are identified in the RTP including land acquisition for future improvements, runway and taxiway renovations and extensions, etc. These

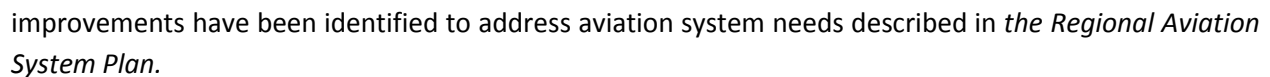


Table 5-7 provides a list of the planned improvement projects identified from each of the cities' Airport Master Plans. Other future activities, studies, and improvements are also listed below.

- ✓ Continue to seek funding of airport projects.
- ✓ Maintain and improve existing airport facilities. Review and revise the Airport Master Plans.
- ✓ Provide for the interface of airport systems planning with other transportation networks to ensure a balanced, multi-modal system.
- ✓ Support development of the City of Madera and City of Chowchilla airports per actions outlined in their respective Master Plans.
- ✓ Support land use policies and special projects aimed at mitigating structural, noise and other environmental limitations associated with the Region's airports.
- ✓ Pursue sophisticated approach and landing systems for the Madera Municipal Airport.
- ✓ Support expansion of capital improvement funds and sources for rural airports.
- ✓ Both the City of Madera and the City of Chowchilla are taking action to avoid noise conflicts concerning their respective airports.
- ✓ Local airport managers in Madera County consider the current regulations adequate for ensuring a safe aviation environment. The Caltrans Division of Aeronautics inspects all public airports in the Madera Region on a yearly basis.

**TABLE 5-7**  
**Airport Master Plan Improvement Projects**  
*City of Madera*

Eligible Improvements		Cost/Program Year
1	Engineering Design - Projects No. 2 & 4	\$120,000/ 2018
2	Reconstruct General Aviation Apron - Phase II (58,000 sq. ft.)	\$820,000 / 2018
3	Engineering Design - Projects No. 2 & 4	\$75,000 / 2018
4	Runway, Taxiway, & Apron Crack Seal	\$ 657,000 / 2019
5	Tee Hangar Development - Phase I: Collector Taxiway (35' x 405'); Tee Hangar Taxiway (25' x 1,935')	\$682,000 / 2019
6	Engineering Design - Projects No. 7	\$65,000 / 2019
7	Tee Hangar Development - Phase II: Collector Taxiway (35' x 360'); Tee Hangar Taxiway (25' x 980')	\$520,000 / 2020
8	Engineering Design - Projects No. 9	\$136,000 / 2021
9	Extend Hangar Development Area - Phase III (201,000 sq. ft.)	\$1,537,500 / 2022
10	Engineering Design - Projects No. 11	\$122,000 / 2022
11	Reconstruct General Aviation Apron - Phase III (127,300 sq. ft.)	\$1,355,000 / 2023
12	Engineering Design - Projects No. 16 & 17	\$620,000 / 2024
13	Pavement Maintenance/Management Program Update	\$65,000 / 2024
14	Airport Layout Plan Narrative Including ALP Updated Plans	\$100,000 / 2024
15	Environmental Assessment (EA) - Projects 17, 21, and 23	\$310,000 / 2024
16	Runway 12-30 Rehabilitation	\$ 5,924,000 / 2025
17	Extend Runway 12-30 - 150' x 856', Extend Taxiway P (50' x 1,210')	\$2,876,000 / 2026
18	Engineering Design - Projects No. 19, 20, 21, 22 & 24	\$650,000 / 2026
19	Reconstruct General Aviation Apron - Phase IV (183,160 sq. ft.)	\$ 1,164,000 / 2027
20	Taxiways P, A, B, C, D, & E Rehabilitation	\$ 2,500,500 / 2028
21	Reconstruct General Aviation Apron - Phase V (106,750 sq. ft.)	\$1,101,000 / 2028
22	West Corporate Area Development Access Road (6,900' x 36')	\$2,261,000 / 2029
23	Pavement Maintenance/Management Program Update	\$90,000 / 2029
24	West Hangar Area Development Access Road (4,500' x 36')	\$1,440,000 / 2030

**MADERA TOTAL:****\$25,191,000**



TABLE 5-7 (Cont.)  
 Airport Master Plan Improvement Projects  
 City of Chowchilla

City of Chowchilla

Eligible Improvements	Cost/Program Year
ALP Narrative	\$160,000 / 2016-2017
Airfield electrical upgrades including Runway 30 Precision Approach Path Indicator, beacon, runway lighting upgrades, guidance signs.	\$250,000 / 2017-2018
Runway pavement rehabilitation: localized remove and reconstruct, slurry seal and pavement markings (design only).	\$75,000 / 2018-2019
No project this year	\$0.00 / 2019-2020
Runway pavement rehabilitation: localized remove and reconstruct, slurry seal and pavement markings.	\$500,000 / 2020-2021
Above ground fuel facility: Av-Gas (aviation gas) and Jet-A (jet fuel)	\$450,000 / 2021-2022
CHOWCHILLA TOTAL:	
	\$1,435,000

### *Airport Land Use Commission*

The purpose of an Airport Land Use Commission (ALUC) is to provide for the orderly development of public airports and to ensure compatible land uses in the vicinity of airports. The ALUC consists of seven (7) members, representing each of the Cities, County and Airports within the County. The Madera County ALUC meets on an as needed basis, generally to review the airport master plans, general plans developed by the cities and proposed land use changes within two miles of the airports.

To ensure compatible land uses in Madera County, the Madera County ALUC has developed the *Madera County Comprehensive Airport Land Use Plan*. This plan consists of:

- ✓ Policies which guide height restriction, safety, noise, and other land use considerations.
- ✓ Individual airport compatibility maps.
- ✓ Plan implementation procedures.
- ✓ Other information.

### *Forecasts*

Based on the forecasts for airport operations, none of the airports in the County will exceed operation capacity over the next 24 years.

## Active Transportation/Non-Motorized Systems

MCTC recognizes that increased bicycling, walking and equestrian activities can reduce traffic congestion, air and noise pollution and fuel consumption. As a result, these modes effectively contribute to the quality of life in the region. Bicycle travel has emerged as an increasingly popular form of recreation in the region. Commuting to work has also increased in the urbanized areas of Madera County. Bicycles are essentially pollution-free, use no fossil fuels, are quiet, and take up very little space either in



operation or in storage. Bicycling is of interest to the individual because it promotes health, is enjoyable and inexpensive, and, in the congested areas of the County, bicycling can be the fastest way of getting to work or to any destination, especially during the peak periods.

These same advantages can be said for those who travel by walking. Bicycle and pedestrian mode disadvantages include almost no protection in case of collision, limited carrying capacity, increased travel time for longer trips, and direct exposure to inclement weather, especially during fog in the winter and high temperatures in the summer months.

It is particularly important to improve bicycle and pedestrian access to intermodal facilities (rail stations and transit centers). Using non-motorized forms of transportation reduce engine cold starts and short vehicle trips, which contribute significantly to air pollution. The provision of new or improved access to such facilities could be made by bicycle or pedestrian modes and replace short automobile trips. To increase the bicycle mode share, in particular, significant publicity and marketing efforts are necessary, as well as a new approach by transportation agencies to planning facilities for both bicyclists and pedestrians. This approach increases attention to these modes and focuses on intermodal connections.

### Active Transportation/Non-Motorized System Accomplishments

#### City of Madera

- ✓ Fresno River Trail Schnoor Undercrossing, south bank
- ✓ Fresno River Trail, Westberry to Road 24

### County of Madera

- ✓ Cesar Chavez Pedestrian Path
- ✓ Desmond/Nishimoto Path and Sidewalk
- ✓ Road 426 Sidewalk

### Active Transportation/Non-Motorized System Needs and Actions

The Cities of Chowchilla and Madera and Madera County have prepared bicycle plans. Those plans were considered as MCTC prepared its 2018 Madera Active Transportation Plan (ATP). Figures 5-7 through 5-9 in Chapter 5 identify the planned routes for bike lanes and paths as designated in the ATP. The ATP stresses the importance of making the road system compatible for bicycle and pedestrian transportation.

The ATP addresses the needs of commuting, school, and recreational cyclists throughout the County, identifies safe and convenient routes to key locations throughout the County, and suggests needed improvements and additions to the bikeway routes and facilities. In coordination with its member agencies, MCTC staff will focus on the implementation program of the Plan.

In addition, the State of California has been working to improve and promote on-street bicycle commuting to urban cores and to support safe bicycle access to transit and passenger rail modes and to schools. It recently published its first ever statewide plan for active modes of transportation – *Toward an Active California, State Bicycle and Pedestrian Plan*, in May 2017. Caltrans has set ambitious targets to double walking, triple bicycling, and double transit use in the State between 2010 and 2020. *Toward an Active California* is considered supplemental to the region's ATP.

Although it is difficult to prioritize proposed bikeway and pedestrian projects countywide due to funding fluctuations, coordination with larger street improvement projects and relative private development schedule changes would be appropriate. The ATP proposes a regional bikeway network to connect urban areas and communities in Madera County with adjoining County systems in Fresno, Merced and Mariposa County.

The focus of the internal network in Madera County includes the City of Madera, City of Chowchilla, the urban unincorporated communities of Madera and Bonnadelle Ranchos, and the foothill/mountain community of Oakhurst. The ATP will serve as the basis for future investment in bicycle and pedestrian infrastructure. The Plan identifies development priorities, funding sources, and grant opportunities.

## City of Madera Proposed Bike Facilities – Madera Active Transportation Plan



FIGURE 5-8

City of Chowchilla Proposed Bike Facilities – Madera Active Transportation Plan

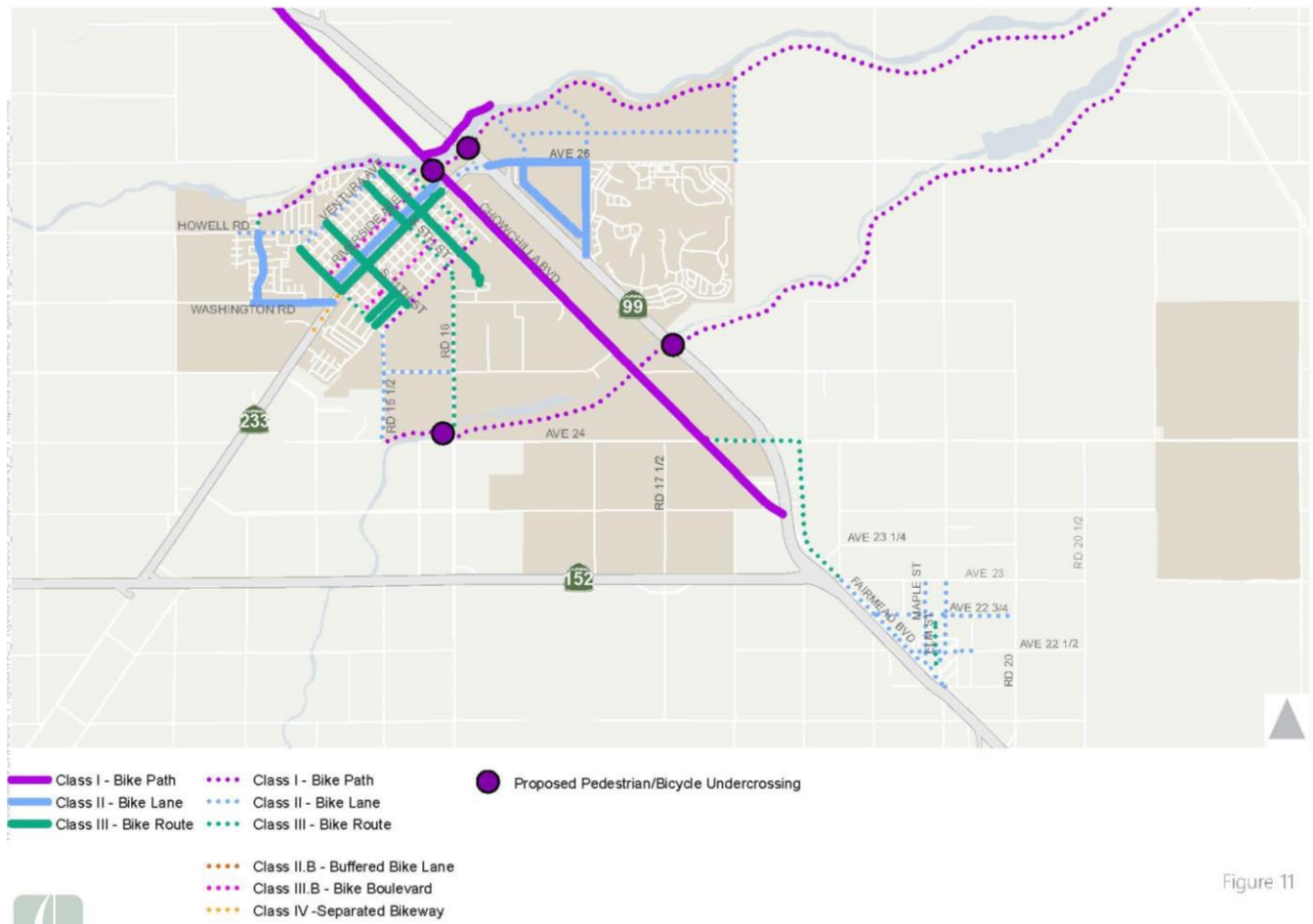
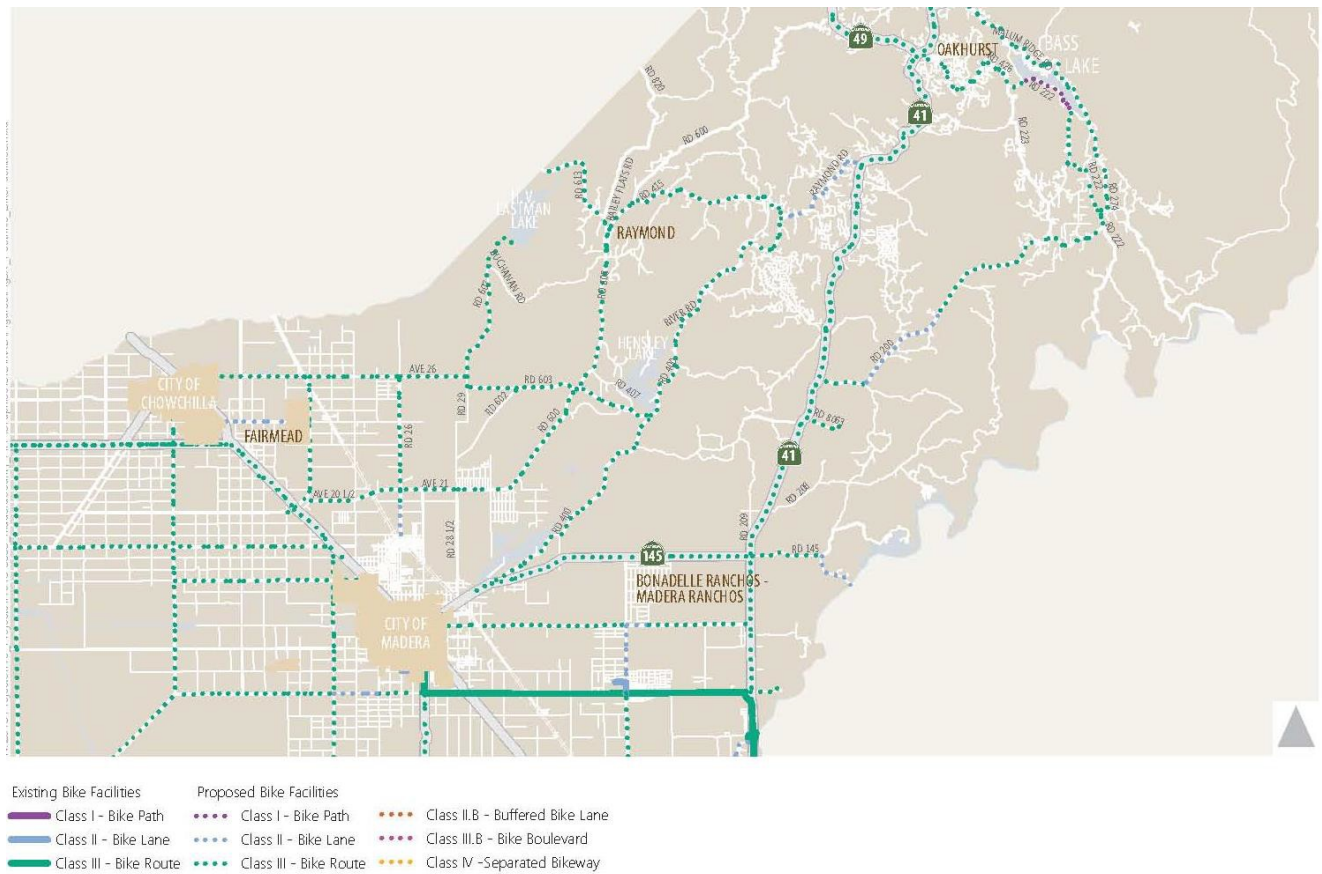


Figure 11



FIGURE 5-9

Madera County Proposed Bike Facilities – Madera Active Transportation Plan





Active transportation should continue to increase in popularity due to public awareness of health and environmental benefits. As noted in the ATP, projects will largely be carried out by local agencies since MCTC does not implement projects. This strategy includes recommended tasks that MCTC may monitor progress on as part of future funding criteria for ATP projects. Many of the implementation plan elements will be completed on an ongoing basis, and which should be initiated with demonstrated progress in the next five years. The ATP also identifies lead agency/partners, timeline, and relative cost for each action. While ATP provides a general road map of community priorities, in some cases lower priority projects may be implemented sooner as discrete opportunities arise, such as through repaving projects or development-related improvements.

### *Bicycle and Trail Improvements*

To enable the vision of active transportation linkages to activity centers within the region, the local agencies have requested approximately \$54.5 million for non-motorized projects in the 2018 RTP/SCS (reference Table 5-8), representing a 51% increase in funding for non-motorized improvement projects from the 2014 RTP. Regional decision makers should continue to promote the integration of active transportation modes into the transportation planning process; agencies should work together to continue implementation of the Fresno River Trail; and all responsible agencies should take steps to move beyond conceptual planning and development to implementation of plans and strategies. The following actions are recommended to facilitate the achievement of these goals:

- ✓ Determine the status of the existing active transportation system to achieve the desired vision, goals, objectives and update and implement the 2018 Madera ATP and existing Bikeway Plans, as appropriate.
- ✓ Implement recreational trails within the mountain communities that connect major activity centers and provide alternatives to driving between the communities.
- ✓ As part of the Madera ATP and local agency bike plan update process, identify and develop strategies to address institutional, transportation, funding, infrastructure and other barriers to the effective use of active transportation systems for commute purposes.
- ✓ Identify strategies to link active transportation funding programs to standards for transit programs.
- ✓ Fund the development and implementation of bicycle safety and education programs aimed at cyclists of all ages, potential bike commuters and motorists.
- ✓ Sponsor legislation and or ordinances to increase enforcement of bicycling and driving laws to provide a safer climate for bicycle use.
- ✓ Develop and implement bicycle incentive programs that recognize and reward employees for bicycle use similar to those that reward transit use.
- ✓ Assist local governments in the implementation of active transportation facilities consistent with the Madera ATP.
- ✓ Continue to allocate funds for nonmotorized projects promoting both bicycle and pedestrian facilities.

**TABLE 5-8**  
**Non-Motorized Transportation Improvement Projects**

Agency	Project #	Route	Project Limits	Project Description	Estimated Cost	Funding Year	Funding Source
<b>Chowchilla</b>							
CHOWCITY	1	Robertson Blvd	8th St to UP Rail Crossing	Streetscape	\$1,000,000	2025	CMAQ/LTF
CHOWCITY	2	Chowchilla Neighborhoods	Various	Pedestrian Facilities	\$2,000,000	2030	CMAQ/LTF
CHOWCITY	3	Ash Slough	North Chowchilla	Riverwalk	\$2,000,000	2025	CMAQ/LTF
CHOWCITY	4	City of Chowchilla	Near Wilson School	Pedestrian Facilities	\$471,000	2018	CMAQ/LTF
CHOWCITY	5	Monterey Ave	3rd to 13th Street	Construct Pedestrian Facilities	\$204,000	2020	CMAQ/LTF
CHOWCITY	6	School	Various	Construct Pedestrian Facilities	\$325,000	2020	CMAQ/LTF
<b>Subtotal:</b>					<b>\$6,000,000</b>		
<b>Madera</b>							
MADCITY	7	Tulare St, Cleveland, Raymond Rd	Fresno River to City Limits via Cleveland and Raymond	Class I, II Bicycle Facilities	\$311,000	2019	CMAQ/LTF
MADCITY	8	Fresno River Trail	Gateway & UPRR	Construct Bike/Ped Undercrossing	\$800,000	2018	CMAQ/LTF/ATP
MADCITY	9	Schnoor Ave	Between Sunset & Fresno River	Construct Pedestrian Facilities	\$150,000	2020	CMAQ/LTF/Measure T
MADCITY	10	Fresno River Trail	Behind Montecito Park & Granada	Construct Bike/Ped Facilities - Phase II	\$380,000	2021	CMAQ/LTF
MADCITY	11	Various	Around City Schools	Construct Pedestrian Facilities	\$266,000	2018	CMAQ/LTF
MADCITY	12	Various	Bounded by Gateway, Central, 3rd and E Street	Construct Pedestrian Facilities	\$315,000	2018	CMAQ/Measure T
MADCITY	13	Granada Bridge	Granada Bridge / Pedestrian Bridge	Construct Non Vehicular Bridge Across Fresno River	\$1,600,000	2022	ATP
MADCITY	14	Sunset Ave Sidewalk	Granada to Foster	Construct Pedestrian Facilities	\$345,100	2018	HSIP/LTF
<b>Subtotal:</b>					<b>\$4,167,100</b>		
<b>Madera County</b>							
MADCO	15	Road 225	Creek Dr to Road 228	Construct Pedestrian Facilities	\$197,000	2019	CMAQ/LTF
MADCO	16	Ave 12	Road 37 to Road 37.5	Construct Pedestrian Facilities	\$123,000	2018	CMAQ/LTF
MADCO	17	Various	Fairmead	Streetscape	\$3,000,000	2025	CMAQ/LTF/Local
MADCO	18	Various	North Fork	Streetscape	\$1,000,000	2025	CMAQ/LTF/Local
MADCO	19	Various	Oakhurst Mid-town Connector	Streetscape/Pedestrian/Bicycle Facilities	\$2,000,000	2025	CMAQ/LTF/Local
<b>Subtotal:</b>					<b>\$6,320,000</b>		
<b>MCTC</b>							
MCTC	20	Various		Class I, II, III Bicycle Facilities	\$6,720,000	2018-2027	CMAQ/Local
MCTC	21	Various		Class I, II, III Bicycle Facilities	\$31,250,000	2028-2042	CMAQ/Local
<b>Subtotal:</b>					<b>\$37,970,000</b>		
<b>TOTAL:</b>					<b>\$54,457,100</b>		

- ✓ Encourage local jurisdictions to consider adopting land use policies that promote active transportation and reduce dependence on the automobile for work, school, shopping, social and recreational purposes consistent with the Madera ATP. The SJVAPCD's *Air Quality Guidelines for General Plans* is available for use by local agencies to assist in the efforts to coordinate transportation, land use and air quality planning.

### Pedestrian Improvements

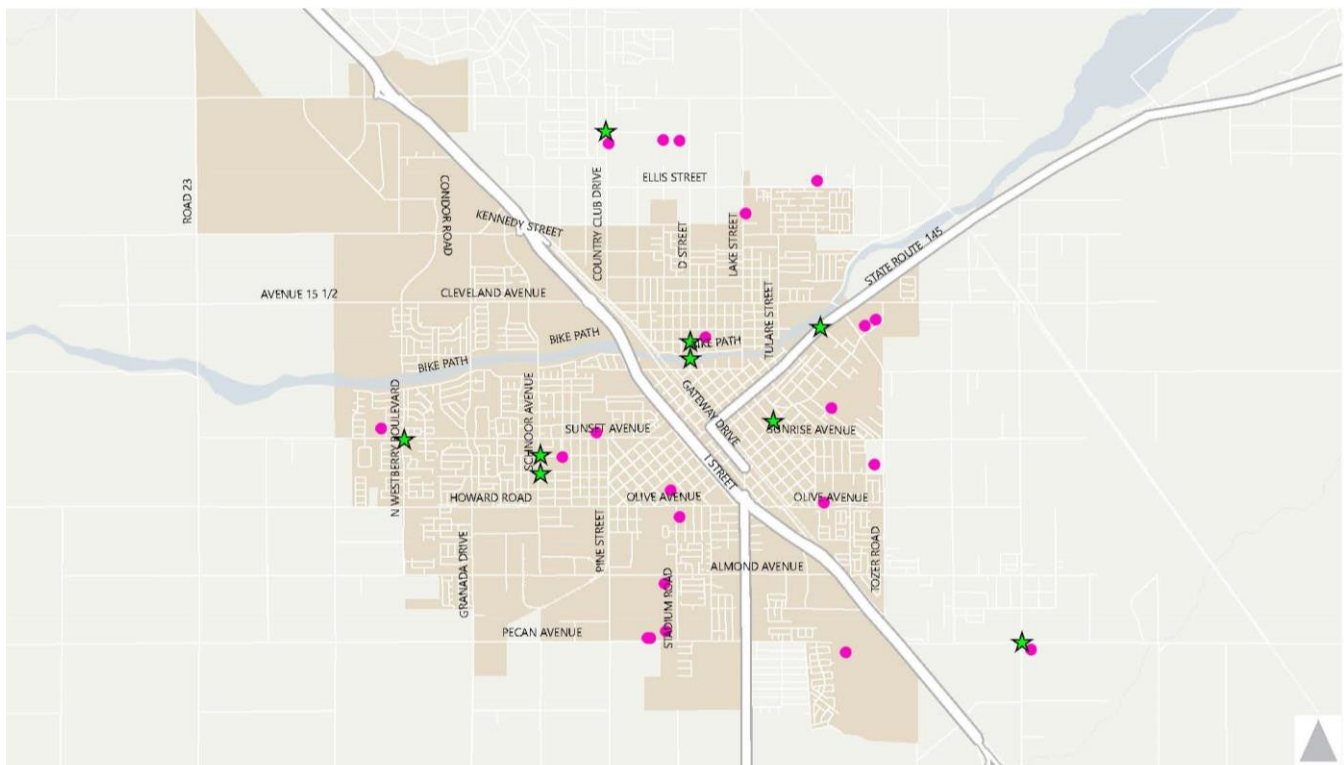
Figures 5-10 through 5-12 identify the planned locations for pedestrian improvements and projects as designated in the Madera ATP. There are a number of strategies consistent with the 2018 Madera ATP that will serve to improve conditions for existing pedestrians and to induce others to join them. These strategies include:

- ✓ Routine maintenance of existing sidewalks and curbing, including smoothing uneven surfaces, improving drainage, trimming vegetation, removing intrusive street furniture, including signs, sweeping and shoveling.

- ✓ Building new sidewalks to provide continuity.
- ✓ Providing “pedestrian-friendly” intersection design (appropriate signal-head placement, signal intervals, curb ramps, signed and painted crosswalks, adequate lighting, etc.).
- ✓ Increased emphasis on access to transit. In all these areas, access for people with disabilities must also be part of the program.
- ✓ Providing safe and direct pedestrian routes and bikeways between places.
- ✓ Promoting walking and bike riding for transportation and recreation.

In general, all new roadway projects and all reconstruction projects should be constructed to provide increased safety and mobility for all users, including people who walk and bike. In addition, local agencies have identified general streetscape projects within their jurisdictions to promote walkability within activity centers; especially in downtown areas and along major corridors. These and other projects that will reduce greenhouse gas (GHG) emissions, which may be funded through various funding programs.

FIGURE 5-10  
City of Madera Proposed Pedestrian Facilities – Madera  
Active Transportation Plan



- ★ Intersection Improvement
- Schools

## City of Chowchilla and Fairmead Proposed Pedestrian Facilities – Madera Active Transportation Plan



FIGURE 5-12  
County of Madera Proposed Pedestrian Facilities – Madera  
Active Transportation Plan

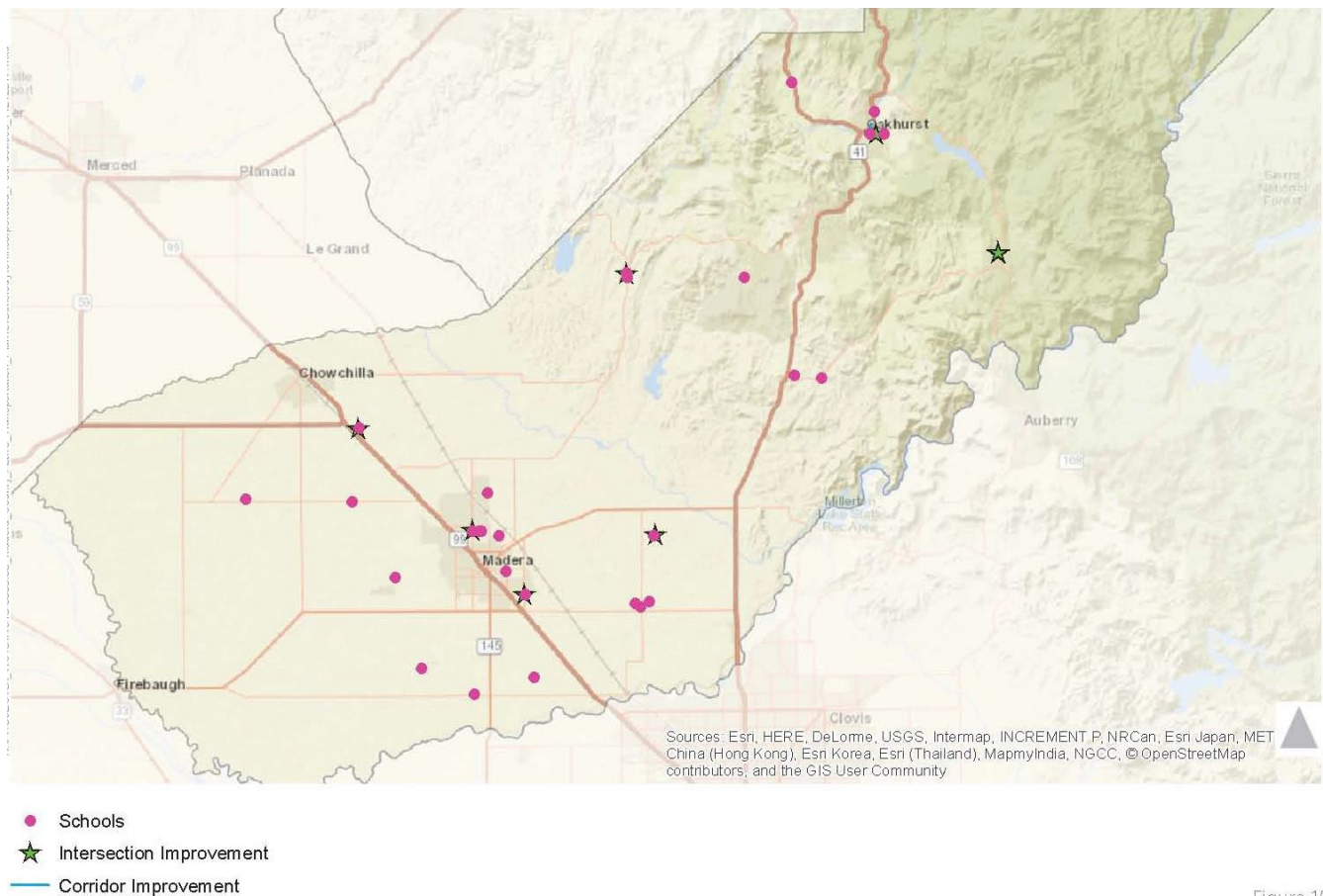


Figure 47



## Goods Movement

Goods movement in Madera County is primarily made along the network of highways and railroads. After many years of decline due to increased competition from trucks, rail freight is reasserting itself as an important component of the transportation system. While cartage by truck will remain an important component of a competitive and multi-modal freight network, an efficient, high capacity freight rail system is also essential to



ensure the seamless movement of goods between Madera County and markets and manufacturers in the north, south and east. While local freight distribution within the San Joaquin Valley, including Madera County, will continue to be handled mostly by trucks, railroads will serve some industries along the railroad lines. Improvements made to rail rights-of-way, generally for passenger travel, should also help the freight railroads by allowing faster, smoother travel.

### *Goods Movement Needs and Actions*

An important goal of the 2018 RTP/SCS is to ensure smooth connections between regional communities, the rest of the Valley, the State, and the nation. The purpose of the regional goods movement program is to improve the efficiency of all modes—truck, rail freight, and air cargo; and for all kinds of freight—domestic import/export, container, break-bulk, and bulk cargo. In addition, the Region recognizes the importance of ancillary facilities such as airports and intermodal terminals and supporting functions including freight forwarding, parcel consolidation, and warehousing. The intent is to ensure a more efficient system, with greater throughput, elimination of bottlenecks, reduced congestion, lower environmental impacts, and corresponding economic benefits for the Region.

Improvements to the regional goods movement transportation, terminal, and intermodal transfer facilities will require a combination of traditional public sector and private sector funding. For instance, introduction of new and more powerful but lower-polluting railroad locomotives, main line track capacity, and railyard operational improvements are the responsibility of the private freight railroads. Most roadway and traffic signaling improvements used by trucks are provided by the public sector and financed by fuel taxes, other user fees, and private development. Still other improvements to transportation infrastructure serving airports may be funded using a mix of airport revenues, other public funds, and privately generated capital.



Development of a modern, efficient goods movement system for the Region is a cooperative venture, including all of the freight modal providers, airport operators, the federal, State, and local governments, and many other parties. While air cargo operations at the Chowchilla and Madera Municipal Airports are desirable, the feasibility of transporting goods by air is questionable. According to *the Regional Aviation System Plan* for Madera County, most of the products from agribusiness are transported by truck or by train. In addition to those actions contained in this RTP/SCS, the following actions are also recommended to address improvements in the area of rail-highway grade crossings and goods movement modeling. The most obvious issues related to goods movement include the following:

- ✓ Trucking will continue to be the most inexpensive form of goods movement and will continue to add highway congestion.
- ✓ Air and rail services are under-utilized for the movement of goods.
- ✓ It is anticipated that rail transport will continue to increase because of its cargo flexibility and speed.

There are a number of federal funding sources and route designations available to enhance the goods movement system that MCTC will consider on behalf of its member agencies including the Governor's Executive Order on Sustainable Freight and the resulting *California Sustainable Freight Action Plan* (CSFAP) and the Governor's *Zero Emissions Vehicle (ZEV) Plan*.

### *Grade Separation Improvements*

Regional rail freight movements often conflict with highway commuter and goods movement traffic. With the anticipated increase in truck and train movements, substantial additional delay for passenger vehicles and trucks can be expected at grade crossings. To avoid these delays, grade separations carrying arterials under or over rail lines carrying substantial amounts of freight is recommended along critical routes such as SR 99 near SR 152. In order to support rail/highway grade crossing conflicts, MCTC intends to support the local agencies in obtaining funds for grade crossing studies, support the construction of grade separations where streets and highways cross regional rail lines, and recognize the need for additional funding for grade crossing improvement projects to relieve truck and other highway congestion because current program funding needs exceed available public and private funding.

### *Goods Movement Modeling*

The RTPAs in the San Joaquin Valley have developed Phase 1 of the *San Joaquin Valley Goods Movement Study*, which focused on issues related to the movement of goods from farm to market, congestion, railroad crossings, roadway geometry, parking/rest area problems, route restriction, and signal timing. Phase 2 of the Study focused on building a Valleywide truck model that can be integrated into the Traffic Modeling process. The following list of actions is designed to address regional needs related to goods movement:

- ✓ Continue to evaluate and designate truck routes.
- ✓ Coordinate and consult with private sector providers to identify obstacles to the efficient movement of goods and develop alternative strategies.
- ✓ Identify funding sources in support of the transport of goods from farm to market.
- ✓ Identify and implement railroad crossing safety improvements.
- ✓ Assist in implementing state and federally-funded rail projects, as required.
- ✓ Seek strict enforcement of transportation regulations concerning the transport of hazardous substances.
- ✓ Consider locating industrial development near railroads, airports, and major highways in the lane-use element of local general plans.
- ✓ Encourage the use of rail, air and buses for the transportation of goods.
- ✓ Provide technical assistance to local jurisdictions for industrial and wholesale land use and transportation planning.
- ✓ Coordinate planning efforts to ensure efficient, economical and environmentally sound movement of goods.
- ✓ Encourage the use of rail, air and buses for the transportation of goods.
- ✓ Encourage coordination and consultation between the public and private sectors to explore innovative strategies for the efficient movement of goods.
- ✓ Support intermodal linkage of truck on rail as a technique of reducing traffic on selected corridors.
- ✓ Pursue additional funding for street, road, highway, and air and rail projects by working with the League of California Cities and the County Supervisors Association of California (CSAC) to ensure the efficient movement of goods.
- ✓ Oppose higher cargo weights for trucking industry.
- ✓ Encourage and support strict enforcement of transportation regulations concerning the transportation of hazardous material.
- ✓ Support and work with districts, local jurisdictions, regional agencies and the private sector to provide improved intermodal freight transfer facilities and access at major airports and rail terminals.
- ✓ Assess and incorporate, where appropriate, the innovative intermodal linkage of truck on rail as a technique of reducing truck annual average daily traffic on select highway corridors.
- ✓ Encourage more stringent emissions controls on trucks, buses, trains, and airplanes operating in California.

## Transportation Demand Management

Transportation Demand Management (TDM) is the all-inclusive term given to a variety of measures used to improve the efficiency of the existing transportation system by managing travel demand. Travel behavior may be influenced by mode, reliability, frequency, route, time, and costs, support

programs/facilities and education. TDM strategies encourage the use of alternatives to the single occupant vehicle such as carpools, vanpools, bus, rail, bikes, and walking. Alternative work hour programs such as compressed work week programs, flextime, and telecommuting (teleworking) are also known as Transportation Control Measures (TCMs) and include parking management tactics such as preferential parking for carpools and parking pricing. TDM strategies that improve traffic flow are also known as Transportation Systems Management (TSM) projects.

TSM strategies include a set of techniques used to increase the capacity of a piece of transportation infrastructure without increasing its physical size. These strategies are used in the context of roadways and include changes to traffic signals, such as coordinating them or introducing ramp metering, or minor changes to road geometry, such as straightening corners or lengthening merge lanes. These low-cost interventions can be very effective in reducing congestion.

### *TDM/TSM -Needs and Actions*

To make the most of TDM programs in reducing travel demand in Madera County, MCTC should:

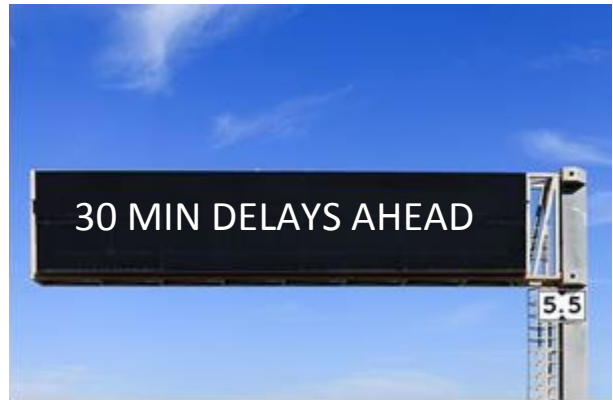
- ✓ Work with Caltrans to develop a master plan for the region's park and ride system.
- ✓ Support the implementation of strategies to enhance the use of under-utilized park and ride lots focusing on increased security, marketing and outreach, lot siting and transit service.
- ✓ Support the development and implementation of marketing and outreach strategies for the park and ride system.
- ✓ Provide for adequate funding for park and ride lots to ensure proper system operation and safety, maintenance, marketing and development.
- ✓ Establish an on-going mechanism to explore park-and-ride lot funding and to assure that the Region's facilities will continue to be fully integrated with transit, ridesharing, and bicycling programs.
- ✓ Support the maintenance of the existing carpool market share and an increase in ridesharing.
- ✓ Continue to support Central Valley Ridesharing operations and services provided by Fresno COG.
- ✓ Continue to support funding for education and outreach to the general public in order to increase awareness and participation in ridesharing.
- ✓ Support the allocation of funding toward the conversion of fleet vehicles from gasoline powered engines to other cleaner burning energy sources, including compressed natural gas (CNG) and electric-powered vehicles.
- ✓ Support development of telecommunications infrastructure in new residential developments to facilitate reductions in peak hour trips.
- ✓ Ease traffic flow through the use of traffic signals, bus turn-outs, intersection turn lanes, and other strategies.

Funding has been allocated to various TDM projects/strategies as referenced in Table 5-9 on Page 5-55.

## Intelligent Transportation Systems

In addition to traditional lane widening and signal system improvements, the need to further enhance the capacity of the existing and future system using ITS will be important.

ITS represents a means of applying new technological breakthroughs in detection, communications, computing and control technologies to improve safety and performance of the surface transportation system. This can be done by using the technologies to manage the transportation system to respond to changing operating conditions, congestion or accidents. ITS technology can be applied to arterials, freeways, transit, trucks and private vehicles. ITS includes Advanced Traffic Management Systems (ATMS), Advanced Vehicle Control Systems (AVCS) and Commercial Vehicle Operations (CVO).



Today, applications of ITS technologies allow the monitoring of traffic conditions and the dynamic adjustment of traffic signals to reduce unnecessary delay, the automated collection of tolls, advanced detection and television cameras to detect, assess and respond to traffic accidents and incidents. In the future, ITS technologies will continue to automate transit fare collection and parking payments, use vehicle location systems to track trains and buses to give users “real time” arrival and departure information and use onboard systems to detect and avoid collisions.

### *Intelligent Transportation Systems Needs and Actions*

The *San Joaquin Valley Strategic Deployment Plan*, a collaborate effort between the eight Valley counties and Caltrans, was completed in 2001. The Plan includes specific strategies and implementation program for ITS applications in Madera County referenced in the valleywide plan. MCTC continues to coordinate ITS efforts with its member agencies as they look for ITS strategies to enhance the transportation systems in the County. Examples of this effort over the past 10-years includes:

- ✓ Deployment of 511 traveler information technology in Madera County and throughout the San Joaquin Valley
- ✓ State changeable message signs on SR 99.
- ✓ Coordinated immediate response cameras along State Highways.
- ✓ Ramp metering on and off ramps.
- ✓ Signal synchronization projects.
- ✓ Communicative technology for transit.
- ✓ Freeway Service Patrol (FSP).
- ✓ Othersystems.

MCTC will also consider development of a countywide ITS Strategic Deployment Plan prior to approval of the 2022 RTP/SCS.

In addition, MCTC and its member agencies including Caltrans should consider traffic stripe specifications and new traffic markers that are specifically designed to assist autonomous driving vehicles contained in the *California Department of Transportation Highway Design Manual*, the *California Manual on Uniform Traffic Control Devices*, *American Association of State Highway and Transportation Officials Roadside Design Guide*, and the *Transportation Research Board Access Management* reports. These designs also aid the elderly and those with decreased sight to drive more comfortably. As technology improve, autonomous driving vehicles are expected to improve the safety and operation of the transportation network – leading to fewer accidents and less congestion.

Finally, Over the next 20-years it is projected that zero-emission vehicles will increase in popularity. The popularity of ride-sharing services such as Uber suggest a trend of non-ownership or shared-ownership of vehicles. Other technologies such as autonomous vehicles and parcel delivery using drone systems can potentially change the transportation network in many ways.

## Land Use and Transportation Planning Coordination

Madera County participated with Caltrans, Fresno County, the cities of Fresno and Clovis, and various stakeholder groups in Phase III of the *San Joaquin Valley Growth Response Study*. Phase III of the Study focused on development of a land use allocation model and a visualization/indicator model for use with the current transportation demand models. These modeling tools and others continue to assist the cities of Fresno and Clovis and the counties of Fresno and Madera in reviewing the urban landscape, considering alternative growth scenarios, and making policy changes to successfully implement their planning documents. The tools will provide information on the land use patterns that could enhance transit, reduce vehicle miles traveled, and address air quality issues.

In 2006, the eight regional planning agencies in the San Joaquin Valley came together in an unprecedented effort to develop a coordinated valley vision – the *San Joaquin Valley Regional Blueprint*. This eight-county venture was conducted in each county and was ultimately integrated to form a preferred vision for future development throughout the Valley to the year 2050.

On April 1, 2009, the San Joaquin Valley Regional Policy Council adopted a preferred growth scenario for the Valley along with 12 Smart Growth Principles to guide development and promote the livable and sustainable communities mentioned above. A discussion of the Blueprint planning process in Madera County can be found in Chapter 6 – *Creating a Sustainable Future*.

## Other Projects

In addition to projects identified in the mode categories described above, a number of additional transportation projects that do not necessarily fit into any one category or mode are described in Table 5-9.

**TABLE 5-9**  
**Other Improvement Projects**

Agency	Project #	Route	Project Limits	Project Description	Estimated Cost	Funding Year	Funding Source
<b>Chowchilla</b>							
CHOWCITY	1	Ave 24 1/2	UPPR to Road 15.5	Shoulder Paving	\$300,000	2019	CMAQ/LTF
<b>Subtotal:</b>					<b>\$300,000</b>		
<b>Madera</b>							
MADCITY	2	Torres Way	Various	Alley Paving	\$185,000	2020	CMAQ/LTF
MADCITY	3		4th St/ Lake St/ Central Ave	Intersection Improvements	\$1,700,000	2018	CMAQ/LTF/RSTP
MADCITY	4	Howard Road	at Westberry Blvd	Traffic Signal	\$402,000	2018	CMAQ/LTF
MADCITY	5	Yosemite Ave	at Elm St	Traffic Signal	\$600,000	2018	CDBG/Local
MADCITY	6	Howard Road	at Granada Dr	Traffic Signal	\$335,000	2018	Local
MADCITY	7	Sunrise Ave	at Tozer St	Traffic Signal	\$385,000	2020	Local
MADCITY	8	Various	Various Locations	Alley Paving	\$801,000	2020	CMAQ/Measure T
MADCITY	9	Raymond Road		Shoulder Paving n/o of Cleveland Ave	\$302,000	2019	CMAQ/LTF
MADCITY	10	Storey Road		Shoulder Paving	\$306,000	2020	CMAQ/Measure T
MADCITY	11	Pecan Ave		Shoulder Paving	\$665,000	2020	CMAQ/Local
MADCITY	12	Golden State Blvd		Shoulder Paving	\$125,000	2019	CMAQ/LTF
<b>Subtotal:</b>					<b>\$5,806,000</b>		
<b>Madera County</b>							
MADCO	13	Road 23	Ave 8.5 to 9.5	Shoulder Paving	\$187,000	2019	CMAQ/LTF
MADCO	14	Avenue 9	Road 23 to 23.5	Shoulder Paving	\$99,000	2019	CMAQ/LTF
MADCO	15	Road 30	Ave 12 to 500 ft North	Shoulder Paving / Curb & Gutter	\$72,000	2018	CMAQ/LTF
MADCO	16	North Fork	Road 274	Roundabout at Road 274 and Road 225	\$1,860,000	2018	CMAQ/Measure T
MADCO	17	Road 36	At Ave 12 1/2	Traffic Signal	\$320,000	2018	CMAQ/Measure T
MADCO	18	Road 36	Ave 9 to Ave 12	Shoulder Paving	\$563,000	2019	CMAQ/Measure T
MADCO	19	Road 36	Ave 12 1/2 to Ave 15	Shoulder Paving	\$470,000	2019	CMAQ/Measure T
MADCO	20	Road 36	Ave 15 to SR 41	Shoulder Paving	\$563,000	2019	CMAQ/Measure T
MADCO	21	Road 209	SR 41 to 4.6 Miles North	Shoulder Paving	\$863,000	2019	CMAQ/RSTP
MADCO	22	Road 23	Ave 14 to Ave 15 1/2; Ave 18 1/2 to 2,000 ft South	Shoulder Paving	\$357,000	2019	CMAQ/RSTP
<b>Subtotal:</b>					<b>\$5,354,000</b>		
<b>MCTC</b>							
MCTC	23	Various	To Be Determined	TCMs/TSMs	\$15,070,000	2018-2027	CMAQ/Local
MCTC	24	Various	To Be Determined	TCMs/TSMs	\$27,930,000	2028-2042	CMAQ/Local
<b>Subtotal:</b>					<b>\$43,000,000</b>		
<b>TOTAL:</b>					<b>\$54,460,000</b>		



## Environmental Review

Following the provisions and requirements of the California Environmental Quality Act (CEQA), MCTC has prepared a programmatic environmental impact report (PEIR) for the 2018 RTP/SCS that describes strategy-level mitigation measures, which could avoid or minimize significant adverse impact of implementing the 2018 RTP/SCS. In doing so, the 2018 RTP/SCS PEIR identifies measures that will restore and maintain the environmental functions affected by the RTP/SCS to the maximum extent feasible. The adopted mitigation measures are typical for transportation and development projects and have been demonstrated to be effective.



## Summary

The preceding discussion of the components of the regional transportation system helps to frame the choices that must be made in this Plan. The system is mature and will require regular investments to preserve its capabilities, but there will be opportunities to improve efficiency through the use of new technologies and increased TDM and ITS strategies. Other additions, such as bikeways, pedestrian systems, and increased transit use, will continue to assume greater importance in the future system. Clearly, each mode has an important role to play in the current and future system. The overall vision for the RTP/SCS is to identify investments and projects that can support a multi-modal system.

# **Chapter 6**

## **Creating a Sustainable Future**



## 6. Creating a Sustainable Future

### Introduction

The MCTC 2018 RTP/SCS details how the region will reduce greenhouse gas (GHG) emissions to state-mandated levels over time. The inclusion of the SCS is required by Senate Bill 375 and stresses the importance of meeting GHG per capita emission reduction targets set by the California Air Resources Board (CARB). MCTC has approached development of the SCS as an “opportunity” to enhance the integration of transportation, land use and the environment in the Madera region.



This chapter of the RTP/SCS outlines the approach to develop the SCS. Sections included in this chapter include the following:

- ✓ What the SCS is and how the targets were established – *SCS Requirements*.
- ✓ Defining the SCS scenarios for evaluation – *Alternative SCS Scenarios*, including:
  - Identifying the base data utilized to build each alternative scenario.
  - The methodology applied to interpret the base data as inputs for the UPLAN land use allocation modeling process.
  - The process applied to develop the alternative scenario transportation multi-modal systems or networks using traffic modeling software.
  - Identification of off-model strategies
  - Scenario performance measure and greenhouse gas (GHG) target results.
- ✓ The impact of the 2018 RTP/SCS on natural resources and agriculture – *Preserving Our Resources*.
- ✓ The stakeholder and public review and input process undertaken to develop and select the alternative and preferred SCS scenarios – *Capturing Public and Stakeholder Input*.
- ✓ Identification of the preferred SCS scenario by the MCTC 2018 RTP/SCS Roundtable and the MCTC Policy Board – *The Choice Scenario*.
- ✓ Consideration of the Madera County Regional Housing Needs Assessment (RHNA) – *RHNA Consistency*.
- ✓ Consistency with the Madera County Local Agency Formation Commission (LAFCO) policies – *Consistency with LAFCO Policies*.

- ✓ Consideration of social equity during the SCS development process – *Social Equity Considerations*.
- ✓ How the public health will be improved as a result of the SCS development process – *Public Health Benefits*.
- ✓ Senate Bill (SB) 375 (Steinberg) California Environmental Quality Act (CEQA) streamlining allowances and how they will be applied – *CEQA Streamlining*.
- ✓ A review of the next steps in the RTP/SCS implementation and monitoring process – *RTP/SCS Implementation and Monitoring Program*.

## SCS Requirements

### *Background*

This is the second time that this chapter has been included in the RTP and is provided in response to SB 375 requirements. SB 375 requires that MCTC incorporate the SCS into the RTP. The SCS:

- ✓ Is intended to show how integrated land use and transportation planning can lead to lower GHG emissions from autos and light trucks.
- ✓ Resulted in increased transit use and mode share, all of which have led to both mobility and air quality improvements.
- ✓ Encourages changes to the urban form that improve accessibility to transit, and create more compact development, thereby yielding a number of transportation benefits to the region. These include reductions in:
  - Travel time
  - Vehicle miles traveled (VMT)
  - Vehicle hours traveled (VHT)
  - Vehicle hours of delay

SB 375 was passed by the California Legislature, signed by the Governor, and became law effective September 30, 2008. The legislation requires regions within California to work together to reduce GHG emissions from cars and light trucks.

SB 375 requires the integration of transportation, land use, and housing planning with the next updates of the RTPs and (RHNA)s. The goal of the SCS is to plan for more sustainable communities that will result in transportation modes that reduce the use of single occupant vehicles. Transportation strategies contained in the RTP including Transportation System Management (TSM), Transportation Control Measures (TCM) and multi-modal transportation system improvements, are major components of the SCS, along with the preferred land use scenario. Transportation and land use integrated together results in less vehicle trip making, especially resulting from increased density, mixed-use, and land use intensity.

SB 375 requires the California Air Resources Board (CARB) to develop regional reduction targets for automobiles and light trucks GHG emissions. Using the targets, each region in California is required to develop its SCS by integrating transportation and land use policies and programs that meet the emissions reduction target, if feasible. Key components of SB 375 are the incentives it allows for local governments in the way of regulatory and other incentives that help encourage more compact new development and transportation mode alternatives. In order to achieve the greenhouse gas reduction goals, set out in California Assembly Bill 32: *The Global Warming Solutions Act of 2006* (AB 32), SB 375 focuses on reducing VMT and urban sprawl. AB 32 was the nation's first law to limit greenhouse gas emissions and SB 375 was enacted thereafter to more specifically address the transportation and land use components of greenhouse gas emissions. Through the implementation of regional SCS plans by 2020, the goal of SB 375 is to see a significant decrease in greenhouse gas emissions for the environment and an increase in quality of life for residents.

Referencing California Government Code Section 65080(b)(2)(B)(vii), SB 375 requires that the SCS “sets forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction targets approved by the state Air Resources Board.” Based upon the legislation, the SCS must:

- ✓ Identify existing and future land use patterns.
- ✓ Identify transportation needs and the planned transportation network.
- ✓ Consider statutory housing goals and objectives.
- ✓ Identify areas to accommodate short- and long-term housing needs.
- ✓ Consider resource and farmland areas.

In addition to the new requirements listed above, preparation of the RTP is the same as it has been in previous updates and must include:

- ✓ A long-range growth forecast of at least 20 years.
- ✓ Estimate where growth and development will realistically occur consistent with market demand within the region.
- ✓ Develop a list of multi-modal transportation improvements considering projected revenues.
- ✓ Address federal Clean Air Act requirements resulting from the air quality conformity analysis of the list of improvement projects.

SB 375 does not require that MCTC dictate land use patterns and policies at the local level. The SCS is only intended to provide a regional policy foundation that local governments may build upon as they choose. This includes quantitative growth projections for each city and for Madera County. The major difference between this RTP update and previous updates (2011 or sooner) is the inclusion of the SCS and the goal of reducing GHG emissions from cars and light trucks. In addition to the SCS objectives, the State is also

reducing GHG emissions from these sources through two other laws including an increase in vehicle fuel efficiency and an increase in the use of alternative, lower carbon transportation fuels.

The SCS only shows how future growth and development could be allocated to planned growth areas consistent with the general plans of the cities and the County of Madera. As growth and development occurs, it will be the cities and the County that review and approve development proposals and determine consistency with their plans, programs, and policies; not MCTC. MCTC has no land use authority to approve future growth development as it occurs over the life of the RTP (Year 2042).

### *Madera County GHG Targets*

For the 2014 RTP/SCS, CARB issued a 5% reduction target to each of the eight (8) Metropolitan Planning Organizations (MPOs) in the San Joaquin Valley including MCTC. CARB agreed that the targets would be applicable to each MPO independently of other Valley MPOs. The targets included a percentage reduction of greenhouse gas emissions from 2005 of 5% by the year 2020 and a reduction in GHG emissions of 10% by the year 2035. For the 2018 RTP/SCS, CARB decided to retain the same targets but will be revising the targets for the 2022 RTP/SCS.

Developing the SCS requires meaningful collaboration with each of the local agencies, as well as stakeholders to identify land use and transportation planning opportunities around the region that will address the needs of the growing population and ensure compliance with State and Federal requirements.

### *Alternative SCS Scenarios*

MCTC began with the land use modeling process developed for the 2014 RTP/SCS using UPLAN. MCTC developed several land use scenarios (*Status Quo*, *Hybrid* or the preferred 2014 SCS scenario, and the *Moderate Change*), which were modeled and presented to the local agencies, stakeholders and the public. The result of this effort was the selection of the preferred *Moderate Change* scenario. The *Moderate Change* Scenario represents an increase in densities compared to the *Hybrid* Scenario developed for the 2014 RTP/SCS.

Using the Blueprint as the foundation for the alternative SCS scenarios in 2014, MCTC again coordinated with the cities and the County, as well as stakeholders and the general public to



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develop a realistic and implementable RTP/SCS. The first steps were to form the Roundtable Committee in September 2017, meet with each of the local agencies, and conduct a series of workshops and pop-up events with stakeholders and the public and conducted an on-line survey to identify their priorities for growth and development within the Madera region. This provided a “bottoms-up” approach that led to development of each of the scenarios for further refinement and analysis. Chapter 8 – *Public Involvement for Change*, provides a thorough understanding of the RTP/SCS Roundtable and public outreach process undertaken to develop the RTP and the SCS. Based upon the input received, data requirements and inputs for the updated UPLAN software were prepared, utilizing the updated parcel-based databases from the Blueprint process, as well as the updated Blueprint scenario definitions.

### *Blueprint Background Data*

For the Blueprint process, extensive spatial datasets were developed and created using existing development information from the Madera County Assessor’s rolls at the parcel level; generalizing and standardizing all land use policy information for jurisdictions within the county; and other physical and environmental constraints. The processing of the datasets resulted in the creation of new data that identified land available for development under the different Blueprint Scenarios. The Blueprint Study developed four scenarios that were modeled for future growth until the horizon year of 2050. The scenarios were defined as *Status Quo*, *Low Change*, *Moderate Change*, and *Major Change*. The 2018 RTP/SCS alternative scenarios are based upon the original Blueprint parameters, highlighting the demographic shares, land use intensities, and spatial location preferences; however, the parameters have been revised slightly to increase housing and employment densities for the three alternative scenarios considered for the 2018 RTP/SCS. MCTC felt that the process to develop the 2018 RTP/SCS should consider enhancing the potential for greater GHG emission reductions not just similar to or less than those resulting from the 2014 RTP/SCS *Hybrid* Scenario.

### *Developing the SCS Scenarios*

The basic land use and transportation modeling steps undertaken to develop the alternative SCS scenarios included the following:

- ✓ **Step 1** - Determine Base Year 2005 GHG Emissions.
- ✓ **Step 2** – Calibrated/Validated Traffic Model - Base Year 2010.
- ✓ **Step 3** – Growth Forecast (Base Year 2010 & Future Year (2020, 2035, and 2042) Traffic Analysis Zones (TAZ) Socioeconomic Data.
- ✓ **Step 4** - UPLAN Growth (Year 2010 – 2042) Allocation Modeling for 3 Alternative Scenarios.
- ✓ **Step 5** - Add Scenario Growth to 2010 Base Year and create TAZ Datasets for each Scenario.
- ✓ **Step 6** - Run Scenario Datasets using the Traffic Model for Years 2020, 2035, and 2042.
- ✓ **Step 7** - Using EMFAC (Emission FACTors Model) – Determine GHG Emissions for each Scenario for Years 2020 and 2035.

- ✓ **Step 8** – Compare GHG Results to 2005 Base Year GHG Emissions and determine if results meet the GHG Emission Reduction Targets from 2005 Base Year of 5% by 2020 and 10% by 2035.

Each of these steps in the modeling process are further described below.

### Step 1 - Base Year Emissions

The Base Year 2005 GHG emissions were estimated using the current 2018 Transportation Model calibrated and validated in 2010. Base Year annual GHG (CO<sub>2</sub>) emissions from applicable vehicle categories (cars and light trucks) are estimated by MCTC as 3,101 tons per day. This is the 2005 emission inventory used to determine the percentage reductions associated with each of the alternative scenarios for years 2020 and 2035.

### Step 2 - Transportation Model Calibration/Validation

The 2018 MCTC Transportation Model was initially calibrated and validated for the year 2010 in December 2013. An extensive effort was undertaken for the 2018 RTP/SCS effort to review the input data used in the transportation model. The bulk of the MCTC staff review focused on how land use and socioeconomic data (SED) was allocated in the model's base year and SB 375 comparison year (2010 and 2005 respectively). In addition to checking the SED inputs, MCTC's consultants enhanced other technical processes in the previous model. With these improvements, the MCTC model indicates that Madera will meet emission-reduction targets. Moreover, the model validates better across the wide range of validation metrics that are required to meet per the California RTP Guidelines. The result is the enhanced 2018 MCTC Transportation Model, utilized to develop the 2018 RTP/SCS. Based upon the set of transportation model enhancements and revisions discussed above, GHG reductions for the year 2020 and 2035 have been met (reference Table 6-1).

**TABLE 6-1**  
**2018 Madera County Transportation Model**  
**2020 and 2035 Target Results**

Year	Pounds per Capita GHG Emissions <sup>1</sup>	% Change from 2005 EF11 adjusted	VMT Per Capita	% Change from 2005
2005	17.0	--	18.7	--
2020	14.9	-12%	16.8	-10%
2035	14.0	-18%	16.1	-14%

1: Total CO<sub>2</sub> Emissions

Source: MCTC, EMFAC 2014

## Step 3 – Growth Forecast (Base Year 2010 and Future Year (2020, 2035, and 2042) TAZ

## Socioeconomic Data

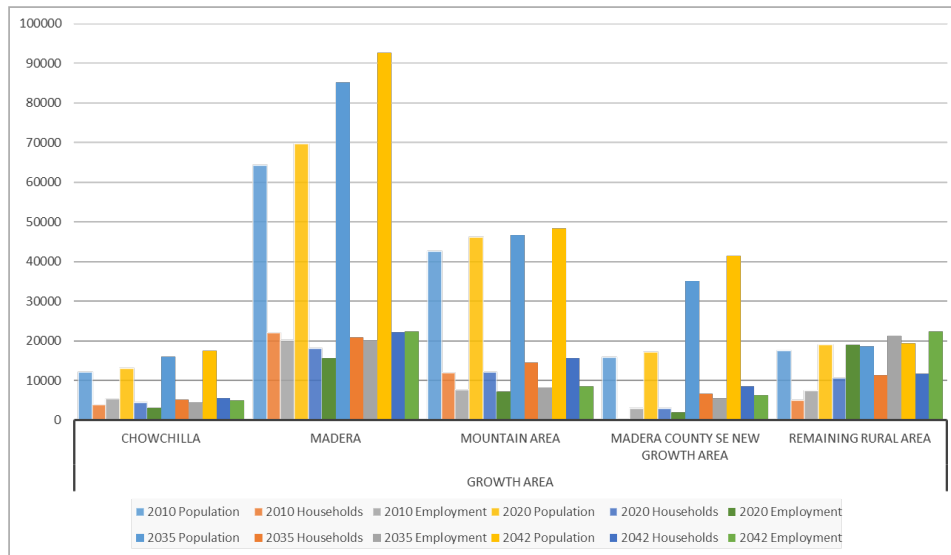
Development of the 2018 RTP/SCS considers growth and development to the year 2042. Table 6-2 and Figure 6-1 identifies the total population, housing and employment for each of the growth areas for the base year or year 2010 and each of the SCS analysis years including 2020 and 2035, and the RTP horizon year of 2042. Projections were held constant for each of the alternative scenarios analyzed.

**TABLE 6-2**  
**Madera County Development Projections by Growth Area**  
**Years 2010, 2020, 2035, and 2042**

Socioeconomic Factor	Year	Growth Area					Total
		Chowchilla	Madera	Mountain Area	Madera County SE New Growth	County Valley	
Population	2010	12,116	64,275	42,545	15,775	17,492	152,203
	2020	13,121	69,609	46,076	17,085	18,944	164,834
	2035	16,047	85,132	46,606	35,183	18,621	201,590
	2042	17,454	92,601	48,298	41,535	19,390	219,277
Households	2010	3,964	21,963	11,922	433	5,022	43,304
	2020	4,432	18,035	12,190	3,011	10,683	48,351
	2035	5,241	20,893	14,593	6,763	11,423	58,913
	2042	5,617	22,215	15,712	8,514	11,764	63,822
Employment	2010	5,384	20,154	7,552	2,924	7,533	43,547
	2020	3,211	15,640	7,289	1,979	19,067	47,186
	2035	4,397	20,240	8,223	5,610	21,362	59,832
	2042	4,950	22,386	8,659	6,375	22,425	64,795

MCTC Regional Traffic Model Socioeconomic Profile, U.S. Census, State of California DOF, VRPA

**FIGURE 6-1**  
**Madera County Development Projections**  
**Years 2010, 2020, 2035, and 2042**



#### Step 4 - UPLAN Growth (Year 2010 – 2042) Allocation Modeling for 3 Alternative Scenarios

Land use patterns that provide for mixed-use or a mixture of goods and services in combination with residential uses have been shown to reduce VMT and thereby reduce GHG. Combining mixed-use development with infill development, rather than building on the urban fringe, results in reduced GHG emissions by reducing the distance that people have to travel to get their basic needs met.

Based upon input from each of the local jurisdictions, the Roundtable Committee, other stakeholders, and the public, three land use and transportation scenarios were developed for the Madera region considering a set of land use parameters referenced in Table 6-3. A description of each alternative scenario considered during development of the 2018 RTP/SCS follows.

- ✓ **Status Quo Scenario** – Which reflects growth consistent with how growth has occurred in the past. This scenario assumes improvements to the transportation network consistent with the 2018 RTP lists of improvement projects that have been reflected in the traffic model. Other improvements include existing and future transit system improvements for each of the three transit providers. Other highlights include:
  - Transportation options available to all residents as provided historically.
  - Focus on the existing trend of driving as the primary form of travel.

- Existing land use density trends (generally below mid-point of each of the general plan's land use category density ranges) for housing and employment.
  - Includes a lower number of under-developed parcels with the potential to redevelop to higher density uses
- ✓ **Hybrid Scenario** - This scenario is reflective of the 2014 Preferred RTP/SCS Scenario, which was a combination of the Blueprint *Low Change* and *Moderate Change* scenarios. Specifically, the *Low Change* parameters were applied to the City of Chowchilla General Plan Area or Sphere of Influence, as well as the remaining unincorporated area (except within the Southeast Madera County New Growth Area). The *Moderate Change* parameters were applied as reflected in Table 6-3 to the City of Madera and the Southeast Growth Area. This scenario is also consistent with the 2018 RTP lists of multi-modal improvement projects that have been reflected in the traffic model or in the RTP. Other improvements include existing and future transit system improvements for each of the three transit providers, as well as enhanced transit along major corridors within the region including SR 41, SR 99, SR 145, and Avenue 12. Specific highlights of this scenario include the following:
- Transportation options available to all residents.
  - Investing in all transportation modes.
  - Uses existing and planned transit routes to attract new development.
  - Encourages people to use their cars less.
  - Consistent with the 2014 RTP/SCS *Hybrid Scenario*.
  - Moderate density increases in the City of Madera & Rio Mesa areas.
  - Low density increases in Chowchilla and other communities.
  - Land use densities shift marginally higher except very low and low.
  - Employment floor area ratio (FAR) is also marginally increased.
  - Lower number of under-developed parcels with the potential to redevelop to higher density uses.
- ✓ **Moderate Growth Scenario** - This scenario assumed enhanced densities from the *Hybrid Scenario* across all growth areas in the County and even higher residential densities in the City of Madera and the Southeast Growth Area consistent with the General and Area Plans, and Specific Plans for all jurisdictions. This scenario slightly increases multi-modal improvement projects that have been reflected in the traffic model or in the RTP. Other improvements include existing and future transit system improvements for each of the three transit providers, as well as enhanced transit along major corridors within the region including SR 41, SR 99, SR 145, and Avenue 12. Specific highlights of this scenario include the following:
- Transportation options available to all residents.
  - Slightly increases existing & planned bicycle, pedestrian & transit systems as factors to further attract new development.

TABLE 6-3  
2018 RTP/SCS UPLAN Land Use Allocation Model Parameters

Madera City					Chowchilla City		



- Slightly increases county areas and Chowchilla residential densities to moderate levels.
- City of Madera and Rio Mesa - marginally increases the residential density for medium and medium high residential categories.
- The employment FAR for commercial high is further increased by .25 for all subareas except the unincorporated county.
- Includes the same number of under-developed parcels with the potential to redevelop as the 2014 RTP/SCS.



The *Hybrid* scenario does reflect smart growth strategies such as increased densities, but increased densities alone are not enough to encourage people to switch modes of travel from single occupant vehicles to transit, bicycling or walking. For this reason, MCTC also reflected transportation infrastructure improvements in the *Hybrid* and *Moderate Growth* scenarios to make alternative modes more attractive by assuming that increased density, infill development and mixed-use development will be located along existing and future multi-modal corridors.

By reflecting increased density and accessibility to transit along existing and future transit routes and major street/road and highway corridors, there is a greater potential that residents and employees will chose to use transit rather than drive to their destination.

In addition, streets and roads that connect to these corridors and major residential, commercial, service and employment centers have been planned to accommodate complete streets, or streets and roads that accommodate multiple modes including bicycle, pedestrian and transit services. These also result in reduced auto vehicle trips.

✓ **Updated UPLAN Data Development**

Due to updates in demographic projections, General Plans, existing conditions, and the multi-modal transportation network, the different jurisdictions' General Plan land use categories had to be translated into a standardized land use category set to be used by the UPLAN software.

✓ **Distributing Growth Allocations to Use Categories and Jurisdictions**

MCTC coordinated with the local jurisdictions to allocate the projected housing growth to the different jurisdictions. The UPLAN model allows for modeling growth by sub-areas within a county

wherein the model will limit growth by the identified allocation for each area. Table 6-2 highlights the distribution for housing and employment for the overall county and each sub-area. The sub-areas are defined as *Madera City Plan Area*, *Chowchilla City Plan Area*, *Southeast Madera County New Growth Area* and *Remainder County* or the remaining unincorporated areas of the County.

The land use definitions and shares for the cities reflect a greater tendency for relatively compact development in comparison to other County areas. The share and land use definitions were modified to develop the *Moderate* scenario as an alternative to the *Status Quo* and *Hybrid* Scenarios.

The *Hybrid Scenario* matches the 2014 RTP/SCS preferred scenario consistent with the City of Madera's General Plan desire to have new housing average between six (6) to eight (8) dwelling units per acre for future growth density. The scenario manages to be just above eight (8) units per acre for new housing growth within the Madera City Plan Area. During development of this step, all socioeconomic data (SED) related to government, educational, and healthcare employment was subtracted from the TAZs so that this employment would not be "reallocated" during the UPLAN runs for each of the scenarios.

#### Step 5 - Add Scenario Growth to 2010 Base Year/Create TAZ Datasets for each Scenario

The results of the UPLAN scenario model runs for each of the three SCS scenarios were mapped and processed into the input format for the Cube transportation (traffic) model. This growth was adjusted consistent with the TAZ SED formats required to run the traffic model. UPLAN creates spatial mapping for the growth allocation as well as housing and employment distribution by TAZ. The UPLAN model output must be translated into SED categories typically used by the Cube traffic model. Government, healthcare and education jobs were not modeled through UPLAN, and were added following each UPLAN scenario run by adding the jobs directly to the TAZ dataset as they were allocated in the original TAZ SED dataset. Results of the land use allocation process using UPLAN for each of the three alternative SCS scenarios are graphically displayed in Figures 6-2 through 6-4. Figures 6-5 through 6-7 provide a graphic overview of the outcomes associated with each of the alternative scenarios.

The resulting difference between SED for year 2010 and 2042 (less the employment growth referenced above) was then applied as "growth" and reallocated across the region consistent with growth controls and UPLAN model parameters reflected in Tables 6-2 and 6-3.



FIGURE 6-2  
Status Quo Scenario Land Use Allocation

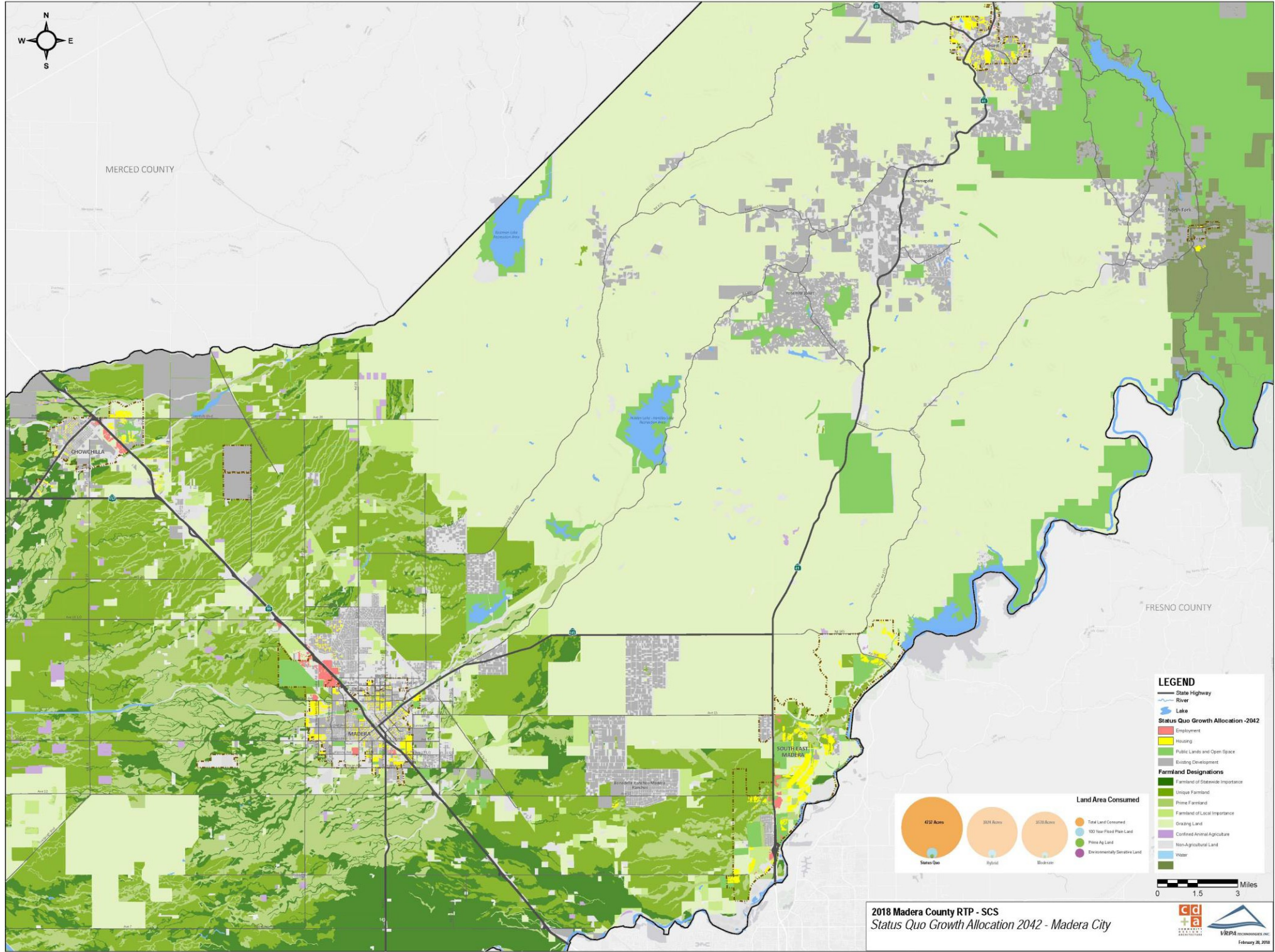




FIGURE 6-3  
Hybrid Scenario Land Use Allocation

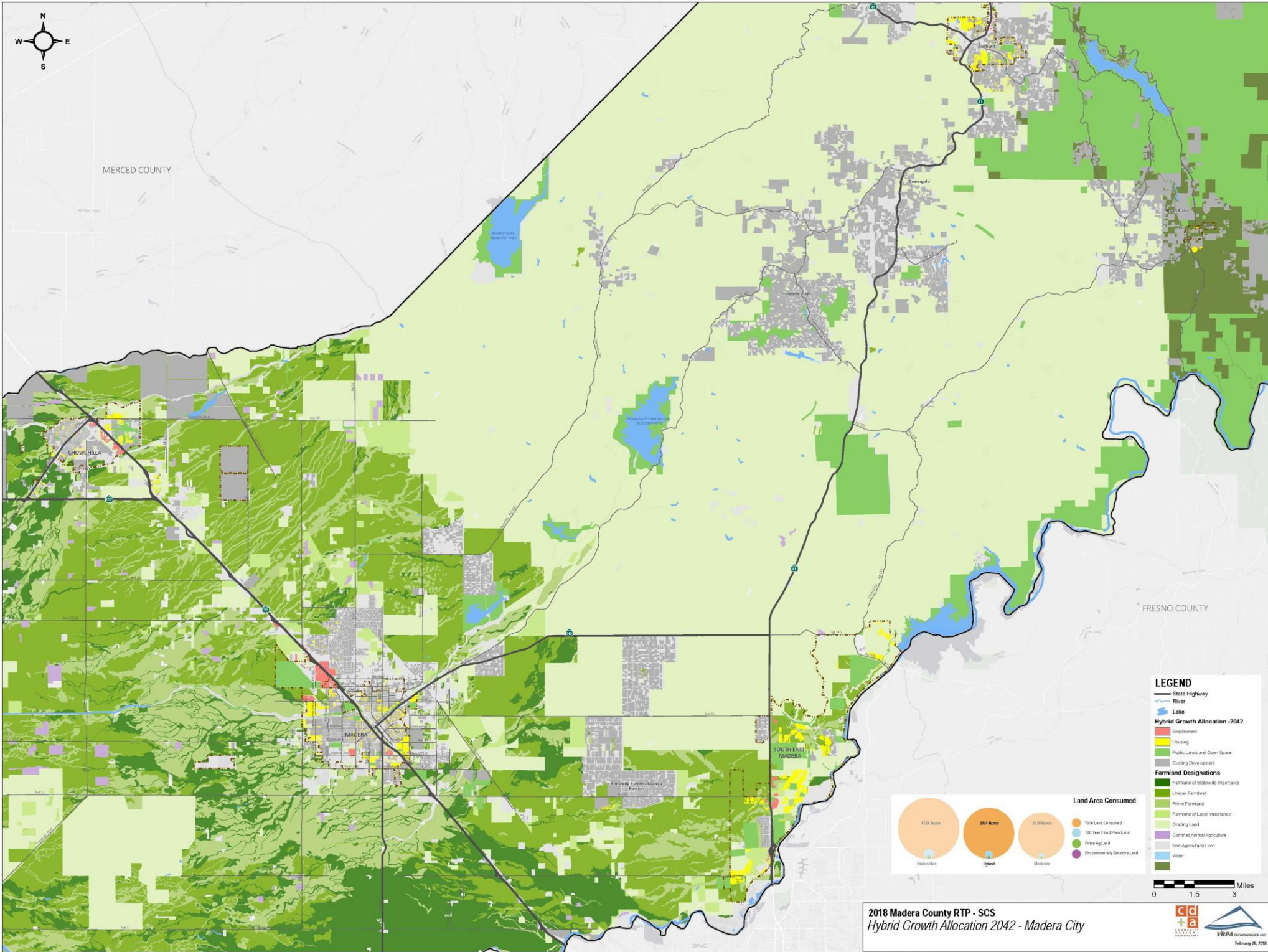




FIGURE 6-4  
Moderate Change Scenario Land Use Allocation

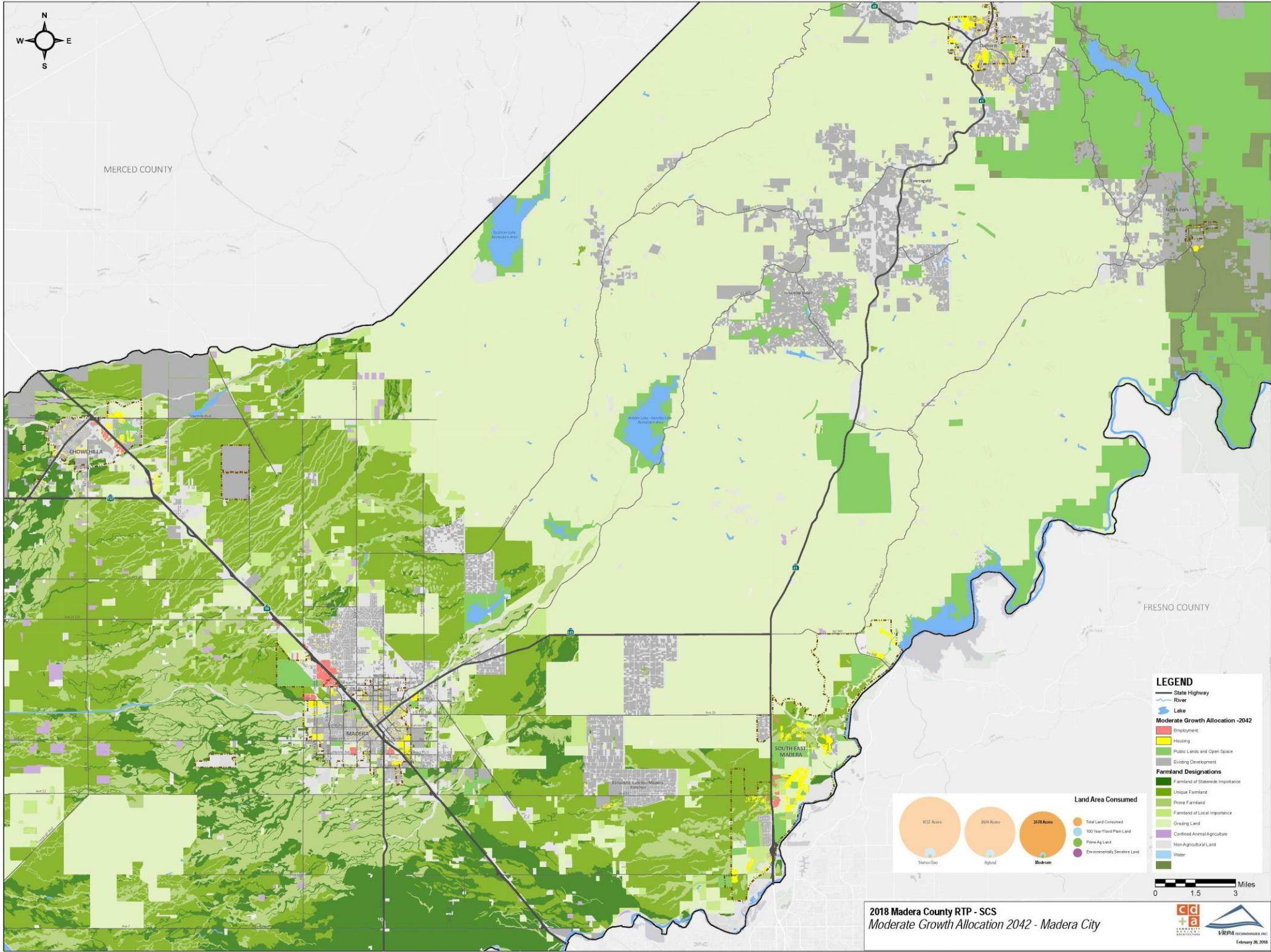




FIGURE 6-5  
Status Quo Scenario Outcomes





FIGURE 6-6  
Hybrid Scenario Outcomes

**Scenario 2 - 2018  
RTP/SCS Hybrid**

2018 Hybrid Development Patterns and Transportation Improvements as Provided for in the 2014 RTP/SCS

**LIFE IN 2042:**

Consistent with 2014 RTP & SCS Hybrid Scenario Assumptions:

- Make Transportation Options Available to all Madera County Residents
- Invest in More Transportation Modes Including Existing & Planned Transit Routes to Attract New Development & to Encourage People to Use Their Cars Less



- Moderate Density Increases in the City of Madera & Rio Mesa
- Low Density Increases in Chowchilla & Other Communities
- Land Use Densities Shift Marginally Higher in all Housing Categories Except Very low & Low
- Employment Floor Area Ratio (FAR) is also Marginally Increased
- Lower Number of Under-developed Parcels with the Potential to Redevelop to Higher Density Uses



**HOW WOULD WE BENEFIT?**

If the strategies for this scenario are implemented, the following would result:

**TRANSPORTATION**



**GHG REDUCTION**



**LAND USE**

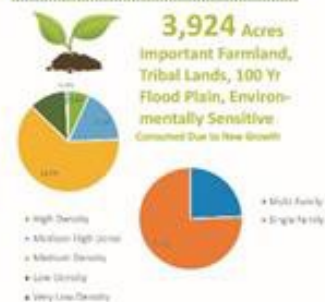
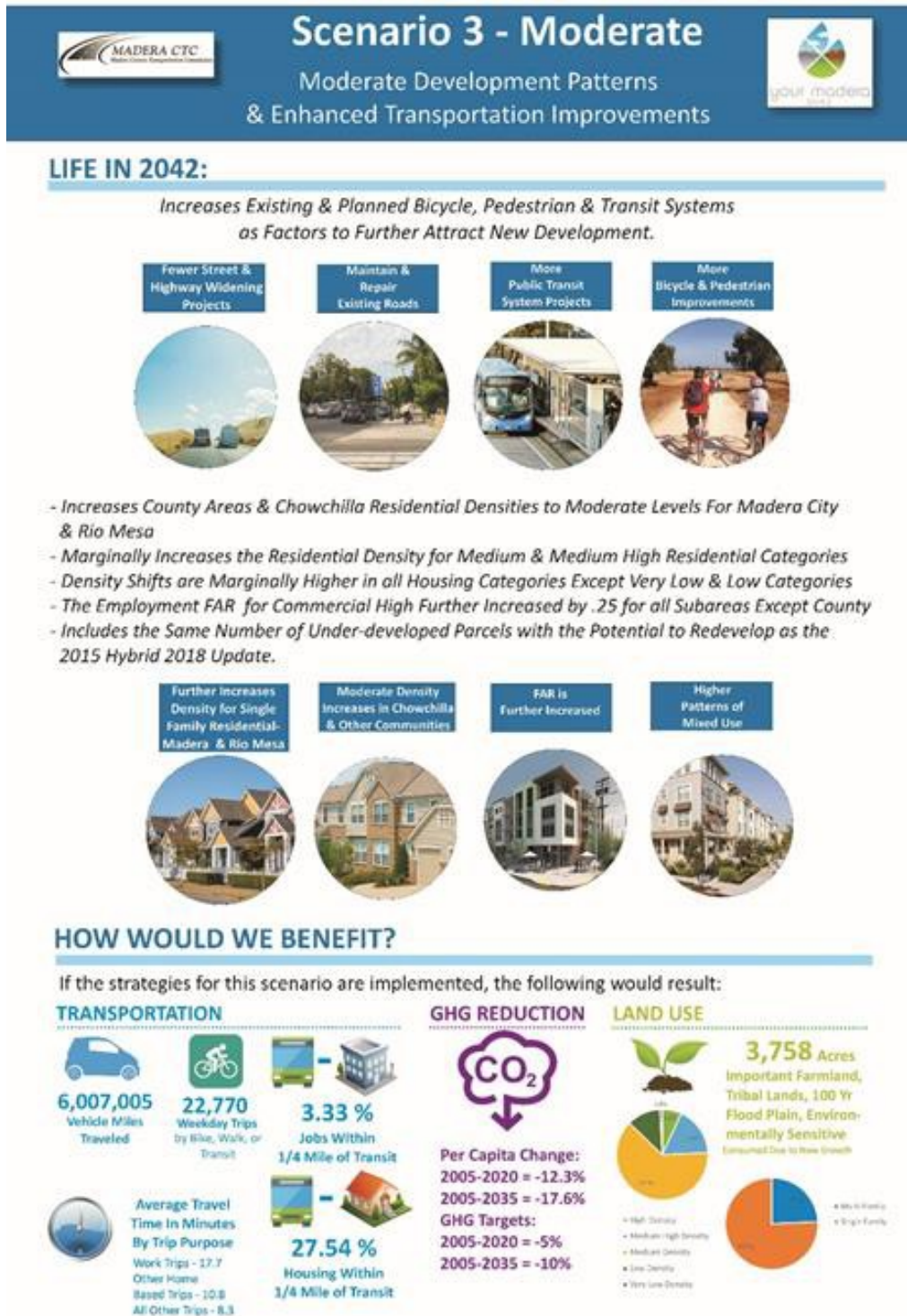


FIGURE 6-7  
Moderate Change Scenario Outcomes



### Step 6 - Run Scenario Datasets using the Traffic Model for Years 2020, 2035, and 2042

This section outlines the traffic modeling process conducted once the RTP/SCS land use alternatives were finalized. In general, the process consisted of:

- ✓ Developing **inputs** needed by the MCTC travel forecast model.
- ✓ **Running the model** for each future land use scenario and developing forecasts for horizon years required for the RTP (2020, 2035 and 2042).
- ✓ Checking and formatting the **model outputs** for analysis and to serve as inputs to the emissions modeling.
- ✓ Inputs to the model include socioeconomic data by TAZ, e.g.; average income, land use data and densities, vehicle ownership or vehicle availability; and transportation network characteristics, including type of facility, speed, and capacity, and average transit headways, where applicable. The model runs entail calculation of trip generation, distribution, assignment and mode shares. Model outputs include TAZ-level and network trip data by mode; roadway level of service data by road segment; and trip and VMT data by speed category for EMFAC emissions analysis.

Roadway improvement project lists were developed by MCTC with input from the County and the Cities of Madera and Chowchilla. All regionally significant transportation network improvements were reflected in the MCTC travel forecast model. A regionally significant improvement may be defined as one that could affect the destination, route or transportation mode chosen by travelers using motorized transportation. Typical improvements added to the model consist of street and highway widenings and roadway extensions. Several proposed improvements were removed from the model because funding sources could not be definitively identified.

Roadway improvements added to the model are systematically identified by location, project limits, the nature of the improvement, and the projected opening year. Transit improvements are not coded separately, since public transportation in the Madera region is rubber-tired and uses roadways. Transit travel times and attractiveness were updated in the model to reflect faster travel times on improved roads, as well as improved transit headways where applicable.

Effort was made to ensure that the land use forecasts would be compatible with MCTC's transportation forecast model. To this end, the land use forecasts were developed using the same zone system as the travel demand model. Once the future land use scenarios were finalized the results were translated to match the categories used in the travel demand model. Other TAZ data, such as income and household types and size were based on Census data and official forecasts for the Madera region.

As noted above, the MCTC model underwent a major upgrade as part of the Valley-wide Model Improvement program in 2011-12 and the model was revalidated to 2010 conditions in 2018. Thus, there

was no need for adjustments to the underlying transportation models. Vehicle operating costs, vehicle ownership factors were unchanged from the calibration model. No post-modeling adjustments were made to represent employer-based ridesharing or transit incentive programs, or to reflect possible effects of fine-scale mixture of interdependent land uses to the RTP forecasts.

The future model run outputs were reviewed for accuracy and reasonableness. For example, total population and employment and total trip generation for the Madera region was compared to total VMT assigned to the network to ensure that the volume of additional traffic assigned to the network was roughly proportional to the increased level of development in the region. Roadway volumes were checked across key facilities and screen lines to ensure that traffic was being assigned to the network in a reasonable manner, e.g., that new and improved facilities were attracting traffic appropriate to their speed, capacity and activity concentrations they serve.

The final step was to provide model dataset files to MCTC. The types of files provided include land use and socioeconomic data for the base year and each future scenario, as well as a master roadway file used with each future land use scenario.

#### Step 7 - Using EMFAC – Determine GHG Emissions for each Scenario - Years 2020 and 2035

This step focused on processing traffic model datasets or output for each scenario through the CARB-developed Emissions FACTor Model (EMFAC 2018) to estimate GHG emissions for years 2020, 2035 and 2042, as well as other Air Quality Conformity emission results for these and other years related to the State Implementation Plan (SIP) and the RTP horizon year of 2042.

#### Step 8 – Compare GHG Results to 2005 Base Year GHG Emissions/determine if results meet the GHG Emission Reduction Targets from 2005 Base Year of 5% by 2020 and 10% by 2035/Identify Off-Model Strategies

Table 6-4 provides the results of the SCS Scenario GHG reductions from the 2005 Base Year for year 2020 from the 2005 Base Year of 5 percent by 2020 and 10 percent by the year 2035. Results show that the RTP/SCS will surpass the established emission reduction targets.

TABLE 6-4  
Demonstration of GHG Emission Reduction Targets

Year	GHG Per Capita Reduction Targets	MCTC Per Capita GHG Reduction
2020	5.0%	12.3%
2035	10.0%	17.6 %



The scenarios were also evaluated or compared using a set of performance measures. Results of the performance measures for each alternative scenario are reflected in Table 6-5. For most of the measures, the scenarios resulted in improvements with more compact growth options.

As a result of legislation such as The Global Warming Solutions Act of 2006 and SB 375, great emphasis has been placed on establishing a variety of means to meet broad GHG emission reduction goals. As they pertain to transportation, not all of these measures are able to be accounted for in the Madera County transportation model. These strategies, as they relate to the RTP/SCS development process, are referred to as Off-Model strategies. MCTC staff has examined various policies and investments able to reflect meaningful emission information via way of off-model calculations. These off-model post-processing calculations are incorporated into the final technical reporting process reviewed by the California Air Resources Board.

Off-Model calculations explored include, but are not limited to, the following:

- ✓ Local Agency Climate Action Plans
- ✓ Public Transportation usage forecasting
- ✓ Ride-sharing program expansions
- ✓ Transportation investments
- ✓ Regional vanpooling
- ✓ Alternative fuels utilization
- ✓ Non-motorized

MCTC regularly looks for ways to improve the tools used for transportation planning related activities. It is a near-term goal of MCTC to improve its transportation model to better account for some of the impacts it is not currently built to account for related to transportation policies and investments.

## Resource Areas and Farmland

The Madera region has a very strong attachment to its open spaces and agricultural areas and is economically dependent on the agricultural industry. The region's economic wellbeing is dependent upon the vast amount of farmland that produces billions of dollars' worth of agricultural products. In addition to identifying areas where development is projected to occur, the SCS identified protected parklands and open space, natural resource areas, and farmland during application of the UPLAN land use allocation modeling process.

UPLAN utilized geographic information system layers to identify resource lands and keep growth and development from encroaching or consuming such sites to the extent possible. Referencing Table 6-5, the *Moderate Growth* or preferred transportation and land use scenario will impact or consume approximately 3,578 acres of agricultural and other resource lands as growth and development occurs



between now and the year 2042. Figures 6-2 through 6-4 depict the farmland that will be impacted or consumed as a result of each of the alternative SCS scenarios.

An important tool that will document how natural resources support the region's economy, health and quality of life, and to identify strategies to guide stewardship of land, water and living resources the Strategic Growth Council has funded the San Joaquin Valley Greenprint project. The project covers the eight (8) counties within the San Joaquin Valley.

A Steering Committee has been formed that consists of individuals representing the public and private sector and a diverse range of interests in the Valley's resources. The Greenprint has identified and compiled data for the natural resources in the San Joaquin Valley. The second phase is developing principles to guide resource management options and strategies.

## Capturing Public and Stakeholder Input

Between September 2017 and April 2018, the Madera County Transportation Commission (MCTC) held three series of public outreach events regarding the 2018 RTP/SCS throughout Madera County as noted below. A more detailed review of the outreach program conducted for the 2018 RTP/SCS is provided in Appendix C.



### *Series 1 Public Outreach Events*

*Purpose* – Introduce the 2018 RTP/SCS Development Process/Gather Input Regarding Land Use and Transportation Needs.

#### *RTP/SCS Roundtable Meetings 1 and 2 – Series 1*

MCTC formed the 2018 RTP/SCS Roundtable in August 2017. Roundtable meetings during Phase 1 of the outreach program were held on the following dates and focused on an overview of the 2018 RTP/SCS development process, review of the traffic and land use modeling process, review of Goals, Policies and

TABLE 6-5  
2018 RTP AND SCS PERFORMANCE MEASURES OF MODELED SCENARIOS

Goal: Performance Measure	No Build	Status Quo	Hybrid	Moderate Growth
<b>Goals 2, 3, &amp; 4. Mobility &amp; Accessibility</b>				
Vehicle Miles of Travel	5,818,654	5,993,885	5,985,488	5,983,670
Intrazonal Trips	97,888	101,304	101,396	99,677
Total VMT	5,916,542	6,095,190	6,086,884	6,083,347
Vehicle-Hours of Travel	166,061	164,260	164,762	163,420
Average Speed	35.9	35.9	35.9	35.9
Work Auto Trips	199,822	200,913	201,095	201,155
Work Transit Trips	195	184	185	186
Work Walk/Bike Trips	1,126	1,123	1,133	1,137
Work Total Trips	201,143	202,219	202,413	202,479
Non-Work Auto Trips	662,086	648,710	651,125	651,469
Non-Work Transit Trips	3,334	3,332	3,337	3,344
Non-Work Walk/Bike Trips	18,420	18,088	18,150	18,137
Non-Work Total Trips	683,840	670,130	672,612	672,951
Total Auto Trips	861,908	849,622	852,220	852,625
Total Transit Trips	3,529	3,515	3,522	3,530
Total Walk/Bike Trips	19,546	19,211	19,283	19,274
Total Trips	884,983	872,349	875,025	875,430
% Work Auto Trips	22.58%	23.03%	22.98%	22.98%
% Work Transit Trips	0.02%	0.02%	0.02%	0.02%
% Work Walk/Bike Trips	0.13%	0.13%	0.13%	0.13%
% Non-Work Auto Trips	74.81%	74.36%	74.41%	74.42%
% Non-Work Transit Trips	0.38%	0.38%	0.38%	0.38%
% Non-Work Walk/Bike Trips	2.08%	2.07%	2.07%	2.07%
% Total Auto Trips	97.39%	97.39%	97.39%	97.39%
% Total Transit Trips	0.40%	0.40%	0.40%	0.40%
% Total Walk/Bike Trips	2.21%	2.20%	2.20%	2.20%
<b>Goal 1. Social Equity</b>				
High Density	19%	38%	43%	47%
Medium High Density	38%	38%	34%	29%
Medium Density	43%	24%	23%	24%
Low Density	43%	24%	23%	24%
Very Low Density	43%	24%	23%	24%
Single Family Residential Units		13,085	12,894	12,788
Multiple Family Units		3,812	4,004	4,104
Total Housing Units	16,891	16,897	16,898	16,892
% Housing - Single Family		77.4	76.3	75.7
% Housing Multiple Family		22.6	23.7	24.3
% households within 0.25 miles of transit		2.85	3.22	3.33
% employment within 0.25 miles of transit		21.72	25.30	27.54
<b>Goal 3. Economic and Community Vitality</b>				
Industrial Employment	4659	4263	4061	4039
Commercial Low/Commercial High Employment	7123	7518	7720	7744
Total Employment	11,782	11,781	11,781	11,783
<b>Goals 2, &amp; 6. Sustainable Development</b>				
Total acres of new development		4737	3924	3578
Acres of farmland converted		790	617	445
Acres of new development in 100 year flood plain		296	200	194
Acres of vernal pools lands converted to new development		116	78	42
<b>Goals 2, 6, &amp; 9. Environmental Quality</b>				
CO2 Emission per capita in 2020		14.9	14.9	14.9
CO2 Emission per capita in 2035		14.0	14.0	14.0
Change in CO2 per capita from 05 to 20		-12.4%	-12.4%	-12.3%
Change in CO2 per capita from 05 to 35		-17.5%	-17.6%	-17.6%
<b>Goals 7 &amp; 9. Safety &amp; Health</b>				
Meets Federal health based emission budgets	No	Yes	Yes	Yes
% Funding allocated to Congestion Relief and Street & Road		0.81	0.76	0.75
% Funding allocated to Non-Motorized (Bike and Pedestrian) Projects		0.02	0.05	0.06
<b>Goal 7. System Performance</b>				
# of Level of Service Deficiencies	Greater than Scenarios	Equal to other Scenarios	Equal to other Scenarios	Equal to other Scenarios
% Funding allocated to transit improvements		0.16	0.17	0.17
% Funding allocated to other (signals, TDM, TCM, ITS, Aviation, Etc.) projects		0.01	0.01	0.02

Objectives, review of the proposed public outreach program, the development of demographic projections and the identification of local agency projects, project evaluation criteria and evaluation procedures.

- ✓ September 26, 2017 – MCTC Offices
- ✓ October 12, 2017 – MCTC Offices

#### Public Workshops – Series 1

- ✓ October 5, 2017 – Webster Elementary, Madera Ranchos, CA
- ✓ October 10, 2017 – Training Room, City Hall, Chowchilla, CA
- ✓ October 11, 2017 – Oakhurst Community Center, Oakhurst, CA
- ✓ October 12, 2017 – MCTC Offices, Madera, CA

Each workshop included a polling exercise focused on transportation and land use needs. Details and results are provided in Section 2 of this synopsis. Other Series 1 workshop details are also provided in Section 2.

#### Pop-up Events – Series 1

- ✓ Fairmead Health Fair, October 21, 2017 – Fairmead Elementary School, Chowchilla, CA
- ✓ First Five Event, October 25, 2017 – First Five Family Resource Center, Chowchilla, CA
- ✓ First Five Halloween Event, October 26, 2017 – First Five Family Resource Center, Madera, CA
- ✓ Cesar Chavez Elementary School Harvest Festival, Friday, November 3, 2017 – Cesar Chavez Elementary School, Madera, CA
- ✓ The Great American Smokeout, Thursday, November 16, 2017 – Madera, CA
- ✓ La Vina Community Meeting, Wednesday, December 6, 2017 – La Vina, CA

Each pop-up event included a survey exercise focused on transportation and land use needs. Details of the pop-up events and survey results are provided in Section 2 of this synopsis.

#### Presentations – Series 1

MCTC made a number of presentations to various groups (listed below) throughout the County between April 2017 and November 2017 including:

- ✓ Raymond Town Hall, Raymond-Knowles Elementary School Cafeteria, February 22, 2017
- ✓ Yosemite Lakes Town Hall – Yosemite Lakes Clubhouse, February 28, 2017



- ✓ Madera Town Hall – Grace Community Church, March 3, 2017
- ✓ Oakhurst Town Hall – Oakhurst Community Center, November 9, 2017

### *On-Line Survey – Series 1*

MCTC conducted an on-line survey between November 30, 2017 and December 26, 2017. Approximately 385 survey respondents completed the survey and provided their answers to six (6) important questions that assisted MCTC with development of the 2018 RTP/SCS considering public and stakeholder input. A synopsis of this survey is provided in Section 2 below.

### *Series 2 Public Outreach Events*

*Purpose* – Introduce the 2018 RTP/SCS Transportation and Land Use Scenario Alternatives/Gather Input Regarding Desired Land Use and Transportation Needs and Outcomes.

#### *RTP/SCS Roundtable Meeting 3 – Series 2*

The Roundtable met once during Phase 2 of the outreach program and focused on an overview of the 2018 RTP/SCS land use and transportation scenario development process. This included a more focused review of the traffic and land use modeling process, and a complete review of the proposed alternative scenarios for further review and refinement. A charrette was conducted to review preliminary scenario mapping and to identify suggested revisions and ideas for inclusion in each of the alternative scenarios.

- ✓ December 14, 2017 – MCTC Offices, Madera, CA

#### *Public Workshops – Series 2*

- ✓ March 5, 2018 – Council Chambers, City Hall, Chowchilla, CA
- ✓ March 6, 2018 – MCTC Offices, Madera, CA
- ✓ March 7, 2018 – Oakhurst Community Center, Oakhurst, CA
- ✓ March 8, 2018 – Webster Elementary, Madera Ranchos, CA

Each workshop included a charrette exercise focused on review of the three (3) alternative scenarios presented for review and comment including the:

- ✓ Status Quo Scenario
- ✓ Hybrid Scenario
- ✓ Moderate Growth Scenario

Details and results are provided in Section 3 of this synopsis. Other Series 2 workshop details are also provided in Section 3.

### **Presentations – Series 2**

MCTC made a number of presentations to various groups (listed below) throughout the County between December 2017 and March 2018 including:

- ✓ Oakhurst Town Hall – Oakhurst Community Center, January 6, 2018
- ✓ Raymond Town Hall, Raymond Town Hall, Raymond-Knowles Elementary School Cafeteria, February 22, 2018

### **Series 3 Public Outreach Events:**

*Purpose* – Further review the 2018 RTP/SCS Transportation and Land Use Scenario Alternatives/Gather Input and Recommend the Preferred Land Use and Transportation Scenario Alternative.

### **RTP/SCS Roundtable Meeting 4 – Series 3**

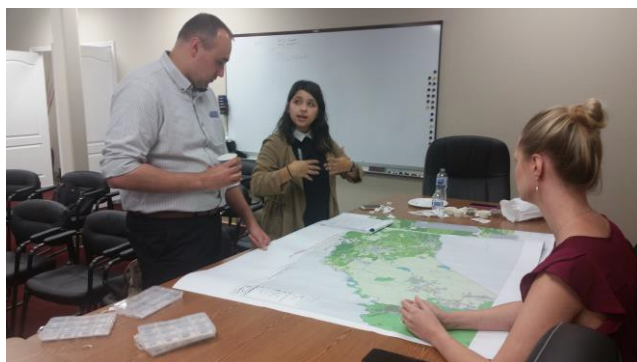
The Roundtable met once during Phase 3 of the outreach program and focused on an overview of the revised 2018 RTP/SCS land use and transportation scenario development process. This included continued review of the final alternative land use and transportation scenarios. Following review and comment, the Roundtable was asked to recommend a preferred scenario to the MCTC Board at its April 16, 2018 meeting. The Roundtable, without the objection of those present, recommended that the MCTC Board approve the Moderate Scenario as the preferred land use and transportation scenario for inclusion in the 2018 RTP/SCS and as the project alternative to be assessed in the MCTC 2018 RTP/SCS Draft Program Environmental Impact Report (DPEIR). Members of the Roundtable and the public were in attendance at the Roundtable Meeting, which preceded the Open House Workshop noted below.

- ✓ April 12, 2018 – MCTC Offices, Madera, CA

### **Public Workshop/Open House – Series 3**

- ✓ April 12, 2018 — MCTC Offices, Madera, CA

The open house workshop included a charrette exercise focused on review of the three (3) alternative scenarios presented for review and recommendation of a preferred scenario considering the:



- ✓ Status Quo Scenario
- ✓ Hybrid Scenario
- ✓ Moderate Growth Scenario

Details and results are provided in Section 4 of this synopsis. Other Series 3 workshop details are also provided in Section 4.



### Presentations – Series 3

MCTC made a number of presentations to various groups (listed below) throughout the County between December 2017 and March 2018 including:

- ✓ Coarsegold Town Hall, Coarsegold Community Center, April 26, 2018

### Series 4 Public Outreach Events:

*Purpose* – Review, receive comment on, and approve the 2018 RTP/SCS and DPEIR.

### MCTC Board Public Hearings – Series 4

MCTC held two (2) public hearings; 1) at its June 18, 2018 Board meeting during the 55-day review period as noted below, and 2) on June 19, 2018 at the Oakhurst Community Center in Oakhurst, CA. Finally, the MCTC Board will take action to certify the Final PEIR and the Final 2018 RTP/SCS at its August 22, 2018 meeting.

- ✓ July 18, 2018 – MCTC Board Public Hearing during Review Period - MCTC Offices
- ✓ July 19, 2018 – MCTC Board Public Hearing during Review Period – Oakhurst Community Center
- ✓ August 22, 2018 – MCTC Board Public Hearing to Certify the Final PEIR and Final 2018 RTP/SCS – MCTC Offices



## The Choice Scenario

On April 12, 2018, the RTP/SCS Roundtable reviewed results of the alternative scenario modeling process and agreed that the *Moderate Change Scenario* was the preferred SCS scenario. The Roundtable's recommendation to incorporate the *Moderate Change Scenario* in the 2018 RTP was forwarded to the MCTC Policy Board for its consideration on April 16, 2018. On April 9, 2018, VRPA Technologies, Inc. and MCTC conducted an open house workshop to review and discuss the alternative SCS scenarios with the general public and stakeholders. At the April 16, 2018 MCTC Board meeting, the Policy Board reaffirmed the Roundtable's recommendation and approved the *Moderate Change Scenario* as the scenario that should be reflected in the RTP and implemented to reduce GHG emissions in Madera County.

## Regional Housing Needs Allocation Consistency

The Madera Regional Housing Needs Allocation (RHNA) is a short-term planning process that currently covers the period from 2014 – 2023. The RHNA determines the region’s housing needs considering four (4) income categories including very low, low, moderate, and above moderate. The RHNA process takes place prior to the development of general plan housing elements by each of the local agencies. Previously, the RHNA process adhered to a five (5) cycle; however, SB 375 increased the cycle to 8 years. Linking the RHNA and SCS processes enhances the ability to integrate housing, land use, and transportation planning and meet the state’s housing goals.

MCTC has worked very closely with each of the local agencies and the California State Department of Housing and Community Development (HCD) to develop the housing needs allocations. This process ensures that the RHNA and SCS are consistent and that the mix of housing types developed as part of the SCS *Hybrid* scenario can accommodate the mix of housing required to comply with RHNA allocations and address each of the economic segments of the population. Thus, the SCS will help the region address RHNA housing allocation needs through 2023. Once the RHNA is complete and each local agency begins preparation of its housing element, the agencies will need to identify adequate sites to address its RHNA allocations. Housing elements are due no later than 18 months after the MCTC Board adopts the RTP/SCS.

## Consistency with Local Agency Formation Commission Policies

SB 375 requires that MCTC consult/coordinate with the Local Agency Formation Commission (LAFCO), focusing on the adopted Spheres of Influence (SOI) for each city adopted by LAFCO. The Madera LAFCO coordinates local and timely changes in local governmental boundaries (§56001); makes special studies to obtain and furnish information which contribute to the logical and reasonable development of local agencies; and prepares spheres of influence determinations for each local agency within the County (§56425). The Commission also promotes the efficient extension of services while encouraging the protection of agricultural and open space lands (§56001). Further efforts include discouraging urban sprawl and encouraging orderly formation and development of local agencies based upon local conditions and circumstances (§56301). For the MCTC RTP/SCS, Madera LAFCO was a member of the RTP/SCS Roundtable represented by County Planning staff. During development of the RTP/SCS, MCTC and LAFCO/County Planning staff met often to review SCS requirements, and to discuss growth projections and growth areas.

## Social Equity Considerations

As part of its transportation planning process, MCTC has developed an approach to ensuring that environmental justice (EJ) principles are considered during development of regional plans and programs. The RTP also reflects the analysis of RTP/SCS projects and programs on EJ communities and whether or not the EJ communities are impacted or disproportionately affected by the projects and programs in the RTP/SCS. Based upon the modeling conducted for the RTP/SCS, the projects and programs contained in the RTP/SCS will not impact or disproportionately affect EJ communities in the Madera region (reference Chapter 10 – *Addressing Environmental Justice*). Under Title VI and related statutes, MCTC assures that no person shall on the grounds of race, color, or national origin, as provided by Title VI of the Civil Rights Act of 1964, and the Civil Rights Restoration Act of 1987 (P.L. 100.259), be excluded from participation in, be denied the benefits of or otherwise subjected to discrimination under any agency-sponsored program or activity. Nor shall sex, age or disability stand in the way of fair treatment of all individuals.

MCTC further assures that every effort will be made to ensure nondiscrimination in all of its programs and activities, whether those programs and activities are federally funded or not. As noted previously, MCTC has conducted its RTP/SCS outreach program across all sectors of the Madera region, and specifically conducted events and workshops in Spanish to gain input from the EJ communities. In addition, MCTC provided the SCS web-based tool in Spanish to capture input from the Spanish-speaking public and ensure that access to such tools was provided to all Maderans.

## Public Health Benefits

MCTC recognizes that the 2018 RTP/SCS may have an impact on the health of the region's residents. Research shows that certain aspects of the transportation infrastructure, including public transit, sidewalks and safe street crossings near schools, and bicycle paths, are associated with more walking and bicycling, greater physical activity, and lower obesity rates. The RTP/SCS supports the integration of transportation and land use policies, projects, and programs that will enhance public health improvements through active transportation modes such as those noted above. The *Hybrid* scenario enhances health in the region by improving the connection between land use and transportation. The result is more walkable communities, increased bicycling, more people using transit, and better access to healthy food. Health improvements can also be affected or improved through a less-carbon intensive vehicle fleet. Through near zero and zero-emission vehicle technologies, the 2018 RTP/SCS promotes a more sustainable future for the region that includes lessened tail pipe emissions from the vehicles.

## CEQA Streamlining

SB 375 identifies CEQA streamlining allowances and how they will be applied by the local agencies as growth and development occurs throughout the region. Specifically, SB 375 includes opportunities for streamlining the CEQA process, when certain conditions are met, as an incentive for implementing projects that are consistent with this SCS. There are two types of projects for which CEQA requirements can be streamlined once MCTC adopts the 2018 RTP/SCS that meets the greenhouse gas targets established by CARB: residential/mixed use projects and transit priority projects. MCTC will begin developing CEQA streamlining guidelines in 2018.



# **Chapter 7**

## **Investing In Change**





## 7. Investing In Change

### Introduction

The Financial Element is an invaluable tool in understanding and implementing the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), which guides transportation policies and investments for Madera County. This section provides a long-range view of the proposed transportation infrastructure within Madera County and its economic impacts and opportunities. The Financial Element specifically identifies current and anticipated revenue and strategies to fund transportation projects described in Chapter 5 – *Delivering the Plan for Change*. Primary transportation modes addressed are highways, local streets and highways, public transit, active transportation or non-motorized systems (bicycle and pedestrian), rail projects and others.

The main focus of this financial analysis is to forecast the County's transportation system capital, operating, maintenance and rehabilitation needs and costs relative to reasonably available forecasted revenue and to optimize transportation investments in Madera County. This effort ultimately reveals the magnitude of transportation network needs and projected funding gap that must be bridged or backfilled to address identified needs. The overall economic outlook will be a major determinant in the availability of funding over the planning horizon.

Key components addressed in this chapter are:

- ✓ Summary of costs to operate and maintain the current transportation system.
- ✓ Projections of costs and revenue to implement projects in Chapter 5 – *Delivering the Plan for Change*.
- ✓ Existing and potential transportation funding sources.
- ✓ Consideration of the unconstrained list of candidate projects if funding becomes available.
- ✓ Potential funding shortfalls.
- ✓ Consistency between the improvement projects listed in Chapter 5 and the Interregional Transportation Improvement Program (ITIP) and the Regional Transportation Improvement Program (RTIP).
- ✓ Addresses the specific financial strategies required to ensure TCMs from the SIP can be implemented.

Projections of potential federal, State, and local funding are reflected, along with projected costs of proposed transportation projects through 2042. Extensive public participation outreach efforts undertaken during development of this RTP/SCS provide a firm basis for reflecting projects consistent with the desires of the community. As a result, this section was developed collaboratively with Madera County jurisdictions ensuring that the selection of transportation projects by the region is reflective of public input.

Maintenance and rehabilitation of Madera County’s multi-modal transportation system will be an on-going effort throughout the horizon of this Plan. While significant emphasis is placed on sustainable communities’ strategies, maintaining, rehabilitating, and operating the County’s existing transportation modes will be vital to ensure on-going connectivity and a balanced and diverse transportation network.

## Financially-Constrained Plan

The RTP/SCS is required to be “financially constrained,” reflecting those projects that can be realistically funded based on projected revenue and funding opportunities. Projects identified as needed but for which funds have not been identified are also included as unconstrained projects and would receive priority should funding become available. Challenges posed by this Plan become evident as the cost of identified transportation needs exceeds projected funding.

## Senate Bill 1 – The Road Repair and Accountability Act of 2017

Senate Bill (SB) 1 was signed by Governor Brown on April 28, 2017. SB 1 increases several taxes and fees to raise over \$5 billion annually (Statewide) in new transportation revenues. SB 1 prioritizes funding towards maintenance and rehabilitation and safety improvements on State highways, local streets and roads, and bridges and to improve the State’s trade corridors, transit, and active transportation facilities.



Per the California Department of Finance (DOF) estimates, once fully implemented, approximately \$4 million per year in new revenue is earmarked for local street and highway maintenance, rehabilitation, and other eligible uses, including complete streets projects, traffic signals, and drainage improvements.

## Projected Revenues

A projection of reasonably available revenue is required to determine how many proposed projects can be fully funded through 2042. This Element of the RTP/SCS reflects traditional or historical growth trends in transportation funds available from a variety of federal, State, and local sources. Consistently reliable sources of funding, such as the excise gas tax, however, may become less stable as fuel sales decline and transportation costs rise. The continuation of Measure T and the collection of projected County-wide

impact assessment fees are assumed. The loss of these large revenue sources would significantly impact the ability of the County to deliver projects.

It is acceptable practice to identify funding sources that are reasonably expected to be available during the planning period. Measure T is the second transportation sales tax measure passed in Madera County, which provides ½ percent sales tax proceeds for transportation projects and programs. It is therefore expected that Measure T will be renewed by or prior to the year 2027, which is when the Measure sunsets. Financial assumptions are always based on uncertainty and the federal and State funding sources used to develop the financial constrained revenue projections are all also based on the assumption that Congress and the State of California will continue to appropriate funds. When funding sources or programs are eliminated, or when Congress passes new transportation reauthorization legislation, the RTP/SCS is updated to reflect those changes.

A number of key revenue assumptions were made to develop the finance program described in this chapter and are described below.

## Revenue Assumptions

- ✓ Availability of historical revenue through 2042 for all transportation modes and systems.
- ✓ Fixing America's Surface Transportation (FAST) Act reauthorization with historical program revenue allocations.
- ✓ Extension of Madera County's Local ½ Percent Sales Tax (Measure T) beyond the year 2027 to 2042.
- ✓ Availability of projected County-wide impact fees.
- ✓ Revenues were inflated.

Table 7-1 shows the cumulative available transportation revenue in constant dollars for all modes. \$1.608 billion is projected for the planning period (year 2018 through 2042).

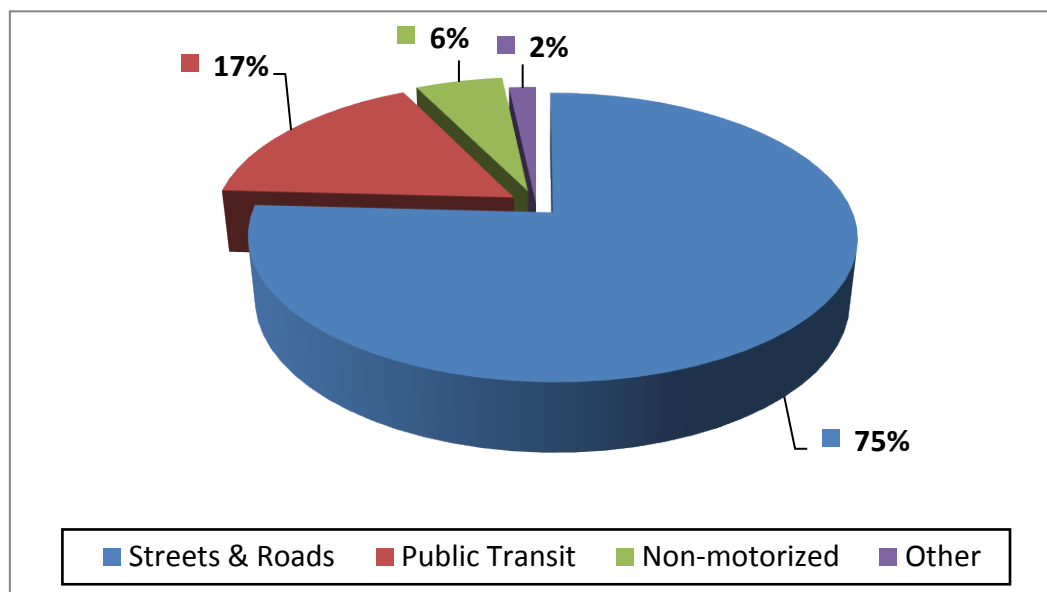
As shown in Figure 7-1, \$1,219.50 million or 75 percent of projected revenue through the year 2042 will be expended on streets and highways; \$271.07 million or 17 percent allocated to public transit; \$90.02 million or 6 percent to be expended on active transportation or non-motorized systems, and \$27.42 million or 2 percent allocated to other transportation projects, such as alternative-fuel projects, other transportation control measures (TCMs) and transportation systems management (TSM) projects.

TABLE 7-1  
Revenues by Mode 2018 – 2042 (\$ Millions)

Mode	Total	Percent
Streets and Roads	\$1,219.5	75 %
Public Transit	\$271.07	17 %
Non-Motorized	\$90.02	6 %
Other*	\$27.42	2 %
Total	\$1,608.00	100%

\* Includes no and low-emission vehicle projects; electric charging stations; traffic signals; and various transportation control measures/transportation systems management projects, etc.

FIGURE 7-1  
Projected Revenue Percentage by Mode Year 2018 – 2042



Local funds, including developer fees and fair share contributions, will be the greatest source of transportation funding for Madera County at \$1,031.36 million or 68% of total, as shown on Tables 7-2 and 7-3 and Figure 7-2. These funds are collected to address impacts to the countywide transportation system and specific project-related impacts caused by new development.

Federal funds will be the second greatest at \$297.98 million or 19%, while State funds are projected at \$209.45 million or 13% of total revenues.

**TABLE 7-2**  
**Revenue Summary 2018-2042 (\$ Millions)**

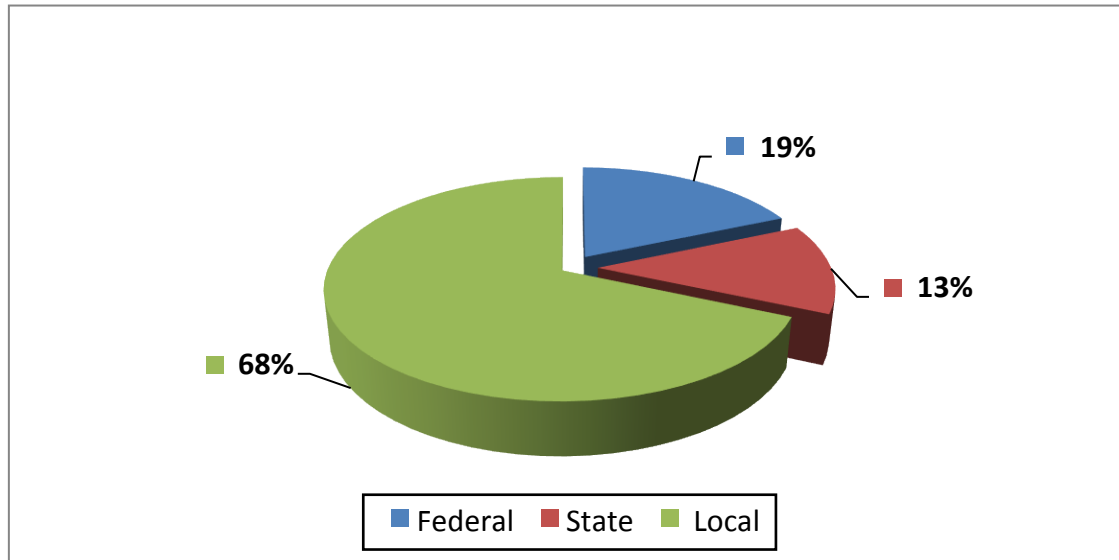
Funding Type	Total	Percent
Federal	\$297.98	19%
State	\$209.45	13%
Local	\$1,100.57	68%
Total	\$1,608.00	100%

**TABLE 7-3**  
**Projected Revenue by Funding Source 2018 – 2042 (\$ Millions)**

Project Type	Federal	State	Local	Total
Streets and Highways	\$101.54	\$86.60	\$1,031.36	\$1,219.50
Public Transit	\$141.99	\$96.46	\$32.62	\$271.07
Active Transportation or Non-Motorized	\$38.12	\$21.52	\$30.38	\$90.02
Other	\$16.34	\$4.87	\$6.21	\$27.42
Total	\$297.98	\$209.45	\$1,100.57	\$1,608.00
% of Total	19%	13%	68%	100.0%



FIGURE 7-2  
Projected Revenue Percentage by Funding Source 2018 – 2042



## Projected Expenditures

Key assumptions used in projecting expenditures include the following:

- ✓ The current level of street and highway operating, maintenance, and rehabilitation costs will continue through 2042.
- ✓ Transit expansion is initiated when a threshold or increment of 5,000 households is reached in a core growth area. Transit operating and capital improvements reflect on-going costs, including vehicle replacements and additional vehicles with transit enhancements.
- ✓ Fixing America's Surface Transportation (FAST) Act reauthorization with historical program revenue allocations and availability of State revenues will continue through year 2042.
- ✓ Madera County's Local  $\frac{1}{2}$ % Sales Tax for Transportation - Measure T, will continue beyond year 2027 to 2042.
- ✓ MCTC support to provide funding through the year 2042 to further "complete street" and "active transportation" concepts for aesthetic streetscapes, pedestrian walkability, and bicycle projects, etc.
- ✓ Major street and highway improvements that include facilities for active transportation systems as appropriate and feasible.

Table 7-4 provides an expenditure summary by mode. Table 5-2 in Chapter 5 of this Plan shows the delivery schedule and funding sources applied to develop the constrained capacity increasing street and highway improvement projects.

**TABLE 7-4**  
**Expenditure Summary by Mode 2018 – 2042 (\$ Millions)**

Mode	Total	Percent
Streets and Highways – Rehabilitation and Safety	\$215.38	13%
Streets and Highways – Capacity Increasing Projects	\$1,004.12	62%
Subtotal: Streets & Highways	\$1,219.50	
Public Transit	\$271.07	17%
Active Transportation or Non-Motorized Projects/Programs	\$90.02	6%
Other Projects/Programs*	\$27.42	2%
Total	\$1,608.00	100%

*\* Includes no and low-emission vehicle projects; electric charging stations; traffic signals; and various transportation control measures, transportation systems management projects, and others*

## Unconstrained Projects

Table 7-5 provides a list of needed capacity increasing projects that cannot be funded within the 24-year timeframe of the RTP/SCS. MCTC, Caltrans, and the local agencies should work cooperatively to identify appropriate funding sources to consider programming the projects.

**TABLE 7-5**  
**2018 Unconstrained Capacity Increasing Projects**

Agency	Project Number	Route	Project Limits	Planned Improvement	Estimated Cost
County	1	Ave 9	Rd 33 1/2 to Rd 38	2 Lanes to 4 Lanes	N/A
County	2	Rd 206	Madera County Line to Rd 145	2 Lanes to 4 Lanes	N/A
County	3	SR 41	NB On-Ramp/SR 41 At Children's Blvd.	1 Lane to 2 Lanes	N/A
County	4	SR 145	SR 145 Connector Ave 17/SR 99	New 2 Lane Road	N/A
Madera	5	Storey Rd	SR 145 to City Limit	2 Lanes to 4 Lanes	\$ 2,400,000
Madera	6	Cleveland Ave	Rd 26 to SR 99	4 Lanes to 6 Lanes/Interchange Improvements	\$ 100,000,000
Madera	7	Ellis St	Interchange At SR 99	Convert to Interchange	\$ 60,000,000
State	8	Rd 145	Rd 206 to SR 41	2 Lanes to 4 Lanes	N/A
State	9	SR 99	SR 152 Interchange	New Interchange and Rail Crossing	\$ 100,000,000
State	10	SR 99	SR 152 to Merced County Line	4 Lanes to 6 Lanes	N/A
Madera	13	W. Kennedy St.	SB SR 99 Off Ramp to Ellis St.	4 Lanes to 6 Lanes	N/A

## Impact of Measure T Extension

The largest mode expenditures occur in the streets and highways category. If Measure T is not renewed by the year 2027, a potential shortfall of \$224 million will occur. The shortfall is comprised of future Measure T funds designated for transportation projects. Although other funds earmarked to match Measure T funds would help fund other non-Measure T projects, the impact will be negligible compared to the magnitude of funding offered by Measure T.

This potential shortfall signifies the challenges that lie ahead in ensuring renewal of Measure T through the year 2042 to meet the projected growth and increased demands on Madera County's multi-modal transportation systems. The potential revenue shortfall also points to the need for efficient and timely project implementation to maximize forecasted revenue and to be well positioned to receive potential future federal and State funds. Clearly, the goal of achieving a fully implemented RTP/SCS that will vastly improve the quality of life in Madera County, will be a significant challenge without the infusion of increased revenues from existing and other new funding sources.

# **Chapter 8**

## **Public Involvement for Change**



## 8. Public Involvement for Change

### Introduction

The MCTC Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) plays a major role in establishing goals and objectives and guide development of infrastructure improvements. Extensive efforts were made to achieve consultation and coordination with all transportation providers, facility operators, appropriate federal, state, and local agencies, Native American Tribal Governments, environmental resource agencies, air districts, pedestrian and bicycle representatives, and adjoining MPOs/RTPAs according to the requirements of 23 CFR 450.316 and the 2017 MCTC Public Participation Plan (PPP – reference Appendix B of this RTP/SCS).

The MCTC PPP, was recently updated (2017) consistent with SAFETEA-LU guidance, Moving Ahead for Further Progress in the 21st Century (MAP-21) requirements, the Fixing America’s Surface Transportation (FAST) Act, and Senate Bill (SB 375) public participation requirements. The PPP was developed in consultation with federal, state, and local agency partners, and guided the public participation program of the 2018 RTP/SCS. The PPP establishes a baseline for MCTC communication policies and procedures, ensuring that public is well informed during the decision-making process. Detailed within the PPP is the length of public comment periods for MCTC documents; methods MCTC employs to distribute information; and goals for public access. The PPP is also available on the MCTC website at: <http://www.maderactc.org/wp-content/uploads/2018/02/2017-Public-Participation-Plan.pdf>.



The 2018 RTP/SCS public participation program built on the success of previous public outreach campaigns to ensure widespread dissemination of information to a geographically and socially diverse population. Since the last RTP update in 2014 and RTP Amendment No. 1 in 2017, MCTC staff has continued to engage the public through workshops, public meetings, and presentations at service clubs and professional organizations. Educating the public about the regional transportation planning process and opportunities for continued public participation and input remains a priority for MCTC. A detailed summary of the public outreach process for this RTP/SCS is provided in Appendix C.



## Environmental Impact Report

A Notice of Preparation (NOP) for the 2018 RTP/SCS Program Environmental Impact Report (PEIR) was prepared and distributed in May 2017 to the appropriate regulatory agencies for consultation and comment. A Scoping Meeting was held to discuss the environmental review process on June 15, 2017. The NOP and received comment letters are provided in Appendix A and B in the Draft PEIR. A Final PEIR will be considered for certification and includes comments and responses to comments on the Draft RTP/SCS and the Draft PEIR. Table 1 in Appendix C of the RTP/SCS provides a listing of all agencies contacted during development of the RTP/SCS and the PEIR.

## RTP and SCS Roundtable

MCTC formed the 2018 RTP/SCS Roundtable in August 2017. Over the 9-month RTP/SCS development process, the Roundtable met four (4) times to assist MCTC with preparation of the document. Specifically, the Roundtable reviewed the traffic and land use modeling processes, goals, objectives and policies, the project prioritization process, development of the SCS alternative scenarios, review of alternative scenario modeling results and performance measures, and provided a recommendation of the preferred RTP/SCS scenario to the MCTC Policy Board. The Roundtable was composed of a diverse membership of stakeholders within the County including local agencies, Caltrans, environmental justice representatives, private citizens, developers, and others. An even wider group of stakeholders were invited to the meetings including all tribal Organizations (such as Picayune Rancheria of Chukchansi Indians, North Fork Mono Tribe, North Fork Rancheria Tribal Office, Mono Nation, the Chowchilla Tribe of Yokuts and all surrounding tribes within or adjacent to the counties of Fresno, Tulare, Merced and Mariposa) because they are directly or indirectly affected by the planned transportation system. In addition, school districts and colleges, and other regional/subregional agencies including the Economic Development Commission and each Chamber of Commerce were invited or attended the Roundtable meetings. Table 1 in Appendix C of this RTP/SCS provides a listing of those agencies invited to become members of the Roundtable; specifically those under the heading Tribal Governments, Local Agencies, and Other

Agencies/Organizations and Caltrans.



## RTP and SCS Public Workshops

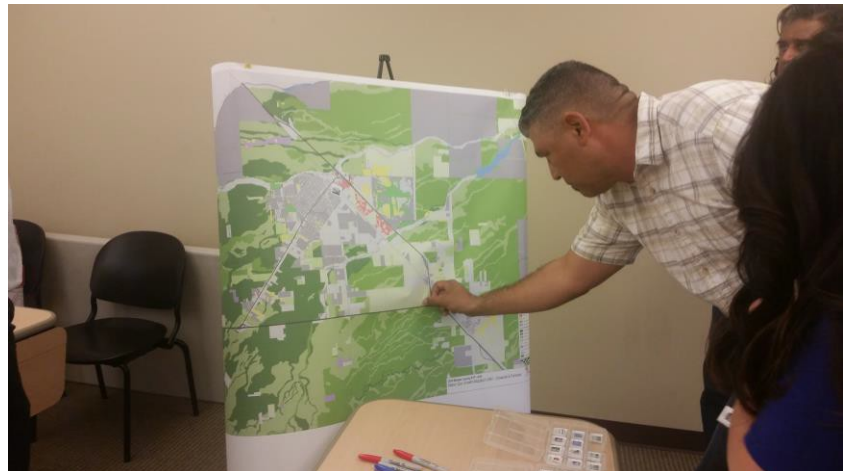
### *Series 1*

The first series of public workshops to review the 2018 RTP/SCS and the PEIR development process and to identify transportation and land use needs

and environmental issues was held in October 2017 in Oakhurst, Madera Ranchos, the City of Madera, and the City of Chowchilla following an extensive public outreach campaign including newspaper advertisements, email invitations, social media postings, and a notice on the MCTC website. To make public participation as convenient as possible, staff felt it was important to have a number of different workshops throughout the County. The selected time for each workshop was between 5:30 and 7:30 p.m. to make attendance more accessible.

### *Series 2*

MCTC conducted a set of workshops in March 2018 in the Oakhurst, Madera Ranchos, City of Madera, and City of Chowchilla subregions to review the alternative land use and transportation scenarios with the public and stakeholders. Feedback from this workshop provided insight into the desires of the public regarding how they wanted Madera County to grow and develop and be served by transportation in the future. Their desire was to move forward with the most aggressive scenario or the Moderate Scenario, which envisions higher density housing and emphasis on alternative forms of transportation such as walking, biking and transit. Land use performance measures were presented including density shift, development coverage, acres of farmland lost, and others. Attendees were told that the next workshop (Series 3) would present transportation performance measures including VMT reductions. MCTC staff told the attendees that staff would present the scenarios again following additional modeling refinement at the Series 3 outreach process at workshop/open house in April 2018.



### *Series 3*

A third public workshop/open house was conducted on April 12, 2018 at the MCTC offices following the final Roundtable meeting. The focus of the workshop/open house was to again present the alternative RTP/SCS scenarios and receive feedback from attendees regarding and confirming the preferred RTP/SCS scenario discussed at the Series 2 workshops.

### *Series 4*

A final workshop was held during the Draft RTP, SCS, and PEIR public review process. The workshop was noticed, reflected on the MCTC website, and focused on receiving comment from stakeholders and the public regarding the Draft documents.

## RTP and SCS Environmental Justice Community Outreach

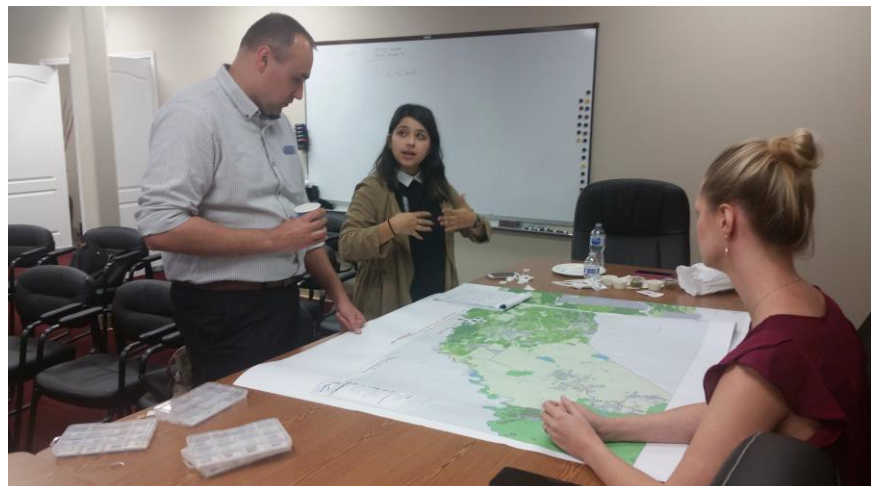
MCTC conducted six (6) Environmental Justice (EJ) events to receive input from the EJ community in the City of Madera, the City of Chowchilla, and the Communities of Fairmead and La Vina. All events were conducted in English and in Spanish and MCTC received significant feedback from a variety of Madera County residents and employees. Surveys were also collected at these events, which provided valuable feedback to develop the alternative scenarios.

## MCTC On-Line Survey

In addition to the public workshops and other outreach efforts, MCTC desired to receive input to aid in development of the RTP/SCS alternative scenarios from a wide variety of residents, employees, stakeholders, and others from within and outside of the Madera region. The MCTC on-line survey was linked to the MCTC website in November 2017 and continued to be available to receive input. The survey was advertised throughout Madera County on workshop noticing materials, on social media, and through email blasts. Prior to approval of the preferred RTP/SCS scenario by the MCTC Policy Board, approximately 385 people completed the on-line survey process providing vital input in English and in Spanish. Based upon the results, specific outcomes associated with the Moderate Scenario were identified by those who provided their opinion using the survey.

## RTP and SCS and PEIR Approvals

Following completion of the mandatory 55-day review of the Draft RTP/SCS, and PEIR documents by stakeholders and the public, MCTC staff prepared the Final RTP/SCS and PEIR and submitted the documents to the MCTC Board for approval. The Policy Board held public hearings regarding the Draft RTP/SCS and the Draft PEIR during the Draft review period in July 2018.



A synopsis of each phase of the 2018 RTP/SCS Outreach Program is provided below and further details are contained in Appendix C.

## 2018 RTP and SCS Outreach Event Synopsis

Between September 2017 and April 2018, MCTC held three (3) series of public outreach events regarding the 2018 RTP/SCS throughout Madera County as noted below. Series 4 was conducted to provide for review and approval of the Draft 2018 RTP/SCS and the associated Draft PEIR.

### *Series 1 Public Outreach Events:*

*Purpose* – Introduce the 2018 RTP/SCS Development Process/Gather Input Regarding Land Use and Transportation Needs.



### *RTP/SCS Roundtable Meetings 1 and 2 – Series 1*

MCTC formed the 2018 RTP/SCS Roundtable in August 2017. Roundtable meetings during Phase 1 of the outreach program were held on the dates noted below and focused on an overview of the 2018 RTP/SCS development process, review of the traffic and land use modeling process, review of goals, policies and objectives, review of the proposed public outreach program, development of demographic projections and the identification of local agency projects, project evaluation criteria and evaluation procedures.

- ✓ September 26, 2017 – MCTC Offices, Madera, CA
- ✓ October 12, 2017 – MCTC Offices, Madera, CA

### *Public Workshops – Series 1*

- ✓ October 5, 2017 – Webster Elementary, Madera Ranchos, CA
- ✓ October 10, 2017 – Training Room, City Hall, Chowchilla, CA

- ✓ October 11, 2017 –Oakhurst Community Center, Oakhurst, CA
- ✓ October 12, 2017 – MCTC Offices, Madera, CA

Each workshop included a charrette and polling exercise focused on transportation and land use needs. Details and results are provided in Section 2 of this synopsis.

#### Pop-up Events – Series 1

- ✓ Fairmead Health Fair, October 21, 2017 – Fairmead Elementary School, Chowchilla, CA
- ✓ First Five Event, October 25, 2017 – First Five Family Resource Center, Chowchilla, CA
- ✓ First Five Halloween Event, October 26, 2017 – First Five Family Resource Center, Madera, CA
- ✓ Cesar Chavez Elementary School Harvest Festival, Friday, November 3 – Cesar Chavez Elementary School, Madera, CA
- ✓ The Great American Smokeout, Thursday, November 16, 2017 Madera, CA
- ✓ La Vina Community Meeting, Wednesday, December 6, 2017, La Vina, CA

Each pop-up event included a charrette exercise and survey focused on transportation and land use needs.

#### Presentations – Series 1

MCTC made presentations at four (4) Town Hall meetings (listed below) located throughout the County between February 2017 and November 2017 including:

- ✓ Raymond Town Hall, Raymond-Knowles Elementary School Cafeteria, February 22, 2017
- ✓ Yosemite Lakes Town Hall – Yosemite Lakes Clubhouse, February 28, 2017
- ✓ Madera Town Hall – Grace Community Church, March 3, 2017
- ✓ Oakhurst Town Hall – Oakhurst Community Center, November 9, 2017

#### On-Line Survey – Series 1

MCTC conducted an on-line survey beginning in November 30, 2017. Approximately 385 survey respondents completed the survey and provided their answers to six (6) important questions that assisted MCTC with development of the 2018 RTP/SCS and preferred scenario considering public and stakeholder input.

#### Series 2 Public Outreach Events:

*Purpose* – Introduce the 2018 RTP/SCS Transportation and Land Use Scenario Alternatives/Gather Input Regarding Desired Land Use and Transportation Needs and Outcomes.

#### RTP/SCS Roundtable Meeting 3 – Series 2

The Roundtable met once during Phase 2 of the outreach program and focused on an overview of the 2018 RTP/SCS land use and transportation scenario development process. This included a more focused



review of the traffic and land use modeling process, and a complete review of the proposed alternative scenarios for further review and refinement. A charrette was conducted to review preliminary scenario mapping and to identify suggested revisions and ideas for inclusion in each of the alternative scenarios.

- ✓ December 14, 2017 – MCTC Offices, Madera, CA

#### Public Workshops – Series 2

- ✓ March 5, 2018 – Council Chambers, City Hall, Chowchilla, CA
- ✓ March 6, 2018 – MCTC Offices, Madera, CA
- ✓ March 7, 2018 – Oakhurst Community Center, Oakhurst, CA
- ✓ March 8, 2018 – Webster Elementary, Madera Ranchos, CA

Each workshop included a charrette exercise focused on review of the three (3) alternative scenarios presented for review and comment including the:

- ✓ Status Quo Scenario
- ✓ Hybrid Scenario
- ✓ Moderate Growth Scenario

#### Presentations – Series 2

MCTC made two (2) presentations to groups (listed below) in the Madera Foothill area between January and February 2018 including:

- ✓ Oakhurst Town Hall – Oakhurst Community Center, January 6, 2018
- ✓ Raymond Town Hall, Raymond Town Hall, Raymond-Knowles Elementary School Cafeteria, February 22, 2018

#### Series 3 Public Outreach Events:

*Purpose* – Further review the 2018 RTP/SCS Transportation and Land Use Scenario Alternatives/Gather Input and Recommend the Preferred Land Use and Transportation Scenario Alternative.

#### RTP/SCS Roundtable Meeting 4 – Series 3

The Roundtable met once during Phase 3 of the outreach program and focused on an overview of the revised 2018 RTP/SCS land use and transportation scenario development process. This included continued review of the final alternative land use and transportation scenarios. Following review and comment, the Roundtable was asked to recommend a preferred scenario to the MCTC Board at its April 16, 2018 meeting. The Roundtable, without the objection of those present, recommended that the MCTC Board approve the Moderate Scenario as the preferred land use and transportation scenario for inclusion in the 2018 RTP/SCS and as the project alternative to be assessed in the MCTC 2018 RTP/SCS Draft

Program Environmental Impact Report (DPEIR). Members of the Roundtable and the public attended the Roundtable Meeting, which preceded the Open House Workshop noted below.

- ✓ April 12, 2018 – MCTC Offices, Madera, CA

#### *Public Workshop/Open House – Series 3*

- ✓ April 12, 2018 — MCTC Offices, Madera, CA

The open house workshop included a review of the three (3) alternative scenarios presented for review and recommendation of a preferred scenario considering the:

- ✓ Status Quo Scenario
- ✓ Hybrid Scenario
- ✓ Moderate Growth Scenario

#### *Presentations – Series 3*

MCTC made one (1) presentation (listed below) in Coarsegold in April 2018.

- ✓ Coarsegold Town Hall, Coarsegold Community Center, April 26, 2018



#### *Series 4 Public Outreach Events:*

*Purpose* – Review, receive comment on, and approve the 2018 RTP/SCS and DPEIR.

#### *MCTC Board Public Hearings – Series 4*

MCTC held two (2) public hearings; 1) at its June 18, 2018 Board meeting during the 55-day review period as noted below, and 2) on June 19, 2018 at the Oakhurst Community Center in Oakhurst, CA. Finally, the MCTC Board will take action to certify the Final PEIR and the Final 2018 RTP/SCS at its September 19, 2018 meeting.

- ✓ July 18, 2018 – MCTC Board Public Hearing during Review Period - MCTC Offices
- ✓ July 19, 2018 – MCTC Board Public Hearing during Review Period – Oakhurst Community Center
- ✓ September 19, 2018 – MCTC Board Public Hearing to Certify the Final PEIR and Final 2018 RTP/SCS – MCTC Offices

# Chapter 9

## System Performance



## 9. System Performance

### Introduction

The Moving Ahead for Progress in the 21st Century Act (MAP-21) is the Federal transportation funding bill signed into law in 2012. A key feature of MAP-21 is the establishment of a performance- and outcome-based program, known as “Performance Based Planning,” with the objective to invest in projects that will make progress toward the achievement of the nation goals for transportation. The most recent Federal transportation bill, Fixing America’s Surface Transportation Act of 2016 (FAST Act), carries forward the same performance management framework. These acts established new performance management requirements to ensure that state Departments of Transportation and MPOs improve project decision-making through performance-based planning and programming to choose the most efficient investments for Federal transportation funds and beginning in 2018 will be required to implement the Federal performance measures.

### Transportation Performance Management

The Federal Highway Administration defines Transportation Performance Management (TPM) as a strategic approach that uses system information to make investment and policy decisions to achieve national performance goals. TPM’s key characteristics can be summarized as follows:

- ✓ Is systematically applied; a regular, ongoing process
- ✓ Provides key information to help decision makers, allowing them to understand the consequences of investment decisions across transportation assets and modes
- ✓ Improving communications among decision makers, stakeholders and the traveling public
- ✓ Ensuring targets and measures are developed in cooperative partnerships and based on data and objective information

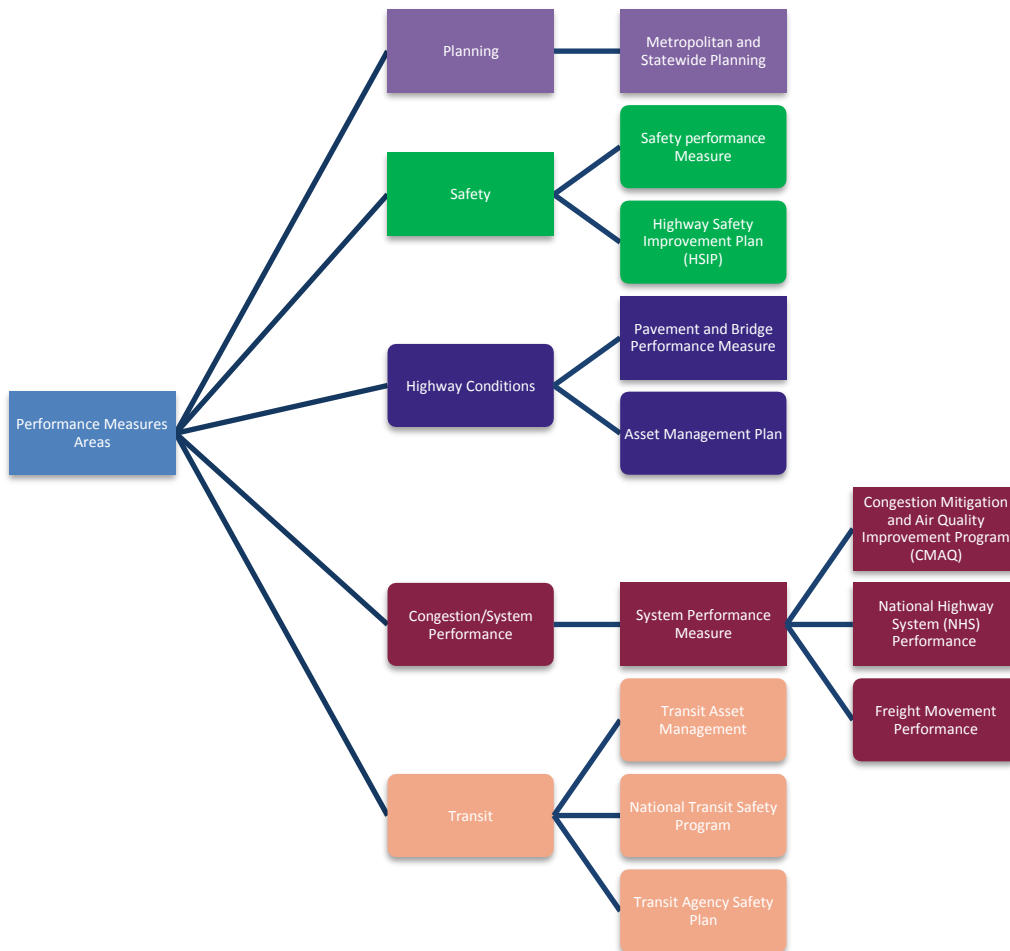
The national transportation performance goals established by MAP-21 are as follows:

- ✓ Safety: achieve a significant reduction in traffic fatalities and serious injuries on all public roads
- ✓ Infrastructure Condition: maintain the highway infrastructure asset system in a state of good repair
- ✓ Congestion Reduction: achieve a significant reduction in congestion on the National Highway System
- ✓ System Reliability: improve the efficiency of the surface transportation system
- ✓ Freight Movement and Economic Vitality: improve the national freight network, strengthen the ability of rural communities to access national and international trade markets and support regional economic development

- ✓ Environmental Sustainability: enhance the performance of the transportation system while protecting and enhancing the natural environment
- ✓ Reduced Project Delivery Delays: reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

To achieve the above national goals, transportation performances are managed through different metrics, including safety, bridge and pavement conditions, congestion/system performance and transit asset management (Figure 9-1).

FIGURE 9-1  
Transportation Performance Management Areas





Under the final performance rules, state DOTs, Caltrans in California, are directly responsible to submit performance targets and periodic reports in progress to those targets to Federal agencies on an annual basis. MPOs, such as MCTC, are required to establish targets for the same performance measures on all public roads in the MPO planning area after the state DOT establishes each target. The MPO may elect to support the statewide targets, establish numerical targets specific to their region, or use a combination of both approaches. Furthermore, MPOs must incorporate these short-range targets into their planning process, e.g. the Transportation Improvement Program (TIP) and the Regional Transportation Plan (RTP). The Regional Transportation Plans shall include the performance measures and targets, as well as, a description of progress made towards the targets. In addition, the Transportation Improvement Program shall provide a description on how investment in the TIP will contribute towards achieving the transportation performance targets set in the RTP.

State DOTs and MPOs must also establish written agreements for a metropolitan area describing roles and responsibilities for performance-based planning and programming including:

- ✓ Coordination on target setting
- ✓ Data collection
- ✓ Data analysis
- ✓ Reporting on progress toward target achievement
- ✓ Data collection for the NHS asset management plan

The performance measures (PM) for the Federal highway programs include:

- ✓ PM1: HSIP and Safety Performance
- ✓ PM2: Pavement and Bridge Condition Performance
- ✓ PM3: System Performance/Freight/CMAQ Performance

Caltrans also established statewide targets for the PM1: Safety in August. MPOs such as MCTC have 180 days to submit targets in this area, allowing until February 27, 2018 for MPOs to submit targets in this region. MCTC's approach in this area is described in detail below and incorporated directly into this RTP. Statewide targets for PM2 and PM3 are expected to be adopted by Caltrans in May 2018 and by MPOs in November 2018. Given the timing, MCTC's approach in these areas will be described below in general terms. Once the targets are established they will be incorporated into subsequent RTP and RTIP cycles.

Table 9-1 provides the timeline for the three major groups of Performance Measures.

TABLE 9-1

## Performance Based Planning and Programming Implementation Timeline

Final Rule	Effective Date	States Set Targets By	MPOs Set Targets By	LRSTP <sup>1</sup> , MTP <sup>2</sup> , STIP, and TIP <sup>3</sup> inclusion
Safety Performance Measures (PM1)	April 14, 2016	August 31, 2017	Up to 180 days after the State sets targets, but not later than Feb. 27, 2018	Updates or amendments on or after May 27, 2018
Pavements/Bridge Performance Measures (PM2)	May 20, 2017	May 20, 2018	No later than 180 days after the State sets targets, but no later than Nov. 16, 2018	Updates or amendments on or after May 20, 2019
System Performance Measures (PM3)*	May 20, 2017	May 20, 2018	No later than 180 days after the State sets targets, but no later than Nov. 16, 2018	Updates or amendments on or after May 20, 2019

\*Greenhouse gas measure target will be set at a later date from the other System Performance Measures<sup>1</sup> LRSTP

<sup>1</sup> Long Range Statewide Transportation Program

<sup>2</sup>MTP – Metropolitan Transportation Plan

<sup>3</sup>TIP – Transportation Improvement Program

## Performance Measure 1

FHWA issued the Safety Performance Management (Safety PM) Final Rule as an implementation of the Highway Safety Improvement Program (HSIP), effective April 14, 2016. The Safety PM identified the core Federal safety goal “to achieve a significant reduction in traffic fatalities and serious injuries on all public roads.” The Safety PM Final Rule supports the data-driven performance focus of the HSIP and establishes five performance measures to carry out the HSIP, the five-year rolling averages for:

- ✓ Number of fatalities,
- ✓ Rate of fatalities per 100 million VMT,
- ✓ Number of serious injuries,
- ✓ Rate of serious injuries per 100 million VMT, and
- ✓ Number of non-motorized fatalities and non-motorized serious injuries.

These safety performance measures are applicable to all public roads regardless of ownership or functional classification. The Safety PM Final Rule also establishes a common national definition for

serious injuries to ensure a consistent, coordinated, and comparable serious injury data system. States are required to comply with the new definition by April 15, 2019. Caltrans set targets which considered external factors that may affect collision, fatality and serious injury rates on public roadways. This analysis referenced an active National Cooperative Highway Research Project (NCHRP) 17-67 titled, “Identification of Factors Contributing to the Decline of Fatalities in the United States,” that has preliminarily concluded that economic factors such as unemployment rates, median income, and gross domestic product (GDP), contributed up to 85% of the variations of collisions on a yearly basis. Consistent with this claim, data from California has shown a consistent upward trend in fatalities and serious injuries concurrent with the upswing in the economy since 2010, with a 13% increase from 2015 to 2016 alone. Other external factors that impact collision rates include changing demographics (e.g. older adults, millennials), change in mode mix on roadways, and the evolution of safety technology in vehicles. Caltrans will continue to monitor these trends over time, however, there is currently no model available that can accurately predict these external factors along with their impacts on the adopted transportation safety measures.

Caltrans target-setting process was guided by the Safety PM as well as the Caltrans Strategic Highway Safety Plan (SHSP) and Strategic Management Plan (SMP). Caltrans coordinated with the Office of Traffic Safety (OTS) to establish statewide targets for the first three performance measures (number of fatalities, number of serious injuries, and rate of fatalities) that were reported to the National Highway Traffic Safety Administration. Caltrans also established statewide targets for the rate of serious injuries and the number of non-motorized fatalities and serious injuries that were reported to the Federal Highway Administration (FHWA) on August 31, 2017 (Table 9-2). MPOs such as MCTC have 180 days to submit targets in this area, allowing until February 27, 2018 for MPOs to submit targets in this area.

TABLE 9-2

## Caltrans 2018 Statewide SPMT Based on a 5-Year Rolling Average

Performance Target	Data Source	5 Year Rolling Average (2018)	Percent Reduction from 2017
Number of Fatalities	FARS	3590.8	-7.69%
Rate of Fatalities (per 100M VMT)	FARS & HPMS	1.029	-7.69%
Number of Serious Injuries	SWITRS	12,823.4	-1.5%
Rate of Serious Injuries (per 100M VMT)	SWITRS & HPMS	3.831	-1.5%
Number of Non-Motorized Fatalities and Non-Motorized Severe Injuries	FARS & SWITRS	4271.1	-10%

*Notes: The targets highlighted in gray are set in coordination with OTS. SPMT are Caltrans Safety Performance Management Targets set each year for all public road. FARS is the Fatality Analysis Reporting System maintained by NHTSA (National Highway Traffic Safety Administration). FARS contains data on all crashes involving a fatality. HPMS is the Highway Performance Management System that estimates VMT on public roadways. SWITRS is the Statewide Integrated Traffic Records System which tracks all reported accidents in California.*

MCTC established targets for the same five safety performance measures for all public roads in its planning area. The targets were established in coordination with the State, to the maximum extent practicable. MCTC targets are reported to Caltrans, which must be able to provide the targets to FHWA, upon request.

The reporting cycle for the Safety PM is annual and there are no penalties for not meeting targets.

## Target Selection Methodology for the State and MCTC

Since there is no current model that can accurately predict the external factors explained before, Caltrans elected to take a simpler approach by identifying existing trends through 2016, forecasting performance for 2017, and then estimating annual targets for 2018 using annual vision-based goals. The targets for number and rate of fatalities reflect the state's goal for zero traffic fatalities by 2030, an approach known as "Towards Zero Deaths" (TDZ) and also referred to as "Vision Zero" in many California cities.

Caltrans used a three-step process to set safety performance targets: (1) estimating the existing trends to determine where we are now, based on collision and injury, (2) determining what external factors will impact the target to forecast future trends, and (3) to estimate targets based on forecasted fatality reductions from safety plans. The need to forecast future collision trends is necessary since safety performance targets are set a year in advance when at least two years of collision data is unknown. For example, for the first target year, 2018, the total numbers of collisions are not known for the years 2017 and VMT data is not available for 2016.

The total fatalities and fatalities per 100 million VMT are shown in Figures 9-2 and 9-3 below. These figures show a forecasted 13% increase from 2016 to 2017 (following the trend from 2015 to 2016), followed by a vision-based reduction of -7.69% per year.

The total serious injuries per 100 million VMT are shown in Figures 9-4 and 9-5 below. These figures show a forecasted 9% increase from 2016 to 2017 (following the trend from 2015 to 2016), followed by vision-based reduction of -1.05% per year.

Finally, the target-setting process for bicycle and pedestrian fatalities and serious injuries was designed to take a more aggressive approach, allowing for zero percent increase from 2015 to 2016 and then aspiring to a 10% decrease per year thereafter. The existing trend and target is shown in Figure 9-6, below.

FIGURE 9-2  
Caltrans Fatalities Trend and Target-Setting

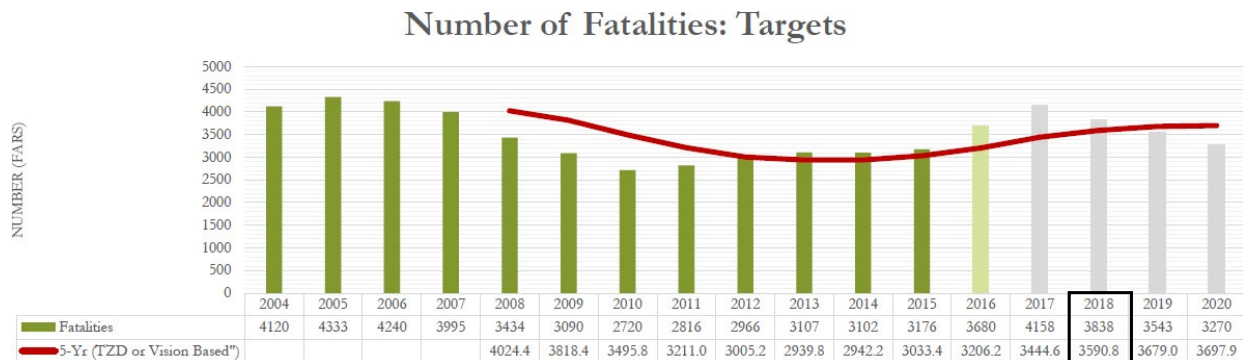


FIGURE 9-3  
Caltrans Fatality Rate Trend and Target-Setting  
Total Annual Fatality Rate Targets (per 100M VMT)

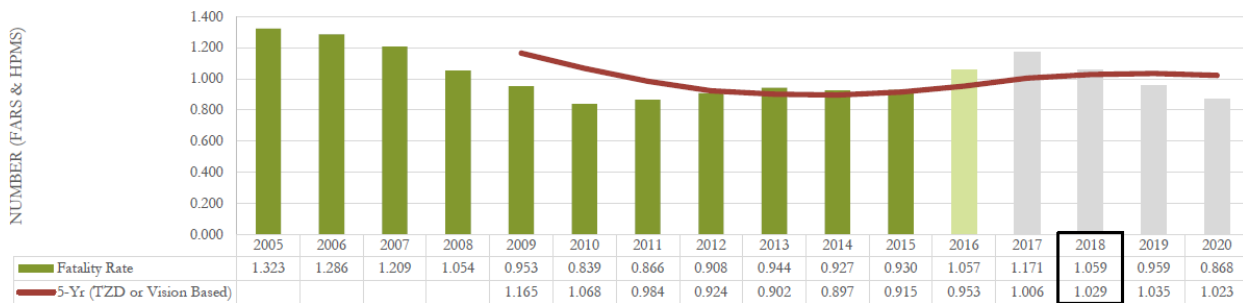


FIGURE 9-4  
Caltrans Serious Injuries Trend and Target-Setting  
Total Number of Serious Injuries (Targets)

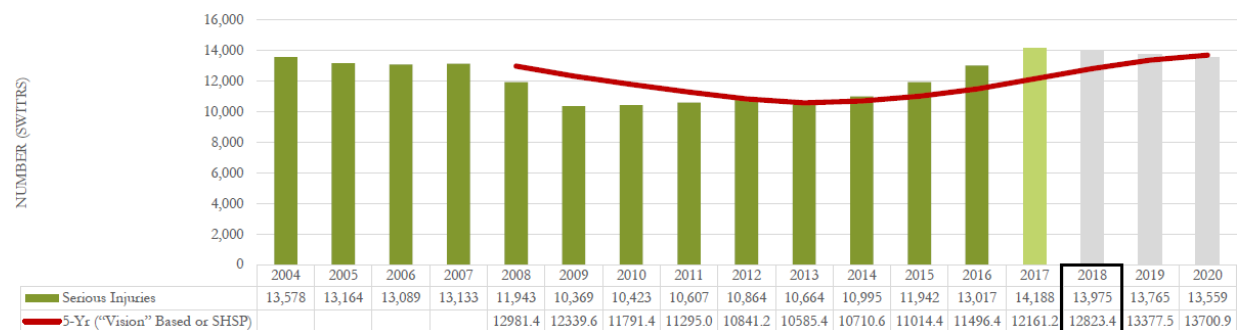


FIGURE 9-5

### Caltrans Serious Injury Rate Trend and Target-Setting Annual Total Serious Injury Rate Targets (per 100M VMT)

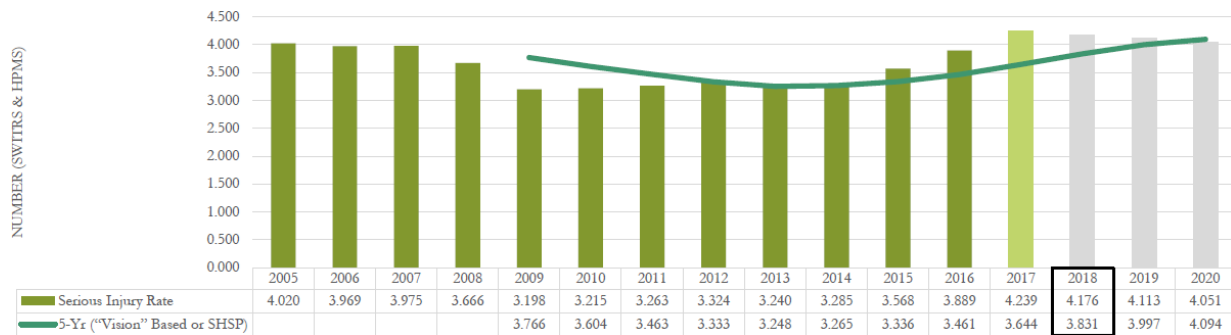
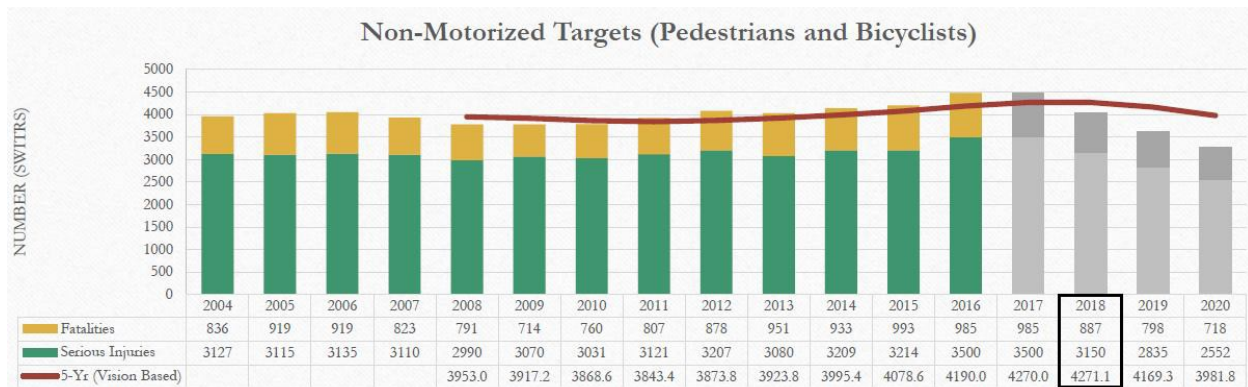


FIGURE 9-6

### Caltrans Non-Motorized Fatalities and Serious Injury Trend and Target-Setting



MCTC's targets were developed using Caltrans same three step process, beginning with the most recent available collision data, summarized in Table 9-3.

Next, future collisions, fatalities and injuries were forecast, for the two years for which final data is not available (2016 and 2017). This was done by applying the same assumptions used by Caltrans, based on their analysis of statewide collision data trends.

Key assumptions include a two percent increase in VMT over the previous year, 13 percent increase in both the number of fatalities and the number of severe injuries. Caltrans trend analysis of non-motorized fatalities and injuries suggest that these have been steady – no change. Because the number of non-



motorized fatalities and injuries in Madera is small, non-motorized fatalities and injuries were estimated as the average of the six most recent years for which data are available, 2010 through 2015.

**TABLE 9-3**  
**Madera County Baseline Safety Performance Measures**

Performance Target	Data Source	5-year Rolling Average (2011- 2015)	5-year Rolling Average (2010-2014)	% Change from 2010-2014
Number of Fatalities	FARS	26.6	26.4	0.8%
Rate of Fatalities (per 100M VMT)	FARS & HPMS	1.8	1.7	2.5%
Number of Severe Injuries	SWITRS	73.8	75.4	-2.1%
Rate of Severe Injuries (per 100M VMT)	SWITRS & HPMS	4.9	4.9	-0.4%
Number of Non-Motorized Fatalities and Non-Motorized Severe Injuries	FARS & SWITRS	9.8	11.4	-14.0%

Table 9-4 shows detailed collision data for 2010-17, with the estimated data for years 2016 and 2017 shaded.

TABLE 9-4

## Madera County Safety Performance Data (With Estimates for 2016 and 2017)

Year	VTM	VTM per 100M	Bicycle Deaths	Bicycle Severe Injuries	Pedestrian Deaths	Pedestrian Severe Injuries	Total Non Motorized Fatalities and Non Motorized Severe Injuries	Number of Fatalities	Number of Severe Injuries
2010	1,746,696,550	17.5	2	5	4	7	18	27	88
2011	1,445,275,900	14.5	1	1	3	5	10	25	72
2012	1,445,275,900	14.5	0	2	6	1	9	29	75
2013	1,490,959,300	14.9	1	1	3	2	7	20	81
2014	1,489,229,200	14.9	0	3	5	5	13	31	61
2015	1,614,463,400	16.1	1	2	4	3	10	28	80
2016	1,646,752,668	16.47	1	3	4	4	11	32	90
2017	1,679,687,721	16.80	1	3	4	4	11	36	102

Note: Non-motorized data is rounded to the nearest whole number.

Finally, specific 2018 safety performance measure targets were developed for Madera County by applying the statewide percentage reduction targets shown in Table 9-2 above. Results are shown in Table 9-5.

TABLE 9-5

## Madera County Safety Targets for 2018

Performance Target	Data Source	5 Year Rolling Average (2013 2017) for Madera	Percent Reduction (2018)	Numerical Target (2018)
Number of Fatalities	FARS	29.3	-7.69%	27
Rate of Fatalities (per 100M VMT)	FARS & HPMS	1.8	-7.69%	2
Number of Serious Injuries	SWITRS	82.9	-1.50%	82
Rate of Serious Injuries (per 100M VMT)	SWITRS & HPMS	5.2	-1.50%	5
Number of Non-Motorized Fatalities and Non-Motorized Severe Injuries	FARS & SWITRS	10.5	-10%	9

The percent reductions developed by Caltrans are ambitious, but they reflect Caltrans safety plans and calls for improved traffic safety from many quarters. MCTC has elected to support the state target rather than establishing a region-specific numerical target. Madera's numerical targets for 2018 fall within the range of the actual collision data shown in Table 9-5 above. Therefore, the 2018 targets appear reasonable and achievable.

## Performance Measure 2

The second category of performance measures developed by FHWA in response to the requirements of MAP-21 is known as PM2: Transportation Asset Management (TAM). The objective of this set of performance measures is to assess the overall health of the transportation system and identify investments to maintain highways, roadways, and bridges in a state of good repair. The benefits of a properly maintained transportation system include multiple direct and indirect effects on safety, economic vitality, and quality of life:

- ✓ Increased safety, as poor roadways can lead to higher accident rate;
- ✓ A reduction in incident-related congestion leading to greater travel time reliability;
- ✓ Reduced maintenance costs over time. Since roadways become increasingly more expensive to repair as the condition deteriorates, investing in continual maintenance is the best approach for long-term fiscal health;
- ✓ Less wear and tear on vehicles, resulting in economic benefits for roadway users;
- ✓ Indirect reductions in other environmental impacts including polluted run-off, GHG emissions (due to lower congestion and improved MPG for vehicles), and noise.

MAP-21 and subsequent Federal rulemaking established Federal regulations that require the development of a Transportation Asset Management Plan (TAMP) and the implementation of Performance Management. These regulations require all states to utilize nationally defined performance measures related for pavements and bridges on the National Highway System (NHS). The Bridge and Pavement Performance Management Final Federal Rule established six performance measures related to the performance of the Interstate and non-Interstate NHS for the purpose of carrying out the National Highway Performance Program (NHPP) to assess pavement and bridge condition. The specific performance measures are:

- ✓ Pavement Performance of the NHS
  - Percentage of Interstate pavements in Good condition
  - Percentage of Interstate pavements in Poor condition
  - Percentage of non-Interstate pavements in Good condition
  - Percentage of non-Interstate pavements in Poor condition

- ✓ Bridge Performance of the NHS
  - Percentage of NHS bridges in Good condition
  - Percentage of NHS bridges in Poor Condition

MCTC will establish targets for the applicable measures within 180 days of the State establishing targets. MCTC must establish 2- and 4-year targets for these measures and agree to plan or program projects so that they contribute toward accomplishment of the State performance targets or by establishing quantifiable targets for these measures for the Metropolitan Planning Area (MPA).

In order to assist Caltrans in establishing statewide performance targets that reflect local agency plans, MCTC and partner agencies have responded to Caltrans' inquiry to identify this region's expected 2- and 4-year NHS pavement and bridge condition, so it can be included in the statewide analysis. The MPO expected condition targets submitted will be reflected in the statewide targets in proportion with the magnitude of inventory associated with each agency.

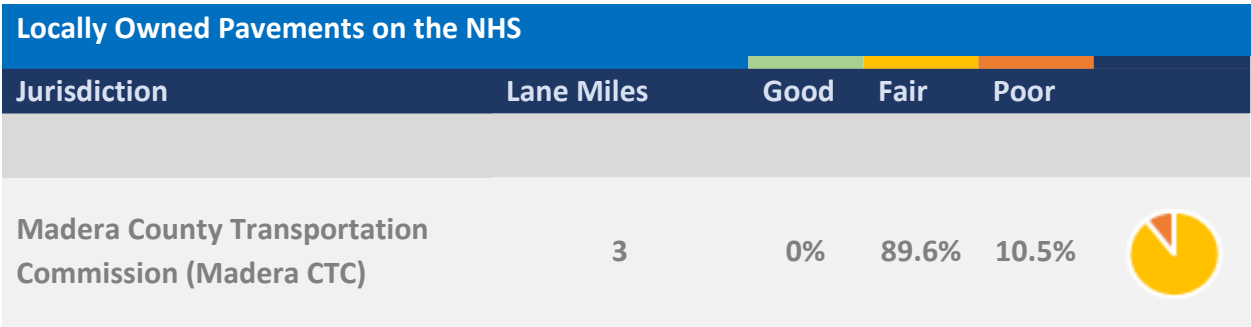
Figure 9-7 presents the statewide asset performance targets for NHS pavements and bridges. NHS pavements are broken down into Interstate and Non-Interstate NHS. All Interstate pavements are also

**FIGURE 9-7**  
**National Highway System Asset Performance Targets**

10-Year Desired State of Repair				
Asset (unit of measure)	Good	Fair	Poor	
<b>Interstate Pavement (lane miles)</b>	<b>60.0%</b>	<b>39.0%</b>	<b>1.0%</b>	
<b>Non-Interstate NHS Pavement (lane miles)</b>	<b>34.2%</b>	<b>60.9%</b>	<b>5.0%</b>	
On the SHS	57.6%	40.9%	1.5%	
Off the SHS	7.0%	84.0%	9.0%	
<b>NHS Bridge (deck area)</b>	<b>83.5%</b>	<b>15.0%</b>	<b>1.5%</b>	
On the SHS	83.5%	15.0%	1.5%	
Off the SHS	83.5%	15.0%	1.5%	

State Highway System (SHS) Class I pavements and thus have the same target as SHS Class I pavements. Targets are also broken out by ownership. Figure 9-8 presents inventory and condition of locally-owned NHS pavements in Madera County. Figures 9-9 and 9-10 are from the State TAMP.

FIGURE 9-8  
Inventory and Conditions of Non-SHS NHS Pavements



**Note:** Figure 9-8 represents the data by geographical jurisdiction presented in the final TAMP

For the MCTC Planning Area, there are no bridges that belong to the NHS as reflected in the TAMP inventory in Figure 9-9.

**FIGURE 9-9**  
**Bridge Inventory and Condition by MPO/ RTPA**  
**2017 California National Highway System (NHS)**  
**Bridge Inventory and Condition by MPO/RTPA**

MPO/ RTPA/County	2017 Number of Bridges	2017 DECK AREA* (SF)	2017 NHS - Square Feet (SF)		
			Good*	Fair*	Poor*
Butte (BCAG)	7	40,085	9,322	30,763	0
Fresno (FCOG)	33	389,427	121,320	264,835	3,272
Humboldt CAG	2	5,113	0	5,113	0
Kern (KCOG)	70	859,612	543,455	274,027	42,130
Merced (MCAG)	10	52,958	17,653	34,412	893
Metropolitan (MTC)	288	4,641,759	2,117,924	1,552,197	971,639
Alameda County	48	975,403	446,368	506,022	23,013
Contra Costa County	63	677,427	211,724	257,989	207,714
Marin County	1	4,101	4,101	0	0
Napa County	8	138,827	11,544	34,843	92,440
San Francisco County	13	274,264	125,884	148,380	0
San Mateo County	29	854,083	345,338	148,768	359,977
Santa Clara County	104	1,545,883	873,032	405,325	267,526
Solano County	14	116,218	69,384	25,866	20,968
Sonoma County	8	55,552	30,548	25,005	0
Monterey (AMBAG)	11	121,969	13,577	108,392	0
Monterey County	8	102,670	10,380	92,290	0
San Benito County					
Santa Cruz County	3	19,300	3,197	16,103	0
Sacramento (SACOG)	97	1,272,986	660,340	567,878	44,767
El Dorado County					
Placer County	13	196,624	83,851	112,773	0
Sacramento County	78	1,002,553	556,425	407,938	38,190
Sutter County					
Yolo County	6	73,808	20,064	47,167	6,577
Yuba County					
San Diego (SANDAG)	68	1,265,363	425,940	578,657	260,766
San Joaquin (SJCOG)	33	539,939	420,169	66,725	53,044
San Luis Obispo (SLOCOG)	5	33,497	0	33,497	0
Santa Barbara (SBCAG)	27	167,659	80,680	56,442	30,537
Shasta (SRTA)	3	133,860	125,970	7,890	0
Southern California (SCAG)	963	13,766,178	4,971,604	6,753,955	2,040,619
Imperial County	4	14,628	0	14,628	0
Los Angeles County	588	8,491,870	2,385,954	4,767,492	1,338,423
Orange County	187	2,802,020	1,605,783	1,055,865	140,372
Riverside County	75	1,025,563	586,654	340,021	98,888
San Bernardino County	74	895,704	232,306	340,263	323,134
Ventura County	35	536,393	160,905	235,686	139,802
Stanislaus (StanCOG)	9	188,185	46,263	114,291	27,631
Tulare (TCAG)	3	32,518	32,518	0	0
<b>Grand Total</b>	<b>10,825</b>	<b>234,285,883</b>	<b>155,858,370</b>	<b>67,209,174</b>	<b>11,218,339</b>
Source: National Bridge Inventory (NBI) as of 8-15-2017					
*Good, Fair, Poor based on MAP-21 metrics					
**Note: Excludes Short Bridges <20'					



## Performance Measure 3

Seven performance measures related to the performance of the Interstate and non-Interstate National Highway System were also established for the purpose of carrying out the National Highway Performance Program (NHPP); to assess freight movement on the Interstate System; and to assess traffic congestion and on-road mobile source emissions for the purpose of carrying out the Congestion Mitigation and Air Quality Improvement (CMAQ) Program. The measures are:

- ✓ Performance of the NHS:
  - Percent of the person-miles traveled on the Interstate that are reliable (referred to as the Interstate Travel Time Reliability measure).
  - Percent of person-miles traveled on the non-interstate NHS that are reliable (referred to as the Non-Interstate Travel Time Reliability measure).
  - Percent change in tailpipe CO<sub>2</sub> emissions on the NHS compared to the calendar year 2017 level (referred to as the Greenhouse Gas (GHG) measure).
- ✓ Freight Movement on the Interstate System:
  - Truck Travel Time Reliability (TTTR) Index (referred to as the Freight Reliability measure).
- ✓ CMAQ Program Traffic Congestion:
  - Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita (PHED measure).
  - Percent of Non-Single Occupancy Vehicle (SOV) Travel.
- ✓ CMAQ On-Road Mobile Source Emissions:
  - Total Emissions Reduction.

For six of the seven performance targets identified above (all but the GHG Measure), Caltrans is required to establish final performance targets by May 20, 2018, and MPOs must either support the statewide targets or establish their own by November 16, 2018. For the GHG Measure, Caltrans must establish targets by September 28, 2018 and MPOs must either support the statewide targets or establish their own regional targets by March 27, 2019. The measure's applicability and reporting requirement depend on each MPA location and size. Caltrans draft targets for this set of performance measures are presented in Figure 9-10.

Per the National Performance Monitoring Final Rule, the preferred data is the National Performance Management Research Data Set (NPMRDS) from FHWA. The NPMRDS provides average speed data (five-minute averaging time) for federally defined roadway segments designated as part of the National Highway System (NHS).

Caltrans convened a Technical Advisory Group (TAG), of which MCTC is participant, to discuss the target setting process. MCTC will continue to work with statewide and local partners to develop targets consistent with state and federal guidelines.

**FIGURE 9-10**  
**2018 California Performance Management 3 (PM3) System**  
**Performance Caltrans' Final Target Reporting**

Performance Measure	2017 Baseline Data	2-year Target	4-year Target
Percent of Reliable Person-Miles Traveled on the Interstate <sup>1</sup>	64.6%	65.1% (+0.5%)	65.6% (+1%)
Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS <sup>1</sup>	73.0%	N/A	74.0% (+1%)
Percentage of Interstate System Mileage Providing Reliable Truck Travel Time (Truck Travel Time Reliability Index) <sup>1</sup>	1.69	1.68 (-0.01)	1.67 (-0.02)
Total Emissions Reductions by Applicable Pollutants under the CMAQ Program <sup>2</sup>			
VOC (kg/day)	951.83	961.35 (+1%)	970.87 (+2%)
CO (kg/day)	6,863.26	6,931.90 (+1%)	7,000.54 (+2%)
NOx (kg/day)	1,753.36	1,770.89 (+1%)	1,788.43 (+2%)
PM10 (kg/day)	2,431.21	2,455.52 (+1%)	2,479.83 (+2%)
PM2.5 (kg/day)	904.25	913.29 (+1%)	922.34 (+2%)
*Annual Hours of Peak-Hour Excessive Delay Per Capita <sup>1</sup>	State and MPO must coordinate on a single, unified 4-year target.		
Sacramento UA	14.9 Hours	N/A	14.7 (-1.0%)
San Francisco-Oakland UA	31.3 Hours	N/A	30.0 (-4.0%)
San Jose UA	27.5 Hours	N/A	26.4 (-4.0%)
Los Angeles-Long Beach-Anaheim UA	51.7 Hours	N/A	51.2 (-1.0%)
Riverside-San Bernardino UA	16.3 Hours	N/A	16.1 (-1.0%)
San Diego UA	18.4 Hours	N/A	18.0 (-2.0%)
*Percent of Non-Single Occupancy Vehicle (SOV) Travel <sup>3</sup>	State and MPO must coordinate on a single, unified 2-year and 4-year target.		
Sacramento UA	22.8%	23.3% (+0.5%)	23.8% (+1%)
San Francisco-Oakland UA	44.3%	45.3% (+1%)	46.3% (+2%)
San Jose UA	24.5%	25.5% (+1%)	26.5% (+2%)
Los Angeles-Long Beach-Anaheim UA	25.6%	26.1% (+0.5%)	26.6% (+1%)
Riverside-San Bernardino UA	22.7%	23.2% (+0.5%)	23.7% (+1%)
San Diego UA	23.8%	24.8% (+1%)	25.2 (+1.4%)
Percent Change in Tailpipe CO <sub>2</sub> Emissions on the NHS Compared to the Calendar Year 2017 Level (Greenhouse Gas performance measure) <sup>4</sup>	TBD	TBD	TBD

\*Pending final MPO approval.

## Transit Asset Management Targets

As part of the performance-based planning requirement by MAP-21 and FAST Act Transit Assets Management (TAM) rules were developed by the Federal Transit Administration (FTA) and became effective October 1st, 2016. This is completed by establishing a strategic and systematic process of operating, maintaining, and improving public capital assets effectively through their entire life cycle. Four performance measures were established:

- ✓ Rolling stock: % of revenue vehicles exceeding useful life benchmark (ULB)
- ✓ Equipment: % of nonrevenue service vehicles (by type) exceeding ULB
- ✓ Facilities: % of facilities (by group) rated under 3.0 on the Transit Economic Requirements Model (TERM) scale
- ✓ Infrastructure: % of track segments (by mode) under performance restriction

MPOs are required to establish annual TAM targets specific to the MPO planning area for the same performance measures for all public transit providers in the MPO planning area within 180 days after the transit providers establish their targets. The local transit providers in MCTC's planning area are the City of Madera, the City of Chowchilla, and Madera County. They are financially responsible for the rolling stock target. MCTC developed the 2018 regional TAM targets by weighing the targets set by the local transit providers. Transit Asset targets are represented in Table 9-6.

**TABLE 9-6**  
**Transit Asset Management Targets**

	SGR Targets	Fleet Size	Fleet Size divided by Total	Weighted Average
City of Madera	26.00%	19	0.612903226	15.94%
Madera County	38.00%	8	0.258064516	9.81%
City of Chowchilla	50.00%	4	0.129032258	6.45%
<b>Total</b>		<b>31</b>		<b>32.19%</b>

# **Chapter 10**

## **Addressing Environmental Justice**



## 10. Addressing Environmental Justice

### Introduction

Transportation systems play a vital role in advancing the safety, economy, and quality of life for residents of Madera County. Each day, transportation facilitates the movement of goods and people, providing mobility to Madera’s residents, visitors, and businesses. Transportation systems are quite diverse, including roadways, public transportation, bicycle and pedestrian facilities, airports, and railroads and like any system, maintenance and improvements are crucial to its success. Madera is committed to maintaining the existing infrastructure and to create and implement changes, which would add to the system’s efficiency and safety.

Investment in the transportation system creates measurable benefits but may also result in unintended consequences if not planned correctly. Projects may generate disproportionate negative impacts to minority or low-income communities by either denying them their “fair-share” of transportation projects or subjecting them to an unequal share of the negative externalities. To prevent such an event from occurring, the Madera County Transportation Commission (MCTC) is committed to employing an environmental justice program that will help ensure early and continued public involvement, and an equal distribution of transportation projects, paying close attention to the needs of low income and minority populations.



Environmental Justice is a public policy goal of promoting the fair treatment and meaningful involvement of all people in the decision-making process for transportation. Satisfying this goal means ensuring that low-income and minority communities receive an equitable distribution of the benefits of transportation activities without suffering disproportionate adverse impacts. Achieving environmental justice requires both analytical techniques as well as the full and fair participation by all potentially affected communities in the transportation decision-making process.

MCTC will continue to consult and coordinate with the various Native American Tribes within Madera County. It is crucial that MCTC and these organizations work together to identify transportation needs including the provision of transit services, necessary highway and road improvements, and improvements that address known safety issues. MCTC will examine the future necessity of forming an Environmental



Justice Committee to further build upon current community collaboration to enhance anticipated planning efforts.

## How Transportation Investment Affects Communities

### *Multiple Modes of Transportation*

The number and availability of different transportation modes plays an important role within Madera. Non-automobile travel modes (primarily transit) are essential to ensure access to jobs and services for the low income and elderly who may not have reliable access to a car. The investment in public transit affects the mobility of Madera residents by offering alternatives to the personal automobile.

Residents have access to transit in the form of a fixed route bus service for the City of Madera (Madera Area Express); a demand-response system for the City of Madera and Chowchilla (Madera Dial-a-Ride and Chowchilla Area Transit Express); an intercity fixed-route system that services the unincorporated areas of Madera County (Madera County Connection); a demand-response system for the elderly and people with disabilities in Eastern Madera County (Eastern Madera County Senior Bus); and a demand-response service for medical and dental appointments for residents of Eastern Madera County (Eastern Madera County Escort Service). Madera also invests in other modes of transportation such as bicycle and pedestrian facilities and encourages rideshare activities such as carpooling and vanpooling.

Several private carriers provide inter-city services, including Greyhound and Madera Cab Company. Greyhound operates seven days a week from the City of Madera's Downtown Intermodal Center on North "E" Street. Madera Cab Company provides service in Madera County seven days a week, 24 hours a day. Amtrak operates seven days a week with fourteen (14) daily stops in Madera along the BNSF Railroad alignment. The station is located on Avenue 15½ and Road 29.

In addition to transit services conducted by public transit providers, Native American Tribes provide transit services and have developed the North Fork Rancheria's transportation center and transit services program. In addition, the Picayune Rancheria of the Chukchansi Indians provide transit services to and from the Chukchansi Casino and Resort from Fresno, other central California regions, and from Modesto, stopping in Madera and continuing to the Casino.

CalVans is also available to provide commute vanpooling within Madera County and to employment centers in other counties in the Valley.

### *Air Quality*

The effect of motor vehicles on air quality is one of the most recognized and quantified environmental impacts of transportation. There is a significant body of evidence that suggests air pollution from motor



vehicle emissions cause a number of public health problems. Investment in transportation may have a positive or negative effect on air quality. Generally, investments that cause travelers to shift to less polluting modes (public transit, carpooling, bicycling, rail, etc.) can have a positive air quality impact. Similarly, investment that reduces roadway congestion typically reduces pollution emissions, but may be slightly offset through greater induced travel.

The U.S. Environmental Protection Agency (EPA) established National Ambient Air Quality Standards (NAAQS) to protect public health, including the health of sensitive populations such as children and the elderly, from adverse effects of poor air quality. Pollutants covered by NAAQS include carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), sulfur dioxide (SO<sub>2</sub>), fine particulate matter (PM<sub>2.5</sub>), coarse particulate matter (PM<sub>10</sub>) and lead (Pb). Of these six pollutants, lead is the only one that is not directly linked to transportation.

## Background

The goal of environmental justice is to avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations and to ensure the full and fair participation by all potentially affected communities in the transportation decision making process.

### *Title VI*

Title VI of the 1964 Civil Rights Act provides one of the principle legal underpinnings for environmental justice. Title VI states that “No person . . . shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Title VI prohibits recipients of Federal funds from actions that reflect ‘intentional discrimination’ or that exhibit ‘adverse disparate impact discrimination’ on the basis of race, ethnicity or national origin.” Title VI also prohibits discrimination in the form of the denial of meaningful access for limited English proficient (LEP) persons.

The Civil Rights Restoration Act of 1987 amended Title VI so that recipients of federal aid must comply with non-discriminatory requirements in all their activities, not just the programs and activities that directly receive Federal support. That is, an agency that receives any federal funding must not only plan against discriminatory impacts on those projects that receive federal funding, but also for programs that are entirely state or locally funded. Later statutes prohibit discrimination on the basis of sex, religion, or disability. As a government agency receiving federal funding, the Madera County Transportation Commission (MCTC) is committed to implementing Title VI and conforming to federal environmental justice principles.

### *Executive Order 12898 and 13175*

Environmental justice was first identified as a national policy in 1994 when President Clinton signed Executive Order (E.O.) 12898, requiring that federal agencies shall, to the greatest extent of the law, carry out their activities, programs and policies in a way that avoids disproportionately high and adverse health and environmental impacts on low-income and minority populations. E.O. 12898 thus applies to a wider population than does Title VI, which did not include low-income non-minority populations.

An interagency working group, led by the Environmental Protection Agency (EPA), was established to oversee the implementation of E.O. 12898. The Order itself does not create any new legal rights and is not enforceable in court. Rather, it is intended to focus federal agencies on the existing regulations, such as the Title VI and the National Environmental Policy Act (NEPA), that protect low-income and minority communities from discrimination and ensure their full participation.

Executive Order 13175, Consultation and Coordination With Indian Tribal Governments (November 6, 2000), establishes regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies with tribal implications. The goals of this order are to strengthen government-to-government relationships with Indian tribes and to reduce the imposition of unfunded mandates upon Indian tribes.

## Public Participation

Because the RTP and SCS plays such a major role in establishing goals and objectives and guides development of infrastructure improvements, extensive efforts were made to achieve consultation and coordination with all transportation providers, facility operators, appropriate federal, State, and local agencies, Native American Tribal Governments, Environmental Justice Communities, environmental resource agencies, air districts, pedestrian and bicycle representatives, and adjoining MPOs/RTPAs according to the requirements of 23 CFR 450.316 and the 2012 MCTC Public Participation Plan (see Appendix C). Ongoing outreach efforts are listed below:

The 2018 RTP and SCS public participation program built on the success of previous public outreach campaigns to ensure widespread dissemination of information to a geographically and socially diverse population. Since the last RTP update in 2014, MCTC staff has continued to engage the public through workshops, public meetings, and presentations at service clubs and professional organizations. Educating the public about the regional transportation planning process and opportunities for continued public participation and input remains a priority for MCTC.

In 2010, MCTC joined with seven (7) other Valley MPOs in the San Joaquin Valley Tribal EJ Collaborative Grant Project. This Caltrans-sponsored grant has facilitated increased collaboration between MPO staff

and the leadership of local, federally-recognized and unrecognized tribal governments. Through this process, MCTC staff has been able to increase awareness of long-range planning projects in the County, including the Regional Blueprint and the RTP and SCS.

A Notice of Preparation (NOP) for the 2018 RTP and SCS PEIR was prepared and distributed to the appropriate regulatory agencies for consultation and comment. Responding to comments received during the Notice of Preparation (NOP) review period, MCTC conducted a scoping meeting with representatives of the North Fork Rancheria present and discussed transportation issues of concern to the Rancheria.

Public workshops were held in the Oakhurst, the Ranchos area, in the City of Madera, and in the City of Chowchilla after an extensive public outreach campaign including newspaper advertisements, email invitations, a notice on the MCTC website and MCTC's Facebook page, including e-blasts to the community. To make public participation as convenient as possible staff felt it was important to have a number of different workshops and pop-up events throughout the County. The selected time for each workshop was between 5:30 and 7:30 p.m. to make attendance more accessible. The pop-up events were conducted in attendance to other community events and per stakeholder request.

The MCTC Public Participation Plan (PPP), consistent with SAFETEA-LU guidance, Moving Ahead for Further Progress in the 21st Century (MAP-21) requirements, Senate Bill (SB 375) public participation requirements, and developed in consultation with federal, state, and local agency partners, guided the public participation program of the 2018 RTP and SCS. The PPP establishes a baseline for MCTC communication policies and procedures, ensuring that the public is well informed during the decision-making process. Detailed within the plan is the length of public comment periods for MCTC documents; methods MCTC employs to distribute information; and goals for public access.

## Equity Analysis

### *Defining Population Groups*

Identifying low-income and minority populations is necessary both for conducting effective public participation and for assessing the distribution of benefits and burdens of transportation plans and projects. MCTC defines minority and low-income populations in accordance with existing federal guidelines. Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color, or national origin. The Office of Management and Budget (OMB) issued Policy Directive 15, "Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity", in 1997, establishing five minimum categories for data on race and poverty:

- ✓ *Black* - a person having origins in any of the black racial groups of Africa.

- ✓ *Hispanic* - a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
- ✓ *Asian* - a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent.
- ✓ *American Indian or Alaskan Native* – a person having origins in any of the original people of North, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition.
- ✓ *Low-Income* - a person whose household income (or in the case of a community or group, whose median household income) is at or below the U.S. Department of Health and Human Services poverty guidelines. For the year 2018, the poverty level has been set at \$25,100 for a family of four.<sup>1</sup>

Note: OMB, in its Bulletin No. 00-02, "Guidance on Aggregation and Allocation of Data on Race for Use in Civil Rights Monitoring and Enforcement," issued March 9, 2000, provided guidance on the way Federal agencies collect and use aggregate data on race. Added to the previous standard delineations of race/ethnicity was the category of:

- ✓ *Native Hawaiian or Other Pacific Islander* - a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

According to the Council of Environmental Quality (CEQ), an advisory body in the Executive Branch, minority populations should be identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. A minority population also exists if there is more than one minority group present and the minority percentage, as calculated by aggregating all minority persons, meets one of the above stated thresholds<sup>2</sup>.

### *Analysis Methodology*

MCTC staff began by analyzing racial and income data from the 2010 Census. The block group level data was chosen as the primary level of Census data analysis because it provides the most specific data for the geographic analysis of income and race. With 79 block groups within Madera County, block group data provides a more accurate level of analysis for both income and race when compared to census tract level data, which includes only 19 tracts within Madera County.

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<sup>1</sup> *Federal Register*, Vol. 83, No. 12, Thursday, January 18, pp. 6642-6644.

<sup>2</sup> Council on Environmental Quality, "Environmental Justice under the National Environment Policy Act," December 10, 1997. <<http://ceq.eh.doe.gov/nepa/regs/ej/ej.pdf>>

For racial data, block level data is available, which would provide a more accurate level of data analysis; however, the most specific level of data available for income information is the block group. To keep the maps and boundaries of the income and race data consistent, the block group level data was chosen.

Once the Census information for race and income were imported into the MCTC Geographic Information Systems (GIS) database, staff was able to identify racial and income characteristics of the county. Based on these characteristics, staff demarcated block groups into five (5) target areas to analyze equity of the 2018 RTP and SCS capacity increasing; rehabilitation and maintenance; transit; air quality; bicycle and pedestrian; and Caltrans projects. Projects were then assigned to particular target areas and analyzed for levels of benefit.

The goal of this process was to ensure racial, low-income and geographic equity of project benefit. That is, populations considered minority or low-income should have equal levels of benefit compared to other population groups. Similarly, projects and the level of benefit they provide should not be concentrated into one geographic region, but rather should be distributed proportionally to the share of use of a particular system. A map of the five (5) target areas and the population density of the County are displayed in Figure 10-1. The locations with the highest concentrations of persons in the county are the City of Madera, City of Chowchilla, Oakhurst and the Madera Ranchos areas. Figure 10-1 displays the target areas and significant roads in more detail.

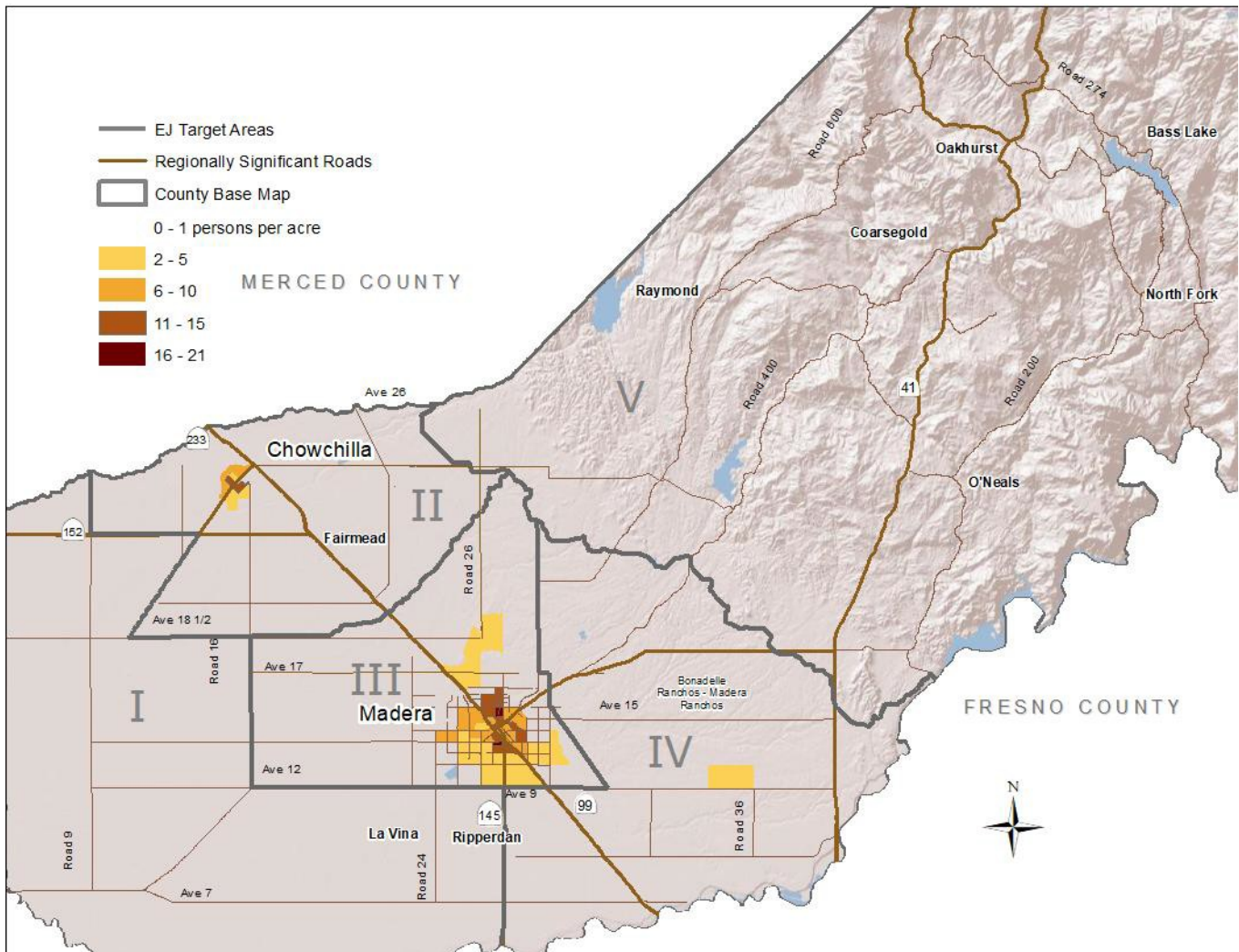
## Target Area Population Characteristics

Target area I includes the town of La Vina, located in the south-west corner and is characterized by being mostly rural, with a population of 3,295 persons. Target area I accounts for roughly 2% of the total county population. Target area II includes all of the City of Chowchilla and surrounding block groups. Racial and population figures from the two prisons within this area have been omitted. There are 22,406 persons within the target area. Target area II represents 15% of the total county population.

Target area III includes all of the City of Madera and is therefore, the most populous of the five target areas. There are 82,998 persons within the area. Target area III represents 54% of the total county population. Target area IV includes the Madera Ranchos area, which is located near Avenue 12, between Highway 41 and Road 34. Target area IV also includes the areas of Ripperdan and Eastin Arcola, located in the south-west portion of the target area. There is significant population growth planned for this target area in the future, much of which will take place in the Rio Mesa development area, located in the north-eastern portion of the target area. Roughly 15,000 housing units and 40,000 persons are expected to occupy the Rio Mesa development area once it is fully developed. Currently, there are 17,535 persons in the target area. Target area IV represents 11% of the total county population.

Target area V represents the mountain communities within Madera County, north of the Madera Canal. A significant portion of target area V lies within the Sierra National Forest, with little population. The majority of the persons living within target area V live in the Yosemite Lakes, Coarsegold, Oakhurst, Bass Lake and North Fork areas. There are 27,132 persons within target area V. Target area V represents 18% of the county's total population.

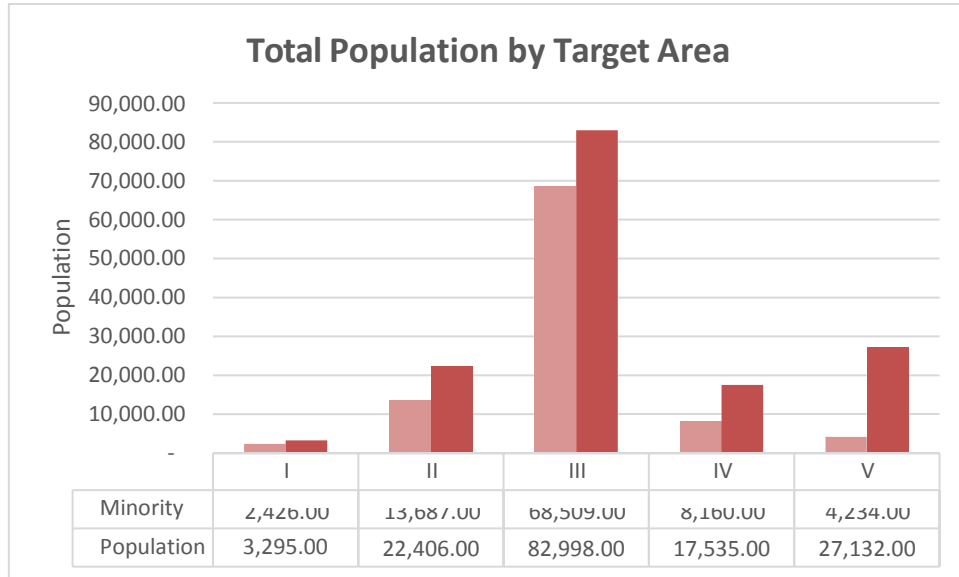
FIGURE 10-1  
Madera County Population Density, Target Areas  
and Significant Roadway Network



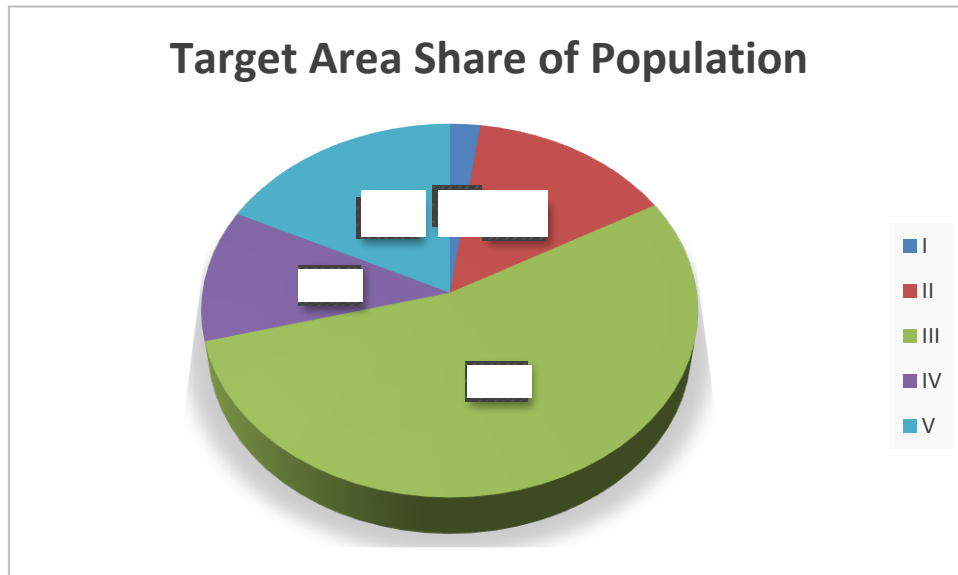


Figures 10-2 and 10-3 display graphical representations of the five target area characteristics.

**FIGURE 10-2**  
Total Population by Target Area



**FIGURE 10-3**  
Target Area Share of Population



## Racial Minority Populations

Figure 10-4 shows qualifying zones containing racial minorities by block group according to the American Community Survey 5-Year Estimates 2012-2016. Within the County of Madera, 97,016 persons, or 63% of the County's population fall under the category of racial minority. In Figure 10-4, designated minority populations are demarcated by a blue shade. Minority populations are located primarily in target areas III and I. Target area III contains the City of Madera and includes 68,509 (83% of the target area) persons representing an ethnic minority group. Target area I includes 2,426 persons representing ethnic minority groups, 74% of the target areas population. Target area II includes the City of Chowchilla and contains 13,687 persons representing ethnic minority groups, 61% of the target areas population. The prison population contained within target area II is omitted from this analysis. Target area IV includes the Madera Ranchos area and the communities of La Vina and Ripperedan. Target area IV contains 8,160 persons representing ethnic minority groups, 47% of the target areas population. Target area V represents the eastern portion of Madera County and is comprised of several rural mountain communities. Target area V contains 4,234 persons representing ethnic minority groups, 16% of the target areas population.

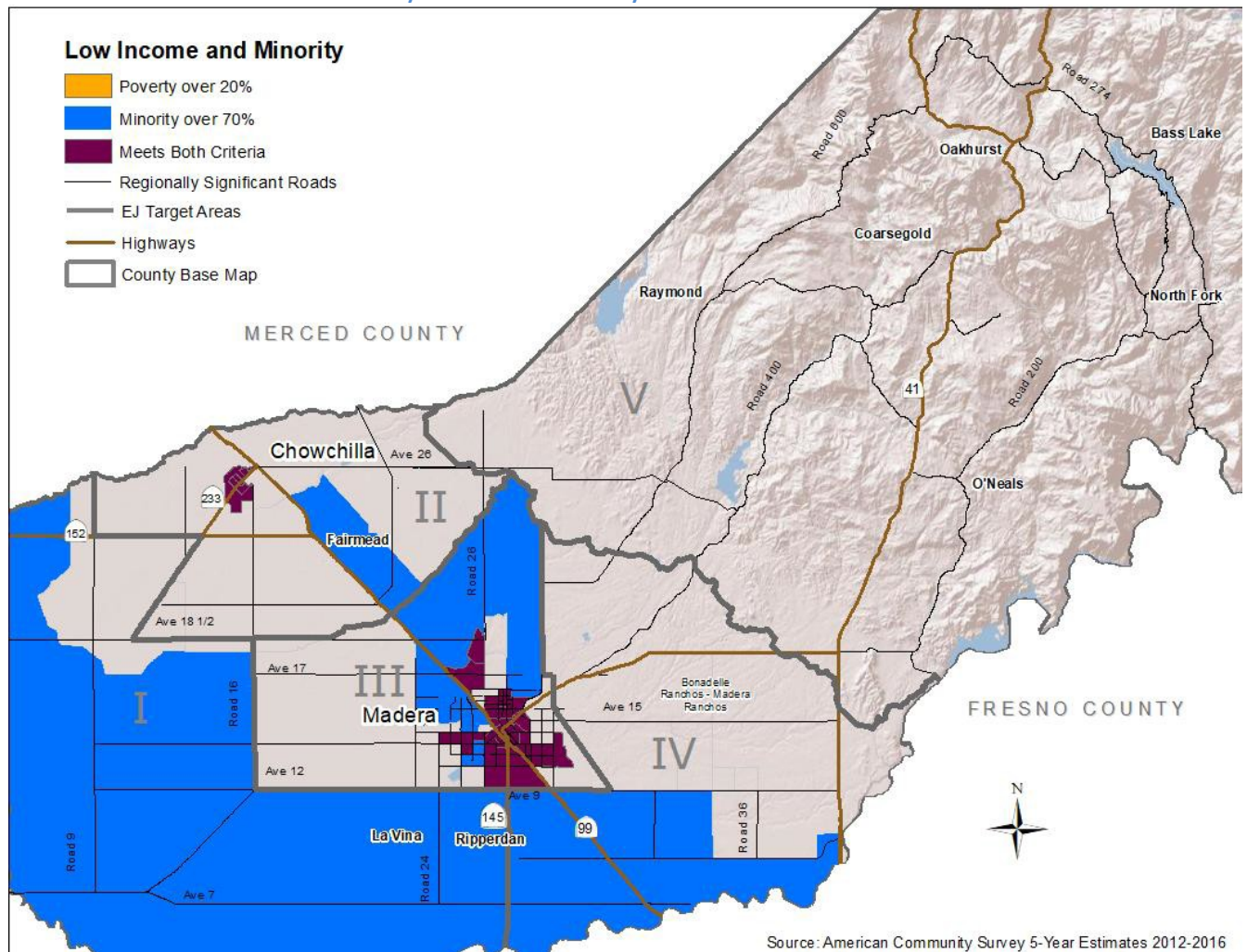
## Low-Income Populations

In addition to racial minorities, another traditionally underserved population is low-income residents. For the purpose of this study, each block group within the five (5) target areas is labeled according to percentage greater than 20% of the poverty level. The U.S. Department of Health and Human services has determined that the poverty level in 2018 for a family of four is \$25,100.

In Figure 10-4, low-income populations are demarcated by a shade of orange. Examining the poverty level threshold for each block group reveals that only the City of Chowchilla, within target area I and the City of Madera, within target area III, contain block groups with significant levels of residents at or near the poverty line. Of all the target areas, only target area III contains significant minority and low-income populations.

In Figure 10-4, block groups containing both low-income populations and minority populations are demarcated in the color purple.

FIGURE 10-4  
Madera County Ethnic Minority and Low-Income Areas



## Environmental Justice Areas

Analysis was performed on the state designated SB 535 disadvantaged communities as determined by CalEnviroScreen (CES). According to CES, disadvantaged communities are census tracts that rank in the top 25<sup>th</sup> percentile in the state for pollution burden, along with several other social and environmental factors<sup>3</sup>. Using these criteria MCTC identified 11 census blocks for the equity analysis. Figure 10-5 shows that the state designated disadvantaged communities are located in target zones I, II, III, and part of target zone IV.

For a regional analysis MCTC identified environmental justice areas as census blocks that have a concentration of minority and/or low-income residents and Limited English Proficiency (LEP) above 20%, elderly population over the age of 65 and transit dependent population. Figure 10-6 shows that target zones II and III, primarily within the City of Chowchilla rank in the top 25 percentile for pollution burden, meet the EJ criteria of minority and limited means, and the City of Madera also includes LEP population.

The majority of the elderly and transit dependent areas are located in target zone V, as shown in Figure 10-6. Target zone II and III have some overlapping with transit dependent populations as shown in Figures 10-5 and 10-6.

## Roadway-Emphasis Projects

Roadway-emphasis projects include mainline highway, highway interchange, highway maintenance, regional roadway and regional roadway maintenance projects as listed in the 2018 RTP. Due to these projects' location-specific nature, this analysis is reliant on proximity to the proposed improvements and to regional travel patterns.

Each project is assigned to one of the five target areas; however, the benefit of each particular project is not limited only to residents of the target area in which the project is located. For example, any capacity increasing or rehabilitation project located on Highway 41 near Avenue 12 will not only benefit residents in target area IV but will benefit residents in target area V as well, since Highway 41 is the main thoroughfare to the mountain communities. Similarly, improvements made to Highway 99 will benefit all communities located on the valley floor since it is a primary travel corridor for Madera County residents. Benefit of Highway 99 projects is therefore assigned to target areas I, II, III and IV.

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<sup>3</sup>California EPA CalEnviroScreen, SB 535 Disadvantaged Communities. See: <https://oehha.ca.gov/calenviroscreen/sb535>



## Madera County Environmental Justice Areas

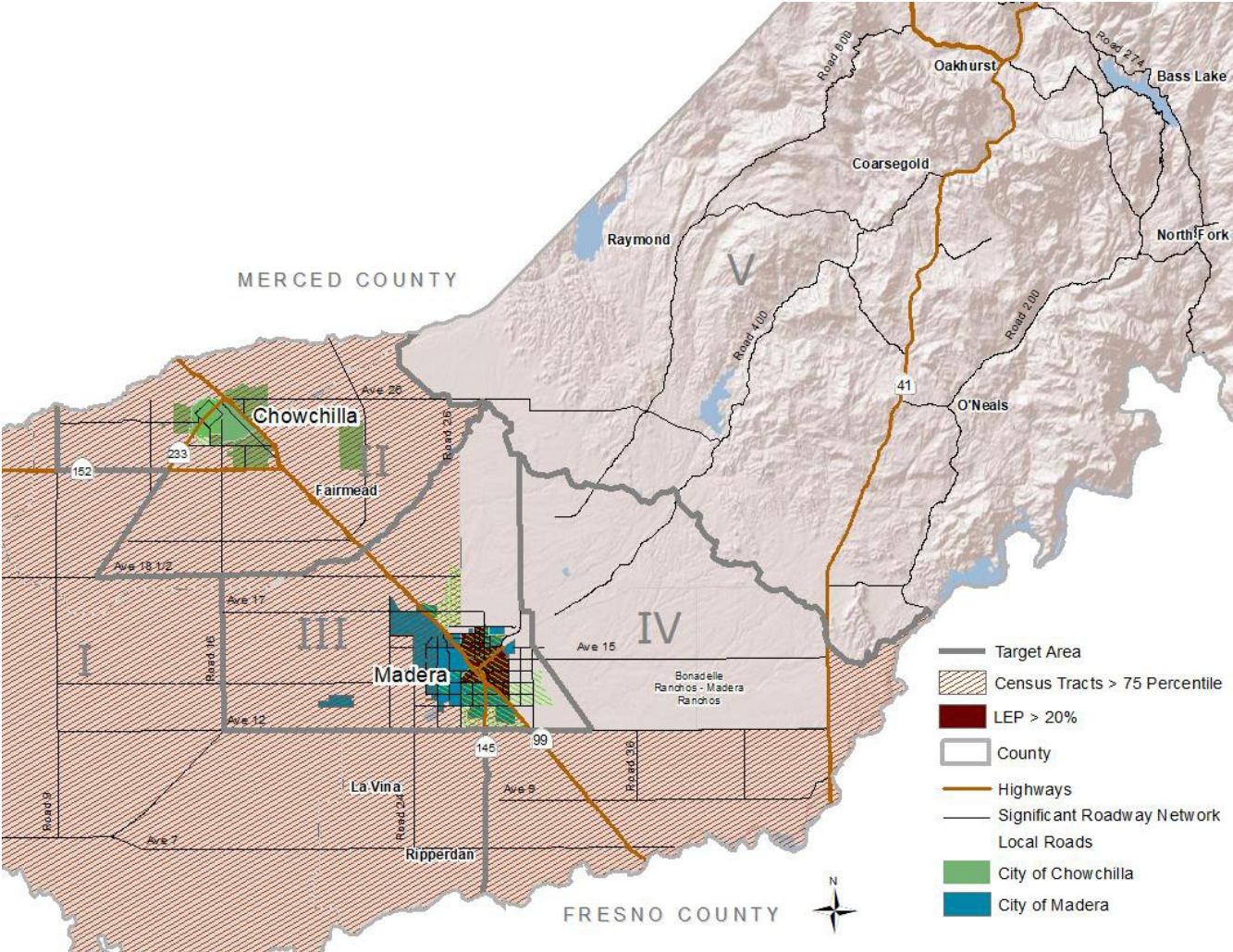
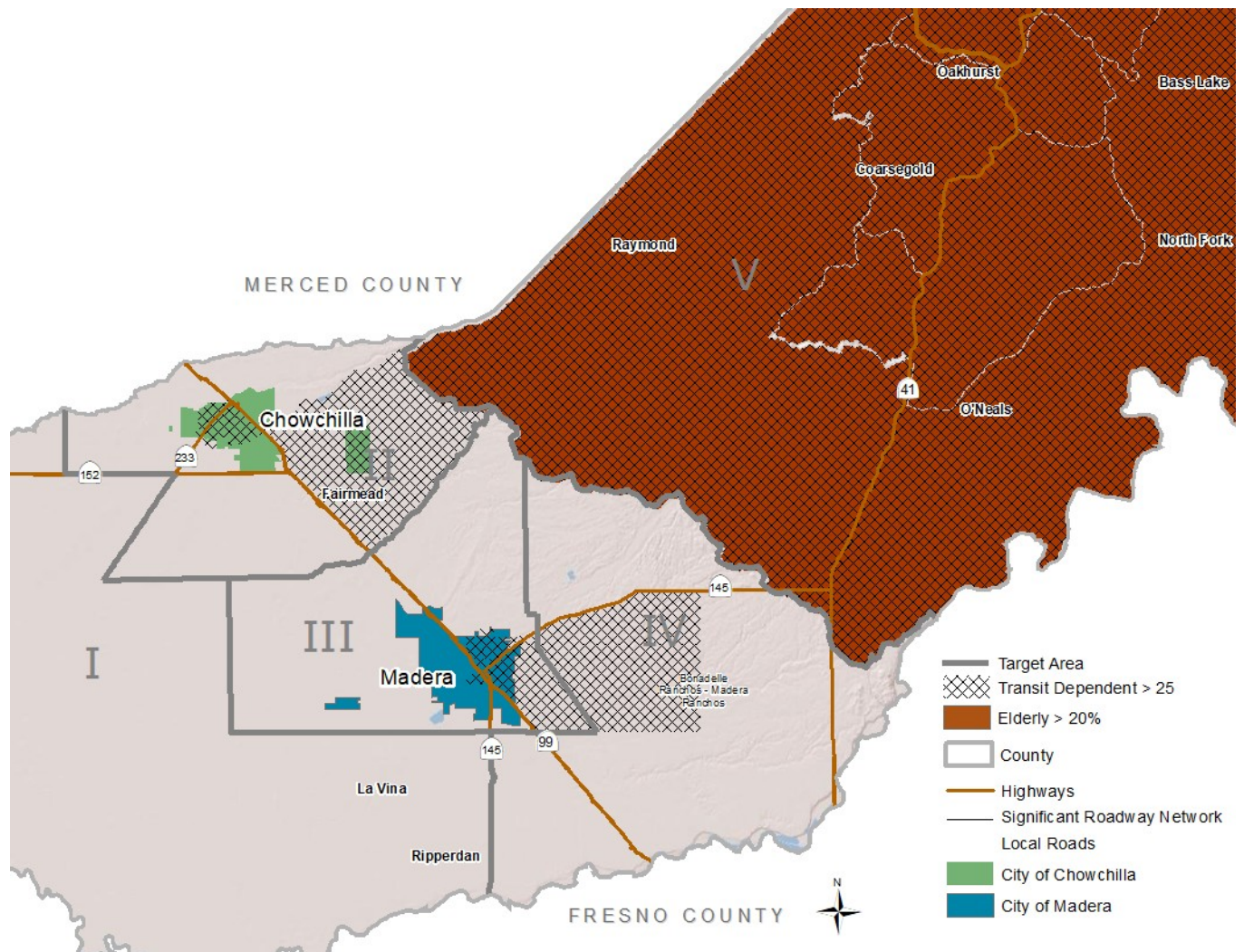


FIGURE 10-6  
Madera County Elderly and Transit Dependent



This method of assigning benefit to more than one target area explains why the analysis category “percent share of investment” used throughout this chapter will not be zero sum. This process of analyzing project benefit relative to geography was found to be the most accurate method of analysis. Subsequently, if MCTC staff is able to show a geographically equitable distribution of projects, those minority and low-income populations that exist within the specific geography would garner equal levels of project benefit relative to the rest of the County.



Similarly, there are more investment dollars planned for Highway 99 compared to Highway 41, which explains the slightly less investment dollars in target area V, which is not assigned Highway 99 project benefits. The large investment of Highway 99 projects also explains the relatively large amount of benefit to target areas I and II relative to their share of the drive-to-work population.

Roadway-emphasis investments are equitable across the spectrum of different income and racial groups. With geographic equity among target areas, block groups contained within these areas benefit from similar levels of equity. In particular, target area III, which is characterized by low-income and racial minority populations, derives significant benefit from roadway-emphasis investment.

Figures 10-7 through 10-11 identify the proposed capacity increasing street and highway projects compared to 2010 low-income and minority populated areas within the County, Chowchilla and Madera. The results continue to support the conclusion that the projects do not negatively impact the low-income or minority populated areas any greater than they do higher income and non-minority populated areas of the County. Furthermore, transportation improvement projects also benefit the low-income and minority populated areas of the County to the same extent as they do the higher-income and non-minority populated communities or areas of the County.

## Bus Transit Projects

Transit services within Madera County play an integral role in the transportation of low-income, elderly and people with disabilities residents who lack reliable use of personal automobiles. Fixed-route and demand-response transit systems provide access to jobs and services throughout the county.

Public transit in Madera County includes Madera Area Express fixed route and Dial-a-Ride, Madera County Connection, Eastern Madera Senior Bus, Escort Program, Chowchilla Area Transit Express, CatLinx, specialized social service transportation services, Greyhound, and taxi service. Public transportation is provided by fixed-route and demand-response transit systems, as described in Chapter 2 – *Requirements, Trends & Contents*.

To determine the adequacy of the current transit system and areas needed for improvement, public participation is critical. MCTC is committed to annually completing an Unmet Transit Needs Public Hearing process. The purpose of this process is to receive testimony from the public regarding transit systems within the County. The fixed route system, Madera Area Express, and the Madera County Connection owe their creation to this process, and since it is such an important one, MCTC staff undertakes extensive efforts to outreach to the community. Once comments are received, MCTC staff works with the Social Service Transportation Advisory Committee (SSTAC) to make recommendations for improvement to the MCTC Policy Board.

FIGURE 10-7  
Madera County Population Density Compared to  
Capacity Increasing Street and Highway Projects

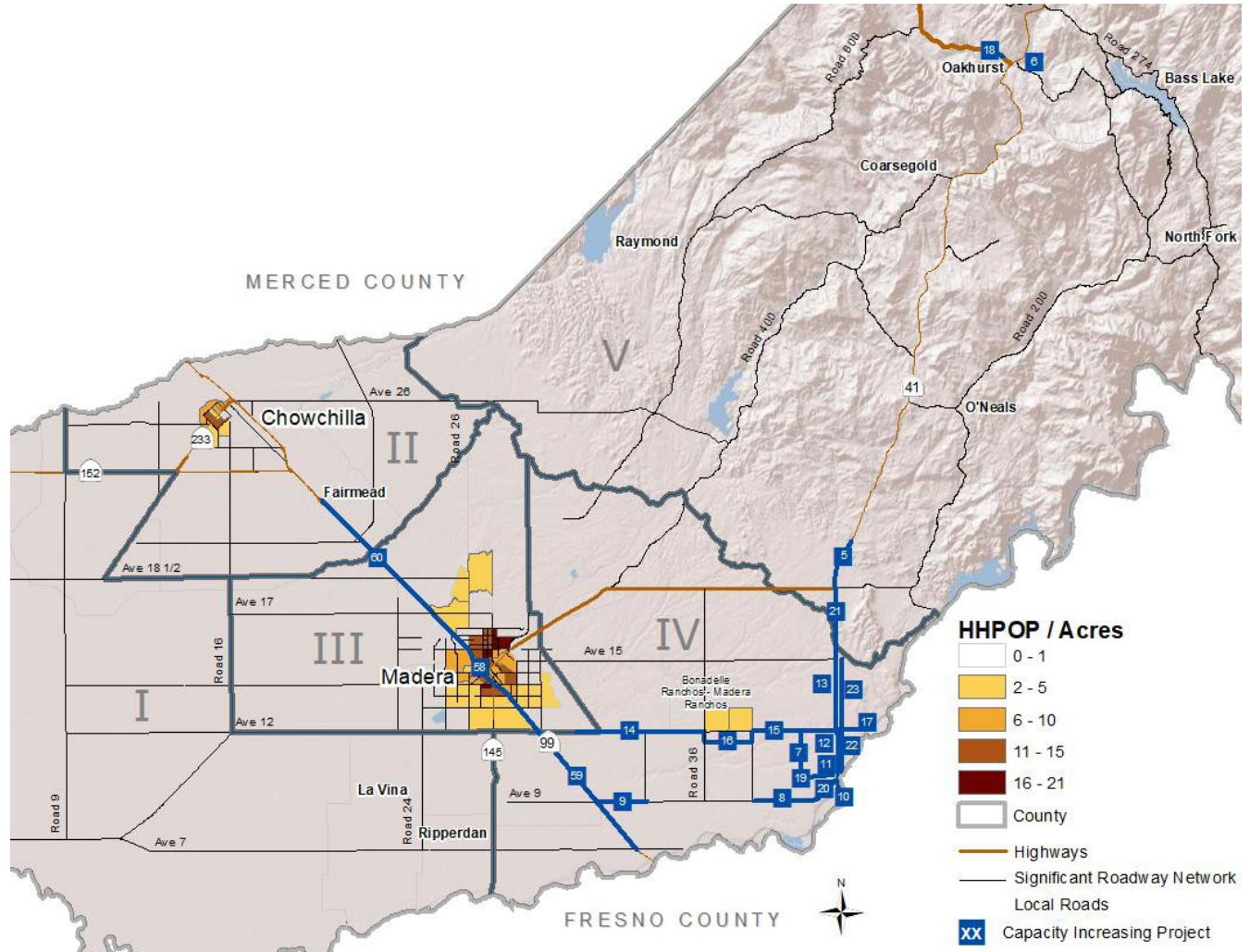


FIGURE 10-8  
Chowchilla Poverty Levels Compared to  
Capacity Increasing Street and Highway Projects

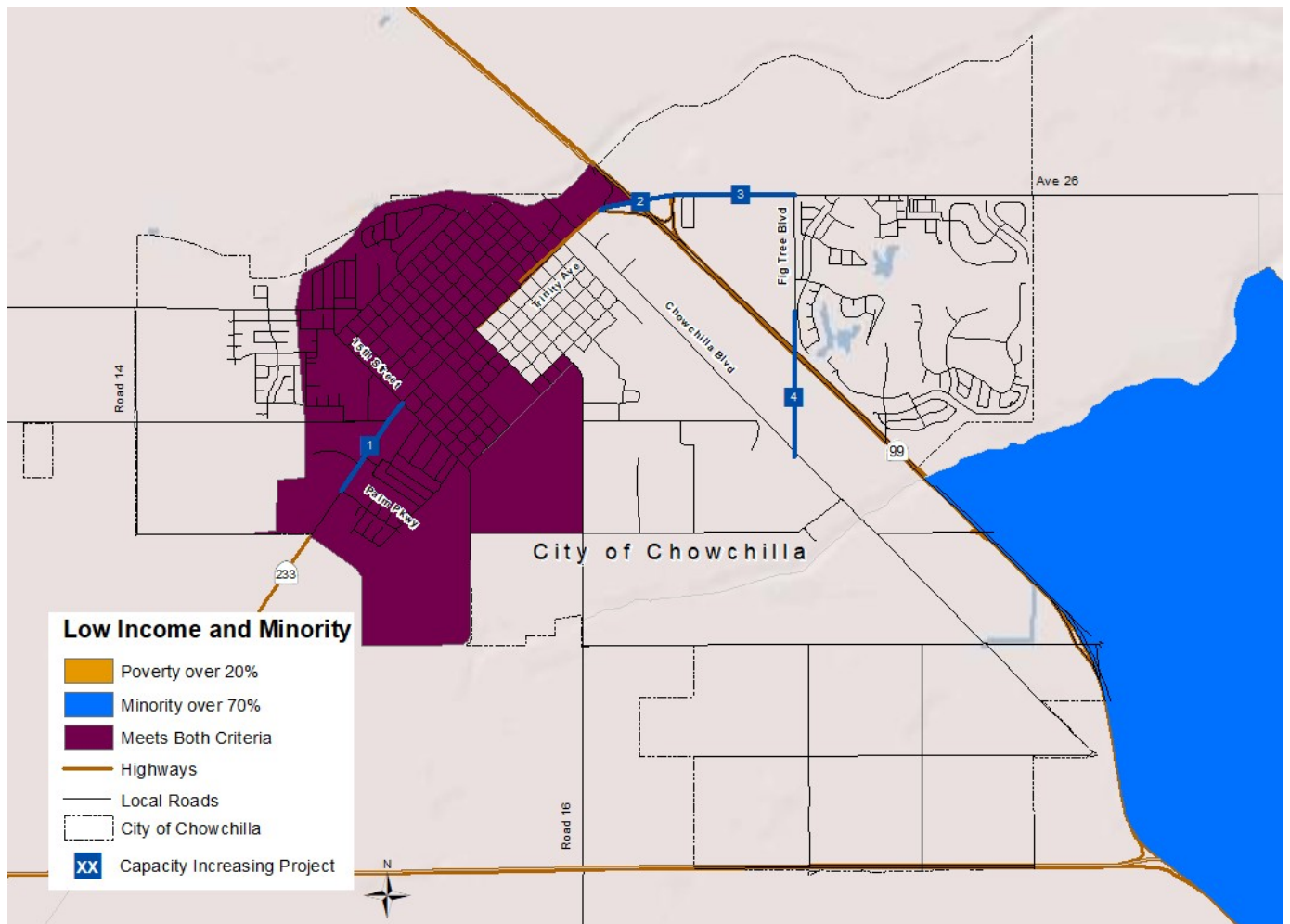


FIGURE 10-9  
Chowchilla Population Density Compared to  
Capacity Increasing Street and Highway Projects

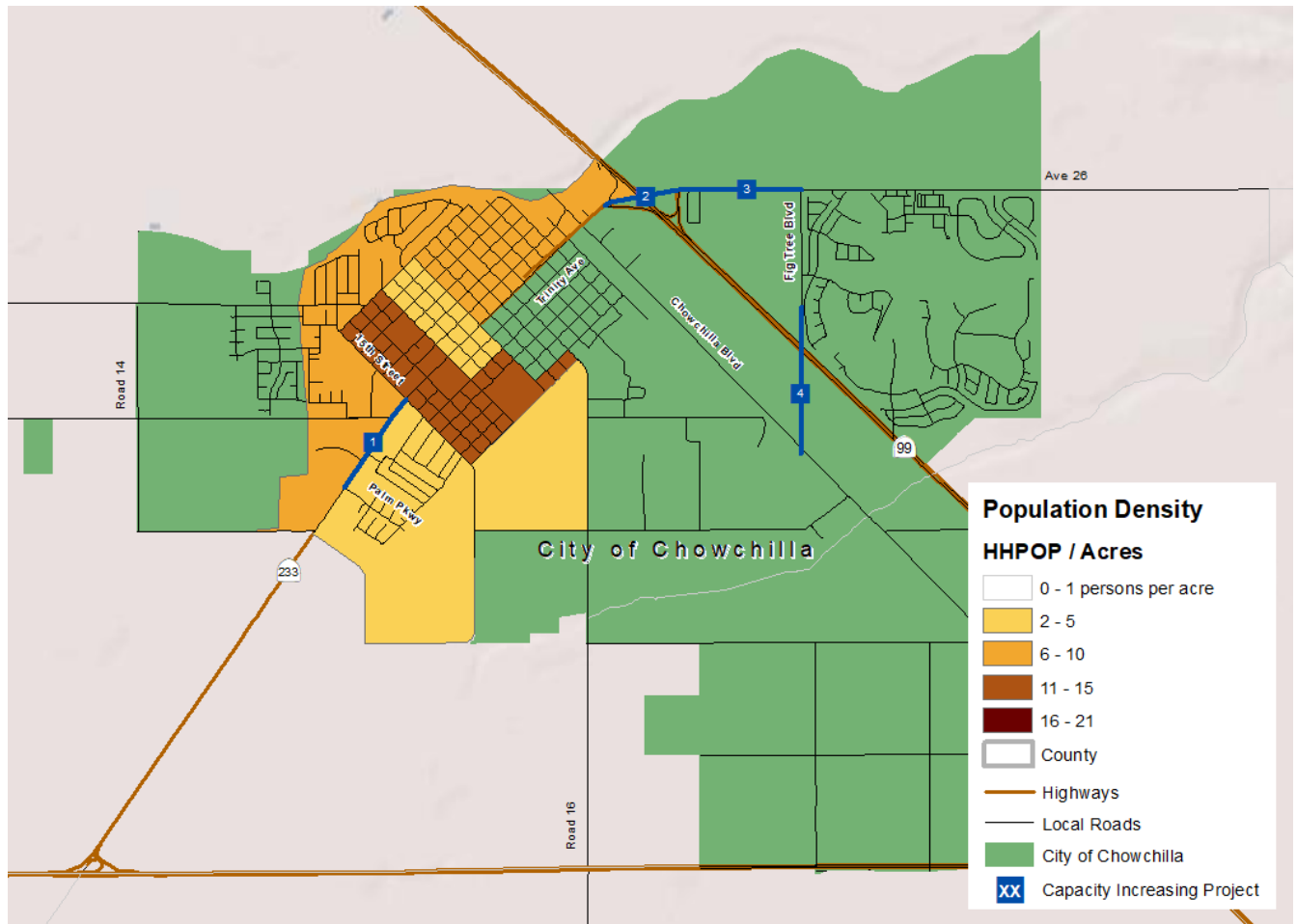


FIGURE 10-10  
Madera Poverty Levels Compared to  
Capacity Increasing Street and Highway Projects

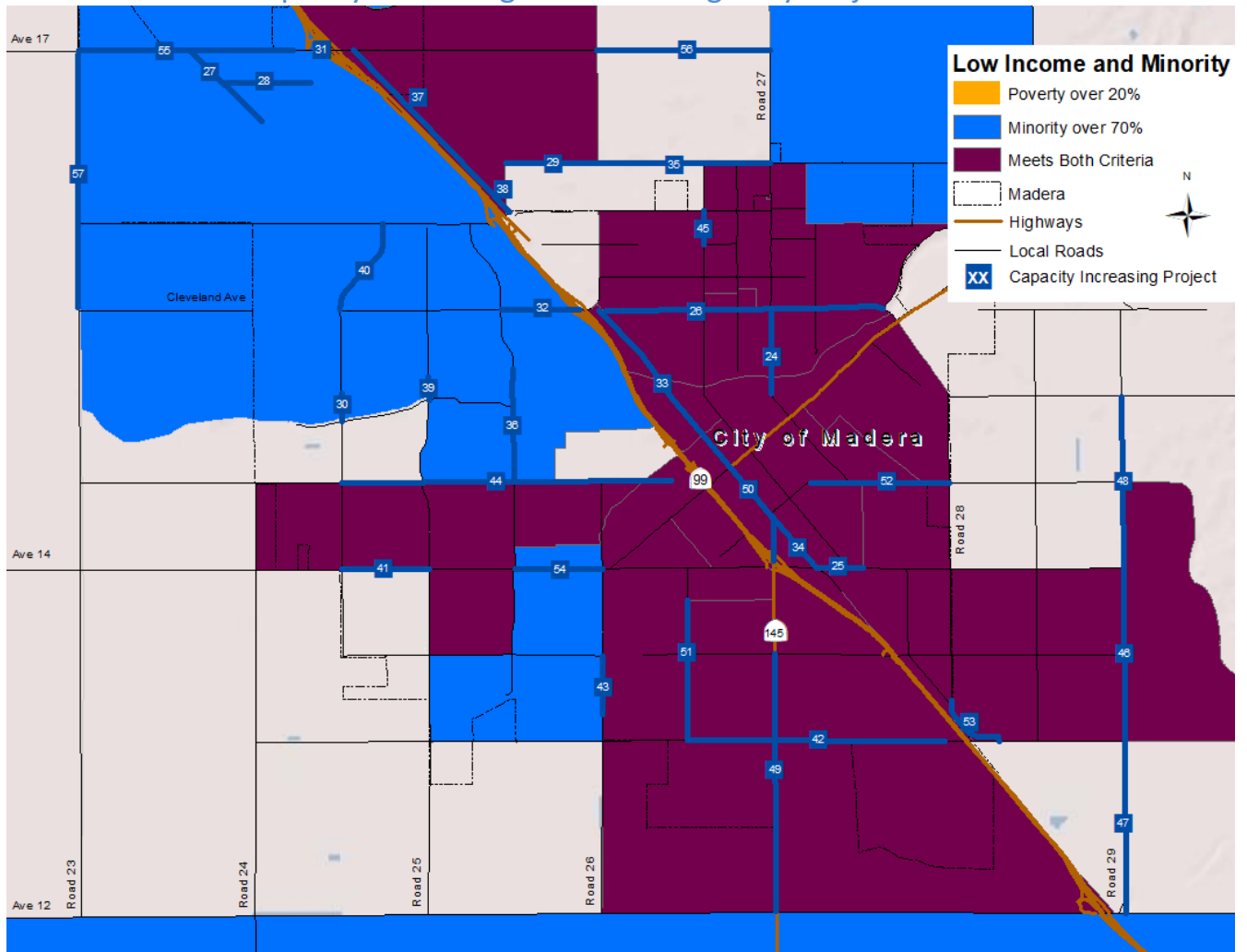
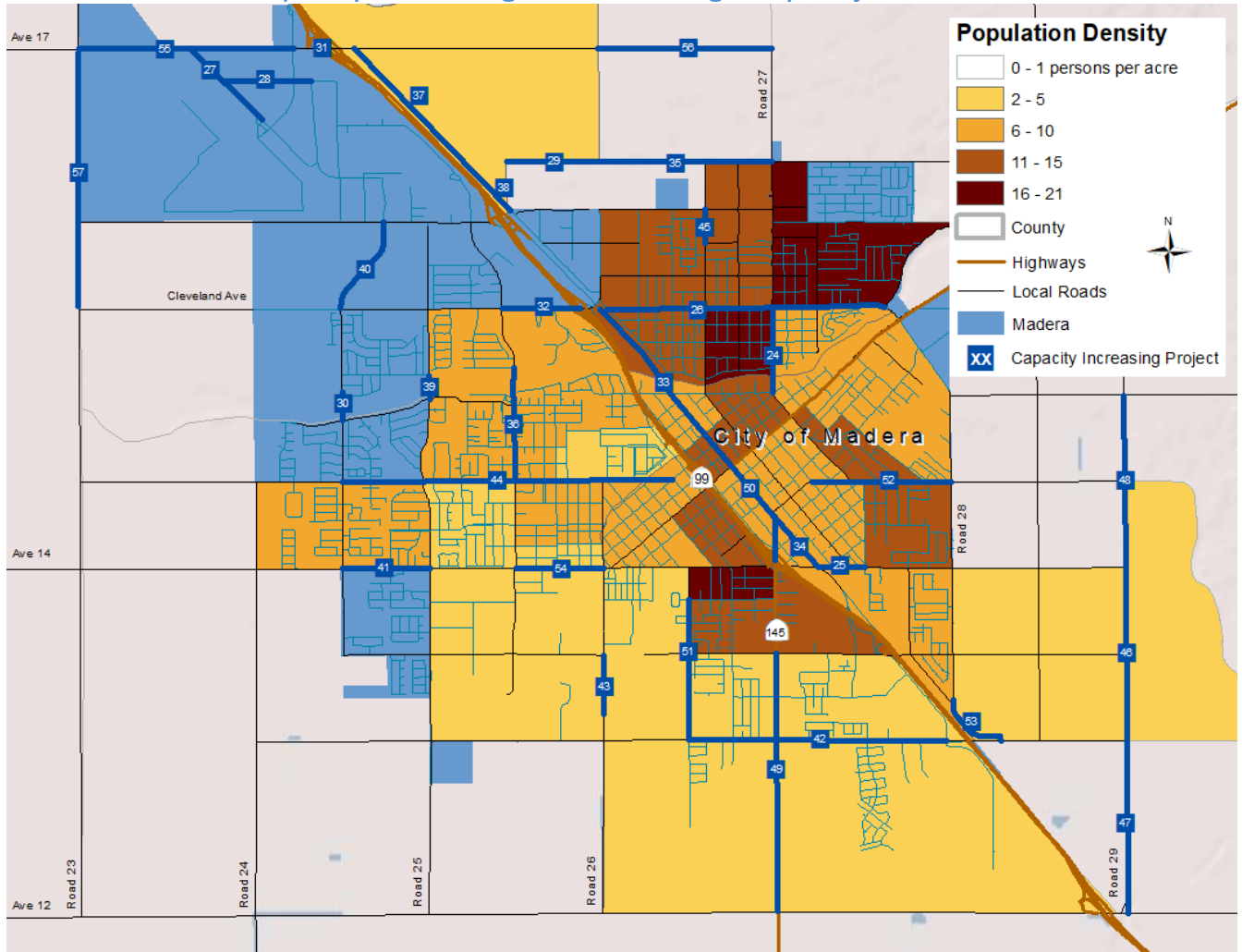


FIGURE 10-11  
Madera Population Density Compared to  
Capacity Increasing Street and Highway Projects





Transit expenditures were calculated using projected estimates of FTA 5307, FTA 5311, Local Transportation Fund (LTF), and Congestion Mitigation & Air Quality (CMAQ) dollars. These funds were further broken down to the specific transit systems operating within Madera County and into their respective target areas. Since the Madera County Connection (MCC) operates in all five (5) target areas, the funds available are divided equally among the five target areas.

Each transit system operates within a specific target area, except for the Madera County Connection, which provides service to all target areas. The number of passengers per service is assigned to the specific target area to quantify the percentage share of use. This share is then compared to the percentage share of transit investment.

There exists a strong correlation between transit use and transit investment within Madera. Target area III, which has the largest proportion of minority and low-income residents--and also the most access to transit services (Madera Area Express and Madera Dial-A-Ride)—would receive the largest proportion of transit investment. This proportionality is a key element of equity analysis. Residents who rely on public transit most, should subsequently receive the largest share of transit investment. Similarly, transit investment in other target areas should be relatively proportional to its residents' use of the transit system. In this respect, there is equity of transit investment among all residents of Madera County.

## Bicycle/Pedestrian Facilities

Bicycle and pedestrian facilities are integral components of a multi-modal transportation network. These facilities not only provide regional connectivity, but by reducing the reliance on motor vehicles, can have positive impacts on air quality. Bicycle and pedestrian facilities are primarily funded through LTF, CMAQ, and Measure T funds and there is an estimated \$90.2 million dollars available for such projects over the next 24 years.

The majority of bicycle/pedestrian funding positively correlates with use, however there are some discrepancies. These discrepancies can be attributed to two factors. First, there are limitations to the number of residents who use the facilities. Since the City of Madera has higher population and commercial densities relative to the rest of the county, there is little surprise that there are significantly higher numbers of pedestrians who walk to work within the City. Similarly, more existing bicycle and pedestrian infrastructure can be found in the City relative to the rest of the county. Figures 10-12 through 10-14, show the existing and priority projects proposed for the bicycle network in the region. These projects are consistent with the ones in the Madera County Active Transportation Plan.

FIGURE 10-12  
Madera County Existing Bicycle Network

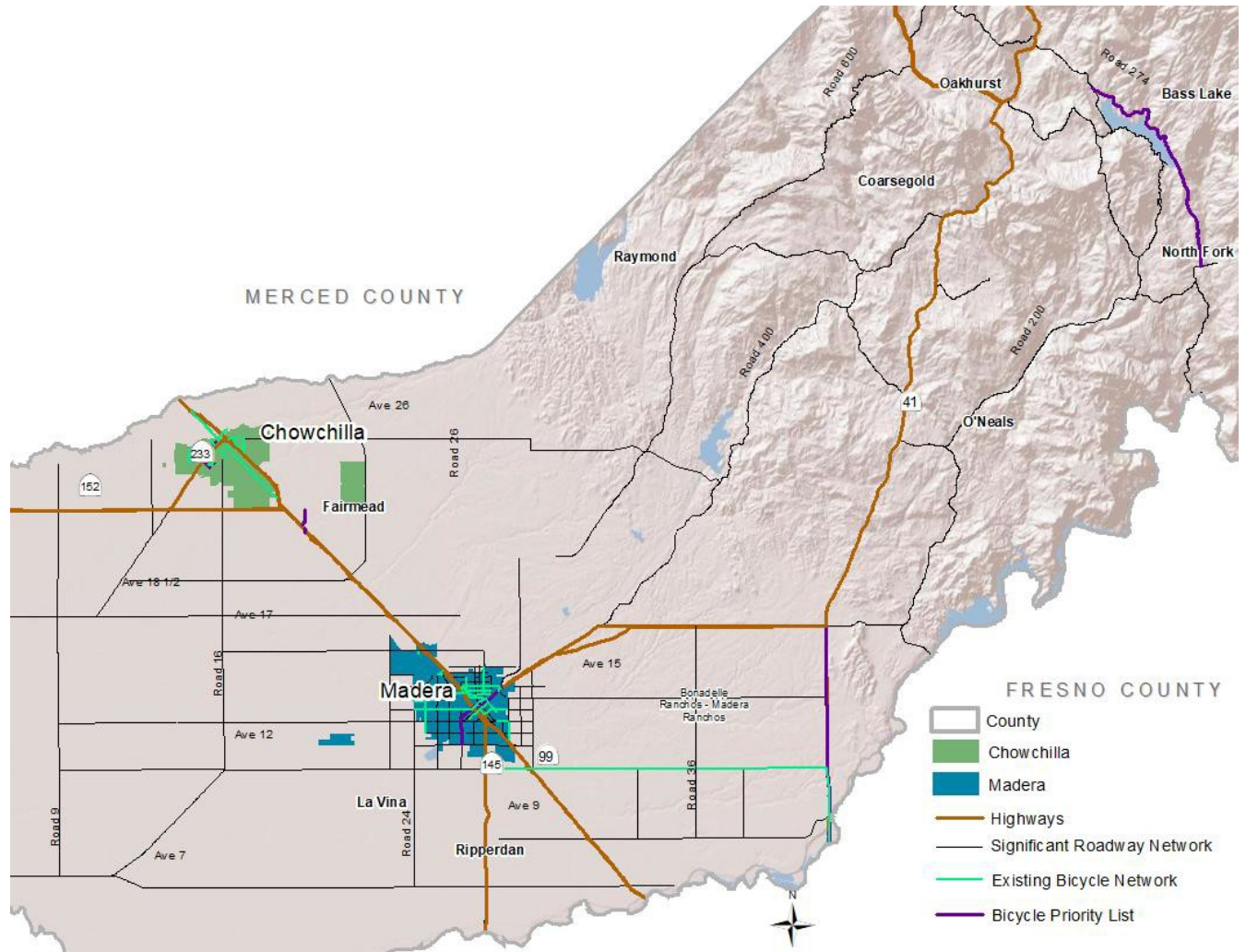


FIGURE 10-13  
City of Madera Existing Bicycle Network

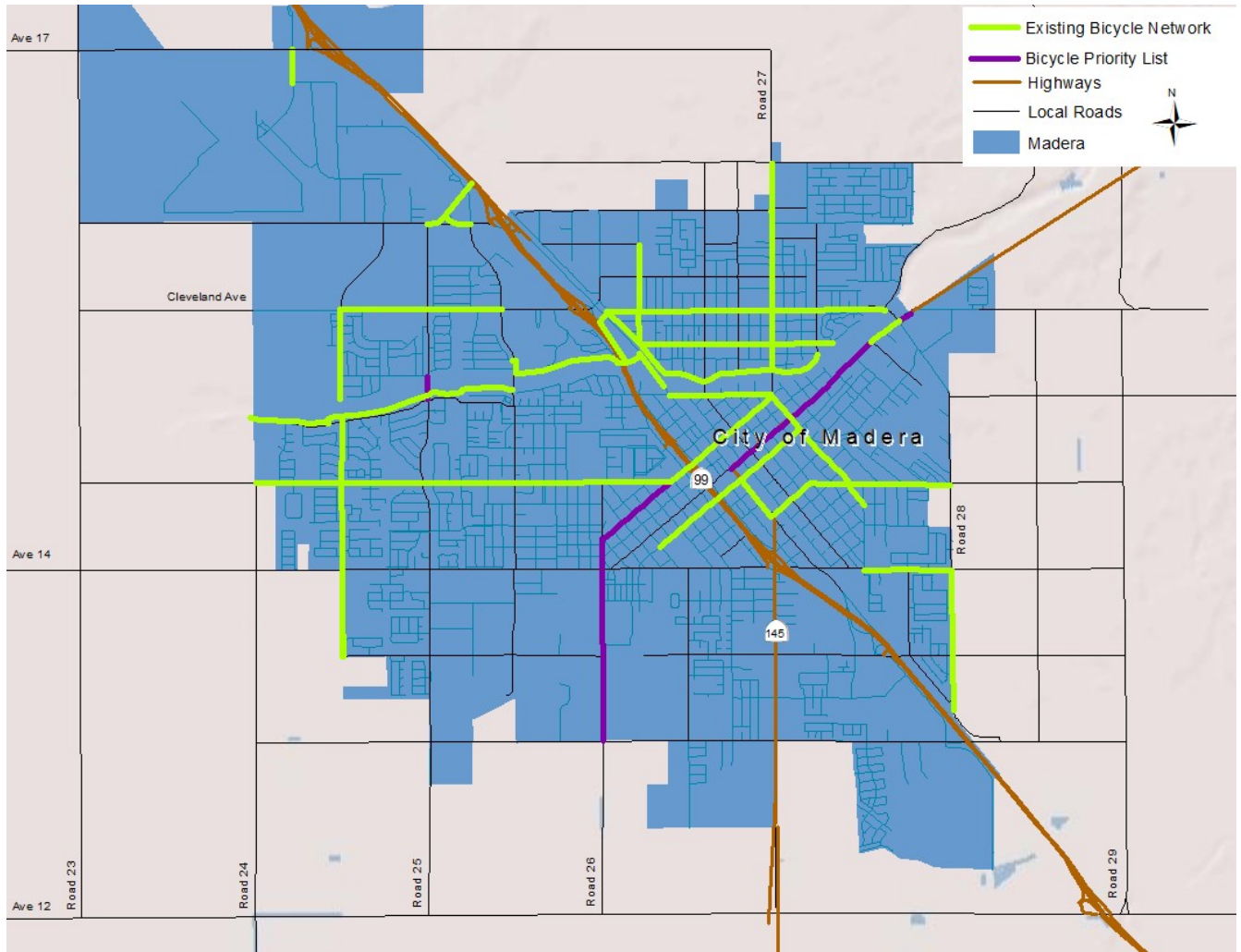
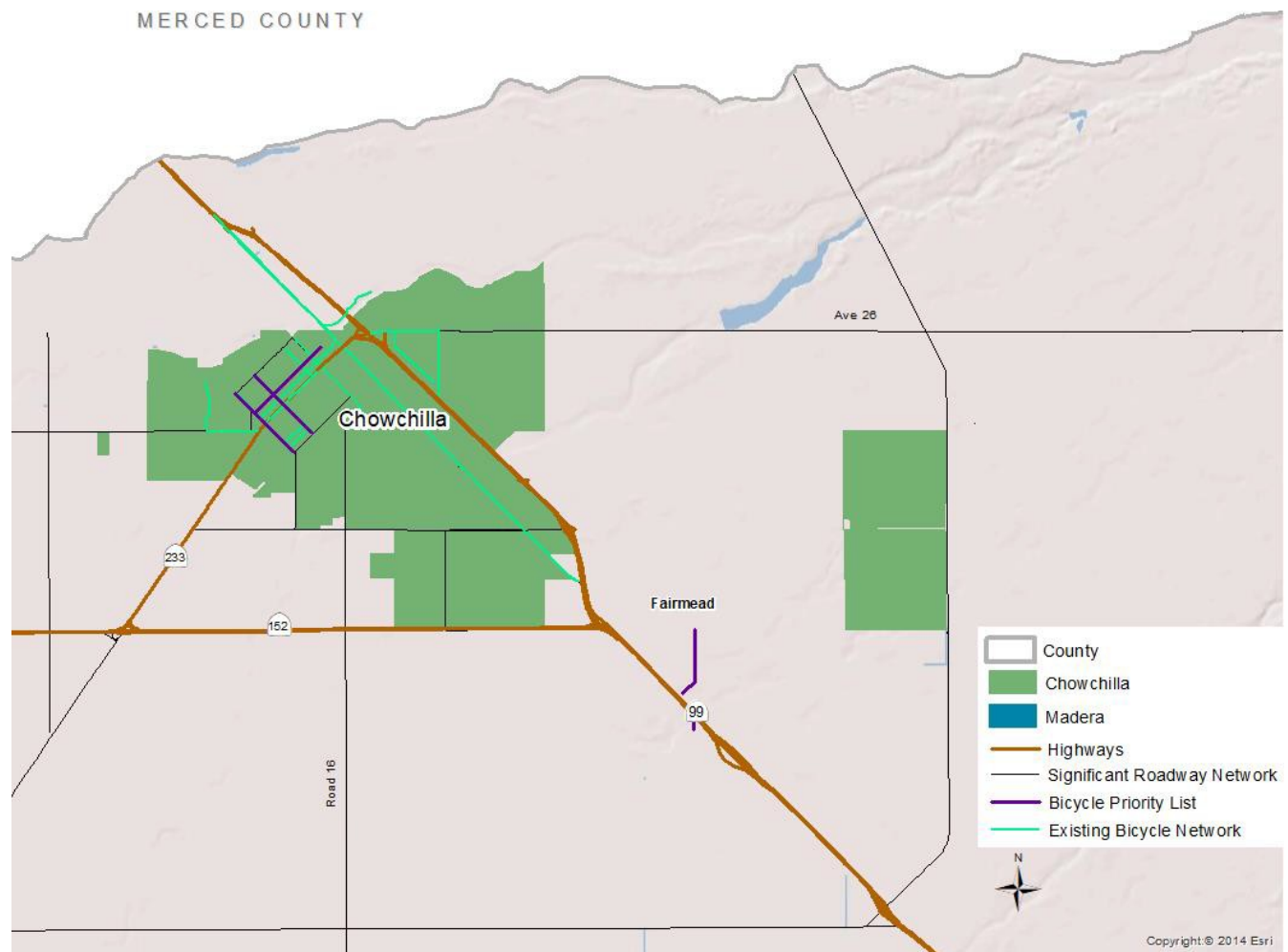


FIGURE 10-14  
City of Chowchilla Existing Bicycle Network



## Environmental Impacts

The equity analysis section mainly assesses whether all racial and income target areas will benefit from fair shares in the transportation investments. However, some transportation projects may create some adverse impacts. Successful transportation projects do not only focus on improvements to the transportation system, but also minimizes and mitigates any negative environmental and social impacts the project may create.

## Air Pollution Emissions

The projects included in this RTP are intended to alleviate existing congestion and improve the level of service (LOS) for the roadway system. The completion of these proposed projects is likely to help congestion, thus reducing air pollutant emissions from vehicles idling and constantly accelerating and decelerating. Therefore, the neighborhoods that contain these projects may initially experience some negative impacts in local air quality due to the projects' construction, but in the long run, the local air quality in these areas will benefit from the better traffic flow and less localized pollutant emission.

In addition to the roadway projects, the transit and bike projects included in this RTP will also contribute to the improvement of air quality. The City and County of Madera have also been recognized for their efforts to improve air quality through the purchase of low pollutant or natural gas vehicles. Much of the money used for these particular clean air projects comes from federal CMAQ dollars.

## Conclusion

The analysis in this chapter mainly focuses on racial minority, low-income and geographic equity of transportation projects within Madera County. This analysis endeavors to present a reasonably comprehensive investigation on the fairness of the distribution of benefits and detriments of the transportation projects included in this RTP/SCS.

Considering all the analyses as a whole, it is sufficient to conclude that the *RTP/SCS* does meet the environmental justice requirements: ensuring that all residents of Madera County are subject to proportionate benefits and detriments of transportation investment.





# Appendices





# Appendix A



## APPENDIX A

### DRAFT SAN JOAQUIN VALLEY REGION OVERVIEW

# VALLEYWIDE CHAPTER

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## ONE VALLEY: THE SAN JOAQUIN VALLEY PROFILE

### Geography

The San Joaquin Valley (Valley) is the southern portion of the Great Central Valley of California [Figure 6-1]. The San Joaquin Valley stretches from the Tehachapi Mountains in the south to the San Joaquin Delta in the north, a distance of nearly 300 miles. The eastern boundary is the Sierra Nevada Mountains, which reaches elevations of over 14,000 feet, while the western boundary is the lower coastal ranges. The Valley floor is about 10,000 square miles in size.

**Figure 6 - 1**  
**San Joaquin Valley Topography**



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

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

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

# VALLEYWIDE CHAPTER

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

## **Population**

While the Valley is largely rural in nature, it does contain several large cities and suburbs with a total population of a little over 4 million people (more than the population of 24 states). The eight Valley counties are a part of seven Metropolitan Statistical Areas (MSAs): Stockton (San Joaquin County), Modesto (Stanislaus County), Merced, Fresno-Madera, Hanford-Corcoran (Kings County), Visalia-Porterville (Tulare County) and Bakersfield (Kern County). Most of the Valley's population resides along the State Route 99 corridor including four cities of over 150,000 people (Fresno, Bakersfield, Stockton and Modesto) [Figure 6-2]. Population growth has been sustained and significant [Figure 6-1]. In 1970, the eight San Joaquin Valley counties had a population of just over 1.6 million. By 2015, the population had increased 149% to over 4 million [Figure 6-3]. The Valley continues to be one of the fastest growing regions in the state. The Valley accounted for 8.2% of California's total population in 1970 and has grown to account for 11% of California's total population now. By 2050, the Valley is projected to capture 15% of the state's population [Figure 6-4].

# VALLEYWIDE CHAPTER

Figure 6 - 2

## San Joaquin Valley



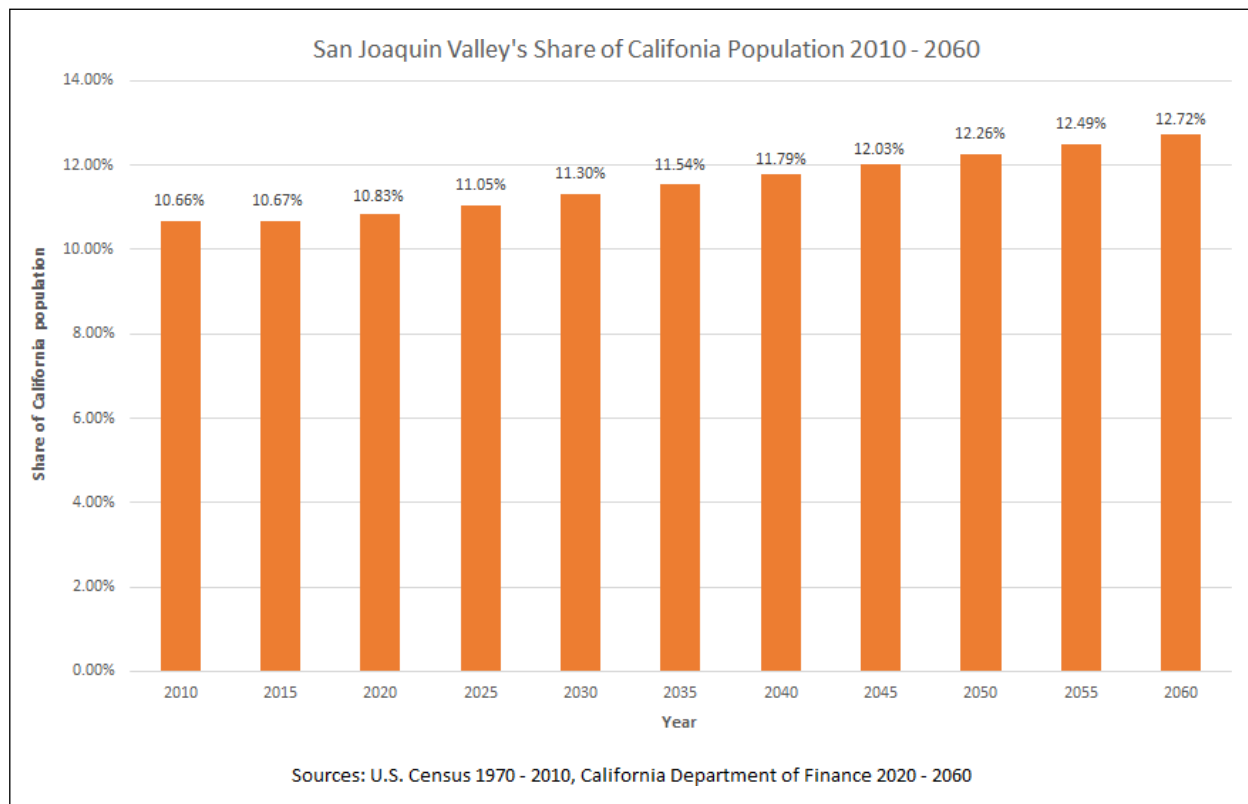
# VALLEYWIDE CHAPTER

**Figure 6 – 3**  
**San Joaquin Valley Population Growth by County**

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

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

**Figure 6 - 4**

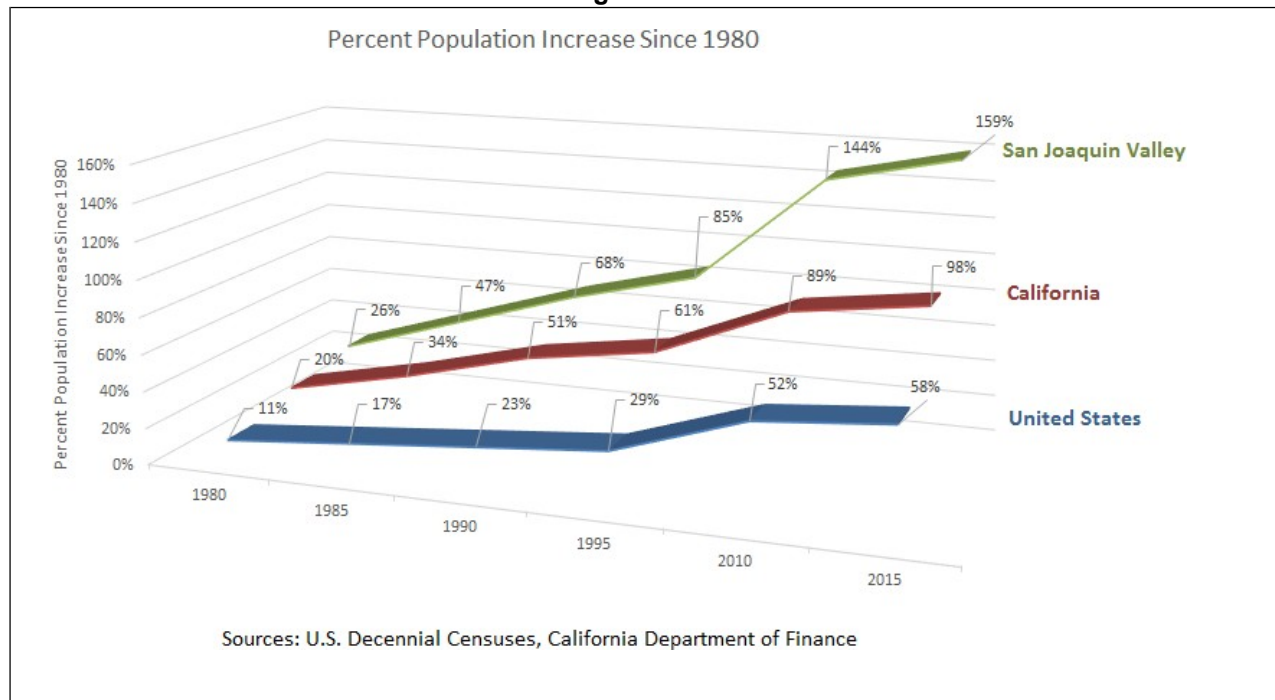




# VALLEYWIDE CHAPTER

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Figure 6 - 5



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

## **Economy**

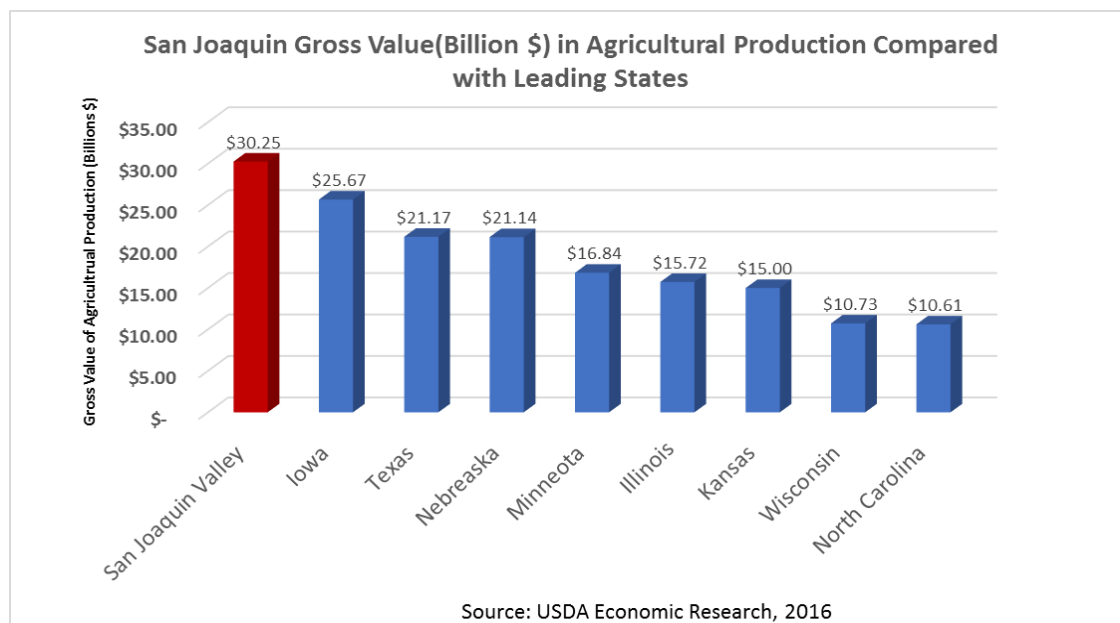
The San Joaquin Valley is famous for agricultural production. All eight counties rank within the top twelve of California's 58 counties. In addition, if the Valley were a state, it would be the top agricultural producing state in the country. The Valley produced \$34.7 billion in agricultural products in 2015. This amount is over double the remainder of California and more than the next highest producing state, Iowa [Figure 6-7].

**Figure 6 - 6**

San Joaquin Valley Counties Rank in Gross Value of Agricultural Production Among all California Counties		
1	Tulare	\$6.980 billion
2	Kern	\$6.879 billion
3	Fresno	\$6.606 billion
5	Stanislaus	\$3.879 billion
6	Merced	\$3.590 billion
7	San Joaquin	\$2.733 billion
9	Kings	\$2.021 billion
10	Madera	\$2.017 billion

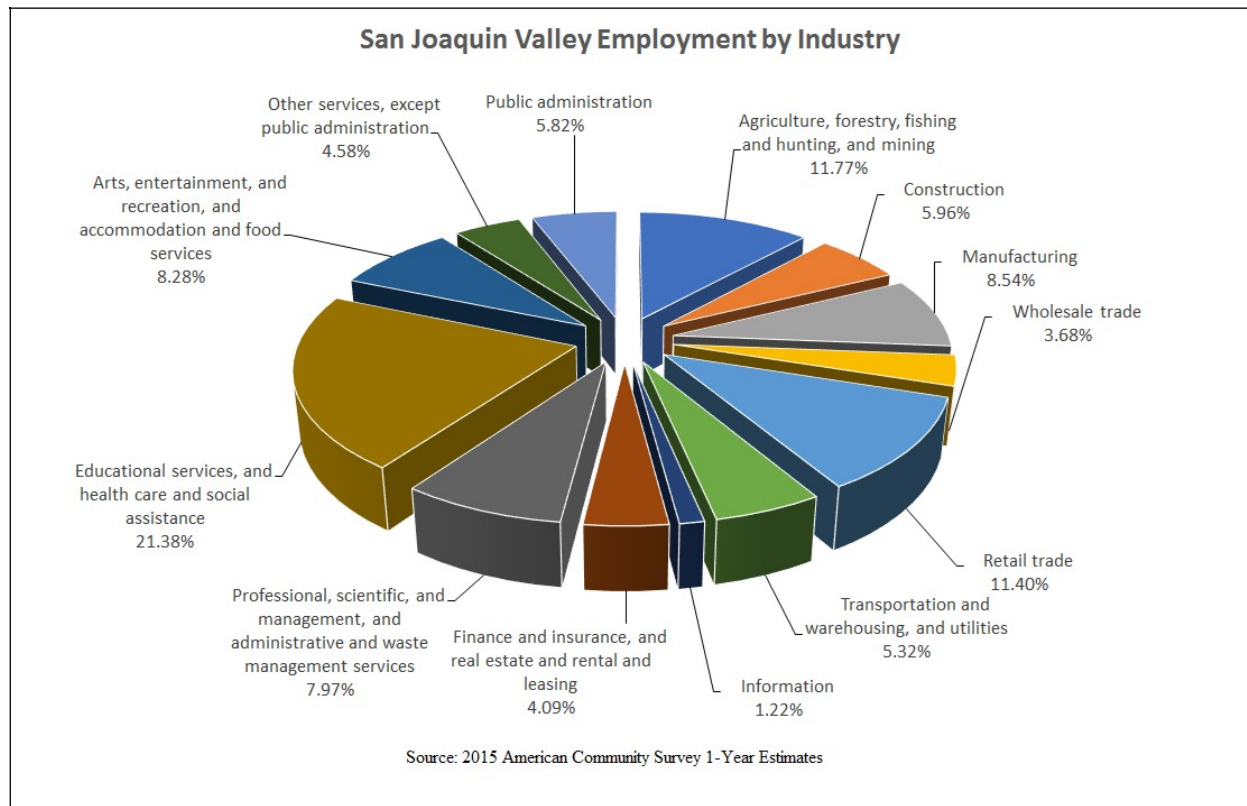
Source: California County Agriculture Commissioners Report, 2015

**Figure 6 - 7**



Agriculture accounts for 12% of the Valley's jobs [Figure 6-8]. In comparison, only 2% of the state and nation's jobs are in agriculture [Figure 6-9]. Other major employment sectors in the Valley are education, health and social services (21.38%) and retail trade (11.4%).

**Figure 6 - 8**



**Figure 6 - 9**

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

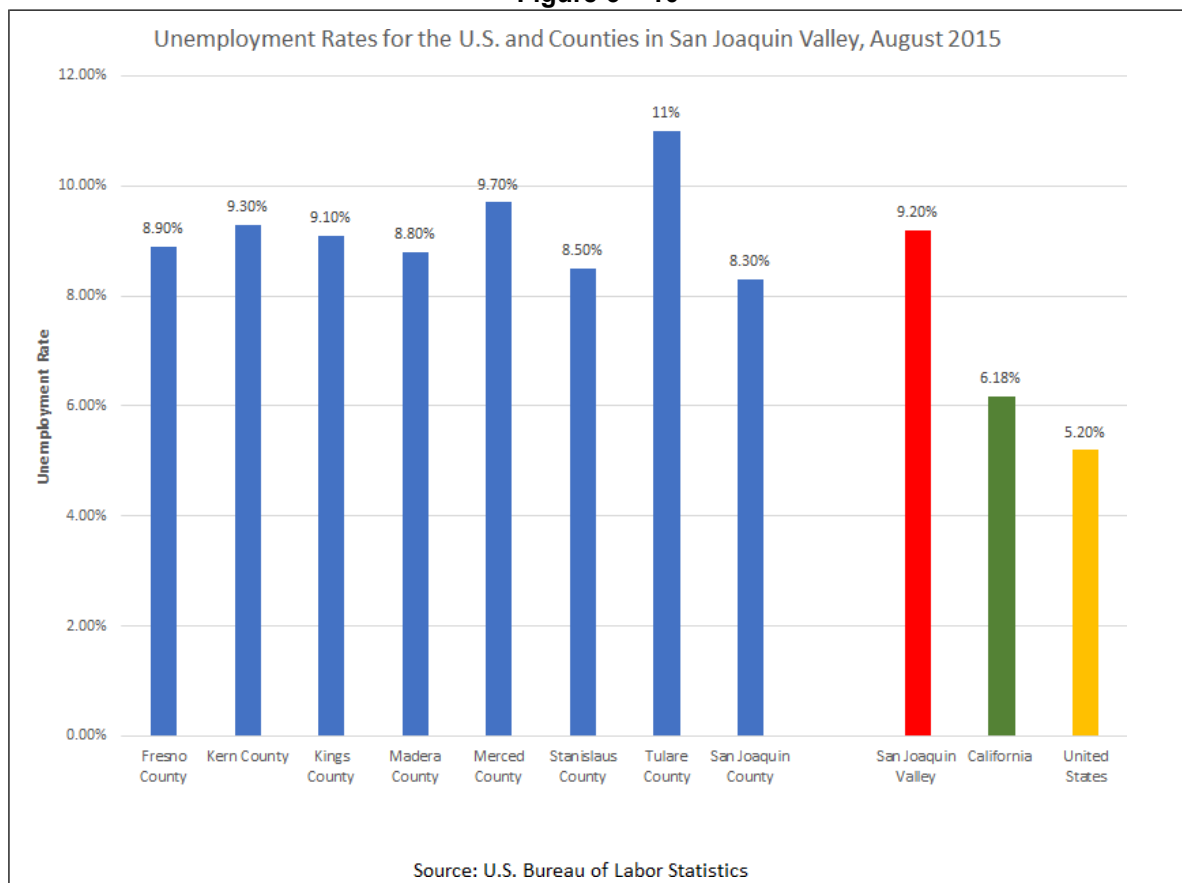
Source: 2015 American Community Survey 1-Year Estimates

# VALLEYWIDE CHAPTER

## Economically Distressed Area

The San Joaquin Valley is one of the most economically distressed regions in the United States. High unemployment rates have historically plagued the Valley. As shown in Figure 6-10, in 2015 the Valley's unemployment rate was 8.3%, in contrast to 6.2% and 5.2% for the state and the nation, respectively. According to the Bureau of Labor Statistics, "unemployment rates fell in all eight San Joaquin area counties from August 2013 to August 2015. The largest two-year decrease occurred in San Joaquin County, down 3.5 percentage points, followed by Stanislaus County, down 3.4 points. Seven of the eight counties had unemployment rate decreases that were larger than the national decrease of 2.1 percentage points. Kern County had the smallest unemployment rate decline, 1.6 percentage points, from August 2013 to August 2015. Tulare County had the highest jobless rates in the area in August for each of the past three years."

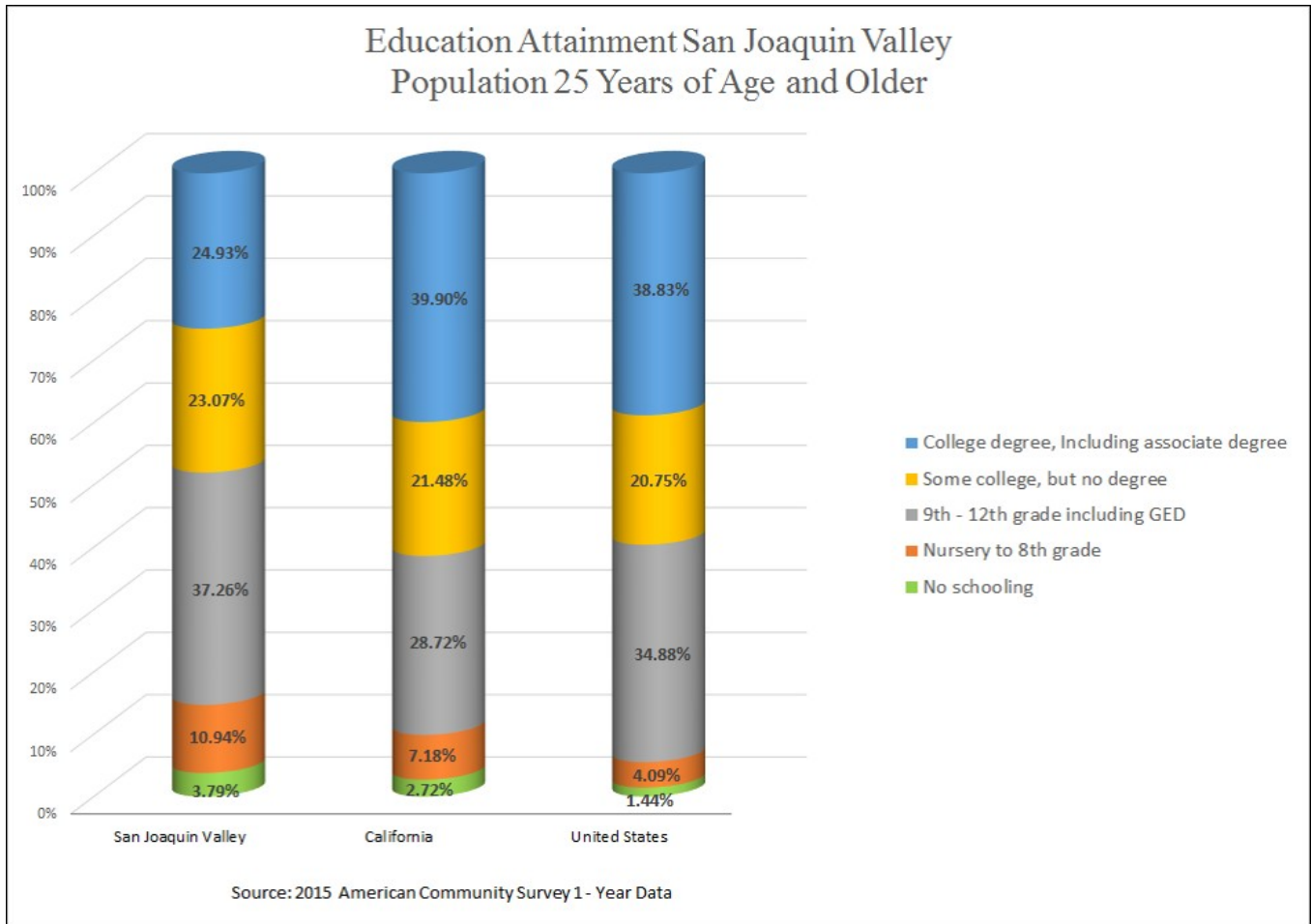
**Figure 6 – 10**



Educational levels for Valley residents lag behind those of California and the United States. Only 24.9% of persons 25 years of age and older have a college degree, compared to 39.9% and 38.8% for the state and nation, respectively [Figure 6-11].

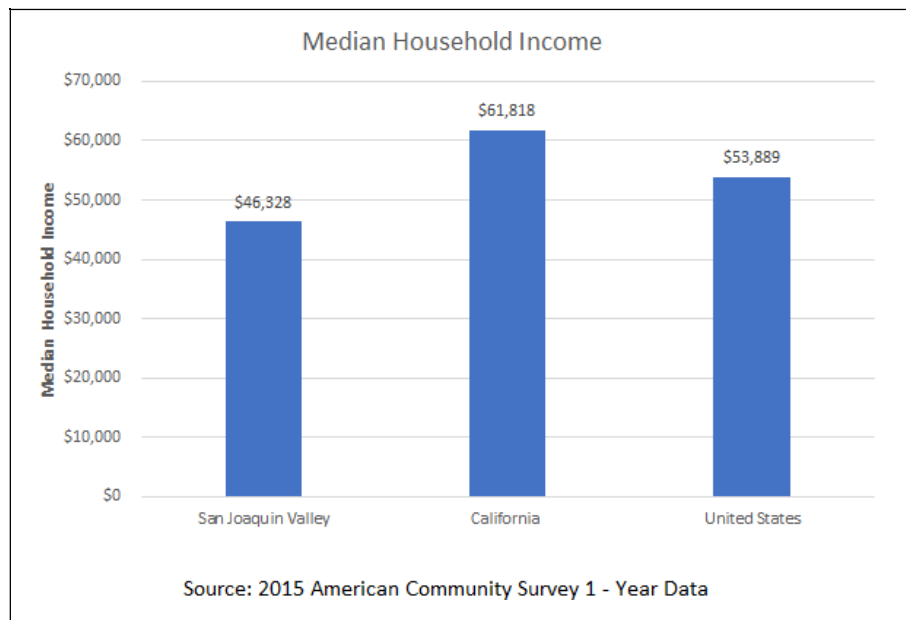
# VALLEYWIDE CHAPTER

Figure 6 – 11



With the Valley's mix of employment types, high unemployment, and low educational attainment levels, the Valley is plagued with a low median household income. As shown on Figure 6-12 below, the Valley's median household income of \$46,000 is far below the state and nation's averages of \$61,000 and \$53,400.

**Figure 6 - 12**



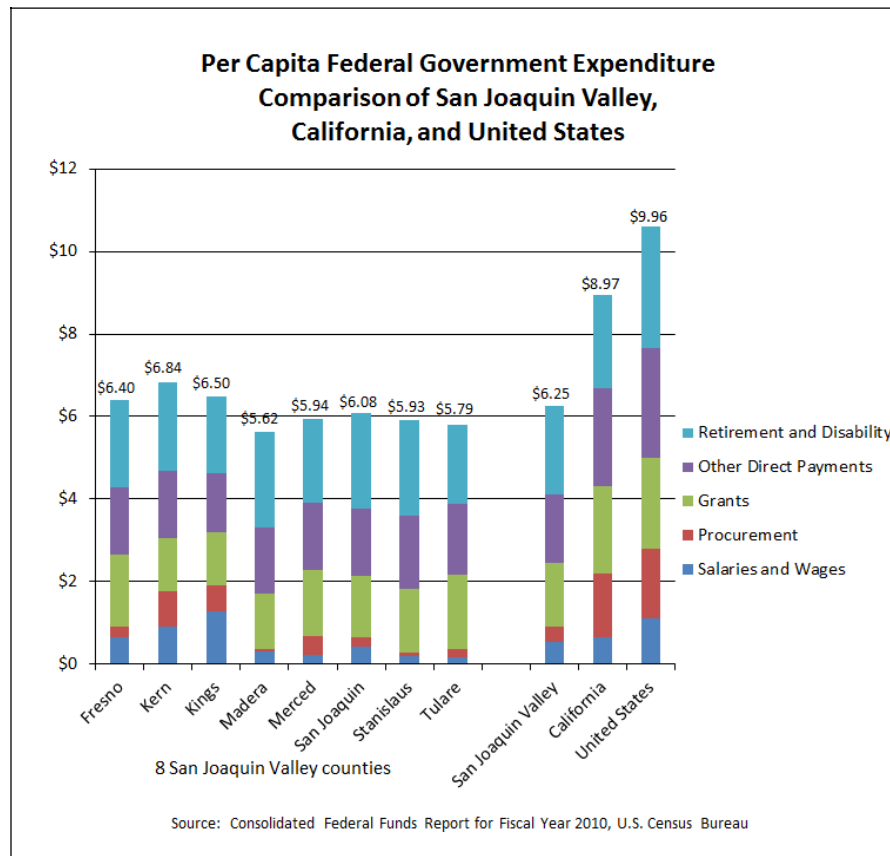
The economic plight of the San Joaquin Valley is starting to be recognized at a national level. The Congressional Research Service (CRS) completed a study in 2005 (California's San Joaquin Valley: A Region in Transition) comparing the economic conditions of the San Joaquin Valley to the Central Appalachian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

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

Figure 6-13 below indicated that in 2010, the per capita federal government expenditure for the Valley and each of its eight counties was still far below that of California and the United States. With the termination of the Federal Financial Statistics Program, the per capita federal government expenditure data after 2010 has been discontinued.



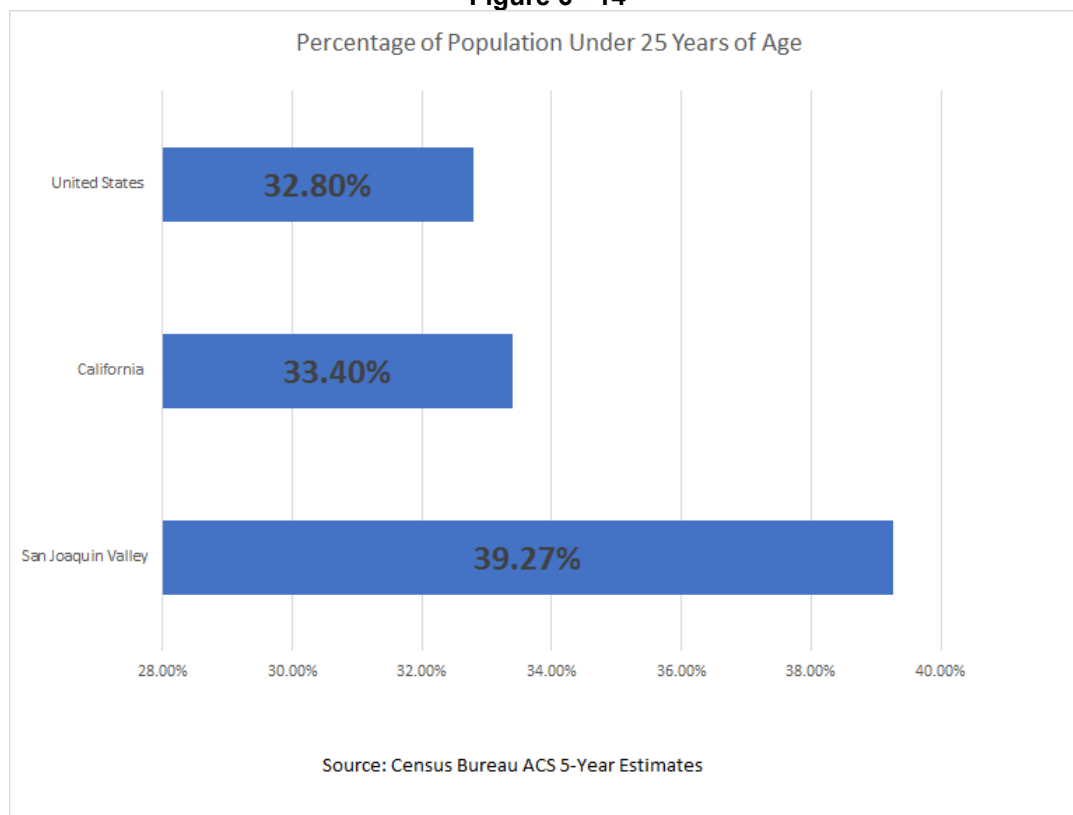
**Figure 6 - 13**



## Demographics

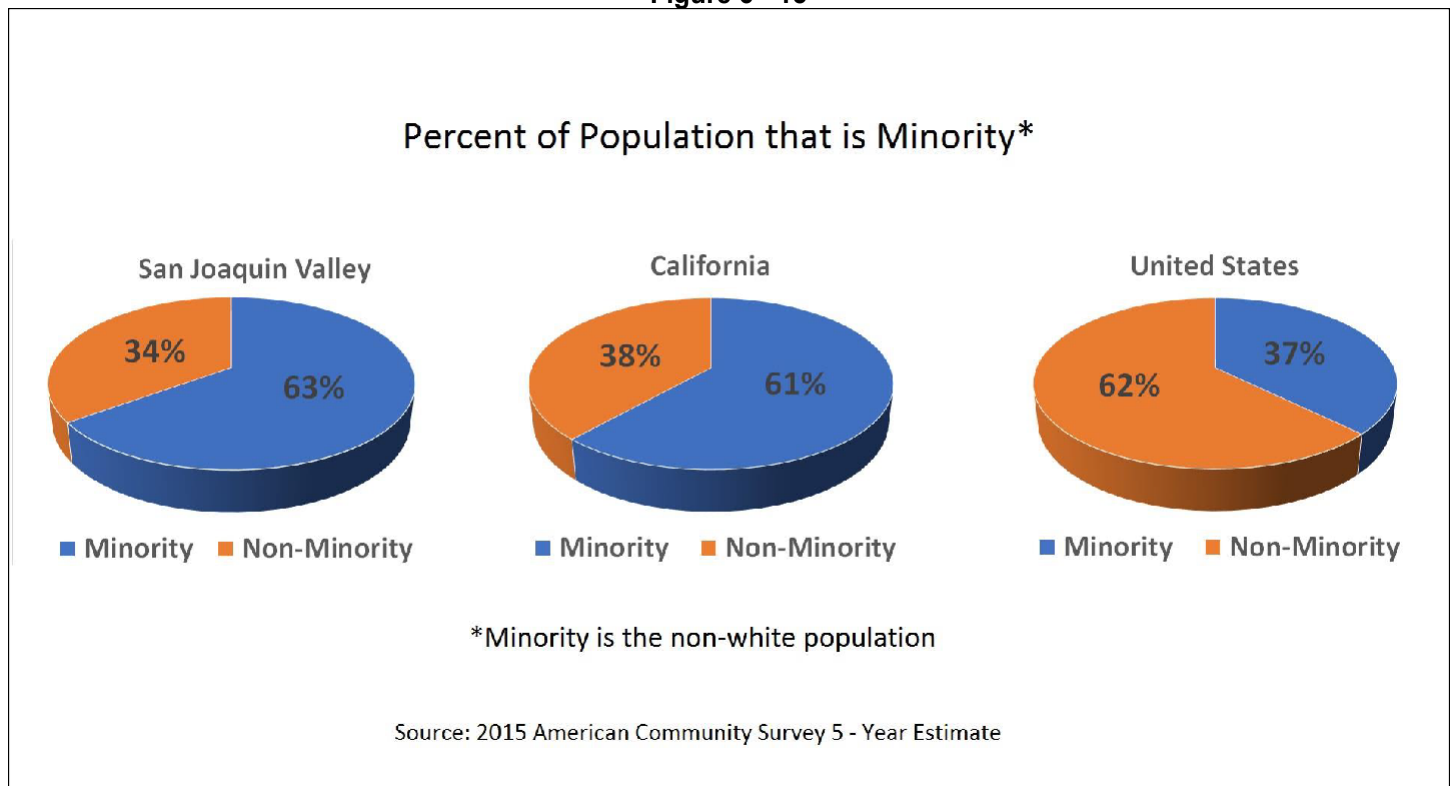
The Valley has a younger population than California as a whole and the United States. In 2015, 39.27% of Valley residents were under the age of 25 compared to 33.4% for California and 32.8% for the United States [Figure 6-14].

**Figure 6 - 14**



The residents of the Valley are more ethnically diverse than those of California and the United States. According to the 2015 American Community Survey, 63% of the Valley's inhabitants are minority (non-white), compared to 61% and 37% for the state and nation [Figure 6-15].

Figure 6 - 15



## VALLEY SUCCESS IN PARTNERING AND PLANNING

### Air Quality

#### Background

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

#### Coordination

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

# VALLEYWIDE CHAPTER

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

## **Transportation Conformity**

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

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

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

## **Sustainable Communities Strategies**

### **Introduction**

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

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

**PUBLIC WORKSHOP**

Please join us for an interactive event about the Regional Transportation Plan & Sustainable Communities Strategy!

Help shape the next 20+ years of the San Joaquin County region by telling us what types of transportation investments will bring the most benefit to existing and future generations!

**PARTICIPANTS WILL:**

- Learn about the Regional Transportation Plan & Sustainable Communities Strategy.
- Share their ideas about the future growth and development of the region.
- Meet SJCOG staff, get to know the priorities of fellow residents, and maybe even have some fun!

**THURSDAY  
APRIL 20, 2017**

**6:00 - 8:00 PM**

**SJCOG  
555 E. WEBER AVE.  
STOCKTON, CA 95202**

Persons requiring language assistance or auxiliary aid in order to participate should contact Rebecca Calja at 255-0880 at least 72 hours (three days) in advance of the event.

Questions? Christina Corrales, Assistant Regional Planner, SJCOG | (209) 255-0128 | corrales@sjcog.org

San Joaquin Council of Governments | [www.sjcog.org/rtp](http://www.sjcog.org/rtp)

# VALLEYWIDE CHAPTER

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

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

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

## **Valleywide Coordination on RTP/SCS Efforts**

### ***Valley Visions***

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

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

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

# VALLEYWIDE CHAPTER



**Valley Visions** is a regional planning effort underway in the San Joaquin Valley to improve the quality of life in our communities by expanding transportation and housing choices. It takes a big-picture look at how the Central Valley can grow over time in a way that uses resources efficiently, protects existing communities, conserves farmland and open space, and supports the Central Valley economy.

#### **What Is Valley Visions?**

Valley Visions is the name of the collective efforts of the eight Metropolitan Planning Organizations of the San Joaquin Valley. These agencies (known as MPOs) are responsible for setting transportation policy and priorities for a region and documenting how transportation funds will be spent in a Regional Transportation Plan. In Fresno County, this effort is being led by the Fresno Council of Governments.

#### **Why Are We Doing This?**

A new state requirement directs MPOs to add an element to the Transportation Plan (known as a Sustainable Communities Strategy) that coordinates land use, housing and transportation planning to reduce the amount people have to drive. This effort is part of a statewide strategy to reduce greenhouse gas emissions to meet regional targets. These plans may also help attract funding to our communities and streamline permitting processes.

#### **Who Is Involved?**

In your community, Fresno Council of Governments is taking this opportunity to engage residents, elected officials, businesses, local governments, community groups and others to create a plan that benefits our neighborhoods, cities and the entire San Joaquin Valley. Everyone interested is invited to participate in this process to help shape our community's future. Most of the Valley Visions plans will be complete by the end of 2013.

#### **How Can I Share My Ideas?**

We want to hear from you! Your input can help us create communities we all want to live, work and invest in, and that reflect our community values. Good planning will preserve the community and natural features that we enjoy, now and for our children and grandchildren.

Find out more from the Fresno Council of Governments:

Visit [www.fresnocog.org](http://www.fresnocog.org) "or" [www.valley-visions.org](http://www.valley-visions.org)

Call: (559) 233-4148

Write to us at: Fresno COG, 2035 Tulare Street, Suite 201, Fresno, CA 93722



People. Choices. Community.

## **Be Part of Planning our Region's Future!**

After seven months of gathering input and a comprehensive review of the future needs of the County, the Stanislaus Council of Governments (StanCOG) is ready to present the four proposed alternatives for the Valley Vision Stanislaus plan; a long range regional transportation plan that will provide the framework for investment in roads, freeways, public transit, bike trails and other ways people move around our County for the next 28 years. Join us at one of our upcoming workshops!

City of Patterson  
Wednesday, August 14th  
6:30 – 8:30 PM  
1 Plaza  
Patterson, CA

City of Oakdale  
Tuesday, August 20th  
6:30 – 8:30 PM  
110 South Second Ave  
Oakdale, CA

City of Ceres  
Tuesday, August 27th  
6:30 – 8:30 PM  
2701 Fourth Street  
Community Room  
Ceres, CA

Valley Vision Stanislaus is a project of the Stanislaus Council of Governments,  
the metropolitan planning agency for the Stanislaus Region.



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



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



# VALLEYWIDE CHAPTER

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

## **Goods Movement**

### **Introduction**

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

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

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

Figure 6-16 - General Electric LNG Locomotive



Figure 6-17 – Hybrid Semi-Truck Technology



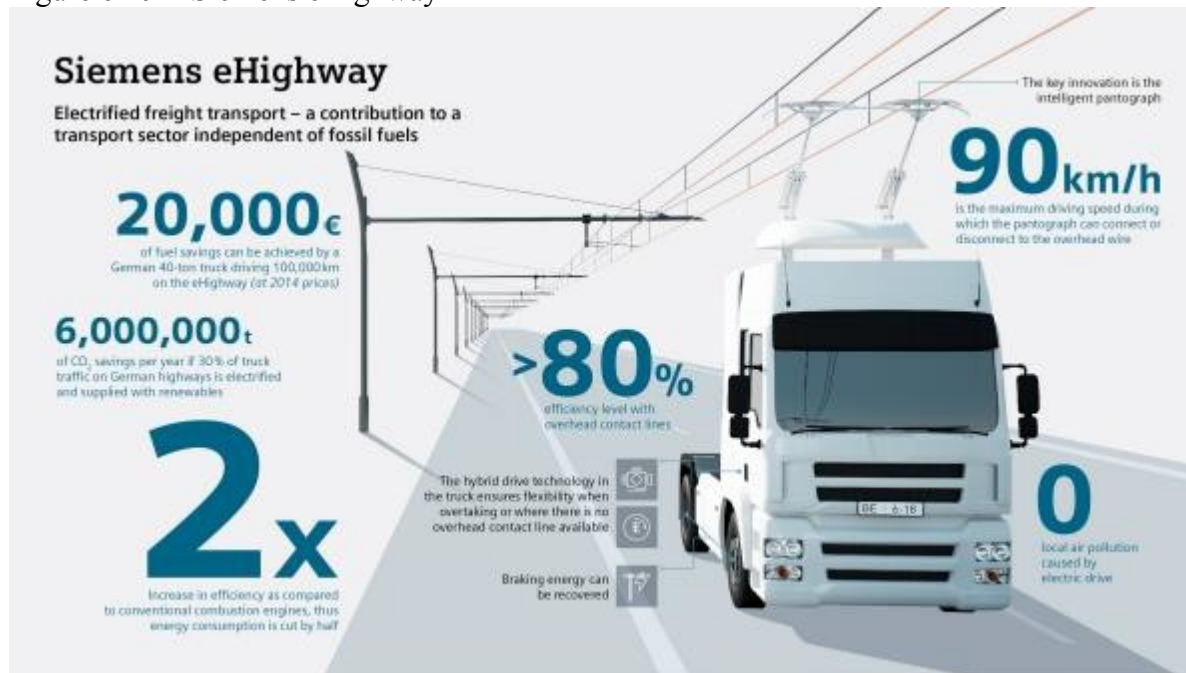
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Figure 6-18 – Emerging Cleaner Semi-Truck Technologies



## Emerging Technologies

Figure 6-19 – Siemens eHighway



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

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

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

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

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

## **Background**

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

Previous goods movement studies for the Valley:

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

The three most current studies will be summarized below.

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## **San Joaquin Valley Interregional Goods Movement Plan (2013)**

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

Figure 6-20 – Inside a Distribution Center



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

## **San Joaquin Valley Goods Movement Sustainable Implementation Plan (2017)**

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

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

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

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

## **Connector Needs and Strategies**

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

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

## **Truck Parking Recommendations**

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

- Planning and Funding
  - Improve data collection and analysis to have a better understanding of short-term and long-term parking demand.
  - Work with law enforcement to educate and train them about improved use of safe and available parking spaces.
  - Update plans and investment programs to include truck parking solutions, both for facilities and technology for truck parking information services.
  - MPOs should consider ways to incentivize land use decisions to facilitate private-sector expansion of existing facilities or opening of new ones.
  - Surplus public properties can be converted to truck stops.
  - Funding provided by FAST could be used to construct or expand truck parking facilities and deploy tools for commercial motor vehicle drivers to find safe, available places to park and rest.
- Demand Control
  - Policies that incentivize off-peak deliveries can reduce demand for long-term parking spaces.
  - Truck circulation is a problem in some older parking facilities that are not designed for larger trucks.
  - Shippers/receivers often demand that drivers leave the facility immediately after delivery.



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## **Recommended Next Steps**

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

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

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

Interstate 5 (I-5) and State Route 99 (SR 99) play critical and unique roles as the major goods movement facilities in the Valley. At present, 92 percent of goods in the Valley are carried by truck, and this is not expected to change in the near future. I-5 and SR 99 carry the highest volumes of trucks in the Valley and in some locations, among the highest volumes in the state. This is a reflection of the traditional north-south orientation of freight flows in the Valley, associated with the through routing of trucks to connect the major coastal urban areas to the north and south of the Valley, the north-south orientation of the Valley's major urban centers, and the need to access major east-west interstate connections north and south of the Valley itself.

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

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

Figure 6-21 - SJV Freight Clusters





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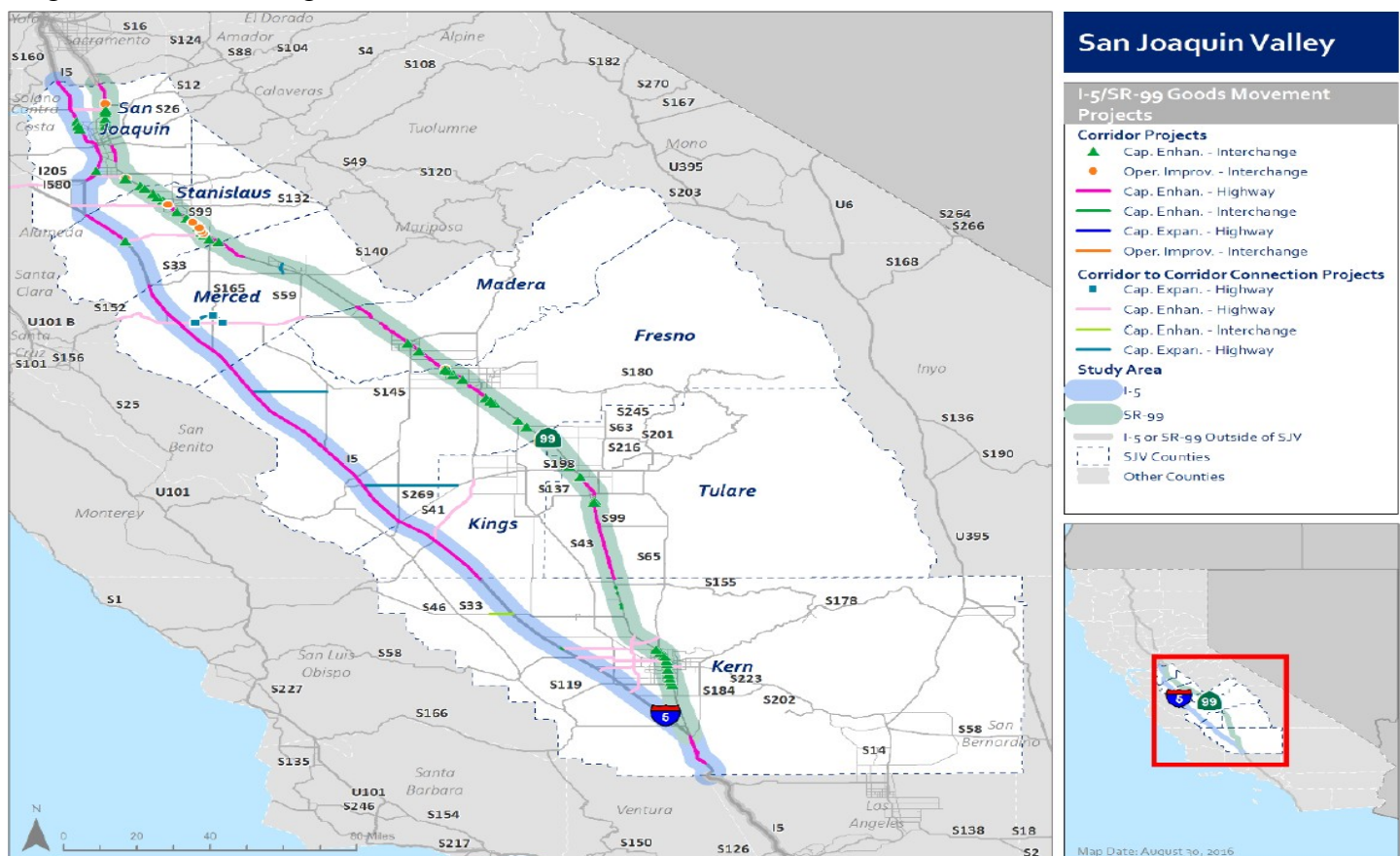
facilities, distribution centers, and/or large manufacturing firms. The clusters are distributed throughout the Valley, with four located in San Joaquin County, two in Stanislaus County, one each in Merced and Madera counties, one in Fresno County, one in Kings County, three in Tulare County, and four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

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

## Goods Movement Projects

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

Figure 6-22 - SJV Freight Clusters



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

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

## Fresno

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

## Kern

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

## Madera

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

## Merced

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

## San Joaquin

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

## Stanislaus

- SR 99 Interchange Ramp and Auxiliary Lane Improvements

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

## Tulare

- State Route 99/Betty Drive Interchange

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

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

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

### Strategic Goals, Objectives

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

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

## **Conclusions**

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

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

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

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

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## **The Future of Goods Movement in the Valley**

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

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

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

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

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

## **Advocacy**

### ***San Joaquin Valley Regional Policy Council***

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

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

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

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

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

## *Valley Legislative Affairs Committee*

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

The goals of the Valley Voice program are to:

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

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

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

### **Air Quality**

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

### **Cap and Trade Funding**

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



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## **Goods Movement**

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

## **San Joaquin Amtrak Intercity Passenger Rail**

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

## **Support for AB 28**

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

## **Categorical Exclusion (CE) for Projects of Limited Federal Assistance**

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

## **Transportation Funding**

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

## **Motorist Aid System: Multiple Service Elements**

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

## **Transportation Initiative Voter Threshold**

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

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

## **Buy America Waivers**

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

## **Regional Transportation Plans Adoption Cycles**

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

## **MPO Role, Flexibility and Funding**

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

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## **Geographic and Socioeconomic Equity in Grant Programs**

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

## **Clean Air Act Modernization**

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

## **Reductions in Emissions Sources Under Federal Control**

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

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

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

## **Air and Health Quality Empowerment Zone Designation**

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

## **Goods Movement**

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

## **Farm-To-Market Routes**

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

## **National Freight Program and Revenue Source**

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

## **Continued Funding for Bridge Replacement and Rehabilitation**

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

## **Aviation Fuel Sales Tax – H.R. 4441**

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

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## **Water Quality, Supply and Reliability**

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

## **Commonsense Legislative Exceptional Events Reform (CLEER) Act**

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

## **Map-21 Reauthorization Principles**

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

## **Other Collaborative Planning Efforts**

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

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

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

## VALLEYWIDE CHAPTER

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

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

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

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

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

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

# VALLEYWIDE CHAPTER

## Valley Success in Implementation

### Passenger Rail in the San Joaquin Valley

#### Background

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

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

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

Figure 6 - 23

#### **AMTRAK San Joaquin Service**

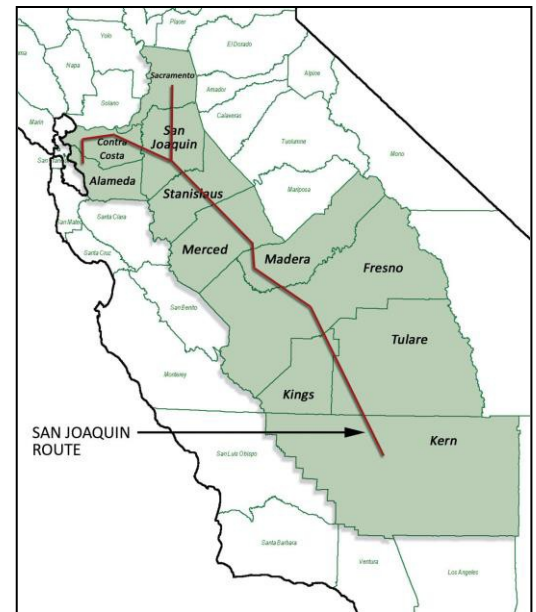


Figure 6 - 24



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

After breaking ground in 2015, construction of the California High-Speed Rail is well underway in the Central Valley. The California High-Speed Rail Authority (“Authority”) is proposing an Initial Operating Section (IOS) to be completed by 2025 that will connect San Jose to a temporary station 20 miles north of Bakersfield. The Merced to Fresno Project Section is part of the first phase of the high-speed rail system. This project section is approximately 65-miles and generally parallels the Union Pacific Railroad (UPRR) tracks and State Route 99 between Merced and Fresno with stations in downtown Merced and Fresno. By 2029, the system will run from San Francisco to the Los Angeles basin in under three hours at speeds capable of over 200 miles per hour. The system will

# VALLEYWIDE CHAPTER

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

## Coordination

### Central Valley Rail Policy Working Group

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

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

### San Joaquin Joint Powers Authority

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

Figure 6 - 25 California High Speed Rail Statewide Rail Modernization





# VALLEYWIDE CHAPTER

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## **Looking Forward**

Senate Bill 132 was adopted in April 2017, assigning \$400 million for the purpose of extending the Altamont Corridor Express into Ceres and Merced by the year 2027. Senate Bill 132 aligns with the San Joaquin Regional Rail Commission (SJRRC) ACEforward planning effort, which supports both the enhancement of exiting ACE service between Stockton and San Jose as well as extend ACE service to Manteca, Modesto, Turlock and Merced. The ACEforward effort has involved extensive coordination through the Central Valley Rail Policy Working Group with the hope to realize portions of the ACE service extension to Merced by as early as 2020. The Central Valley transportation partners will also continue to work with the California HSRA to support the implementation of high-speed rail within the Central Valley as the initial operating phases are complete and services are initiated.

Figure 6 - 26  
**ACEforward Proposed Service**

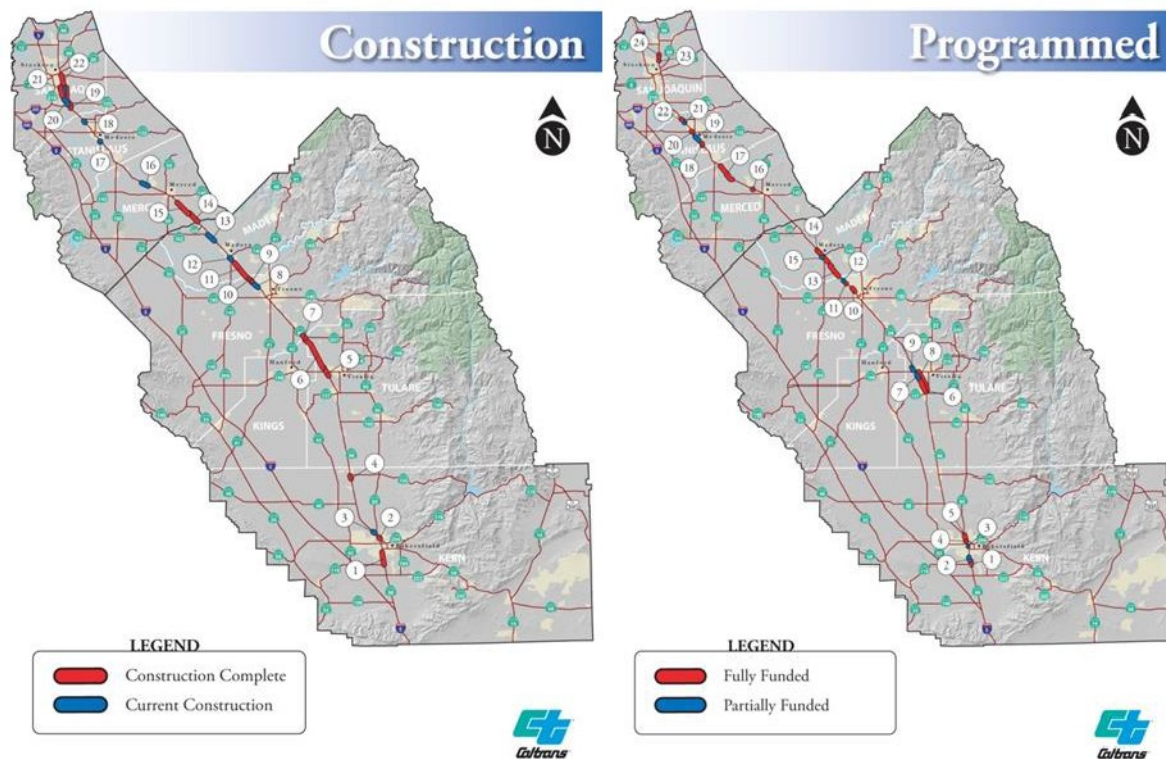


## **Proposition 1B and State Route 99 Bond Program**

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

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## State Route 99 Business Plan



**Figure 3.6**  
Status of Priority Category 2 Candidate Projects:  
Major Capacity Increasing Improvements  
(Capital Costs Greater than \$8 million)

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

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

# Appendix B



## APPENDIX B

### MCTC 2017 PUBLIC PARTICIPATION PLAN



# Public Participation Plan

Madera County Transportation Commission

Adopted September 20, 2017





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# MADERA COUNTY TRANSPORTATION COMMISSION

## PUBLIC PARTICIPATION PLAN

### I. INTRODUCTION

#### About Madera County Transportation Commission

The Madera County Transportation Commission (MCTC) is the Regional Comprehensive Planning Agency, Regional Transportation Planning Agency (RTPA), Metropolitan Planning Organization (MPO) and Local Transportation Commission for Madera County. Major responsibilities of MCTC include the development and adoption of the Regional Transportation Plan (RTP), and other environmental review documents related to transportation and required by state and federal law. These documents provide a framework for project development and deployment within the region. The RTP in particular, is the regional long-range plan for federally funded transportation projects and serves as a comprehensive, coordinated transportation plan for all governmental jurisdictions within Madera County.

Beginning in July of 2003, MCTC assumed the newly designated role of MPO for Madera County. An MPO is the local decision making body that is responsible for carrying out the metropolitan transportation planning process and must be designated for each urban area with a population of more than 50,000 people. A Federal Register Notice regarding Qualifying Urban Areas for Census 2000 was published on May 1, 2002, listing 76 newly qualified urban areas for 2000 that were not part of an urban area in 1990. The City of Madera designated as an urban area by the United States Census Bureau, with an urban population of 63,605 within the new urban boundary established by the Census Bureau. The Madera metropolitan boundary area shall cover the entire County of Madera.

The MPO's role in the transportation planning process is to foster intergovernmental coordination; undertake comprehensive regional planning with an emphasis on transportation issues; provide a forum for citizen input into the planning process; and to provide technical services to its member agencies.

In order to accomplish the objectives and responsibilities of a comprehensive transportation program, MCTC has established working relationships with a number of state, regional and local agencies. These Memorandum of Understandings (MOU) provide a framework for the planning process, which ultimately result in the delivery of safe, efficient, and environmentally sensitive transportation projects.

In conjunction with a coordinated agency effort, the inclusion of public input is necessary. MPOs are required to solicit the public's input and the methods for participation shall be documented in the Public Participation Plan. This plan shall develop protocols to ensure active public participation in the development of all transportation planning activities.

## Purpose of the Public Participation Plan

MCTC developed this Public Participation Plan (PPP) as a guide to meeting the Metropolitan Planning Organization requirements for early coordination, public involvement and project development. The PPP is intended to provide direction for public participation activities conducted by MCTC and contains the requirements, procedures, strategies and techniques used by MCTC to communicate with the public and appropriate, affected agencies. This plan defines a process that outlines roles, responsibilities and key decision points for consulting with affected public agencies, the transportation sector, transportation providers and other interested parties, and providing reasonable opportunities to be involved in the metropolitan transportation planning process.

## MCTC's Commitment to Public Participation

### Commitment 1: Early Engagement

- Provide adequate public notice of public participation activities and time for public review and comment at key decision points, including but not limited to, a reasonable opportunity to comment on the proposed Regional Transportation Plan (RTP), Sustainable Communities Strategy (SCS) and the Federal Transportation Improvement Program (FTIP);
- Provide timely notice and reasonable access to information about MCTC's issues and processes; and
- Early coordination with appropriate agencies and the public aids to determine the type of environmental review documents and action required, the scope of the document, the level of analysis, and related environmental requirements, from the inception of a proposal for action to preparation of the environmental review documents.

### Commitment 2: Access to All

- Employ visualization techniques to describe the RTP and FTIP;
- Make public information (technical information and meeting notices) available in electronically accessible formats and means, such as the World Wide Web;
- Hold public meetings at convenient and accessible locations and times; and
- Seek out and consider the needs of those traditionally underserved by existing transportation systems, such as low-income and minority households, who may face challenges accessing employment and other services;
- No individual shall, on the basis or grounds of disability, race, age or sex, be excluded from participation in or be denied the benefits of services, programs, or activities, or be subjected to discrimination by MCTC;
- When the Marine Protected Area (MPA) includes Indian Tribal lands, the MPO shall appropriately involve the Indian Tribal government(s) in the development of the metropolitan transportation plan and the TIP; and

- When the MPA includes Federal public lands, the MPO shall appropriately involve the Federal land management agencies in the development of the metropolitan transportation plan and the TIP.

**Commitment 3: Response to Public Comment**

- Demonstrate explicit consideration and response to public input received during the development of the RTP and the FTIP; and
- Forward all formal public comments to the MCTC Policy Board or appropriate committee for consideration during decision making.

**Commitment 4: Open Communication**

- Provide additional opportunity for public comment, if the final RTP or FTIP differs significantly from the version that was made available for public comment by the MCTC and raises new material issues which interested parties could not reasonably have foreseen from the public involvement efforts; and
- Coordinate with the statewide transportation planning public involvement and consultation processes.

**Commitment 5: Review**

- Periodically review the effectiveness of the procedures and strategies contained in this PPP to ensure a full and open participation process.

## II. FEDERAL AND STATE PUBLIC PARTICIPATION REQUIREMENTS

Developing an effective public involvement/participation plan involves the identification of techniques designed to meet the needs of a given situation relating to the development of a transportation plan, program, project, or the need for public input regarding the operation and management of a transportation facility. Current Federal statutes and regulations provide general guidelines for public involvement processes and procedures. There is great flexibility available to transportation agencies in developing specific public involvement/participation plans. However, while the set of techniques for any given situation may differ depending upon such factors as demographics and identified potential impacts, the general approach to developing a public involvement/participation plan contains elements that are relevant and responsive to all communities. This information is provided to help practitioners identify legal requirements related to engaging the public that were created to protect and promote good practices. Phrases are provided from statute, regulation, and executive orders relating to different aspects of engaging the public. To understand the broader context of those requirements, we encourage you to refer to the complete statute, regulation, or executive order.

### Fixing America's Surface Transportation (FAST) Act

On December 4, 2015, President Obama signed the [Fixing America's Surface Transportation \(FAST\) Act](#) (Pub. L. No. 114-94) into law—the first federal law in over a decade to provide long-term funding certainty for surface transportation infrastructure planning and investment. The FAST Act authorizes \$305 billion over fiscal years 2016 through 2020 for highway, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, research, technology, and statistics programs. The FAST Act maintains our focus on safety, keeps intact the established structure of the various highway-related programs we manage, continues efforts to streamline project delivery and, for the first time, provides a dedicated source of federal dollars for freight projects. With the enactment of the FAST Act, states and local governments are now moving forward with critical transportation projects with the confidence that they will have a federal partner over the long term.

### Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 requires that transportation planning and programming be non-discriminatory on the basis of race, color, national origin or disability. The federal statute was further clarified and supplemented by the Civil Rights Restoration Act of 1987 and a series of federal statutes enacted in the 1990s relating to the concept of environmental justice. The fundamental principles of environmental justice include:

- Avoiding, minimizing or mitigating disproportionately high and adverse health or environmental effects on minority and low-income populations;

- Ensuring full and fair participation by all potentially affected communities in the transportation decision-making process; and Preventing the denial, reduction or significant delay in the receipt of benefits by minority populations and low-income communities.

## EXECUTIVE ORDERS

An Executive Order is an order given by the President to federal agencies. As a recipient of federal revenues, MCTC assists federal transportation agencies in complying with these orders.

### ***Executive Order 12372: Intergovernmental Review of Federal Programs***

Executive Order 12372 calls for intergovernmental review of projects to ensure that federally funded or assisted projects do not inadvertently interfere with state and local plans and priorities. The Executive Order does not replace public participation, comment, or review requirements of other federal laws, such as the National Environmental Policy Act (NEPA), but gives the states an additional mechanism to ensure federal agency responsiveness to state and local concerns.

### ***Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations***

In February 1994, President William Clinton signed Executive Order 12898, Federal Actions to Address Environmental Justice for Minority Populations and Low-Income Populations, which mandates that federal agencies make achieving environmental justice part of their missions. This order requires that disproportionately high and adverse human health or environmental effects on minority and low-income populations be identified and addressed in order to achieve environmental justice. Minority populations are defined in the order as Black/African-American, Hispanic, Asian/Pacific Islander, American Indian and Alaskan Native. Low-income populations are defined in the order as persons whose household income (or in the case of a community or group, whose median household income) is at or below the U.S. Department of Health and Human Services poverty guidelines, with those at 0 percent of median income classified as low income and those at 50 percent of median income classified as very-low income.

### ***Executive Order 13166: Improving Access to Services for Persons with Limited English Proficiency***

Executive Order 13166 states that people who speak limited English should have meaningful access to federally conducted and federally funded programs and activities. It requires that all federal agencies identify any need for services to those with limited English proficiency and develop and implement a system to provide those services so all persons can have meaningful access to services.

## THE BROWN ACT (STATE OF CALIFORNIA GOVERNMENT CODE SECTIONS 54950-54962)

The Ralph M. Brown Act governs the meeting and actions of governing boards of local public agencies and their created bodies. Requirements of the Brown Act also apply to any committee or other subsidiary body of a local agency, whether permanent or temporary, decision-making or advisory, which is created by such a governing board. The Brown Act sets minimum standards for open meetings relative to access to the public, location of meetings, notice posting, agenda distribution, and public input. The public agency may adopt reasonable regulations ensuring the public's right to address the agency, including regulations to limit the total amount of time allocated for public testimony. The MCTC Board and its standing committees all adhere to these requirements involving proper noticing, access and the ability to address the Board and committees.

The Brown Act requires the MCTC Board to conduct its business in meetings open to the public and allows boards to meet in private to discuss such issues as personnel, litigation, and labor negotiations. Time constraints for unscheduled comments may be limited to three minutes; however, MCTC encourages citizens to provide written copies of their presentation to the Board if the statement is longer than the allotted time. If citizens are unable to attend a meeting in person, relevant written comments submitted to staff will be presented to the respective governing body.

## AMERICANS WITH DISABILITIES ACT

The Americans with Disabilities Act of 1990 (ADA) requires involving the community, particularly those with disabilities, in the development and improvement of public services and capital facilities. Meetings and hearings must be held in ADA compliant buildings. Special accommodations must be made to assist those with disabilities to participate in meetings, planning and programming activities.

MCTC is in compliance with the ADA by providing accessible and usable formats, notifications and locations for workshops, meetings and public hearings, consulting with individuals from the disabled community, conducting outreach by maintaining an extensive mailing and email lists, developing contacts, and by other means of notification and accommodation to participate in the planning process.

## CODE OF FEDERAL REGULATIONS

The Code of Federal Regulations (CFR) is an annual codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government. The CFR is divided into 50 titles representing broad areas subject to Federal regulation. Each Title is divided into chapters that are assigned to agencies issuing regulations pertaining to that broad subject area. The purpose of the CFR is to present the official and complete text of agency regulations in one organized publication and to provide a comprehensive and convenient reference for



all those who may need to know the text of general and permanent Federal regulations. The Metropolitan Planning Organization (MPO) public participation requirements outlined in the CFR (23 CFR 450.316) are carefully considered and addressed throughout this entire PPP.

## 2008 CALIFORNIA LEGISLATION

Under new state law (SB 375, Steinberg, Chapter 728, 2008 Statutes), MCTC must develop a Sustainable Communities Strategy to integrate planning for growth and housing with long-range transportation investments, including goals for reducing greenhouse gas emissions for cars and light trucks.

As required by the legislation, MCTC shall develop a sustainable communities strategy (SCS) and alternative planning strategy (APS), if needed, as an additional element of the regional transportation plan. The legislation includes specific public participation requirements for the development of the SCS and APS, if needed, which have been addressed in the PPP. A summary of these new requirements are listed below:

- Expanded stakeholder groups and consultation with agencies;
- Inclusion of multiple workshops and public hearings to inform the public regarding the development of the RTP and SCS/APS; and
- Broaden visual presentation of the RTP and SCS/APS.

## OTHER REQUIREMENTS

A number of other federal and state laws call on MCTC to involve and notify the public in its decisions. MCTC complies with all other public notification requirements of the California Public Records Act, the California Environmental Quality Act, as well as other applicable state and federal laws.

### **III. OPPORTUNITIES FOR PUBLIC ENGAGEMENT**

#### **MCTC BOARDS, COMMITTEES AND COMMISSIONS**

The Madera County Transportation Commission is organized into a Board of Directors supported by the Transportation Policy Committee and the Technical Advisory Committee. MCTC staff includes an Executive Director, Fiscal Supervisor, three Transportation Planners, Grants Analyst and Administrative Assistant. There is currently one standing committee -- the Social Services Transportation Advisory Council (SSTAC), which reports through the Technical Advisory Committee. The relationship between the Board, its staff and the committees is illustrated below.

#### **Board**

Policy decisions are made by the Madera County Transportation Commission Policy Board. The Commission Board of Directors is comprised of three (3) members from the Madera County Board of Supervisors; two (2) members from the Madera City Council; and one (1) member from the Chowchilla City Council.

The Transportation Policy Committee has the same membership as the Board with the addition of one (1) person representing the Caltrans District 06 Director. This committee reviews transportation plans and programs prior to action by MCTC, with particular emphasis on compliance with applicable state and federal planning and programming requirements. Both Board meetings are open to the public with time allocated at the beginning of each meeting for public comments not on the agenda.

#### **Technical Advisory Committee (TAC)**

The Technical Advisory Committee (TAC) provides technical advice and recommendations to the MCTC Policy Board on transportation issues affecting the region. The TAC includes the Madera County Road Commissioner, Madera County Planning Director, City of Madera Engineer, City of Madera Planning Director, City of Chowchilla Administrator, and one representative from Caltrans District 06. The TAC reviews staff work conducted pursuant to the Overall Work Program; advises MCTC and Transportation Policy Committee on transportation issues; and makes recommendations on planning and programming actions to be taken by MCTC. The TAC also serves as a forum to exchange transportation related information among member agencies and the public. All TAC meetings are open to the public and provide an opportune time for the public to access technical and policy information used in the development of plans and projects.

## **Social Services Transportation Advisory Council (SSTAC)**

In accordance with state law, the Madera County Transportation Commission has established a citizen advisory group known as the SSTAC to aid in its review of transit issues with emphasis on the annual identification of transit needs within Madera County. The Social Services Transportation Advisory Council serves as a citizen advisory committee to MCTC on matters related to public transportation needs of Madera County residents. The SSTAC generally has three meetings each year.

The first meeting is held in March prior to the “unmet transit needs” public hearing. This initial meeting is used to familiarize the members with their role as advisors to MCTC and to select Council officers. The second meeting is scheduled following the “unmet transit needs” hearing to provide the Council with an opportunity to consider commentary presented at the hearing. The Council works with staff to develop recommendations for MCTC towards finding that public transportation needs that are reasonable to meet are being met. This includes the needs of transit dependent and transit disadvantaged persons, including the elderly, disabled and persons of limited means. All SSTAC meetings are open to the public. Citizens can request to be placed on the mailing list to receive committee agendas.

## **Measure T Citizens’ Oversight Committee**

The Measure T Citizen Oversight Committee was developed as an advisory body to the MCTC Board and the Madera County Transportation Authority, to inform the public, and to ensure that the Measure T funding program revenues and expenditures are spent as promised to the public. MCTC staffs the Committee and provides technical and administrative assistance to support and publicize the Committee’s activities.

## **Valleywide Committees**

MCTC staff is also actively involved on Valleywide committees consisting of COG staff members from all eight San Joaquin Valley Metropolitan Planning Organizations (MPOs). These groups meet regularly on issues of mutual interest. In addition to the committees or groups listed below, the San Joaquin Valley MPOs are also active in the state’s high-speed rail efforts, promotion of State Route 99, goods movement through the Valley, RTP/SCS development and other areas of mutual concern. Together they have developed and contribute to a San Joaquin Valley Council of Governments website: [www.sjvcogs.org](http://www.sjvcogs.org)

## **Model Coordinating Committee**

The Model Coordinating Committee (MCC) has been established to provide a coordinated approach to valley air quality, conformity and transportation modeling issues. The committee's goal is to ensure Valleywide coordination, communication and compliance with Federal and State Clean Air Act requirements. Each of the eight Valley Metropolitan Planning Organizations (MPOs) and the San Joaquin Valley Air Pollution Control District (SJVAPCD) are represented. In addition, the Federal Highway Administration, the Environmental Protection Agency, the California Air Resources Board and Caltrans are all represented on the committee.

## **Programming Coordination Group**

The Valley Programming Coordination Group has been established to provide a coordinated approach to Valley air quality and transportation programming issues. The committee's goal is to ensure Valley wide coordination, communication and compliance with federal and state Clean Air Act requirements. Each of the eight Valley Transportation Planning Agencies (TPAs) and the San Joaquin Valley Air Pollution Control District (SJVAPCD) are represented. In addition, the Federal Highway Administration, the Environmental Protection Agency, the California Air Resources Board and Caltrans are all represented on the committee.

## **San Joaquin Valley Greenprint Planning Process Steering & Technical Advisory Committees**

The Greenprint Planning Process addresses rural land management challenges and opportunities that deepen our understanding of the land, water and living resources in the region and assures that those resources continue to benefit the region economically and environmentally for future generations. The Steering Committee and Technical Advisory Committee will work to assemble the perspectives of the residents of the region into a shared vision, and to identify a series of strategies for the conservation and management of the region's land, water and living resources. These strategies will be developed with extensive public input and will be based on sound science and economics. The resulting "Greenprint" can then serve as a guide to local, state, federal and private sector decision makers as they make choices about the future of the Valley's resources.

## **San Joaquin Valley Regional Planning Agencies – Regional Policy Council**

The creation of the San Joaquin Valley Regional Policy Council is a key partnership that exemplifies the Regional Transportation Planning Agencies' approach to working on regional issues. This sixteen member Regional Policy Council was established to discuss and build regional consensus on issues of Valley importance. The Council consists of two elected officials and one alternate appointed from each of the regional planning agencies' policy boards. The Council is positioned to have a unique and potentially pivotal position in further Valley collaborative efforts and improving the quality of life for all Valley residents. The Policy Council provides guidance on common interregional policy issues and also represents

the San Joaquin Valley at public forums such as the California Transportation Commission, the Governor and his administration, as well as State and Federal legislative bodies that require a common voice from the San Joaquin Valley.

### **San Joaquin Valley Regional Planning Agencies – Directors’ Committee**

The Valley Executive Directors meet regularly to discuss issues of mutual importance to all of the Valley Metropolitan Planning Organizations. Meeting agendas, minutes and information about the SJV Directors meetings are available online at [www.sjvcogs.org](http://www.sjvcogs.org).

### **Valley Planners Network**

In 2007, as part of the Valleywide Blueprint planning activities, the Regional Planning Agencies sponsored the formation of the Valley Blueprint Planners Network (Planners Network). This group, originally called the SJV Blueprint Professional Planning Review Panel, then the San Joaquin Valley Professional Planners Group; and now the Valley Planners Network (VPN), was created to engage professional planners from counties and cities participating in the Blueprint process.

## IV. PROJECT OR PLAN SPECIFIC PUBLIC PARTICIPATION REQUIREMENTS

There are two key transportation initiatives that are specially called out in federal law as needing early and continuing opportunities for public participation — development of the Regional Transportation Plan (RTP) and the Federal Transportation Improvement Program (FTIP).

These two documents are linked. The long-range Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS) prioritizes and guides all Madera County transportation development over 25 years. While the FTIP is the programming document that identifies funding for only those programs and projects that are included in the RTP/SCS.

### Regional Transportation Plan (RTP)

The RTP is the comprehensive blueprint for transportation investment (transit, highway, local roads, bicycle and pedestrian projects), and establishes the financial foundation for how the region invests in its surface transportation system by identifying how much money is available to address critical transportation needs and setting the policy on how projected revenues are to be spent. The RTP is generally updated every four years, with a limited number of amendments as needed. Because of its comprehensive, long-term vision, the RTP provides the earliest and the best opportunity for interested residents and public agencies to influence MCTC's policy and investment priorities for Fresno County transportation. It is at this early RTP development stage where investment priorities and major planning-level project design concepts are established, and broad, regional impacts of transportation on the environment are addressed. Under California Senate Bill 375 (Steinberg, Chapter 728, 2008 Statutes), the RTP must include a SCS to integrate planning for growth and housing with long-range transportation investments, including goals for reducing greenhouse gas emissions for cars and light trucks.

Opportunities for public participation for the RTP are different for RTP updates versus RTP amendments. RTP Updates include significant revisions to the RTP document, while RTP amendments are generally specific to project scopes, schedules, or costs.

### RTP Update

This is a complete update of the most current long-range RTP, which is prepared pursuant to state and federal requirements. The RTP update reflects reaffirmed or new planning priorities and changing projections of growth and travel demand based on a reasonable forecast of future revenues available to the region. As necessary, MCTC prepares two companion documents for RTP updates: a program-level Environmental Impact Report per California Environmental Quality Act (CEQA) guidelines, and transportation air quality conformity analyses (to ensure clean air mandates are met) per federal Clean



Air Act requirements. Certain revisions to the RTP may warrant a revision or update to these technical documents.

## **RTP Amendment**

An amendment is a major revision to a long-range RTP, including adding or deleting a project, major changes in project costs, and/or design concept and scope (e.g., changing project locations, open to traffic dates, or the number of through traffic lanes). An amendment requires public review and comment, demonstration that the project can be completed based on expected funding, and/or a finding that the change is consistent with federal transportation conformity mandates. Amendments that require an update to the air quality conformity analysis will be subject to conformity and interagency consultation procedures. Changes to projects that are included in the financially unconstrained portion of the RTP (as information only) do not require an amendment.

## **RTP Administrative Modification**

This is a revision to the RTP for minor changes to project/project phase costs, or funding sources. An administrative modification does *not* require public review and comment, demonstration that the project can be completed based on expected funding, nor a finding that the change is consistent with federal transportation conformity requirements. As such, the public participation process for RTP amendments follows the requirements as outlined for the FTIP, as applicable.

## **Federal Transportation Improvement Program (FTIP)**

### **FTIP Technical Corrections**

Technical corrections may be made by MCTC staff as necessary. Technical corrections are not subject to an administrative modification or an amendment and may include revisions such as:

- Changes to information and projects that are included for illustrative purposes;
- Changes to information outside of the FTIP period;
- Changes to information not required to be included in the FTIP per federal regulations;
- Changes to correct simple errors or omissions including data entry errors.

These technical corrections cannot significantly impact the cost, scope or schedule within the FTIP period, nor will they be subject to a public review and comment process, re-demonstration of fiscal constraint, or a conformity determination.

## **Expedited Selection Process (EPSP)**

EPSP allows eligible projects to be moved between FTIP fiscal years within the four year FTIP as long as the project cost and scope do not change. MCTC staff is federally authorized to utilize EPSP without additional State or federal approval action.

## **Amendment Type 1 - Administrative Modifications**

Administrative modifications are defined in the current agreement between Caltrans and FHWA/FTA (original agreement November 17, 2008, revised on June 3, 2011) on Administrative Modifications, and include such changes as minor changes in project cost, scope, schedule or funding sources. They require action and approval by MCTC (delegated to the Executive Director). As delegated by Caltrans, MCTC has agreed to the following procedures:

1. Prior to the MPO (MCTC) approval of FTIP/FSTIP administrative modifications, MCTC may consult with Caltrans on proposed changes.
2. Caltrans may provide cursory review of the administrative modification prior to the MPO's approval.
3. MCTC shall send copies of the approved administrative modifications to Caltrans, FHWA, FTA, and other stakeholders. Caltrans will post the approved administrative modification on the Division Transportation Programming Website.
4. Caltrans will regularly review the MPO's (MCTC's) approved administrative modifications and will reject changes that do not comply with the attached procedures. In such cases the MPO (MCTC) must correct all noncompliance.
5. Caltrans will withdraw its delegation from the MPO (MCTC) if it is found to be consistently noncompliant with the modification.

Federal agencies are notified but do not take approval action. Public notification of the administrative modification is posted on MCTC's website ([www.maderactc.org](http://www.maderactc.org)) at the time of the action and subsequently posted on the Caltrans website ([www.dot.ca.gov/hq/transprog](http://www.dot.ca.gov/hq/transprog)) after MCTC approval.

## **Amendment Type 2 – Amendment: Funding Changes**

Type 2 amendments include project cost changes that are greater than what is allowed in an Administrative Modification. Public notice of the amendment is posted at least 7 days prior to action on the MCTC website. The amendment is distributed to local agencies through the IAC process and the TAC. These amendments require approval by MCTC, Caltrans and FHWA. The approved MCTC amendment and resolution are forwarded to Caltrans and FHWA for approval, in both hard copy and electronic format.

### **Amendment Type 3 – Amendment: Exempt Projects**

Type 3 amendments include adding or deleting projects that are exempt from regional air quality emissions analysis, such as transit buses, etc. These amendments typically include transit or safety projects. Public notice of the amendment is posted at least 7 days prior to action on the MCTC website. The amendment is distributed to Federal, State and local agencies through the IAC process and TAC. These amendments require approval by MCTC, Caltrans and FHWA. The approving MCTC resolution and amendment is forwarded to Caltrans and FHWA for approval, in both hard copy and electronic format.

### **Amendment Type 4 – Formal Amendment: Conformity Determination that Relies on a Previous Regional Emissions Analysis**

Type 4 amendments include adding or deleting projects that have already been appropriately modeled for air quality purposes as part of the RTP. Federal approving agencies can use a previous analysis of the project's impact on air quality for approval purposes. These amendments may be accompanied by an RTP amendment to maintain consistency. The legally noticed public comment period is 30 days. The legal notice of the public hearing is posted in a newspaper of general circulation and on the MCTC website. These notices may be combined as long as they are compliant with state and federal noticing provisions. The amendment is distributed to Federal, State and local agencies through the IAC process and the TAC. These amendments require approval by MCTC, Caltrans and FHWA. The approving MCTC resolution and amendment are forwarded to Caltrans and FHWA for approval, in both hard copy and electronic format.

### **Amendment Type 5 – Formal Amendment: Conformity Determination and New Regional Emissions Analysis**

Type 5 amendments are the highest level amendment and involve adding or deleting new projects that result in new modeling for air quality impacts or significantly changing the design concept, scope or schedule of an existing project. These are accompanied by a new Air Quality Conformity document that demonstrates conformity with applicable air quality requirements. If applicable, these amendments may be accompanied by an RTP amendment to maintain consistency. The legally noticed public comment period is 30 days. The legal notice of the public hearing is posted in a newspaper of general circulation and on the MCTC website. These notices may be combined as long as they are compliant with state and federal noticing provisions. The amendment is distributed to local agencies through the IAC process and the TAC. These amendments require approval by MCTC, Caltrans and FHWA and are distributed to the California Air Resources Board (ARB) and the San Joaquin Valley Air Pollution Control District. The approving MCTC resolution and amendment are forwarded to Caltrans and FHWA for approval, in both hard copy and electronic format.

'Local agencies' include the Cities of Chowchilla, Madera, County of Madera, North Fork Rancheria of Mono Indians and Picayune Rancheria of Chukchansi Indians. FTIP updates follow the same process as Type 5 amendments. Copies of all amendments and updates are posted on the MCTC website

([www.maderactc.org](http://www.maderactc.org)) and hardcopies are provided to other agencies, organizations or individuals upon request.

## **Federal Transit Administration Program of Projects Public Participation Requirements**

Both planning and FTA regulations require public participation. The MCTC's public participation process has been developed to satisfy MCTC member agencies' FTA grantee's public participation process for the Program of Projects (POP). FTA grants include Section 5307 and Section 5311 (POP public participation requirements do not apply to funds flexed into a Section 5307 grant). The planning regulations require that the metropolitan transportation planning process include a proactive participation plan that provides complete information, timely public notice, and reasonable public access to key decision, and supports early and continuing involvement of the public in developing plans and TIPs. FTA projects must be programmed in the TIP to be eligible for funding.

FTA grantees also have specific requirements for public participation related to the Program of Projects (POP). FTA allows grantees to rely on the locally adopted public participation requirements for the TIP in lieu of the process required in the development of the POP if the grantee has coordinated with the MPO and ensures that the public is aware that the TIP development process is being used to satisfy the POP public participation requirements.

The MCTC Public Participation Plan process will ensure that the proposed POP provides for the coordination of FTA-funded public transportation projects with transportation projects assisted with other federal sources. Coordination may include information sharing, consolidation of services, and participation in the public transportation human services planning process.

The following actions will be undertaken, at a minimum:

- MCTC will make available to the public information concerning the amount of funds available with FTA-funded (i.e., Section 5307) projects and the POP that the recipient proposes to undertake with such funds;
- Publish the proposed POP in sufficient detail and in such a manner to afford affected citizens, private transportation providers, and, as appropriate, local elected officials, reasonable and adequate opportunity to examine the proposed program and to submit comments on it;
- Publish the public notice in the general circulation newspaper in the service area of the grantee indicating where citizens can examine the proposed program and budget and submit comments; and ensure that the public notice is distributed to persons with limited English proficiency, as warranted;
- Provide an opportunity for a public hearing to receive comments from citizens on the proposed POP; and consider all comments and views received in preparing the final POP; and
- Make the final POP available to the public; and if not amended, include a statement that the proposed program will be the final program, unless amended, and satisfies the requirements regarding the final POP.

## Annual Listing of Obligated Projects

By federal requirement, at the end of each calendar year MCTC publishes an annual listing of obligated projects, which is a record of project delivery for the previous year. The listing is also intended to increase the awareness of government spending on transportation projects to the public. Copies of this annual listing may be obtained from MCTC's web site at [www.maderactc.org](http://www.maderactc.org). Hard copies are also available upon request by contacting the MCTC office at (559) 675-0721.

## Congestion Management Process

Under the new Federal FAST Act legislation, MCTC is required to prepare a congestion management process (CMP) document for Madera County. The CMP is a systematic process for managing congestion. It provides information on transportation system performance and on alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet State and local needs.

## Air Quality Conformity Public and Interagency Consultation

MCTC provides opportunity for early coordination with appropriate agencies and the public in determining the type of environmental review documents an action requires, the scope of the document, the level of analysis, and related environmental requirements. This involves the exchange of information from the inception of a proposal for action to preparation of the environmental review documents.

A dialogue between agencies regarding air quality transportation conformity considerations must take place in certain instances prior to adoption of its RTP/SCS or FTIP. These consultations are conducted through the San Joaquin Valley Interagency Consultation Group which includes representatives of the U.S. Environmental Protection Agency, Federal Highway Administration (FHWA), Federal Transit Administration (FTA), the California Air Resources Board (CARB), the San Joaquin Valley Air Pollution Control District, the eight San Joaquin Valley MPOs, and Caltrans Headquarters and District 6 office. These agencies review updates and, in certain instances, amendments to the RTP/SCS and FTIP to ensure they comply to federal transportation conformity regulations via air quality transportation conformity analysis.

## Overall Work Program (OWP)

The OWP is a critical document for the scheduling and distribution of work, especially the allocation of resources needed to address each task required of MCTC. In effect, the OWP constitutes a set of instructions for the planning and programming work to be carried out by staff or consultants each year. Throughout the course of each year, MCTC staff works with the local agencies, Caltrans, other transportation planning agencies, other public and private associations and the general public independently and through MCTC committees to develop the program for the year. A draft of the OWP is taken through the MCTC committee process with a final adoption by the Policy Board in May. Staff and

the Board usually begin to gather public input on the OWP in February, prior to the adoption of the Final OWP.

## Unmet Transit Needs (UTN) Assessment

Each year, pursuant to the Transportation Development Act (TDA) requirements, MCTC, as the RTPA and MPO for Madera County, is required to identify any unmet transit needs that may exist in the Madera County region. Should any unmet transit needs be identified, a further determination must be made to establish whether or not those needs are reasonable to meet. In accordance with state law, TDA funds must be allocated first to unmet transit needs, which are found to be reasonable to meet, before any remaining funds can be distributed to local jurisdictions for non-transit purposes. At the conclusion of each UTN process, the MCTC Board must adopt a resolution making one of the following three findings:

1. there are no unmet transit needs;
2. there are no unmet transit needs that are reasonable to meet; or
3. there are unmet transit needs, including transit needs that are reasonable to meet.

Under TDA regulations, the UTN Assessment must include the following elements:

- An annual assessment of the size and location of identifiable groups likely to be transit dependent or transit disadvantaged, including, but not limited to, the elderly, the handicapped, including individuals eligible for paratransit and other special transportation services, and persons or limited means, including, but not limited to, recipients under the Cal WORKS program;
- An analysis of the adequacy of existing public transportation services and specialized transportation services, including privately and publicly owned services.

To further implement the UTN Assessment process, the MCTC Board has adopted definitions for both “unmet transit need” and “reasonable to meet” which are reviewed every five years in compliance with the TDA requirements. All unmet transit needs received during the annual UTN Assessment process are reviewed by the Social Services Transportation Advisory Council (SSTAC).

Public participation is an important component in the UTN Assessment process. The TDA requires MCTC to hold at least one public hearing for the purpose of receiving public input regarding potential unmet transit needs in the region. Although the TDA only requires MCTC to hold one public hearing, staff makes the effort to go beyond the minimum requirements to provide public hearings throughout the region as well as to make presentations about the unmet transit needs process to seniors at congregate meal sites, community groups, and the legislative bodies of local jurisdictions. Public hearings are typically held during a regularly scheduled meeting of the Policy Board. Public notice of the hearing, including the date, time, location, and specific purpose is provided at least 30-days in advance of the meeting through publication in one or more newspapers of general circulation, including a Spanish language publication. Written notification is also provided to those persons and organizations that have indicated an interest in the



unmet transit needs process, including the private social service agencies and public transit operators that are represented on the SSTAC.

Public hearings are held to give members of the public the opportunity to identify potential unmet transit needs in the region. After the conclusion of a hearing(s), a report is prepared that addresses the three required UTN Assessment elements listed above, analyzes any identified unmet transit need for “reasonable to meet”, and provides a recommended finding for the Board to adopt. Any new comments received after the public hearing, or during the Policy Board’s hearing to adopt the UTN finding, are assessed during the subsequent year’s UTN Assessment process.

SB 375 mandates that MPO's must meet certain greenhouse gas reductions standards set by the Air Resources Board. MCTC, along with other MPO's in the valley have worked diligently on meeting those targets through the use an integrated land use, transportation, and housing plan. The goal is to have greenhouse gas emissions reduced to 2012 levels by 2040. Air quality conformity findings are distributed for a 30-day public comment period, and a public hearing is held by the MCTC Board to elicit public input. All applicable posting requirements will be followed.

## V. PUBLIC PARTICIPATION PLAN EVALUATION AND UPDATES

MCTC's Public Participation Plan is not a static document, but an on-going strategy that will be periodically reviewed and updated based on our experiences and the changing circumstances of the agency and the transportation community it serves.

As part of every public outreach and involvement program developed for the regional transportation plan, MCTC will set performance measures for the effectiveness of the participation program and report on the results. These performance reports will serve to inform and improve future outreach and involvement programs, including future updates to this Public Participation Plan. Additionally, MTC will periodically evaluate various components of the items identified under Section IV "Public Participation Strategies" which form the core of MCTC's public involvement activities.

This Public Participation Plan may be subject to minor changes from time to time. Any major updates will include a review by MCTC's Transportation Technical Committee's, Policy Advisory Committee and Policy Board, 45-day public comment period with wide release and notification of the public about the proposed changes and approval by the Commission. We will extend the public comment period by an additional 45 days in instances where major revisions are proposed in response to comments heard.

## VI. PUBLIC PARTICIPATION STRATEGIES

A variety of public notification and participation procedures will be used to encourage the early and continuous involvement of citizens, jurisdictions, communities and other interests in the planning process and the decisions and actions. They may include, but are not limited to, the following:

### **Public Meetings/Workshops**

- Participate in or speak at meetings of existing agencies/community groups
- Co-host workshops with community groups, business associations, etc.
- Partner with community-based organizations in low-income and minority communities for targeted outreach

### **Techniques for Public Meetings/Workshops**

- Open Houses
- Facilitated discussions
- Question-and-Answer sessions with planners and policy board members
- Break-out sessions for smaller group discussions on multiple topics
- Interactive exercises
- Customized presentations
- Vary time of day for workshops (day/evening)
- Online webinars and meetings

### **Visualization Techniques**

- Maps
- Charts, graphs, illustrations, photographs
- Table-top displays and models
- Web content and interactive games
- Electronic voting
- PowerPoint slide shows and videos

### **Polls/Surveys**

- Statistically valid telephone polls
- Electronic surveys via Web
- Intercept interviews where people congregate, such as at transit hubs
- Printed surveys distributed at meetings, transit hubs, on-board transit vehicles, etc
- Focus Groups
- Participants recruited randomly from telephone polls
- Participants recruited by interest area

**Printed Materials**

- User-friendly documents, including use of executive summaries and simplified or translated language
- Post cards
- Maps, charts, photographs, and other visual means of displaying information

**Targeted Mailings/Flyers**

- Work with community-based organizations to hand deliver flyers
- Mail to targeted database lists—either MCTC’s an outside agency’s or purchased
- Distribute “Take-One” flyers to key community organizations
- Place notices on board transit vehicles and transit hubs

**Utilize local media**

- News Releases
- Submit human interest stories that center around MCTC projects
- Invite reporters to news briefings
- Meet with editorial staff
- Opinion pieces/commentaries
- Purchase display ads/radio, TV and movie theater screen advertising
- Negotiate inserts into local printed media
- Visit minority media outlets to encourage use of MCTC news releases
- Place speakers on radio/TV talk shows
- Public Service Announcements on radio and TV
- Develop content for public access/cable television programming
- Civic journalism partnerships

**Electronic Access to Information**

- Website with updated content and simplified layouts, and translation readily available – [www.maderactc.org](http://www.maderactc.org)
- Audio/videocasts of current and past public meetings/workshops
- Electronic duplication of open house/workshop materials
- Interactive Web with surveys, visuals and opportunity to comment
- Access to maps, charts, plans
- Provide information in advance of public meeting
- Post event/meeting information on online news sites, calendars, community & discussion websites
- Notify Public via blast e-mails and e-newsletters
- Notice widely disseminated through new partnerships with community-based and interest organizations
- Social Media accounts on Facebook and Twitter

**Printed materials**

- Electronic access to information
- Local Media
- Notices placed on board transit vehicles and at transit hubs
- Public utility bill inserts

**Newsletters**

- MCTC's e-newsletter
- Project specific email and print pieces
- Submit articles for publication in community/corporate/online newsletters
- MCTC Annual Report

**Techniques for Involving Environmental Justice Communities**

- Make regular reports to MCTC's ongoing committees such as the ADA Advisory Council, SSTAC, etc.
- "Take One" flyers on transit vehicles and transit hubs
- Outreach in the community (flea markets, churches, health centers, employer sponsored events, etc.)
- Partner with other agencies to reach the public at scheduled meetings/events
- Convert materials going out to the general public to an appropriate reading level
- Translate materials; have interpreters available at meetings as requested
- Include information on meeting notices on how to request translation assistance
- Provide access to and use of information and data that is comparable to the access to and use of the information and data by such members of the public who are not individuals with disabilities
- Robust use of "visualization" techniques, including maps and graphics to illustrate trends, choices being debated, etc.
- Use of community and minority media outlets to announce participation opportunities
- When conducting public outreach on regional plans/projects, develop explanations of the impacts to each city or local area involved

**Techniques for Reporting on Impact of Public Comments**

- Summarize key themes of public comments in staff reports to MCTC standing committees
- Direct mail and email to participants from meetings, surveys, etc. to report final outcomes
- Newsletter articles
- Updated and interactive Web content

**Other Outreach**

- Information/comment tables or booths at community events and public gatheringspaces
- From public review committee during plan development to review documents for readability
- Form a public outreach committee with representatives from each member agency as well as community groups



## VII. ADDITIONAL MCTC PUBLIC PARTICIPATION POLICIES

### Meetings

MCTC Board meetings are generally held on the third Wednesday of each month. The meetings are held at 3:00 pm in the MCTC Offices at 2001 Howard Road, Suite 201, Madera, California 93637. A public comment period is always available at the beginning of each meeting. All MCTC Board meetings are open to the public.

### Agendas

MCTC Board agendas will be posted at least 72 hours in before regular meetings or 24 hours before special meetings. The agendas will be posted at the following locations to the extent possible:

- Madera County Transportation Commission entrance
- Agendas shall be made available by regular mail and/or email to all upon request
- Agenda shall be posted to the MCTC website at [www.maderactc.org](http://www.maderactc.org)

### Public Notices

Public notices will be used to inform the general public and media of workshops, and public hearings as appropriate. The MCTC public participation process satisfies local agencies' public participation requirements for the FTIP. Public notices of the FTIP will clearly outline public involvement activities and time established for public review and comments of development process in order to satisfy all Federal Transit Administration and Federal Highway Administration requirements including Program of Project requirements.

### Public Hearings

MCTC shall hold or sponsor public hearings or public meetings whenever appropriate or in accordance with applicable statutory requirements. The criteria shall include whether there is:

- substantial controversy concerning the proposed action, substantial interest in holding the hearing, or a request for a hearing by another agency with jurisdiction over the action.
- Unless otherwise required by statute, MCTC will publish one public notice in a general circulation newspaper citing the time, date and place of the hearing at least ten days in advance of that hearing. That notice will instruct individuals needing special accommodations to contact MCTC at least three working days prior to the scheduled meeting.
- SAFETA-LU and state law requires public hearings for the adoption of major plans and programs such as the FTIP, RTP, UTN and air quality conformity determinations.

- Unless otherwise required by statute, MCTC will publish one public notice in a general circulation newspaper citing the time, date and place of the hearing at least ten days in advance of that hearing. That notice will instruct individuals needing special accommodations to contact MCTC at least three working days prior to the scheduled meeting.
- Public hearings will be held in facilities that are accessible to people with disabilities.
- MCTC will accept written comments from the public during the period between the notice and the hearing date. These comments will be considered part of the public record.
- Staff will accept questions and provide clarification on issues raised by the public.
- Certain plans and programs will include the required review periods noted below. This specific review period will allow agencies involved in the consultation process and the public to submit written comments to the draft document and supporting material. MCTC acknowledges that there may be other plans and programs not listed below for which a specified review and comment period is appropriate.

<b>Madera County Transportation Commission Public Participation Matrix</b>		
<b>Document Type</b>	<b>Minimum Review Period</b>	<b>Public Hearing Required</b>
<b><i>Long Range Transportation Plan Planning</i></b>		
Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)	55 days	Yes
Regional Transportation Plan Environmental Impact Report	45 days	Yes
Transit Plans	30 days	Yes
Bicycle and Pedestrian Plans	30 days	Yes
<b><i>Federal Transportation Program Planning</i></b>		
Federal Transportation Improvement Program (FTIP)	30 days	Yes
Air Quality Conformity Determinations for the FTIP	30 days	Yes
Air Quality Conformity Determinations	30 days	Yes
<b><i>Transportation Plan/Program Amendments</i></b>		
RTP and FTIP Minor Amendments - Type 2 and Type 3	7 days	Yes
RTP and FTIP Major Amendments - Type 4 and Type 5	30 days	Yes
<b><i>Other Documents</i></b>		
Public Participation Plan	45 days	Yes
Disadvantaged Business Enterprises Program	45 days	Yes
Special Studies	30 days / varies	Yes

# Appendix C



## 2018 RTP/SCS Public Outreach Summary

Between September 2017 and April 2018, MCTC held three (3) series of public outreach events regarding the 2018 RTP/SCS throughout Madera County as noted below. Series 4 will be conducted to provide for review and approval of the Draft 2018 RTP/SCS and the associated Draft Program Environmental Impact Report (DEIR).

### Series 1 Public Outreach

The purpose of Series 1 Public Outreach was to introduce the 2018 RTP/SCS development process and gather input regarding Land Use and Transportation needs.

#### Public Workshops – Series 1

In October 2017, the Madera County Transportation Commission (MCTC) held throughout Madera County the first series of public workshops regarding the 2018 RTP/SCS. The dates and locations of these workshops included:

##### ☐ October 2017 Workshops

- Tuesday, October 5, 2017 – Madera Ranchos workshop at Webster Elementary located at 36477 Ruth Avenue, and held between 5:30 PM and 7:30 PM
- Tuesday, October 10, 2017 – Chowchilla workshop at Chowchilla City Hall located at 130 S 2<sup>nd</sup> Street, and held between 5:30 PM and 7:30 PM
- Wednesday, October 11, 2017 – Oakhurst workshop at Oakhurst Community Center located at 39800 Road 425B, and held between 5:30 PM and 7:30 PM
- Thursday, October 12, 2017 – Madera workshop at MCTC Offices located at 2001 Howard Road, Suite 201 and held between 5:30 PM and 7:30 PM



Strategies employed to schedule, plan for and conduct the workshops and other outreach events are provided in Attachment A. VRPA Technologies, Inc. (VRPA), the prime consultant working with MCTC to develop the RTP/SCS, conducted each of the workshops considering the following objectives:

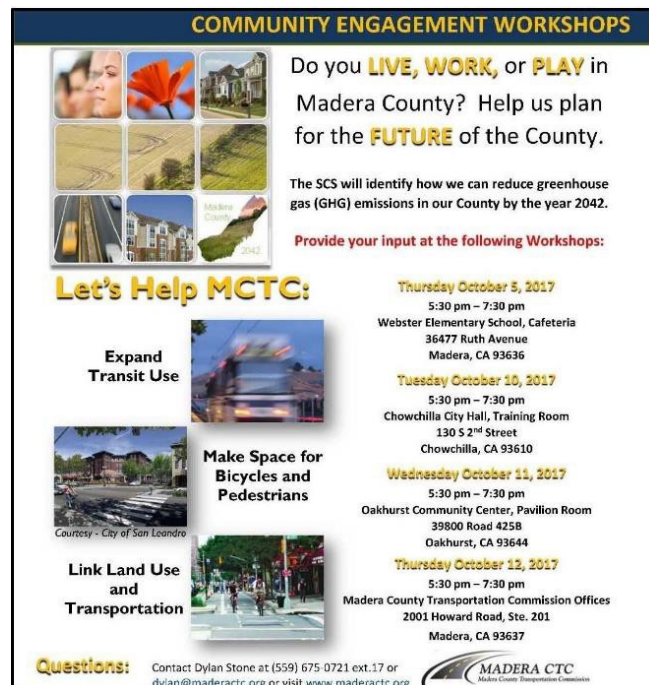
- ✓ Educate the public about the purpose of the RTP/SCS and why it is being prepared by MCTC
- ✓ Provide information about the MCTC 2018 RTP and SCS including population, housing, and employment growth expected between 2018 and 2042, and the RTP/SCS development process and schedule
- ✓ Give the public an opportunity to speak with the MCTC/VRPA Project Team members about the RTP/SCS development and associated legislation
- ✓ Identify how the role of the public and stakeholders is important to the success of the RTP/SCS
- ✓ Receive feedback on:
  - Demographics of attendees
  - Attendee knowledge of livable communities concepts and potential strategies using polling
  - Transportation and land use needs/issues and environmental constraints/benefits using a mapping exercise

Noticing was provided for all of the public workshops using the following strategies:

- ✓ Paid public notices in the Fresno Bee, Madera Tribune (English and Spanish), Sierra Star, and Sierra News Online
- ✓ Distribution of workshop notice fliers to businesses in the Madera Ranchos, and Oakhurst and Coarsegold subregions
- ✓ Email blast to identified stakeholders (approximately 250+) throughout Madera County
- ✓ Posting of Series 1 Community Engagement Workshop fliers to MCTC Facebook page

Materials utilized to facilitate outreach effort included the following:

- ✓ Project branding (RTP/SCS logo) and PowerPoint Slide Master
- ✓ Workshop Notice Fliers (English and Spanish)
- ✓ PowerPoint Presentation
- ✓ Polling Exercise
- ✓ Mapping Exercise materials including maps of various subregions, poster boards, and transportation, land use and environmental sticker icons
- ✓ Sign-in and comments sheets
- ✓ Direction signage to the venue
- ✓ Refreshments
- ✓ Spanish Translators
- ✓ Refreshments
- ✓ Donated Raffle Items



**COMMUNITY ENGAGEMENT WORKSHOPS**

Do you **LIVE**, **WORK**, or **PLAY** in Madera County? Help us plan for the **FUTURE** of the County.

The SCS will identify how we can reduce greenhouse gas (GHG) emissions in our County by the year 2042.

**Provide your input at the following Workshops:**

**Let's Help MCTC:**

- Expand Transit Use**  
Thursday October 5, 2017  
5:30 pm – 7:30 pm  
Webster Elementary School, Cafeteria  
36477 Ruth Avenue  
Madera, CA 93636
- Make Space for Bicycles and Pedestrians**  
Tuesday October 10, 2017  
5:30 pm – 7:30 pm  
Chowchilla City Hall, Training Room  
130 S 2<sup>nd</sup> Street  
Chowchilla, CA 93610
- Link Land Use and Transportation**  
Wednesday October 11, 2017  
5:30 pm – 7:30 pm  
Oakhurst Community Center, Pavilion Room  
39800 Road 425B  
Oakhurst, CA 93644
- Expand Transit Use**  
Thursday October 12, 2017  
5:30 pm – 7:30 pm  
Madera County Transportation Commission Offices  
2001 Howard Road, Ste. 201  
Madera, CA 93637

**Questions:** Contact Dylan Stone at (559) 675 0721 ext.17 or [dylan@maderactc.org](mailto:dylan@maderactc.org) or visit [www.maderactc.org](http://www.maderactc.org)

**MADERA CTC**  
Madera County Transportation Commission

## Workshop Structure

The following sections provide an overview of each major component of Public Workshop - Series 1.

### Welcome

At each of the four (4) workshops held in October 2017, Dylan Stone (MCTC) welcomed all in attendance, and introduced other MCTC/VRPA staff also in attendance.

### PowerPoint Presentation

Dylan Stone (MCTC) and Georgiena Vivian (VRPA) provided an educational PowerPoint presentation that included the following:

- ✓ Expected growth within the County and each of the jurisdictions (cities of Chowchilla and Madera and the County of Madera unincorporated areas) between 2018 and 2042
- ✓ How the RTP/SCS process will facilitate investment in the County and in each of the cities and communities while at the same time reducing vehicle trips and increasing walkability and bikeability resulting in reduced greenhouse gases (GHG) and other air emissions
- ✓ Defined the concept of livability/walkability focusing on the development of streetscape strategies in Oakhurst, Madera, and Rio Mesa using “best practices” examples in similar communities in the Western United States
- ✓ An overview of the previous Blueprint planning process and growth/transportation scenarios in and how they compare to the potential RTP/SCS growth/transportation scenarios
- ✓ What the RTP is and why it is required
- ✓ What the SCS is and why it is required
- ✓ What the purpose of the Public Workshop - Series 1 is and why public and stakeholder involvement is critical to the RTP/SCS development process

The full PowerPoint for Workshop Series 1 can be found in Attachment B.

### Polling Exercise

MCTC/VRPA staff then conducted an Instant Polling Exercise using Turning Point software and clickers distributed to attendees. Each attendee had an opportunity to select from a series of multiple choice answers for questions posed related to attendee demographics, housing choice, transportation mode choice, other livability issues, and effectiveness of the polling exercise to gain an understanding of the RTP/SCS process and related issues.



The following selected polling results provide an overview of public opinion results. Polling questions 1-7 were a series of demographic questions and are not included as part of this discussion. Full polling results for all questions posed are available on the project website at [www.maderactc.org](http://www.maderactc.org).

✓ **Question 8 – Which of the following modes do you primarily use on a daily basis?**

As shown below, Chowchilla and Oakhurst has similar results indicating that 86% and 89% of the attendees drive alone, while for both Madera Ranchos and Madera, lower percentages (60% and 67%) of attendees drive alone and higher percentage use other modes, especially carpool for Madera attendees (33%) and other modes for Madera Ranchos attendees (40%).

Response	Madera Ranchos	Chowchilla	Oakhurst	Madera
Drive by myself	60%	86%	89%	67%
Carpool				33%
Take Transit		14%		
Walk			11%	
Bike				
Other	40%			

✓ **Question 9 – Would you use transit if buses were more frequent?**

As shown below, Madera Ranchos and Chowchilla has similar results indicating that 40% and 43% of attendees would use transit if buses were more frequent, while the Madera workshop had a significantly higher percentage (67%) of attendees who would use transit if buses were more frequent. The Oakhurst workshop had attendees who were far less likely to use transit if buses were more frequent (33%).

Response	Madera Ranchos	Chowchilla	Oakhurst	Madera
Yes	40%	43%	33%	67%
No	40%	43%		11%
No sure	20%	14%	67%	22%

✓ **Question 10 – Where would sidewalks, crosswalks, and bike lanes be appropriate in Madera County?**

As shown below, Madera Ranchos and Chowchilla had results indicating that 60% and 43% of attendees believed that these facilities would be appropriate in Madera/Chowchilla, while Oakhurst attendees (50%) felt that these facilities would be appropriate in Madera/Chowchilla/Oakhurst, and Madera attendees (78%) believed that these facilities would be appropriate in both urban and rural areas.

Response	Madera Ranchos	Chowchilla	Oakhurst	Madera
City of Madera				
Madera/Chowchilla	60%	43%	17%	
Madera/Chowchilla/ Oakhurst		14%	50%	22%
Both urban and rural areas	20%	29%	17%	78%
Not sure	20%	14%	17%	

✓ **Question 11 – How should we spend our scarce transportation dollars? (1<sup>st</sup> priority)**

As shown below, Madera Ranchos (60%), Chowchilla (43%) and Oakhurst (44%) had results indicating that attendees want improved local streets and roads, while Madera attendees were evenly split on improved local streets and roads and enhancing bicycle and walking trails, public transit, etc. (33% each).

Response	Madera Ranchos	Chowchilla	Oakhurst	Madera
Improve Freeways		14%	11%	17%
Improve local streets & roads	60%	43%	44%	33%
Enhance bicycle & walking trails, public transit, etc.		14%	11%	33%
Support alternative fuels for autos/trucks	20%	14%	11%	17%
Develop Streetscapes to increase walking & biking			11%	
Provide parking structures to concentrate development and increase walking			11%	
Provide light rail services		14%		
Improve Amtrak	20%			
Support High-Speed Rail				

✓ **Question 12 – How should we spend our scarce transportation dollars? (2<sup>nd</sup> priority, different answer)**

As shown below, Madera Ranchos and Chowchilla had similar results indicating that 40% and 43% of the attendees want improved local streets and roads, while Madera attendees were in favor of enhance bicycle and walking trails, public transit, etc., (50%). Oakhurst attendees were split among multiple approaches.

Response	Madera Ranchos	Chowchilla	Oakhurst	Madera
Improve Freeways	20%	29%	11%	
Improve local streets & roads	40%	43%	22%	33%
Enhance bicycle & walking trails, public transit, etc.		14%	22%	50%
Support alternative fuels for autos/trucks		14%	11%	17%
Develop Streetscapes to increase walking & biking	20%		22%	
Provide parking structures to concentrate development and increase walking	20%		11%	
Provide light rail services				
Improve Amtrak				
Support High-Speed Rail				

✓ **Question 13 – As we grow in the future, what is the most important outcome to consider?**

As shown below, Madera Ranchos attendees favored the preservation of farmland by growing smarter (40%), while Chowchilla attendees wanted to redevelop inner cities with entertainment districts (43%). Oakhurst and Madera attendees were in favor of increase pedestrian, public transit, and bike facilities and reduce air pollution and greenhouse gases (33% each).

Response	Madera Ranchos	Chowchilla	Oakhurst	Madera
Preserve farmland by growing smarter	40%	14%	11%	17%
Reduce miles we travel by locating jobs & services closer to housing or housing closer to jobs	20%	29%	22%	17%
Redevelop our inner cities with entertainment districts including apartments & offices		43%		
Increase pedestrian, public transit, & bike systems/facilities	20%		33%	33%
Reduce air pollution & greenhouse gases	20%	14%	33%	33%

✓ **Question 14 – As we grow in the future, what is the 2<sup>nd</sup> most important outcome to consider?**

As shown below, Madera Ranchos and Oakhurst indicated that 60% and 44% of the attendees favored increased pedestrian, public transit and bike systems/facilities, while Chowchilla attendees were in favor of redeveloping inner cities with entertainment districts (43%). Madera attendees were split between reduce miles traveled and increased pedestrian, public transit, and bike system/facilities (33%).

Response	Madera Ranchos	Chowchilla	Oakhurst	Madera
Preserve farmland by growing smarter	20%			17%
Reduce miles we travel by locating jobs & services closer to housing or housing closer to jobs		29%	22%	33%
Redevelop our inner cities with entertainment districts including apartments & offices	20%	43%	22%	
Increase pedestrian, public transit, & bike systems/facilities	60%	14%	44%	33%
Reduce air pollution & greenhouse gases		14%	11%	17%

✓ **Question 15 – Do you think that we can plan for growth that provides more transportation and housing choices?**

As shown below, Chowchilla (86%), Oakhurst (100%) and Madera (83%) had results indicating that attendees believe that it is possible to plan for growth that provides more transportation and housing choices, while only 20% of Madera Ranchos attendees agreed with this sentiment.

Response	Madera Ranchos	Chowchilla	Oakhurst	Madera
Yes	20%	86%	100%	83%
No	40%	14%		
No sure	40%			17%

✓ **Question 16 – Do you support higher density housing in your community?**

As shown below, Oakhurst and Madera had results indicating that a majority of attendees (56% and 83%) support higher density housing in their community, while Madera Ranchos and Chowchilla had results indicating that a majority of attendees (60% and 57%) do not support higher density housing in their community.

Response	Madera Ranchos	Chowchilla	Oakhurst	Madera
Yes	40%	29%	56%	83%
No	60%	57%	44%	
No sure		14%		17%

✓ **Question 17 – Do you support a “walkable/bikeable” streetscape in your community?**

As shown below, all workshops supported a walkable/bikeable streetscape in their community, with Chowchilla, Oakhurst, and Madera at 100%, and Madera Ranchos at 80%.

Response	Madera Ranchos	Chowchilla	Oakhurst	Madera
Yes	80%	100%	100%	100%
No	20%			
No sure				

✓ **Question 18 – Should the historical approach to land use and transportation planning remain unchanged or would you propose that it be substantially modified?**

As shown below, a majority of Chowchilla and Oakhurst attendees believed that the historical approach to land use and transportation planning should be somewhat modified or modified (Chowchilla – 57% Somewhat Modified, 43% Modified and Oakhurst – 22% Somewhat Modified, 44% Modified). Madera Ranchos attendees were in favor of things remaining the same (40%), and Madera attendees wanted the historical approach to land use and transportation planning to be substantially modified (67%).

Response	Madera Ranchos	Chowchilla	Oakhurst	Madera
Remain the same	40%			
Somewhat modified		57%	22%	17%
Modified	20%	43%	44%	17%
Substantially modified	20%		11%	67%
Not sure	20%		22%	

✓ **Question 19 – What type of housing should be the focus of future growth? (1<sup>st</sup> priority)?**

As shown below, Chowchilla attendees were in favor of Single family homes – large lot (57%), while Oakhurst attendees believed that the focus of future growth should be for Rural homes (44%). Madera Ranchos attendees were split between Single Family homes – large lot and Single Family homes – small lot (40% each). Madera attendees were split between Single family homes – small lot and Townhouse/and or condominiums (33% each).

Response	Madera Ranchos	Chowchilla	Oakhurst	Madera
Rural homes (2 acre+ rural lots with 1 home)	20%		44%	
Single family homes – large lot	40%	57%		17%
Single family homes – small lot		14%	22%	33%
Townhouses and/or condominiums	40%	29%	33%	33%
Apartments, 2-8 units				17%
Apartments, large developments				



✓ **Question 20 – What type of housing should be the focus of future growth? (2<sup>nd</sup> priority, different answer)?**

As shown below, Chowchilla and Oakhurst had similar results indicating that 43% and 44% of attendees believed that the Townhouses and/or condominiums should be the focus of future growth. Madera Ranchos attendees were in favor of Rural homes (40%), and Madera attendees were in favor of Single family homes – small lot (50%).

Response	Madera Ranchos	Chowchilla	Oakhurst	Madera
Rural homes (2 acre+ rural lots with 1 home)	40%		22%	
Single family homes – large lot				
Single family homes – small lot		29%		50%
Townhouses and/or condominiums	20%	43%	44%	17%
Apartments, 2-8 units	20%	14%	33%	
Apartments, large developments	20%	14%		33%

### Mapping Exercise

Oversized maps for each of the major subregions in Madera County were mounted on poster boards and attendees were asked to join a break-out group for the mapping exercise. Sticker icons representing transportation improvements, land use types, and environmental constraints or opportunities were provided to each break-out group. The groups were asked to place the icons on the maps of the subregions they were interested in. Color markers were also provided to note thoughts or other issues directly on the maps. The MCTC/VRPA Team was specifically looking for feedback on the following issues:

- ✓ Are there areas on the map where new transportation improvements (transit, pedestrians, bicycle, street and highway) are needed?
- ✓ Where should new growth (residential uses by type, industrial, shopping centers, office, civic uses, health, educational or other land uses) be located?
- ✓ Where are there environmental constraints or issues that should be considered as we plan for future growth and development?

The following contains a listing of some highlighted mapping exercise results. A map from each of the workshops is provided following the listing of highlighted mapping exercise results.

☐ **Madera Ranchos Mapping Exercise Results**

- New intersection improvements on Avenue 12 and Road 36 ½
- New transit lines/services on Avenue 12 and Road 37 ½

**Figure 1 – Madera Ranchos Mapping Exercise Results**



## □ Chowchilla Mapping Exercise Results

- *Fairmead*
  - Need more lights/bus shelters
  - Recreation – need more parks
  - Need more routes to Chowchilla/Madera
  - Small community should be bikeable
- *Chowchilla*
  - Accident Zone – SR 99 and Robertson Boulevard
  - Maintenance – prioritize areas that have gone without maintenance
  - SR 152 and Road 16 – high traffic route

Figure 2 – Chowchilla Mapping Exercise Results

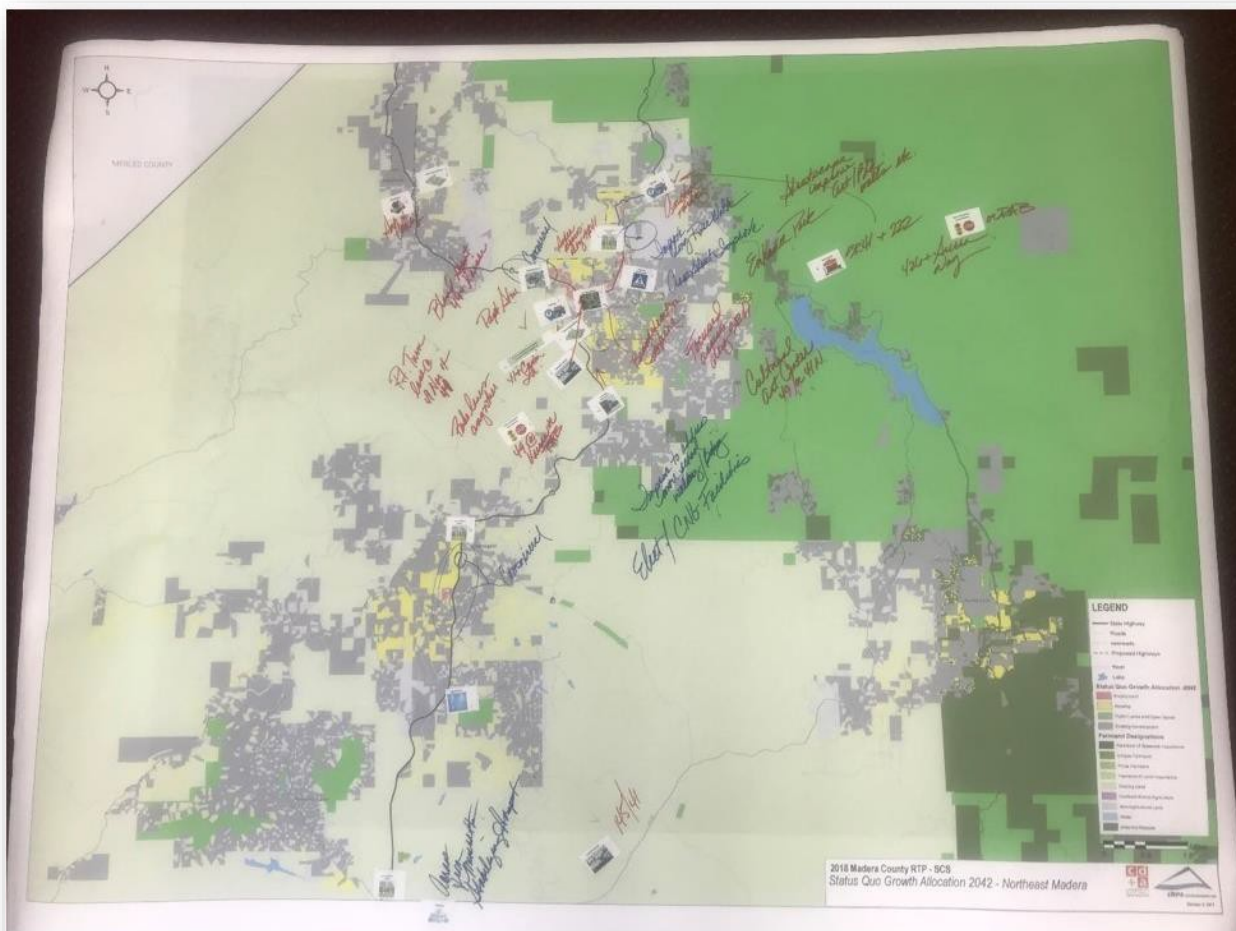




### ☐ Oakhurst Mapping Exercise Results

- Need pedestrian improvements
- Need additional parking
- Need streetscape improvements
- Add Town Square/Plaza
- Need Transit Center
- New Roundabout
- Add more commercial retail in Coarsegold

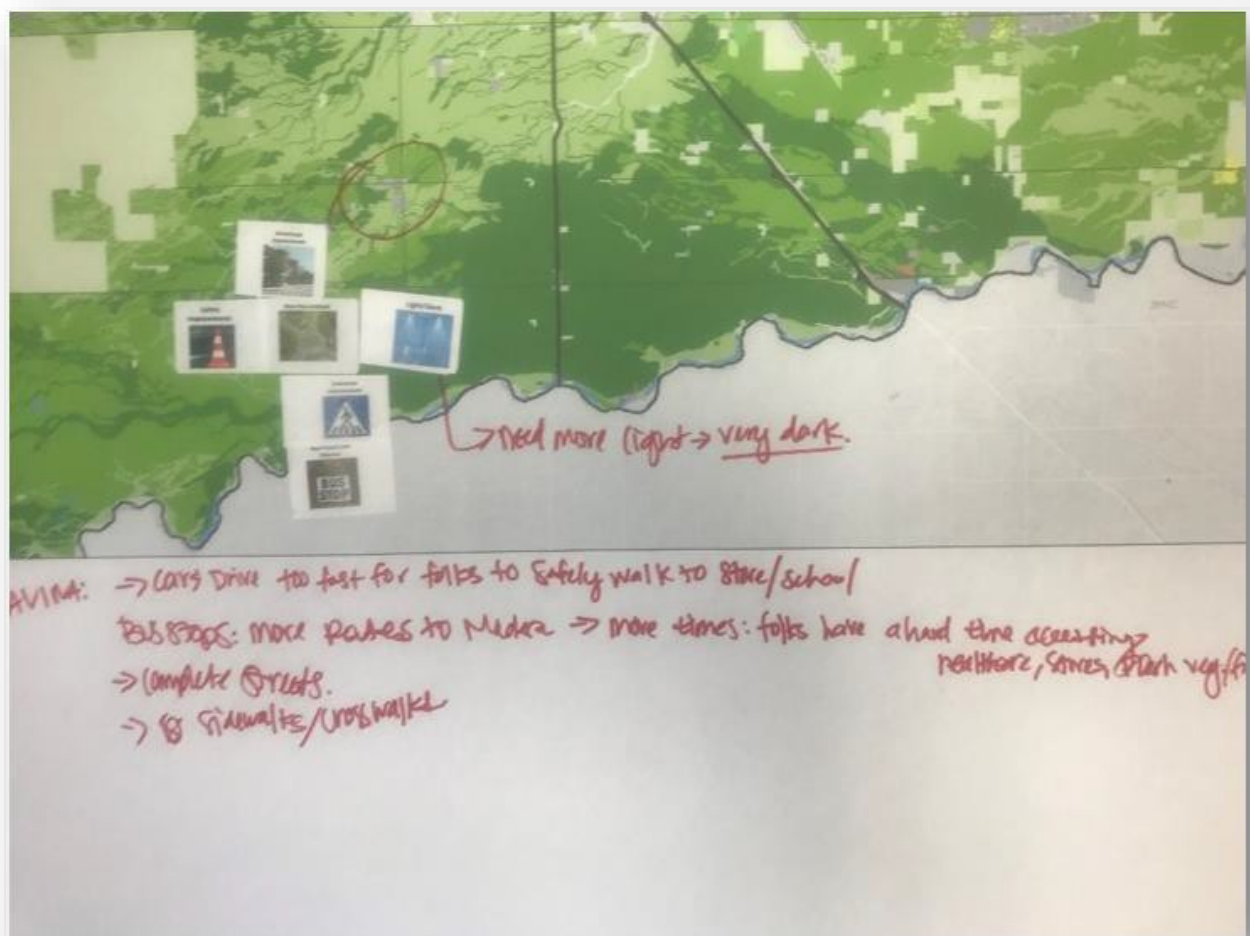
### Figure 3 – Oakhurst Mapping Exercise Results



☐ **Madera Mapping Exercise Results**

- Need more lighting – very dark
- Cars drive too fast for people to safely walk to store/school
- Bus stops – more routes to Madera, more times – people have a hard time accessing healthcare, stores, etc.
- Complete Streets
- Add/Improve sidewalks/crosswalks
- Overpass? SR 99 and Cleveland Avenue

**Figure 4 – Madera Mapping Exercise Results**



## Pop-up Events – Series 1

Between October and December 2017, Madera County Transportation Commission (MCTC) staff attended throughout Madera County the first series of pop-up events regarding the 2018 RTP/SCS. The dates and locations of these pop-up events included:

### ☐ Pop-up Events

- Saturday, October 21, 2017 – Fairmead Health Fair, Fairmead
- Wednesday, October 25, 2017 – First Five Event, Chowchilla
- Thursday, October 26, 2017 – First Five Event, Madera
- Friday, November 3, 2017 – Cesar Chavez Elementary School Harvest Event, Madera
- Thursday, November 16, 2017 – The Great American Smokeout, Madera
- Wednesday, December 6, 2017 – La Vina Community Meeting, La Vina

## Pop-up Event Structure

Pop-up events allowed the Study Team to engage stakeholders in locations where stakeholders already planned on being. Two members of the Study Team, including a bilingual member, attended the listed pop-up events. Each pop-up event included the following:

- ✓ Information area including study display boards, hand-out materials, and comments cards
- ✓ Mapping Exercise using sticker icons
- ✓ Brief (English/Spanish) survey instrument

## Survey Instrument Results

MCTC staff provided survey instruments to attendees of the October 2017 pop-up events. Each attendee had an opportunity to select from a series of multiple choice answers for questions posed related to attendee demographics, transportation mode choice, transit use, preference on how transportation funds should be spent, and future growth. Approximately 104 survey respondents completed the survey and provided their answers to six (6) important questions that assisted MCTC with development of the 2018 RTP/SCS and preferred scenario considering public and stakeholder input

The following selected polling results provide an overview of public opinion. Full polling results are available on the project website at [www.maderactc.org](http://www.maderactc.org).



✓ **Question 1 – Where do you live?**

<b>Response</b>	<b>Fairmead Health Fair</b>	<b>Chowchilla First Five</b>	<b>Madera First Five</b>
Madera	21%	11%	98%
Chowchilla	64%	81%	2%
West of SR 99		8%	
East of SR 99			
Madera Foothills			
Oakhurst/Coarsegold/ Ahwahnee			
Outside Madera Co.	14%		

✓ **Question 2 – Which of the following do you primarily use on a daily basis?**

<b>Response</b>	<b>Fairmead Health Fair</b>	<b>Chowchilla First Five</b>	<b>Madera First Five</b>
Drive by myself	69%	72%	51%
Carpool	6%	10%	5%
Take Transit		4%	11%
Walk	12%	12%	27%
Bike		2%	2%
Other	12%		4%

✓ **Question 3 – Would you use transit if buses came by more often?**

<b>Response</b>	<b>Fairmead Health Fair</b>	<b>Chowchilla First Five</b>	<b>Madera First Five</b>
Yes	57%	32%	57%
No		27%	12%
No sure	43%	41%	31%

✓ **Question 4 – How should we spend our scarce transportation dollars?**

<b>Response</b>	<b>Fairmead Health Fair</b>	<b>Chowchilla First Five</b>	<b>Madera First Five</b>
Improve Freeways	14%	22%	15%
Improve local streets & roads	48%	36%	28%
Enhance bicycle & walking trails, public transit, etc.	9%	8%	22%
Support alternative fuels for autos/trucks		10%	1%
Develop Streetscapes to increase walking & biking	4%	8%	13%
Provide parking structures to concentrate development and increase walking	4%	5%	7%
Provide light rail services	9%	2%	4%
Improve Amtrak	4%	3%	4%
Support High-Speed Rail	9%	6%	6^

✓ **Question 5 – As we grow in the future, what is the most important to consider?**

Response	Fairmead Health Fair	Chowchilla First Five	Madera First Five
Preserve farmland by growing smarter	13%	21%	24%
Reduce miles we travel by locating jobs & services closer to housing or housing closer to jobs	31%	29%	18%
Redevelop our inner cities with entertainment districts including apartments & offices	25%	12%	13%
Increase pedestrian, public transit, & bike systems/facilities	19%	13%	18%
Reduce air pollution & greenhouse gases	13%	25%	28%

### Mapping Exercise

Oversized maps for each of the major subregions in Madera County were mounted on poster boards and pop-up event attendees were asked to place sticker icons on the maps of the subregions they were interested in. Sticker icons representing transportation improvements, land use types, and environmental constraints or opportunities were available to pop-up event attendees. Color markers were also provided to note thoughts or other issues directly on the maps. As previously noted, the Study Team was specifically looking for feedback on the following issues:

- ✓ Are there areas on the map where new transportation improvements (transit, pedestrians, bicycle, street and highway) are needed?
- ✓ Where should new growth (residential uses by type, industrial, shopping centers, office, civic uses, health, educational or other land uses) be located?
- ✓ Where are there environmental constraints or issues that should be considered as we plan for future growth and development?

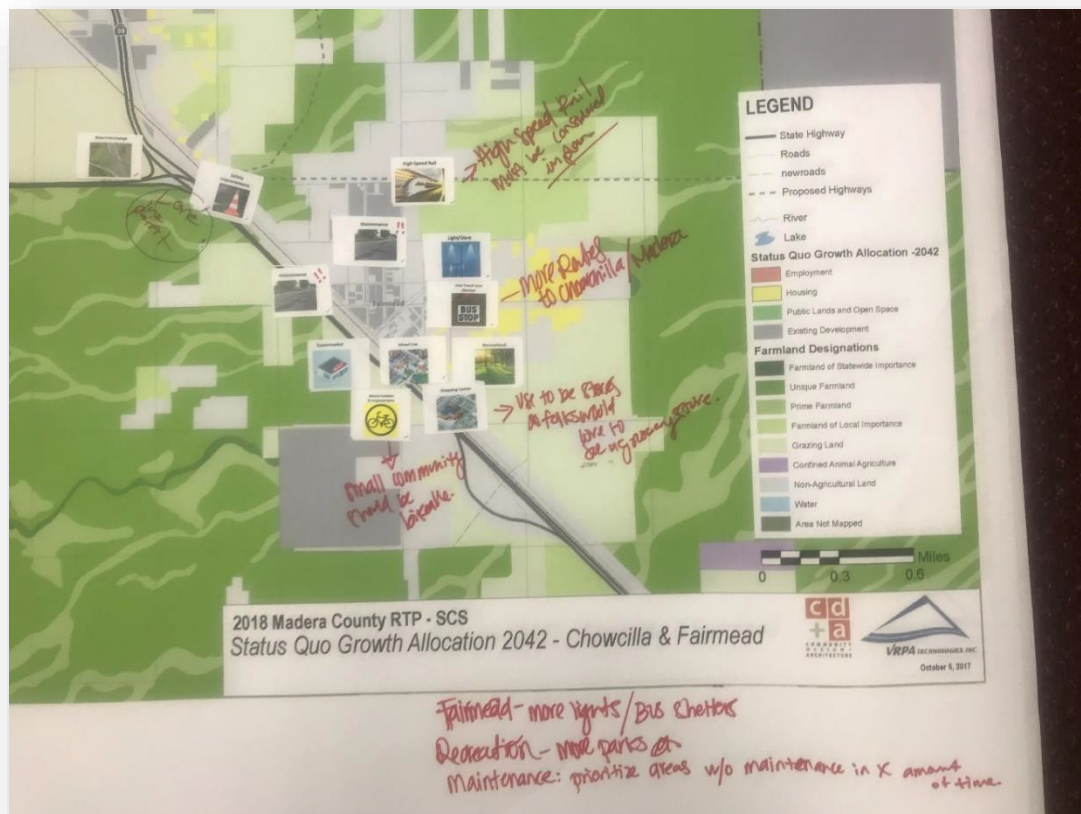
The following contains a listing of some highlighted mapping exercise results. A map from selected pop-up events is provided following the listing of highlighted mapping exercise results.

#### ☐ Fairmead Health Fair Mapping Exercise Results

- Fairmead needs new intersection improvements (no location specified)
- Maintenance in all of Fairmead
- Pedestrian improvements, all of Fairmead
- Town Square/plaza

- Scenic improvements
- Light and glare issues
- Chowchilla needs pedestrian improvements and new transit lines/services
- New transit lines/services on Avenue 12 and Road 37½
- Other Comments Received by Study Team
  - Community Center needed in Fairmead
  - More transportation in Chowchilla and school site
  - Weekend buses needed in Fairmead
  - Transportation needs to come out to Fairmead more than twice

Figure 5 – Fairmead Health Fair Mapping Exercise Results



□ **First Five Event, Chowchilla Mapping Exercise Results**

- Maintenance in Chowchilla near Avenue 24 ½ and Chowchilla Boulevard
- Maintenance near Avenue 22 ½ and Road 18 ½
- Other Comments Received by Study Team
  - Increase public bus service in Chowchilla

**Figure 6 – First Five Event, Chowchilla Mapping Exercise Results**

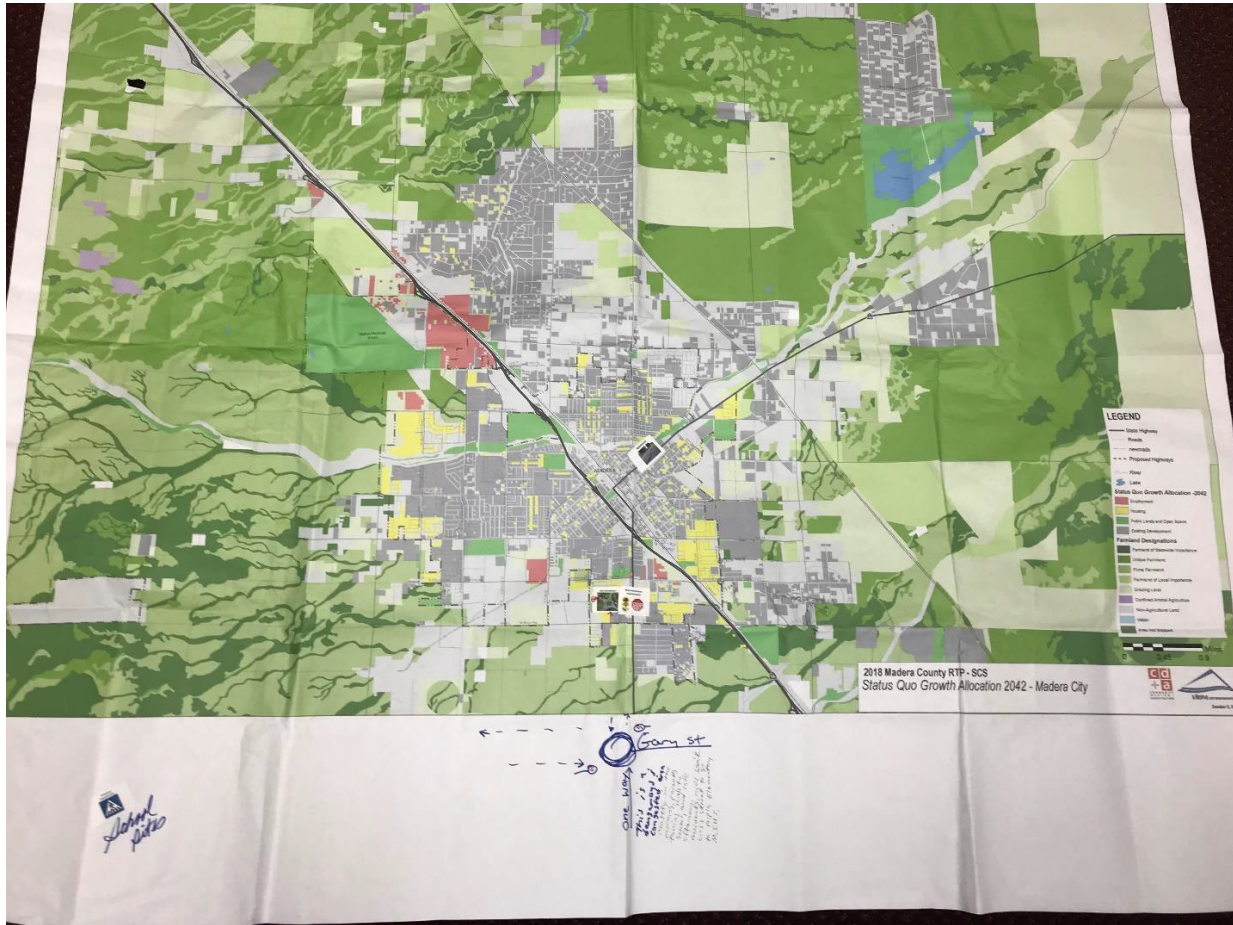




☐ **First Five Event, Madera Mapping Exercise Results**

- Comments Received by Study Team
  - Jaywalker in front of schools (Yosemite Avenue)
  - Need speed bumps near schools and in residential areas

### Figure 7 – First Five Event, Madera Mapping Exercise Results





## Presentations – Series 1

MCTC made presentations at four (4) Town Hall meetings (listed below) located throughout the County between February 2017 and November 2017 including:

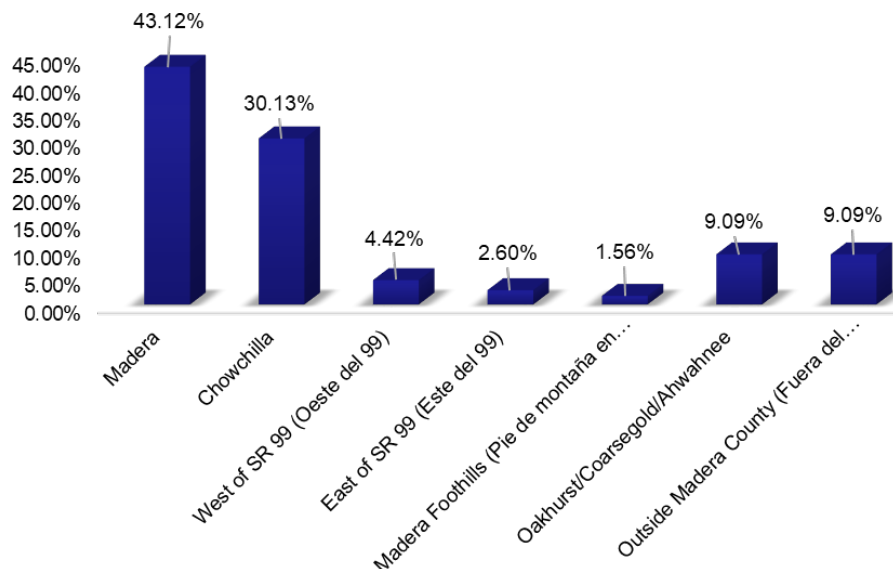
- ✓ Wednesday, February 22, 2017 – Raymond Town Hall at Raymond-Knowles Elementary located at 31828 Road 600, and held between 6:00 PM and 8:00 PM
- ✓ Tuesday, February 28, 2017 – Yosemite Lakes Town Hall at Yosemite Lakes Clubhouse located at 30250 Yosemite Springs Pkwy, and held between 6:00 PM and 8:00 PM
- ✓ Friday, March 3, 2017 – Madera Town Hall at Grace Community Church located at 17755 Road 26, and held between 6:00 PM and 8:00 PM
- ✓ Thursday November 9, 2017 – Oakhurst Town Hall at Oakhurst Community Center located at 39800 Road 425B, and held between 6:00 PM and 8:00 PM

## On Line Survey – Series 1

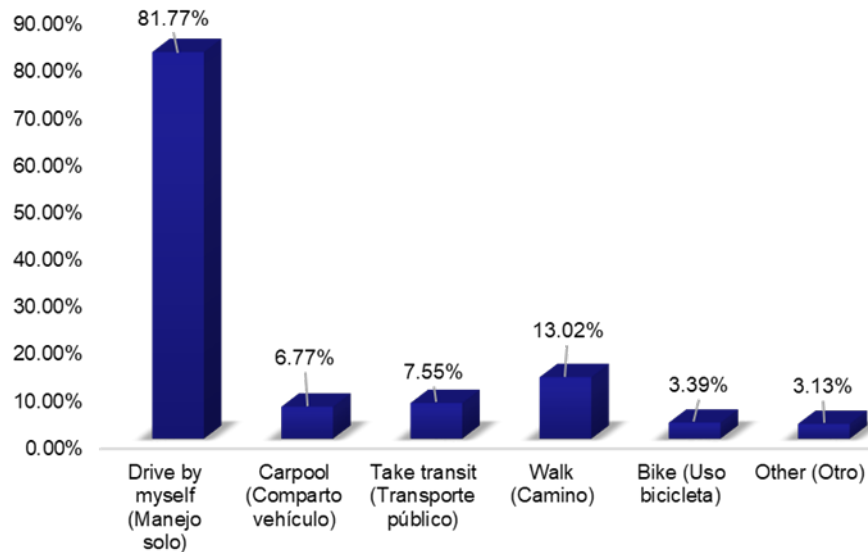
MCTC conducted an on-line survey beginning in November 30, 2017. Approximately 385 survey respondents completed the survey and provided their answers to six (6) important questions that assisted MCTC with development of the 2018 RTP/SCS and preferred scenario considering public and stakeholder input.

The following selected polling results provide an overview of public opinion. Full polling results are available on the project website at [www.maderactc.org](http://www.maderactc.org).

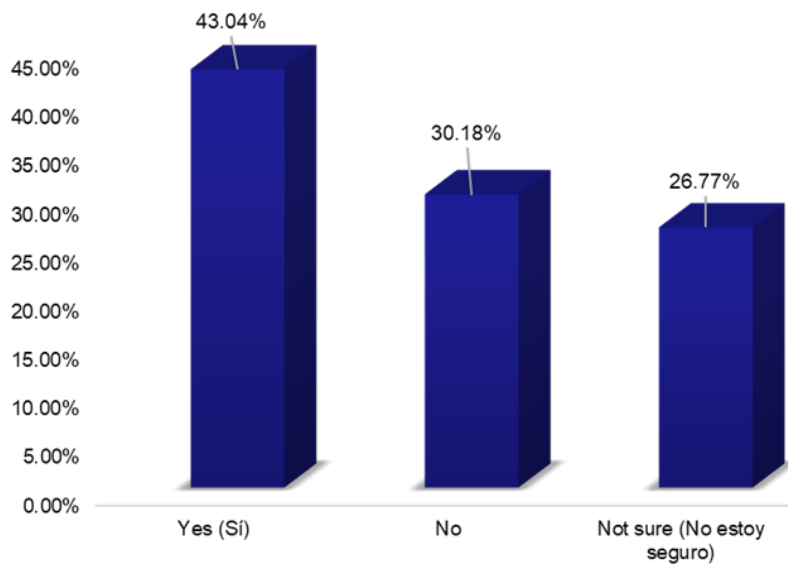
### ✓ Question 1 – Where do you live?



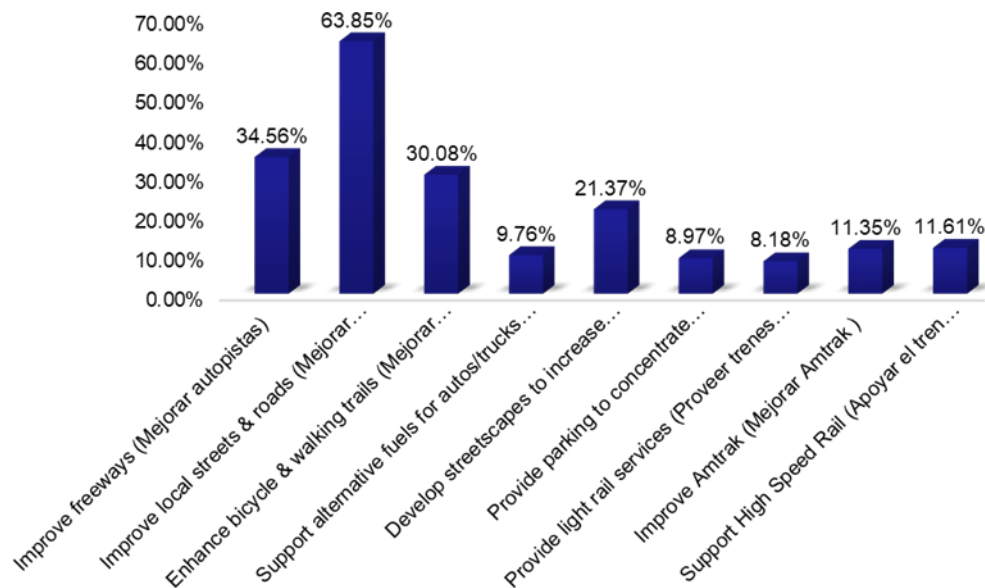
✓ **Question 2 – Which of the following do you primarily use on a daily basis?**



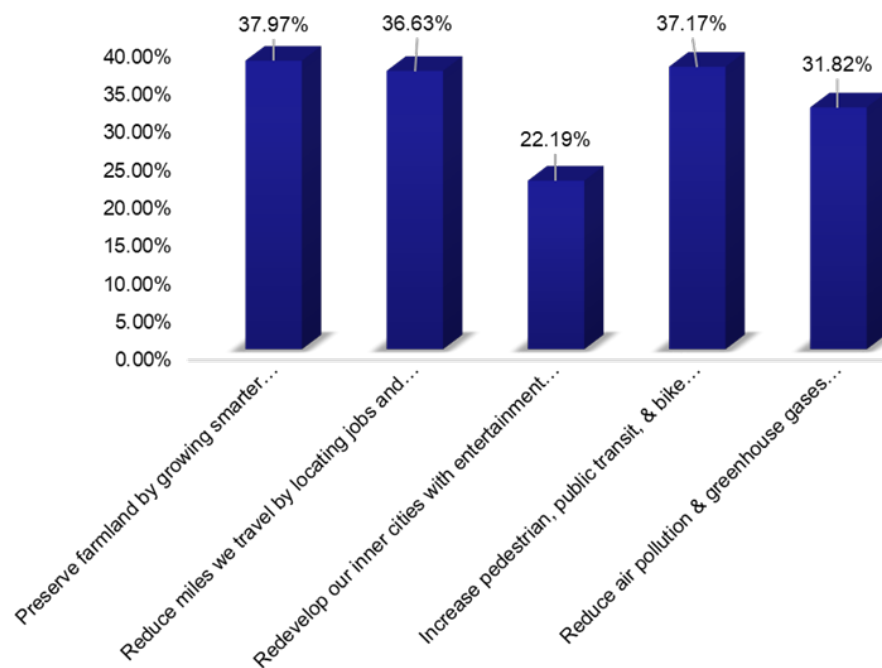
**Question 3 – Would you use transit if buses came by more often?**



✓ **Question 4 – How should we spend our scarce transportation dollars?**



**Question 5 – As we grow in the future, what is the most important to consider?**



## RTP/SCS Roundtable Meetings 1 and 2 - Series 1

MCTC formed the 2018 RTP/SCS Roundtable in August 2017. A comprehensive list of agencies invited to be a member of the Roundtable is provided at the end of this Appendix as Table 1. Agencies invited include those under Tribal Governments, Local Agencies, and Other Agencies/Organizations, in addition to Caltrans. Roundtable meetings during Series 1 of the outreach program were held on the dates noted below and focused on an overview of the 2018 RTP/SCS development process, review of the traffic and land use modeling process, review of goals, policies and objectives, review of the proposed public outreach program, development of demographic projections and the identification of local agency projects, project evaluation criteria and evaluation procedures. The dates and locations of these meetings included:

- ✓ Tuesday, September 26, 2017 – Roundtable Meeting 1 at MCTC Offices located at 2001 Howard Road, Suite 201
- ✓ Thursday, October 12, 2017 – Roundtable Meeting 2 at MCTC Offices located at 2001 Howard Road, Suite 201

## Series 2 Public Outreach

The purpose of Series 2 Public Outreach was to introduce the 2018 RTP/SCS Transportation and Land Use Scenario Alternatives and gather input regarding desired Land Use and Transportation needs and outcomes.

### Public Workshops – Series 2

In March 2018, the Madera County Transportation Commission (MCTC) held throughout Madera County the second series of public workshops regarding the 2018 RTP/SCS. The dates and locations of these workshops included:

#### ☐ **March 2018 Workshops**

- Monday, March 5, 2018 – Chowchilla workshop at Chowchilla City Hall located at 130 S 2<sup>nd</sup> Street, and held between 5:30 PM and 7:30 PM
- Tuesday, March 6, 2018 – Madera workshop at MCTC Offices located at 2001 Howard Road, Suite 201 and held between 5:30 PM and 7:30 PM
- Wednesday, March 7, 2018 – Oakhurst workshop at Oakhurst Community Center located at 39800 Road 425B, and held between 5:30 PM and 7:30 PM
- Thursday, March 8, 2018 – Madera Ranchos workshop at Webster Elementary located at 36477 Ruth Avenue, and held between 5:30 PM and 7:30 PM

Each workshop included a charrette exercise focused on review of the three (3) alternative scenarios presented for review and comment including the:

- ✓ Status Quo Scenario
- ✓ Hybrid Scenario
- ✓ Moderate Growth Scenario

## Presentations – Series 2

MCTC made two (2) presentations to groups (listed below) in the Madera Foothill area between January and February 2018 including:

- ✓ Saturday, January 6, 2018 – Oakhurst Town Hall at Oakhurst Community Center located at 39800 Road 425B
- ✓ Thursday, February 22, 2018 - Raymond Town Hall at Raymond-Knowles Elementary located at 31828 Road 600

## RTP/SCS Roundtable Meeting 3 – Series 2

The Roundtable met once during Series 2 of the outreach program and focused on an overview of the 2018 RTP/SCS land use and transportation scenario development process. This included a more focused review of the traffic and land use modeling process, and a complete review of the proposed alternative scenarios for further review and refinement. A charrette was conducted to review preliminary scenario mapping and to identify suggested revisions and ideas for inclusion in each of the alternative scenarios. Included below is the date and location of the meeting:

- ✓ Thursday, December 14, 2017 – Roundtable Meeting 3 at MCTC Offices located at 2001 Howard Road, Suite 201

## Series 3 Public Outreach

The purpose of Series 3 Public Outreach was to further review the 2018 RTP/SCS Transportation and Land Use Scenario Alternatives and gather input and recommend the preferred Land Use and Transportation Scenario Alternatives.

## RTP/SCS Roundtable Meeting 4 – Series 3

The Roundtable met once during Phase 3 of the outreach program and focused on an overview of the revised 2018 RTP/SCS land use and transportation scenario development process. This included continued review of the final alternative land use and transportation scenarios. Following review and comment, the Roundtable was asked to recommend a preferred scenario to the MCTC Board at its April 16, 2018 meeting. The Roundtable, without the objection of those present, recommended that the MCTC Board approve the Moderate Scenario as the preferred land use and transportation scenario for inclusion in the 2018 RTP/SCS and as the project alternative to be assessed in the MCTC 2018 RTP/SCS Draft Program Environmental Impact Report (DPEIR). Members of the Roundtable and the public attended the Roundtable Meeting, which preceded the Open House Workshop noted below.

- ✓ April 12, 2018 – MCTC Offices

## Public Workshop/Open House – Series 3

In April 2018, the Madera County Transportation Commission (MCTC) held an open house regarding the 2018 RTP/SCS. Included below is date and location of the open house:

### ☐ April 2018 Workshop/Open House

- Thursday, April 12, 2018 – Open house at MCTC Offices located at 2001 Howard Road, Suite 201

The open house workshop included a review of the three (3) alternative scenarios presented for review and recommendation of a preferred scenario considering the:

- ✓ Status Quo Scenario
- ✓ Hybrid Scenario
- ✓ Moderate Growth Scenario

The full PowerPoint for Workshop Series 3 can be found in Appendix B.

## Presentations – Series 3

MCTC made one (1) presentation (listed below) in Coarsegold in April 2018.

- ✓ Thursday, April 26, 2018 – Coarsegold Town Hall at Coarsegold Community Center located at 35540 CA-41



## RTP/SCS Roundtable Meeting 4 – Series 3

The Roundtable met once during Series 3 of the outreach program and focused on an overview of the revised 2018 RTP/SCS land use and transportation scenario development process. This included continued review of the final alternative land use and transportation scenarios. Following review and comment, the Roundtable was asked to recommend a preferred scenario to the MCTC Board at its April 16, 2019 meeting. The Roundtable, without the objection of those present, recommended that the MCTC Board approve the Moderate Scenario as the preferred land use and transportation scenario for inclusion in the 2018 RTP/SCS and as the project alternative to be assessed in the MCTC 2018 RTP/SCS Draft Program Environmental Impact Report (DPEIR). Members of the Roundtable and the public attended the Roundtable Meeting, which preceded the Open House Workshop noted below. Included below is the date and location of the meeting:

- ✓ Thursday, April 12, 2018 – Roundtable Meeting 4 at MCTC Offices located at 2001 Howard Road, Suite 2018

## Series 4 Public Outreach

The Purpose of Series 4 Public Outreach is to review, receive comments on, and approve the 2018 RTP/SCS and Draft Program Environmental Impact Report (DPEIR).

## MCTC Board Public Hearings – Series 4

MCTC held two (2) public hearings; 1) at its June 18, 2018 Board meeting during the 55-day review period as noted below, and 2) on June 19, 2018 at the Oakhurst Community Center in Oakhurst, CA. Finally, the MCTC Board will take action to certify the Final PEIR and the Final 2018 RTP/SCS at its August 22, 2018 meeting.

- ✓ July 18, 2018 – MCTC Board Public Hearing during Review Period - MCTC Offices
- ✓ July 19, 2018 – MCTC Board Public Hearing during Review Period – Oakhurst Community Center
- ✓ August 22, 2018 – MCTC Board Public Hearing to Certify the Final PEIR and Final 2018 RTP/SCS – MCTC Offices

**Table 1 – Agencies Consulted During Development of the  
2018 RTP/SCS and PEIR**

<b>Federal Agencies</b>	
California Integrated Waste Management Board	Federal Transit Administration
Center for Disease Control	Naval Air Warfare Center
Environmental Compliance, Office of	National Parks Service
Environmental Policy and Compliance, Office of	U.S. Army Corps of Engineers
Department of the Interior	U.S. Fish and Wildlife Service
Environmental Protection Agency	U.S. Department of Agriculture Forest Service
Federal Aviation Administration	U.S. Department of Energy
Federal Highways Administration	U.S. Department of Health and Human Services
Federal Railroad Administration	
<b>State Agencies</b>	
Air Resources Board	General Services, Department of
Boating & Waterways, Department of	Health Services, Department of
California Emergency Management Agency	Housing & Community Development
California Highway Patrol	Native American Heritage Commission
California Transportation Commission	Office of Historic Preservation
Caltrans District 6	Office of Public School Construction
Caltrans Division of Aeronautics	Parks & Recreation, Department of
Caltrans Planning	Public Utilities Commission
Central Valley Flood Protection Board	Regional WQCB 5S
Conservation, Department of	Resources Agency
State Lands Commission	San Joaquin River Conservancy
SWRCB: Clean Water Grants	State of California Attorney General
Education, Department of	SWRCB: Water Quality
Energy Commission	SWRCB: Water Rights
Fish & Game Region 4	Toxic Substances Control, Department of
Food & Agriculture, Department of	Water Resources, Department of
Forestry and Fire Protection, Department of	
<b>Tribal Governments</b>	
Big Sandy Rancheria	Michahai Wuksach Band of Eslom Valley
Choinumni Tribe	Mono Nation
California Choinumni Tribal Project	North Fork Mono Tribe
Cold Springs Rancheria Tribe	Picayune Rancheria of Chukchansi Indians
Dumna Wo-Wah Tribal Government	Table Mountain Rancheria Tribe
<b>Regional Agencies</b>	
Fresno County Council of Governments	San Joaquin County Council of Governments
Kings County Association of Governments	Stanislaus County Council of Governments
Kern County Council of Governments	Tulare County Association of Governments
Merced County Association of Governments	

Local Agencies	
City of Chowchilla	Mariposa County
City of Clovis	Merced County
City of Fresno	Mono County
City of Madera	San Benito County
Fresno County	Tuolumne County
Madera County	
Other Agencies and Organizations	
American Farmland Trust	Madera County Economic Development Office
BNSF Corp	Madera County Farm Bureau
California Native Plant Society	Madera County Office of Education
California Rural Legal Assistance	Madera County Public Health
California Walks	Madera County Sherriff Office
California Trucking Association	Madera County Superintendent Office
Center for Archaeological Research, CSU Bakersfield	Madera Housing Authority
Central Valley air Quality Coalition	Madera Police Department
Center for Race, Poverty and the Environment	McCaffrey Homes
Central Valley Regional Water Quality Control Board, Region 5	Natural Resources Conservation Service
Charles Diaz Trucking	Natural Resource Defense Counsel
Coarsegold Chamber of Commerce	Oakhurst Chamber of Commerce
Community Action Partnership of Madera County	Pacific Gas and Electric
Community Design and Architecture	Pembroke Development
Conservation Biology Institute	Prevention Institute
Cultiva La Salud	San Joaquin River Parkway Trust
Environmental Justice Advocacy Group (SJVAPCD)	Sequoia Riverlands Trust
Fairmead Community and Friends	Sierra Club
Golden Valley Chamber of Commerce	Sierra Nevada Alliance
Gunner Companies	Sol Development Associates
Haslett Basin Traditional Committee	Stand Up for California
Human Impact Partners	Valley Children's Hospital
I-5 Social Service Corporation	State Center Community College - Madera Center
Leadership Counsel for Justice and Accountability	Southern California Edison
Madera Chamber of Commerce	Union Pacific Railroad
Madera County Association of Realtors	Visit Yosemite   Madera County

# ATTACHMENT A

## 2018 RTP/SCS PUBLIC PARTICIPATION STRATEGIES

### Public Meetings/Workshops

- ✓ Partner with community-based organizations in low-income and minority communities for targeted outreach
- ✓ Participate in or speak at different events of existing agencies
- ✓ Incorporate Unmet Transit Needs presentations during various workshops

### Techniques for Public Meetings/Workshops

- ✓ Open Houses
- ✓ Interactive exercises
- ✓ Customized presentations
- ✓ Evening time slot to make attendance more accessible
- ✓ Break-out sessions for smaller group participation during exercises
- ✓ Question-and-answer sessions with planners

### Workshops and Pop-Up Events

- ✓ Workshops Series 1 – Identify Needs and Discuss Scenario Alternatives
  - Webster Elementary, Madera Ranchos, CA
  - Training Room, City Hall, Chowchilla, CA
  - Oakhurst Community Center, Oakhurst, CA
  - MCTC Offices, Madera, CA
- ✓ Pop-up Events Series 1
  - Fairmead Health Fair, Fairmead Elementary School, Chowchilla, CA
  - First Five Event, First Five Family Resource Center, Chowchilla, CA
  - First Five Halloween Event, First Five Family Resource Center, Madera, CA
  - Cedar Chavez Elementary School Harvest Festival, Madera, CA
  - The Great American Smoke Out, Madera County Workforce Assist. Center, Madera, CA
  - La Vina Community Meeting, La Vina, CA
- ✓ Presentations Series 1
  - Raymond Town Hall
  - Yosemite Lakes Town Hall
  - Madera Town Hall
  - Oakhurst Town Hall
- ✓ Workshops Series 2 – Review/Discuss Alternative Scenarios
  - Council Chambers, City Hall, Chowchilla, CA
  - MCTC Office, Madera, CA

- Oakhurst Community Center, Oakhurst, CA
- Webster Elementary, Madera Ranchos, CA
- ✓ Presentations Series 2
  - Oakhurst Town Hall
  - Raymond Town Hall
- ✓ Workshop/Open House Series 3 – Review/Discuss Alternative Scenarios
  - MCTC Offices, Madera, CA
- ✓ Presentations Series 3
  - Coarsegold Town Hall
- ✓ Workshop/Open House Series 4 –Review Draft RTP/SCS
  - MCTC Offices, Madera, CA

#### Visualization Techniques

- ✓ Maps
- ✓ Graphs, illustrations, photographs, charts
- ✓ Electronic voting
- ✓ PowerPoint slide shows
- ✓ Charrette exercise
- ✓ Polls/Surveys
- ✓ Electronic surveys via Web
- ✓ Printed surveys distributed at pop-up events
- ✓ Polling exercise

#### Targeted Mailings/Fliers

- ✓ Place workshop fliers in businesses around the county
- ✓ Distribute Unmet Transit Needs fliers on board transit vehicles
- ✓ Mail to targeted database lists

#### Utilize Local Media

- ✓ Newspaper advertisements

#### Electronic Access to Information

- ✓ Website with updated content – [www.maderactc.org](http://www.maderactc.org)
- ✓ Electronic duplication of workshop materials
- ✓ Interactive web surveys
- ✓ Access to scenario boards
- ✓ Provide information in advance of public meeting

#### Notify Public via

- ✓ Blast e-mails
- ✓ Social media account on Facebook

- ✓ Printed materials
- ✓ Electronic access to information
- ✓ Local Media
- ✓ Notices placed on board transit vehicles
- ✓ Distribution of posters to businesses throughout the County

#### Techniques for Involving Environmental Justice Communities

- ✓ Outreach in the community (health fairs, pop-up events, community meetings, etc.)
- ✓ Partner with other agencies to reach the public at scheduled meetings/events
- ✓ Convert materials going out to the general public to an appropriate reading level
- ✓ Translate materials; have interpreters available at meetings as requested
- ✓ When conducting public outreach on regional plans/projects, develop explanations of the impacts to each city or local are involved
- ✓ Robust use of visualization techniques, including maps and graphics to illustrate trends

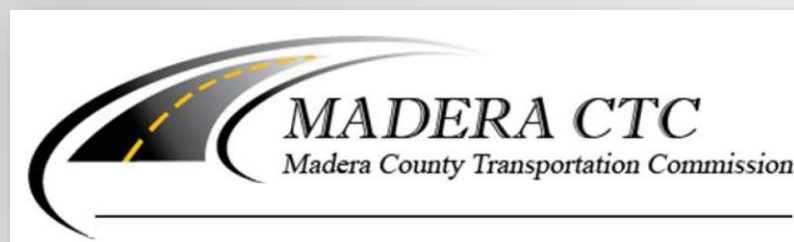
During the Series 2 workshops, MCTC staff presented results of the scenario modeling including results of the land use and farmland performance measures. Detailed descriptions of the land use allocation process were presented providing an informative review of the differences between the scenarios. In addition, there was an additional set of workshops/pop-up events that presented each of the scenarios and all of the performance measures of interest leading to a preferred scenario. In addition, 385 surveys were completed by members of the public regarding desired transportation improvements and land use development patterns.



# **ATTACHMENT B**

## **MCTC 2018 Regional Transportation Plan/ Sustainable Communities Strategy and Program Environmental Report**

### **Workshop Series 1 – 3**



MCTC 2018 Regional  
Transportation Plan /  
Sustainable Communities  
Strategy & Program  
Environmental Impact Report

**Workshop Series 1**  
**October 2017**



# YOUR MADERA 2042



## Presentation Overview:

- ✓ How Much are We Going to Grow?
- ✓ Community Investment
- ✓ What are the Concepts for Growth & Development?
- ✓ What is an RTP?
- ✓ What is an SCS?
- ✓ Workshop Purpose
- ✓ What is Your Role?
- ✓ Workshop Agenda
- ✓ What Outreach is Planned?
- ✓ What are the Next Steps?
- ✓ Questions/Comments?

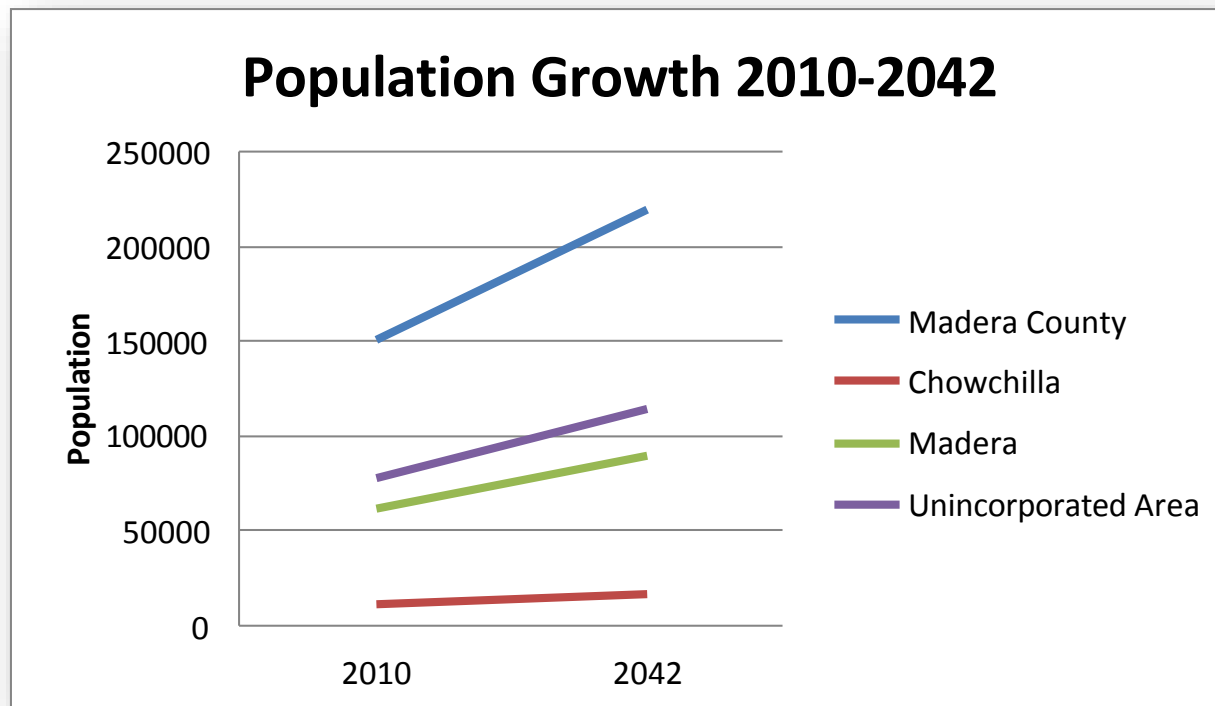


# YOUR MADERA 2042



## How Much are We Going to Grow?

- Madera County 2010 – 151,136 /2042 – 219,277
- City of Chowchilla 2010 – 12,091 /2042 – 16,314
- City of Madera 2010 – 61,966 /2042 – 89,268
- Unincorporated area 2010 – 77,079 /2042 – 113,695



# YOUR MADERA 2042



## It's About Investing in Our Community

### ➤ Changes in the way we grow must:

- Support a prosperous economy
- Provide more jobs in Madera County
- Protect open space and agriculture
- Consider the different ways we travel
- Increase affordable housing





# YOUR MADERA 2042



## It's About Investing in Our Community

### ➤ Reducing trips can be achieved by:

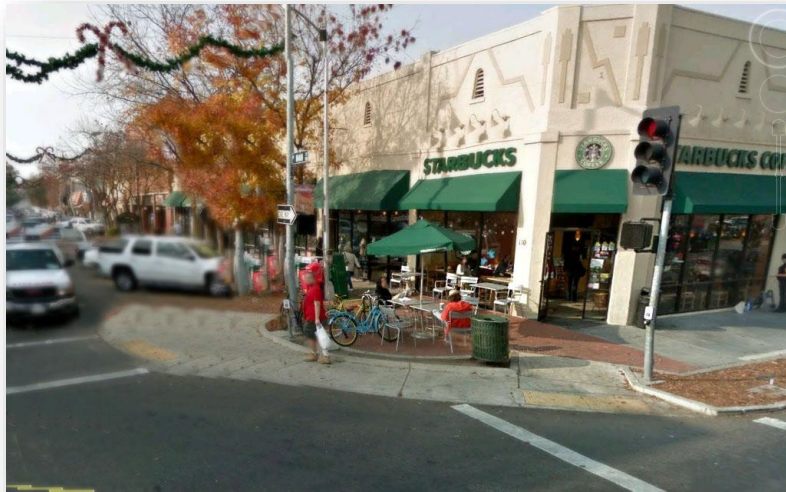
- Increasing housing density
- Placing housing where the jobs are
- Connecting transportation systems (vehicles, buses, bikes, pedestrian facilities)
- Improving the system so we can walk more
- Using public transit to access jobs





# YOUR MADERA 2042

## Livable/Walkable Communities



Madera Streetscape Vision



Main Street Visalia, CA





# YOUR MADERA 2042

## Livable/Walkable Communities



Oakhurst Streetscape Vision



Main Street Sonora, CA

# YOUR MADERA 2042

## Livable/Walkable Communities



Rio Mesa Vision



Stapleton, CO



# YOUR MADERA 2042

## Livable/Walkable Communities

### Meet Greenhouse Gas Targets

- Streetscapes & Landscapes
- Bicycle/Pedestrian Facilities
- Public Transit
- Parking Structures



# YOUR MADERA 2042



## Concepts for Growth & Development

- Began with the Madera County Regional Blueprint:
  - Vision & values for growth in Madera County
  - Established Growth Scenarios:
    - Status Quo Scenario – Growth and development will continue as it has in the past & continued expansion of the transportation system
    - Low Change Scenario – Preferred Alternative, housing densities are slightly increased & public transit is enhanced to address growth
    - Moderate Change Scenario – Shift to higher housing , expanded use of public transit (BRT)
    - High Change Scenario – Highest housing densities, Bus Rapid Transit & light rail transit systems were considered



# YOUR MADERA 2042



## Concepts for Growth & Development

- New 2018 Transportation Plan Process:
  - Assumes similar vision & values for growth in Madera County
  - Evaluating 3 Growth Scenarios from the 2014 RTP/SCS Process:
    - Status Quo Scenario – Continue to grow and develop as we have in the past & expand the transportation system
    - Low Change “Blueprint” Scenario – Housing densities are slightly increased and public transit is expanded to address growth
    - Hybrid Scenario – A combination of the Low Change Blueprint Scenario in the rural areas of the County (Chowchilla and unincorporated areas & communities) & Moderate Change Blueprint in the urban areas (City of Madera & Rio Mesa), an expanded public transit system, & potential for Bus Rapid Transit





# YOUR MADERA 2042



## What is a Regional Transportation Plan?

- Updated every 4 years as required by federal government
- Long-range transportation plan (20+ years)
- Identifies transportation projects and costs that are equal to expected transportation revenues



# YOUR MADERA 2042



## What is an RTP?

- Identifies Madera County's transportation goals
- Includes an action plan (2018 through 2042) to address transportation needs
- ***Required to contain a Sustainable Communities Strategy (SCS) by Senate Bill 375***
- Addresses Environmental Justice Issues



CD+A and UA

# YOUR MADERA 2042



## What is a Sustainable Communities Strategy?

SB 375 defines an SCS as....“a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from light trucks and cars, to achieve, if feasible, the greenhouse gas emission reduction targets approved by the Air Resource Board”



# YOUR MADERA 2042



## More Specifically, an SCS:

- Must demonstrate how Madera County will meet the California's greenhouse gas (GHG) emissions reduction targets
- Better integrates land use, housing & transportation planning
- Identifies existing or planned land use strategies that help reduce vehicular travel [or green house gases]
- Identifies areas that will house the future population
- Determines the transportation network or systems to serve the growing population





# YOUR MADERA 2042



## What is the Purpose of this Workshop?

- Help MCTC Develop the RTP and SCS for the Madera County Region



# YOUR MADERA 2042



## What is your role?

- Participate in outreach events, meetings, and workshops with affected local agencies, stakeholders, and other interested and affected individuals in Madera County
- Attend scheduled workshops
- Provide your opinion regarding preparation of the RTP and SCS



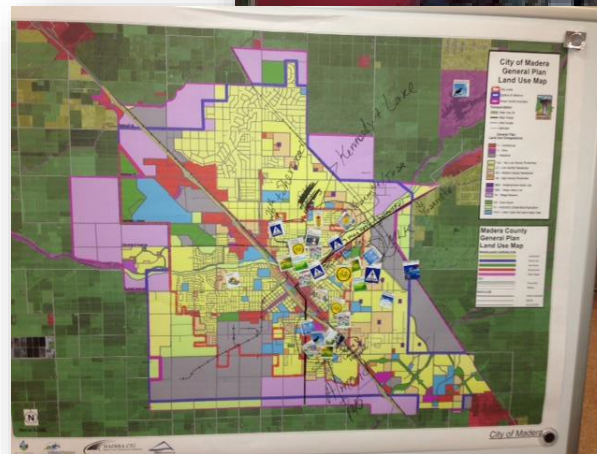


# YOUR MADERA 2042



## What is your role?

- Motivate others to participate in workshops held throughout the County
- Discuss and provide your input regarding potential Transportation Plan alternatives



# YOUR MADERA 2042



## Today's Agenda

- Discussion & Instant Polling Exercise
- Break-Out Group Mapping Exercise
- Presentation of Mapping Exercise Results to Entire Group
- Polling Exercise
- Wrap-up/Next Steps
- Raffle!

# YOUR MADERA 2042



## What Outreach is Planned?

- Workshop Series 1: 4 Workshops & Pop-Up Events to Receive Input & Identify Desired Land Use & Transportation Strategies (Charrettes & Polling)
- Workshop Series 2: 4 Workshops & Pop-Up Events to Receive Input on the desired Land Use & Transportation Scenario (Charrettes & Polling)
- Public Hearings during release of the Draft RTP/SCS & PEIR & in Summer 2018 to adopt the RTP/SCS & Certify the PEIR



# YOUR MADERA 2042



## What are the Next Steps?

- **October 2017** - Workshop Series 1: 4 Workshops to Receive Input & Identify Desired Land Use & Transportation Strategies
- **October 2017** - Identify and Analyze Multimodal Transportation Projects
- **November/December 2017** - Analyze SCS Scenarios
- **Winter 2017/2018** - Workshop Series 2: 4 Workshops to Receive Input on the desired Land Use & Transportation Scenario
- **Winter 2017/2018** – MCTC Board Approve Preferred SCS Scenario
- **Winter 2018** - Prepare the RTP/SCS and PEIR Documents
- **Spring 2018** - Release the Draft RTP/SCS and PEIR for Public Review and Comment
- **Spring 2018** - Hold a Public Hearing During Public Review of the Draft RTP/SCS & PEIR
- **Summer 2018** - Hold a Public Hearing to adopt the RTP/SCS & Certify the PEIR

# YOUR MADERA 2042



## Questions / Comments







MCTC 2018 Regional  
Transportation Plan /  
Sustainable Communities  
Strategy & Program  
Environmental Impact Report

**Workshop Series 2**  
**March 2018**





# YOUR MADERA 2042



## Presentation Overview:

- ✓ How Much are We Going to Grow?
- ✓ Community Investment
- ✓ What are the Concepts for Growth & Development?
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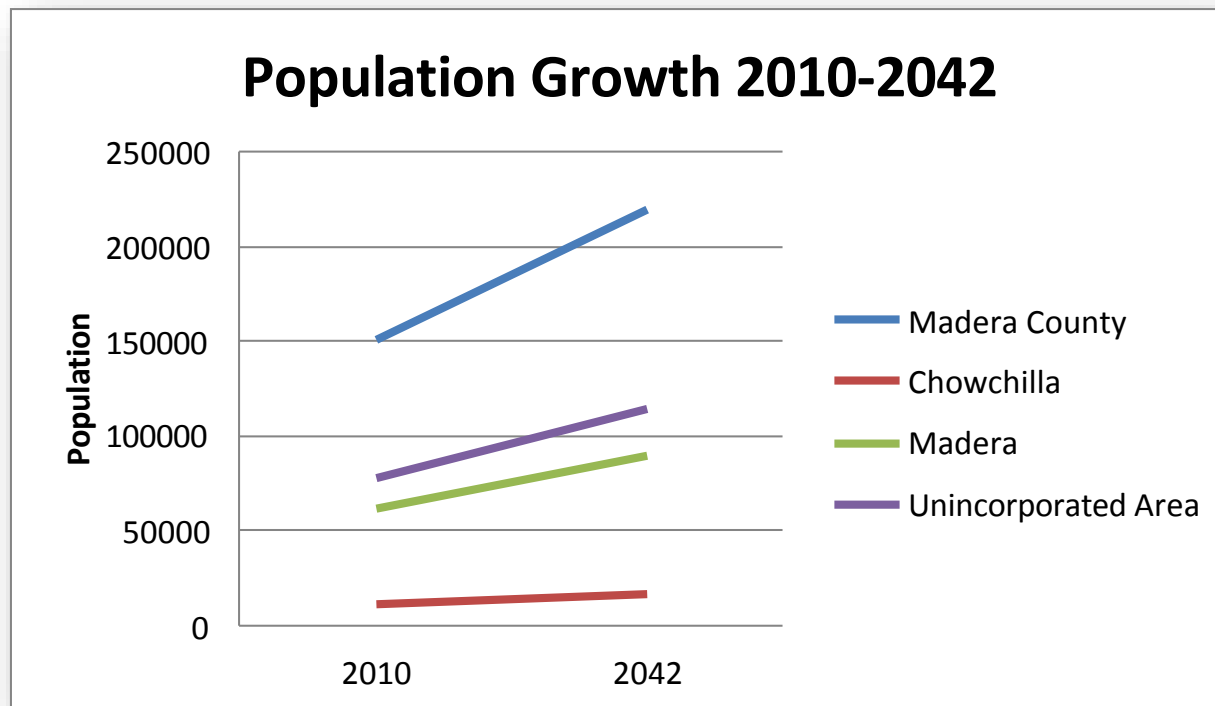


# YOUR MADERA 2042



## How Much are We Going to Grow?

- Madera County 2010 – 151,136 /2042 – 219,277
- City of Chowchilla 2010 – 12,091 /2042 – 16,314
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- Unincorporated area 2010 – 77,079 /2042 – 113,695



# YOUR MADERA 2042



## It's About Investing in Our Community

### ➤ Changes in the way we grow must:

- Support a prosperous economy
- Provide more jobs in Madera County
- Protect open space and agriculture
- Consider the different ways we travel
- Increase affordable housing



# YOUR MADERA 2042



## It's About Investing in Our Community

### ➤ Reducing trips can be achieved by:

- Increasing housing density
- Placing housing where the jobs are
- Connecting transportation systems (vehicles, buses, bikes, pedestrian facilities)
- Improving the system so we can walk more
- Using public transit to access jobs





# YOUR MADERA 2042



## What is an RTP?

- Identifies Madera County's transportation goals
- Includes an action plan (2018 through 2042) to address transportation needs
- ***Required to contain a Sustainable Communities Strategy (SCS) by Senate Bill 375***
- Addresses Environmental Justice Issues



CD+A and UA

# YOUR MADERA 2042



## More Specifically, an SCS:

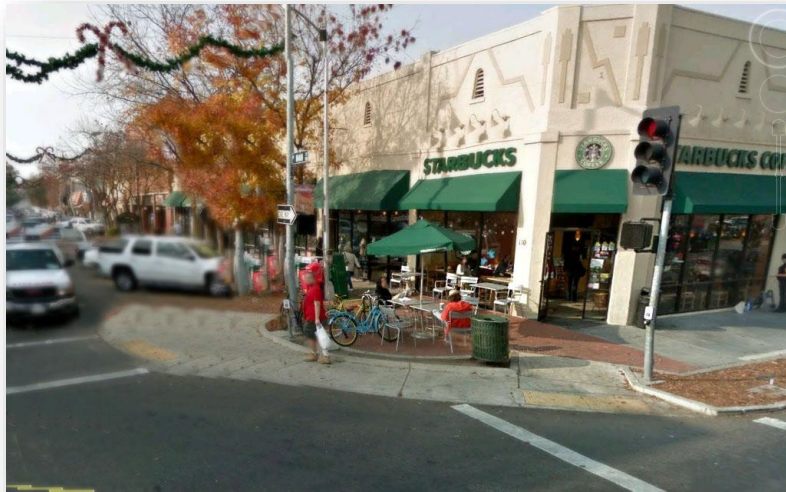
- Must demonstrate how Madera County will meet the California's greenhouse gas (GHG) emissions reduction targets
- Better integrates land use, housing & transportation planning
- Identifies existing or planned land use strategies that help reduce vehicular travel [or green house gases]
- Identifies areas that will house the future population
- Determines the transportation network or systems to serve the growing population





# YOUR MADERA 2042

## Livable/Walkable Communities



Madera Streetscape Vision



Main Street Visalia, CA





# YOUR MADERA 2042

## Livable/Walkable Communities



Oakhurst Streetscape Vision



Main Street Sonora, CA

# YOUR MADERA 2042

## Livable/Walkable Communities



Rio Mesa Vision



Stapleton, CO



# YOUR MADERA 2042

## Livable/Walkable Communities

### RTP/SCS Must Meet Greenhouse Gas Targets

- Streetscapes & Landscapes
- Bicycle/Pedestrian Facilities
- Public Transit
- Parking Structures



# YOUR MADERA 2042



## Concepts for Growth & Development

### Status Quo Scenario

- Transportation Options Available to all Residents as Provided Historically
- Focus on the Existing Trend of Driving as the Primary Form of Travel
- Existing Land Use Density Trends (Generally Below Mid-point of Each of the General Plan's Land Use Category Density Ranges) for Housing & Employment
- Includes a Lower Number of Under-developed Parcels with the Potential to Redevelop to Higher Density Uses



# YOUR MADERA 2042

## Concepts for Growth & Development

### 2014 RTP/SCS Hybrid Scenario

- Transportation Options Available to all Residents
- Investing in All Transportation Modes
- Uses Existing & Planned Transit Routes to Attract New Development
- Encourages People to Use Their Cars Less
- Consistent with 2014 RTP & SCS
- Moderate Density Increases in the City of Madera & Rio Mesa
- Low Density Increases in Chowchilla & Other Communities
- Land Use Densities Shift Marginally Higher Except Very Low & Low
- Employment Floor Area Ratio (FAR) is also Marginally Increased
- Lower Number of Under-developed Parcels with the Potential to Redevelop to





## Higher Density Uses

# YOUR MADERA 2042

## Concepts for Growth & Development



### Moderate Change Scenario

- Transportation Options Available to all Residents
- Increases Existing & Planned Bicycle, Pedestrian & Transit Systems as Factors to Further Attract New Development
- Increases County Areas & Chowchilla Residential Densities to Moderate Levels
- Madera City & Rio Mesa - Marginally Increases the Residential Density for Medium & Medium High Residential Categories
- Density Shifts are Marginally Higher in all Housing Categories Except Very Low & Low Categories
- The Employment FAR for Commercial High is
- Further Increased by .25 for all Subareas Except Unincorporated County
- Includes the Same Number of Under-developed Parcels with the Potential to Redevelop as the 2014 RTP/SCS



# YOUR MADERA 2042



## What is the Purpose of this Workshop?

- Receive **Additional Input** on the Desired Land Use & Transportation Scenario



# YOUR MADERA 2042



## What are the Next Steps?

- **March/April 2018** – Continue to Analyze the SCS Scenarios
- **March 2018** - Workshop Series 2: 4 Workshops to Receive **Additional Input** on the Desired Land Use & Transportation Scenario
- **April 2018** – Workshop Series 3: Workshops to Receive **Public Input on the Recommended or Preferred** 2018 RTP/SCS Land Use & Transportation Scenario
- **April 2018** – Roundtable and MCTC Board **Approve Preferred SCS Scenario**
- **April - May 2018** - Prepare the RTP/SCS and PEIR Documents
- **May 2018** - Release the Draft RTP/SCS and PEIR for 55-day Public Review and Comment (**Release for Comment on Friday, May 25, 2018. Comment Period Ends on Friday, July 20, 2018**)
- **May or June 2018** - Hold a Public Hearing During Public Review of the Draft RTP/SCS & PEIR (TBD)
- **August 2018** - Hold a Public Hearing to Certify the PEIR & adopt the RTP/SCS (**Wednesday, August 15, 2018 at MCTC Offices**)

# YOUR MADERA 2042



## Questions / Comments





MCTC 2018 Regional  
Transportation Plan /  
Sustainable Communities  
Strategy & Program  
Environmental Impact Report

**Workshop Series 3**  
**April 12, 2018**





# YOUR MADERA 2042

## Livable/Walkable Communities

RTP/SCS Must be Prepared Every 4 Years & Must Meet Greenhouse Gas Targets through:

- Streetscapes & Landscapes
- Bicycle/Pedestrian Facilities
- Public Transit
- Street and Highways
- Trip Reduction Strategies



# YOUR MADERA 2042

## Latest Outreach

### ✓ RTP/SCS Workshop Series 2:

- ☐ Madera Ranchos
- ☐ Oakhurst
- Chowchilla
- City of Madera
- Town Hall Meetings

### ✓ On-Line and Special Event Surveys



# YOUR MADERA 2042

## On-Line & Special Event Surveys

- ✓ Received 385 Completed Surveys
- ✓ Main Findings:
  - Most believe improving **local streets and roads** is the most important thing to consider when spending scarce transportation dollars
  - There were a lot of good comments & suggestions including:
    - **Transit** Improvements
    - **Bicycle & Pedestrian** Improvements (specifically around local schools)
    - **Enhanced Landscape & Streetscape** Around the Communities in Madera County





# YOUR MADERA 2042

## Modal Project Funding – RTP/SCS Scenarios

A program of Modal Projects is being prepared to develop the Financial Element considering:

- ✓ Type of Funding
- ✓ Available Funding by Type
- ✓ Timing of Available Funding
- ✓ Committed Projects & Funding
- ✓ Scenario Characteristics



# YOUR MADERA 2042



## Concepts for Growth & Development

### Madera City

		2014		2018		
PARAMETERS		Status Quo	Low Change	Hybrid Change	Moderate Change	
1	Demographic Shift in Housing Share					
		5,808	5,808	5,808	5,808	
		Very Low	0.0%	0.0%	0.0%	0.0%
		Low	1.8%	1.8%	1.0%	1.0%
		Medium	82.0%	71.0%	65.0%	65.0%
		Medium High	13.0%	20.0%	22.0%	22.0%
		High	3.2%	7.2%	12.0%	12.0%
			100%	100%	100%	100%
2	Change in Lot Sizes					
		Very Low	20 ac (0.05 du/ac)	20 ac (0.05 du/ac)	20 ac (0.05 du/ac)	20 ac (0.05 du/ac)
		Low	1 ac (1.0 du/ac)	1 ac (1.0 du/ac)	1 ac (1.0 du/ac)	1 ac (1.0 du/ac)
		Medium	0.16 ac (6.25 du/ac )	0.13 ac (7.7 du/ac )	0.13 ac (7.7 du/ac )	0.11 ac (9.1 du/ac )
		Medium High	0.08 ac (12.5 du/ac)	0.07 ac (14.3 du/ac)	0.068 ac (14.76 du/ac)	0.063 ac (15.88 du/ac)
		High	0.05 ac (20 du/ac )	0.045 ac (22.2 du/ac )	0.04 ac (25 du/ac )	0.04 ac (25 du/ac)
3	Persons Per Household Employees Per Houshold	3.00	3.00	3.00	3.00	
		1.76	1.76	1.76	1.76	
4	Demographic Shift in Employment Share		10,211	10,211	10,211	
		Industrial	30.0%	30.0%	30.0%	30.0%
		Commercial Low	60.0%	60.0%	55.0%	55.0%
		Commercial High	10.0%	10.0%	15.0%	15.0%
			100%	100%	100%	100%
5	Change in Intensities					
		Industrial	0.25 FAR (825 sf/emp)	0.25 FAR (825 sf/emp)	0.25 FAR (825 sf/emp)	0.25 FAR (825 sf/emp)
		Commercial Low	0.3 FAR (500 sf/emp)	0.325 FAR (500 sf/emp)	0.325 FAR (500 sf/emp)	0.325 FAR (500 sf/emp)
		Commercial High	0.425 FAR (400 sf/emp)	0.45 FAR (400 sf/emp)	0.45 FAR (400 sf/emp)	0.45 FAR (400 sf/emp)
7	Transportation Enhancements	New Freeway Ramps	Regional Transit Network (RTN)			
			Enhanced Existing Transit			

# YOUR MADERA 2042



## Concepts for Growth & Development

### Chowchilla City

		2014	2018
PARAMETERS	Status Quo	Hybrid Change	Moderate Change
1 Demographic Shift in Housing Share	1,285	1,285	1,285
	Very Low 0.3%	0.3%	0.3%
	Low 6.5%	6.5%	6.5%
	Medium 80.0%	80.0%	80.0%
	Medium High 12.5%	12.5%	12.5%
	High 0.8%	0.8%	0.8%
	100%	100%	100%
2 Change in Lot Sizes	20 ac (0.05 du/ac)	20 ac (0.05 du/ac)	20 ac (0.05 du/ac)
	1 ac (1.0 du/ac)	1 ac (1.0 du/ac)	1 ac (1.0 du/ac)
	Medium 0.16 ac (6.25 du/ac )	0.1428 ac (7.0 du/ac)	0.1428 ac (7.0 du/ac)
	Medium High 0.08 ac (12.5 du/ac)	0.07 ac (14.3 du/ac)	0.068 ac (14.76 du/ac)
	High 0.05 ac (20 du/ac )	0.045 ac (22.2 du/ac )	0.04 ac (25 du/ac )
3 Persons Per Household Employees Per Household	3.13	3.13	3.13
	1.54	1.54	1.54
4 Demographic Shift in Employment Share	1,973	1,973	1,973
	Industrial 24.0%	24.0%	24.0%
	Commercial Low 67.8%	67.8%	67.8%
	Commercial High 8.2%	8.2%	8.2%
	100%	100%	100%
5 Change in Intensities			
	Industrial 0.2 FAR (825 sf/emp)	0.22 FAR (825 sf/emp)	0.22 FAR (825 sf/emp)
	Commercial Low 0.2 FAR (500 sf/emp)	0.25 FAR (500 sf/emp)	0.25 FAR (500 sf/emp)
	Commercial High 0.4 FAR (400 sf/emp)	0.4 FAR (400 sf/emp)	0.4 FAR (400 sf/emp)
7 Transportation Enhancements	New Freeway Ramps	Regional Transit Network (RTN)	
		Enhanced Existing Transit	



# YOUR MADERA 2042



## Concepts for Growth & Development

### SE-Madera

PARAMETERS		Status Quo	Low Change	2014 Hybrid Change	2018 Moderate Change
1	<b>Demographic Shift in Housing Share</b>	7,815	7,815	7,815	7,815
	Very Low	0.1%	0.1%	0.05%	0.1%
	Low	4.2%	4.2%	3.0%	3.0%
	Medium	82.0%	74.8%	70.8%	70.8%
	Medium High	12.0%	18.2%	20.2%	20.2%
	High	1.8%	2.8%	6.0%	6.0%
		100%	100%	100%	100%
2	<b>Change in Lot Sizes</b>				
	Very Low	20 ac (0.05 du/ac)	20 ac (0.05 du/ac)	20 ac (0.05 du/ac)	20 ac (0.05 du/ac)
	Low	1 ac (1.0 du/ac)	1 ac (1.0 du/ac)	1 ac (1.0 du/ac)	1 ac (1.0 du/ac)
	Medium	0.16 ac (6.25 du/ac )	0.13 ac (7.7 du/ac )	0.13 ac (7.7 du/ac )	0.11 ac (9.1 du/ac )
	Medium High	0.08 ac (12.5 du/ac)	0.07 ac (14.3 du/ac)	0.068 ac (14.76 du/ac)	0.063 ac (15.88 du/ac)
	High	0.05 ac (20 du/ac )	0.045 ac (22.2 du/ac )	0.04 ac (25 du/ac )	0.04 ac (25 du/ac)
3	<b>Persons Per Household</b>	2.84	2.84	2.84	2.84
	<b>Employees Per Houshold</b>	0.56	0.56	0.56	0.56
4	<b>Demographic Shift in Employment Share</b>	4378	4378	4,378	4378
	Industrial	16.2%	16.2%	18.0%	16.2%
	Commercial Low	76.2%	76.2%	72.2%	76.2%
	Commercial High	7.6%	7.6%	9.8%	7.6%
		100%	100%	100%	100%
5	<b>Change in Intensities</b>				
	Industrial	0.2 FAR (825 sf/emp)	0.25 FAR (825 sf/emp)	0.25 FAR (825 sf/emp)	0.25 FAR (825 sf/emp)
	Commercial Low	0.2 FAR (500 sf/emp)	0.3 FAR (500 sf/emp)	0.3 FAR (500 sf/emp)	0.3 FAR (500 sf/emp)
	Commercial High	0.4 FAR (400 sf/emp)	0.45 FAR (400 sf/emp)	0.45 FAR (400 sf/emp)	0.45 FAR (400 sf/emp)
7	<b>Transportation Enhancements</b>	New Freeway Ramps	Regional Transit Network (RTN)		
			Enhanced Existing Transit		

# YOUR MADERA 2042



## Concepts for Growth & Development

### County

PARAMETERS		Status Quo	2014 Hybrid Change	2018 Moderate Change
1	<b>Demographic Shift in Housing Share</b>	3,520	3,520	3,520
	Very Low	3.0%	3.0%	3.0%
	Low	53.0%	53.0%	53.0%
	Medium	42.0%	42.0%	42.0%
	Medium High	2.0%	2.0%	2.0%
	High	0.0%	0.0%	0.0%
		100.00%	100.00%	100.00%
2	<b>Change in Lot Sizes</b>			
	Very Low	20 ac (0.05 du/ac)	20 ac (0.05 du/ac)	20 ac (0.05 du/ac)
	Low	1 ac (1.0 du/ac)	1 ac (1.0 du/ac)	1 ac (1.0 du/ac)
	Medium	0.16 ac (6.25 du/ac )	0.1428 ac (7.0 du/ac)	0.1428 ac (7.0 du/ac)
	Medium High	0.08 ac (12.5 du/ac)	0.07 ac (14.3 du/ac)	0.068 ac (14.76 du/ac)
	High	0.05 ac (20 du/ac )	0.045 ac (22.2 du/ac )	0.04 ac (25 du/ac )
3	<b>Persons Per Household</b>	3.15	3.28	3.15
	<b>Employees Per Houshold</b>	1.41	1.41	1.41
4	<b>Demographic Shift in Employment Share</b>	4975	4,975	4975
	Industrial	23.9%	23.9%	23.9%
	Commercial Low	75.1%	75.1%	75.1%
	Commercial High	1.0%	1.0%	1.0%
		100.00%	100.00%	100.00%
5	<b>Change in Intensities</b>			
	Industrial	0.2 FAR (825 sf/emp)	0.22 FAR (825 sf/emp)	0.2 FAR (825 sf/emp)
	Commercial Low	0.2 FAR (500 sf/emp)	0.25 FAR (500 sf/emp)	0.2 FAR (500 sf/emp)
	Commercial High	0.4 FAR (400 sf/emp)	0.4 FAR (400 sf/emp)	0.4 FAR (400 sf/emp)
7	<b>Transportation Enhancements</b>	New Freeway Ramps	Regional Transit Network (RTN)	
			Enhanced Existing Transit	

# YOUR MADERA 2042



## Concepts for Growth & Development

### Status Quo Scenario

- Transportation Options Available to all Residents as Provided Historically
- Focus on the Existing Trend of Driving as the Primary Form of Travel
- Existing Land Use Density Trends (Generally Below Mid-point of Each of the General Plan's Land Use Category Density Ranges) for Housing & Employment
- Includes a Lower Number of Under-developed Parcels with the Potential to Redevelop to Higher Density Uses







# YOUR MADERA 2042

## Concepts for Growth & Development

### Status Quo Scenario



## Scenario 1 - Status Quo

Development Patterns and Transportation Improvements as Provided for in the Past



### LIFE IN 2042:

*Provide transportation options to all Madera County residents, as we have provided for in the past, focusing on the existing trend of driving as the primary form of travel*



*Utilizes existing land use density trends (generally below mid-point of each of the General Plan's land use category density ranges) for housing & employment & includes a lower number of under-developed parcels with the potential to redevelop to higher density uses*



### HOW WOULD WE BENEFIT?

If the strategies for this scenario are implemented, the following would result:

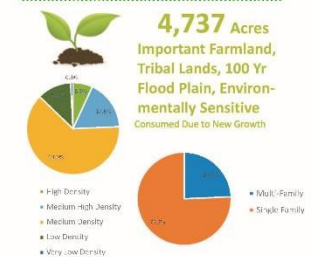
#### TRANSPORTATION



#### GHG REDUCTION



#### LAND USE



# YOUR MADERA 2042

## Concepts for Growth & Development

### 2014 RTP/SCS Hybrid Scenario

- Transportation Options Available to all Residents
- Investing in All Transportation Modes
- Uses Existing & Planned Transit Routes to Attract New Development
- Encourages People to Use Their Cars Less
- Consistent with 2014 RTP & SCS
- Moderate Density Increases in the City of Madera & Rio Mesa
- Low Density Increases in Chowchilla & Other Communities
- Land Use Densities Shift Marginally Higher Except Very Low & Low
- Employment Floor Area Ratio (FAR) is also Marginally Increased
- Lower Number of Under-developed Parcels with the Potential to Redevelop to





## Higher Density Uses



# YOUR MADERA 2042

## Concepts for Growth & Development

### 2014 RTP/SCS Hybrid Scenario



## Scenario 2 - 2042 RTP/SCS Hybrid

2018 Hybrid Development Patterns and Transportation Improvements as Provided for in the 2014 RTP/SCS

### LIFE IN 2042:

Consistent with 2014 RTP & SCS Hybrid Scenario Assumptions:

- Make Transportation Options Available to all Madera County Residents
- Invest in More Transportation Modes Including Existing & New
- Development & to Encourage People to Use Their Cars Less



Madera County  
attract New

2042

- Moderate Density Increases in the City of Madera & Rio Mesa
- Low Density Increases in Chowchilla & Other Communities
- Land Use Densities Shift Marginally Higher in all Housing Categories Except Very low & Low
- Employment Floor Area Ratio (FAR) is also Marginally Increased
- Lower Number of Under-developed Parcels with the Potential to Redevelop to Higher Density Uses



### HOW WOULD WE BENEFIT?

If the strategies for this scenario are implemented, the following would result:

#### TRANSPORTATION



**6,009,603**  
Vehicle Miles  
Traveled



**22,771**  
Weekday Trips  
by Bike, Walk, or  
Transit



**3.22 %**  
Jobs Within  
1/4 Mile of Transit



**Average Travel  
Time In Minutes  
By Trip Purpose**

Work Trips - 17.8  
Other Home  
Based Trips - 10.8  
All Other Trips - 8.3



**25.30 %**  
Housing Within  
1/4 Mile of Transit

#### GHG REDUCTION

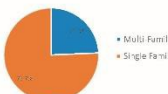
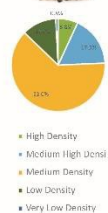


**Per Capita Change:**  
2005-2020 = -12.4%  
2005-2035 = -17.6%  
**GHG Targets:**  
2005-2020 = -5%  
2005-2035 = -10%

#### LAND USE



**3,924 Acres**  
Important Farmland,  
Tribal Lands, 100 Yr  
Flood Plain, Environ-  
mentally Sensitive  
Consumed Due to New Growth





# YOUR MADERA 2042

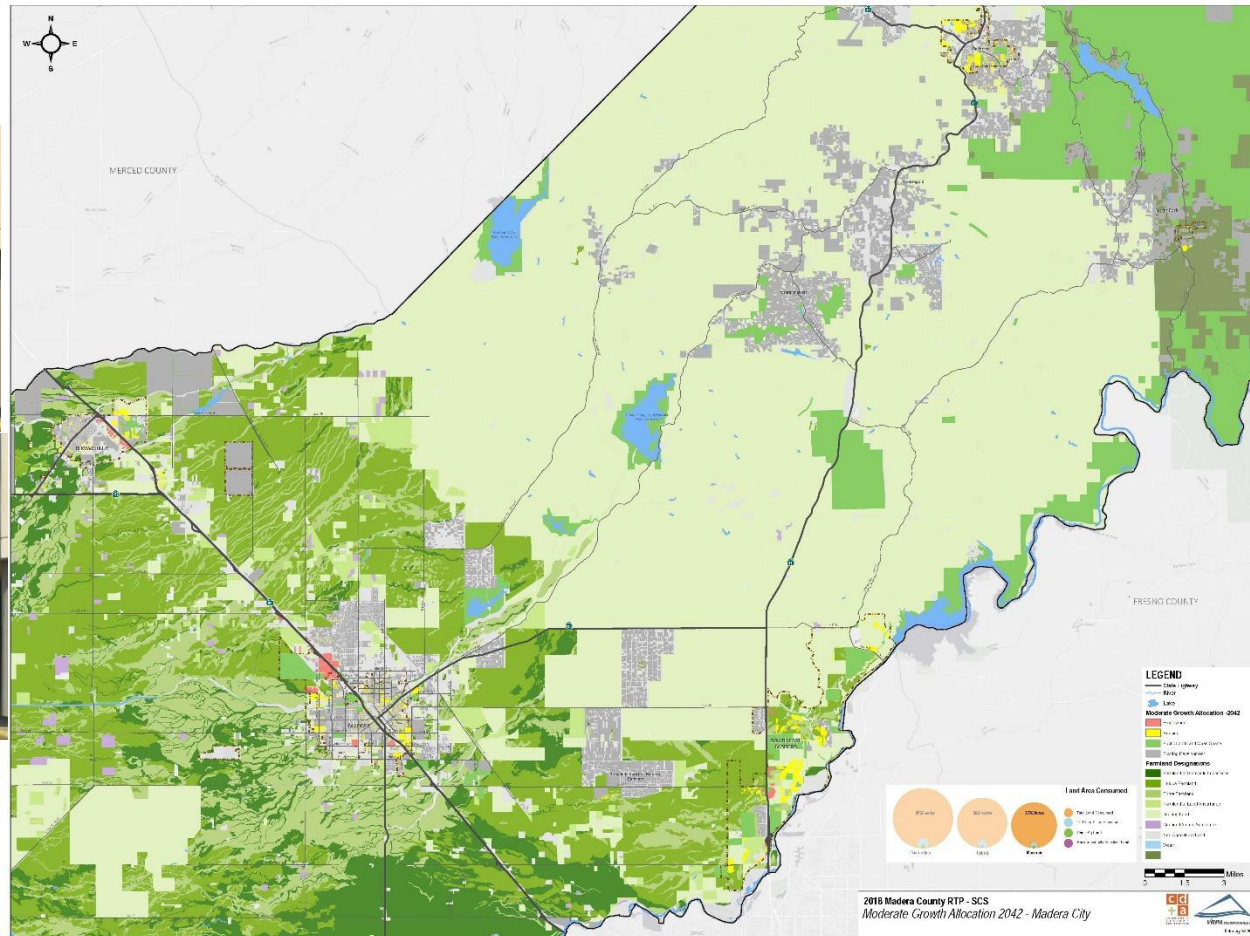
## Concepts for Growth & Development

### Moderate Change Scenario

- Transportation Options Available to all Residents
- Slightly Increases Existing & Planned Bicycle, Pedestrian & Transit Systems as Factors to Further Attract New Development
- Slightly Increases County Areas & Chowchilla Residential Densities to Moderate Levels
- Madera City & Rio Mesa - Marginally Increases the Residential Density for Medium & Medium High Residential Categories
- Density Shifts are Marginally Higher in all Housing Categories Except Very Low & Low Categories
- The Employment FAR for Commercial High is Further Increased by .25 for all Subareas Except Unincorporated County
- Includes the Same Number of Under-developed Parcels with the Potential to



Redevelop as the 2014 RTP/SCS





# YOUR MADERA 2042

## Concepts for Growth & Development Moderate Change Scenario



### Scenario 3 - M

Moderate Development  
& Enhanced Transportation Improvements



#### LIFE IN 2042:

*Increases Existing & Planned Bicycle, Pedestrian & Transit Systems  
as Factors to Further Attract New Development*



Madera  
County

2042

- Increases County Areas & Chowchilla Residential Densities to Moderate Levels For Madera City & Rio Mesa
- Marginally Increases the Residential Density for Medium & Medium High Residential Categories
- Density Shifts are Marginally Higher in all Housing Categories Except Very Low & Low Categories
- The Employment FAR for Commercial High Further Increased by .25 for all Subareas Except County
- Includes the Same Number of Under-developed Parcels with the Potential to Redevelop as the 2015 Hybrid 2018 Update.



#### HOW WOULD WE BENEFIT?

If the strategies for this scenario are implemented, the following would result:

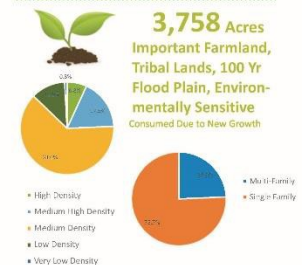
##### TRANSPORTATION



##### GHG REDUCTION



##### LAND USE



# YOUR MADERA 2042

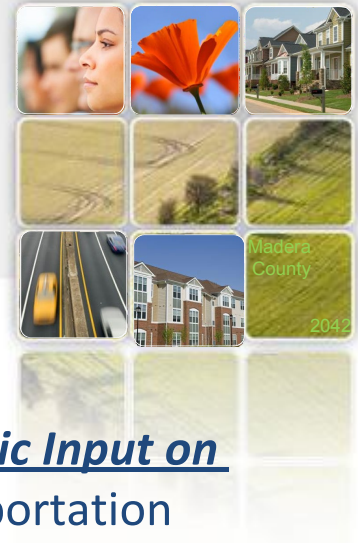


## What is the Purpose of this Meeting?

- Receive **a Recommendation** on the Desired 2018 RTP/SCS Land Use & Transportation Scenario



# YOUR MADERA 2042



## What are the Next Steps?

- ***April 2018*** – Workshop 3: Open House Workshop to Receive **Public Input on the Recommended or Preferred** 2018 RTP/SCS Land Use & Transportation Scenario
- ***April 2018*** –MCTC Board **Approve Preferred SCS Scenario**
- ***April - May 2018*** - Prepare the RTP/SCS and PEIR Documents
- ***End of May 2018*** - Release the Draft RTP/SCS and PEIR for 55-day Public Review and Comment
- ***May or June 2018*** - Hold a Public Hearing During Public Review of the Draft RTP/SCS & PEIR (TBD)
- ***Mid August 2018*** - Hold a Public Hearing to Certify the PEIR & adopt the RTP/SCS

# YOUR MADERA 2042



## Questions / Comments



# MCTC RTP CHECKLIST





## APPENDIX D

### MCTC RTP CHECKLIST

## **Regional Transportation Plan Checklist for MPOs**

(Revised March 2018)

*(To be completed electronically in Microsoft Word format by the MPO and submitted along with the draft and final RTP to Caltrans)*

**Nameo/MPO:** Madera County Transportation Commission (MCTC)

**Date Draft RTP Completed:** May 30, 2018

**RTP Adoption Date:** September 19, 2018

**What is the Certification Date of the Environmental Document (ED)?** September 19, 2018

**Is the ED located in the RTP or is it a separate document?** Separate

*By completing this checklist, the MPO verifies the RTP addresses all of the following required information within the RTP.*

### **Regional Transportation Plan Contents**

#### **General**

	Yes/No	Page#
1. Does the RTP address no less than a 20-year planning horizon? (23 CFR 450.324(a))	<b>X</b>	1-1
2. Does the RTP include both long-range and short-range strategies/actions? (23 CFR 450.324(b))	<b>X</b>	4-1, 5-1, 7-1
3. Does the RTP address issues specified in the policy, action and financial elements identified in California Government Code Section 65080?	<b>X</b>	4-1, 5-1 7-1
4. Does the RTP address the 10 issues specified in the Sustainable Communities Strategy (SCS) component as identified in Government Code Sections 65080(b)(2)(8) and 65584.04(i)(1)?	<b>X</b>	6-1
a. Identify the general location of uses, residential densities, and building intensities within the region?	<b>X</b>	6-6, 6-10, 6-13, through 6-17
b. Identify areas within the region sufficient to house all the population of the region, including all economic segments of the population over the course of the planning period of the regional transportation plan taking into account net migration into the region, population growth, household formation and employment growth?	<b>X</b>	6-13
c. Identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region pursuant to	<b>X</b>	6-27

Government Code Section 65584?

- d. Identify a transportation network to service the transportation needs of the region?
- e. Gather and consider the best practically available scientific information regarding resource areas and farmland in the region as defined in subdivisions (a) and (b) of Government Code Section 65080.01?
- f. Consider the state housing goals specified in Sections 65580 and 65581?
- g. Utilize the most recent planning assumptions, considering local general plans and other factors?
- h. Set forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction targets approved by the ARB?
- i. Provide consistency between the development pattern and allocation of housing units within the region (Government Code 65584.04(i)(1))?
- J. Allow the regional transportation plan to comply with Section 176 of the federal Clean Air Act (42 U.S.C. Section 7506)?

X	5-1 6-7
X	6-21
X	6-7
X	6-9
X	6-9, 6-21
X	6-9
X	Draft EIR 3-44 & Conformity Finding
X	5-1
X	2-9, 5-7
X	9-1
N/A	9-1
X	6-1, 9-1
X	7-1 and 9-1

5. Does the RTP include Project Intent i.e. Plan Level Purpose and Need Statements?

6. Does the RTP specify how travel demand modeling methodology, results and key assumptions were developed as part of the RTP process? (Government Code 14522.2)

7. Does the RTP contain a System Performance Report? (23 CFR 450.324 (f))

- a. Does the report include a description of the performance measures and performance targets used in assessing the performance of the transportation system?
- b. Does the report show the progress achieved in meeting performance targets in comparison with the performance in previous reports?
- c. Does the report include an evaluation of how the preferred scenario has improved conditions and performance, where applicable?
- d. Does the report include an evaluation of how local policies and investments have impacted costs necessary to achieve identified performance targets, where applicable?

## Consultation/Cooperation

1. Does the RTP contain a public involvement program that meets the requirements of Title 23, CFR 450.316(a)?

- (i) Providing adequate public notice of public participation activities and time for public review and comment at key decision points, including a reasonable opportunity to comment on the proposed metropolitan transportation plan and the TIP;
- (ii) Providing timely notice and reasonable access to information about transportation issues and processes;
- (iii) Employing visualization techniques to describe metropolitan transportation plans and TIPs;
- (iv) Making public information (technical information and meeting notices) available in electronically accessible formats and means, such as the World Wide Web;
- (v) Holding any public meetings at convenient and accessible locations and times;
- (vi) Demonstrating explicit consideration and response to public input received during the development of the metropolitan transportation plan and the TIP;

Yes/No	Page#
X	8-1
X	8-1
X	8-1
X	8-1
X	8-1
X	8-1

- (vii) Seeking out and considering the needs of those traditionally underserved by existing transportation systems, such as low-income and minority households, who may face challenges accessing employment and other services;
- (viii) Providing an additional opportunity for public comment, if the final metropolitan transportation plan or TIP differs significantly from the version that was made available for public comment by the MPO and raises new material issues that interested parties could not reasonably have foreseen from the public involvement efforts;
- (ix) Coordinating with the statewide transportation planning public involvement and consultation processes under subpart B of this part; and
- (x) Periodically reviewing the effectiveness of the procedures and strategies contained in the participation plan to ensure a full and open participation process.

X	8-1
X	8-1
X	8-1 Caltrans member of RTPISCS Roundtable
X	B-1

2. Does the RTP contain a summary, analysis, and report on the disposition of significant written and oral comments received on the draft metropolitan transportation plan as part of the final metropolitan transportation plan and TIP that meets the requirements of 23 CFR 450.316(a)(2), as applicable?

N/A	N/A
-----	-----

3. Did the MPOIRTPA consult with the appropriate State and local representatives including representatives from environmental and economic communities; airport; transit; freight during the preparation of the RTP? (23 CFR 450.316(b))

X	8-1 Caltrans member of RTPISCS Roundtable
---	---

4. Did the MPOIRTPA who has federal lands within its jurisdictional boundary involve the federal land management agencies during the preparation of the

X	Draft EIR A-1
---	---------------

RTP?  
(23 CFR 450.316(d))

5. Where does the RTP specify that the appropriate State and local agencies responsible for land use, natural resources, environmental protection, conservation and historic preservation consulted? (23 CFR 450.324(g))
6. Did the RTP include a comparison with the California State Wildlife Action Plan and (if available) inventories of natural and historic resources? (23 CFR 450.324(g)(1&2))
7. Did the MPO/RTPA who has a federally recognized Native American Tribal Government(s) and/or historical and sacred sites or subsistence resources of these Tribal Governments within its jurisdictional boundary address tribal concerns in the RTP and develop the RTP in consultation with the Tribal Government(s)? (23 CFR 450.316(c))
8. Does the RTP address how the public and various specified groups were given a reasonable opportunity to comment on the plan using the participation plan developed under 23 CFR part 450.316(a)? (23 CFR 450.316(a)(i))
9. Does the RTP contain a discussion describing the private sector involvement efforts that were used during the development of the plan? (23 CFR 450.316(a))

X	Draft EIR A-1
X	EIR Sec. 3-119
X	EIR Sec. 3-184 and invited on Roundtable, Draft EIR 8-1
X	8-1
X	8-1

10. Does the RTP contain a discussion describing the coordination efforts with regional air quality planning authorities? (23 CFR 450.316(a)(2)) **(MPO nonattainment and maintenance areas only)**
11. Is the RTP coordinated and consistent with the Public Transit-Human Services Transportation Plan? (23 CFR 450.306(h))
12. Were the draft and adopted RTP posted on the Internet? (23 CFR 450.324(k))
13. Did the RTP explain how consultation occurred with locally elected officials? (Government Code 65080(0))
14. Did the RTP outline the public participation process for the sustainable communities strategy? (Government Code 65080(E))
15. Was the RTP adopted on the estimated date provided in writing to State Department of Housing and Community Development to determine the Regional Housing Need Allocation and planning period (start and end date) and align the local government housing element planning period (start and end date) and

Yes/No	Page#
X	Draft EIR 3-44, A-1, and conformity finding
X	5-27
X	
X	8-1
X	6-23
X	



housing element adoption due date 18 months from RTP adoption date?  
(Government Code 65588(e)(5))

### Title VI and Environmental Justice

1. Does the public participation plan describe how the MPO will seek out and consider the needs of those traditionally underserved by existing transportation system, such as low-income and minority households, who may face challenges accessing employment and other services? (23 CFR 450.316 (a)(1)(vii))
2. Has the MPO conducted a Title VI analysis that meets the legal requirements described in Section 4.2?
3. Has the MPO conducted an Environmental Justice analysis that meets the legal requirements described in Section 4.2?

<b>X</b>	B-1
<b>X</b>	10-1
<b>X</b>	10-1

### Modal Discussion

1. Does the RTP discuss intermodal and connectivity issues?
2. Does the RTP include a discussion of highways?
3. Does the RTP include a discussion of mass transportation?
4. Does the RTP include a discussion of the regional airport system?
5. Does the RTP include a discussion of regional pedestrian needs?

<b>X</b>	5-4
<b>X</b>	5-4
<b>X</b>	5-21
<b>X</b>	5-33
<b>X</b>	5-42

6. Does the RTP include a discussion of regional bicycle needs?
7. Does the RTP address the California Coastal Trail? (Government Code 65080.1) (For MPOs and RTPAs located along the coast only)
8. Does the RTP include a discussion of rail transportation?
9. Does the RTP include a discussion of maritime transportation (if appropriate)?
10. Does the RTP include a discussion of goods movement?

Yes/No	Page#
X	5-36
N/A	
X	5-24 5-26
N/A	
X	5-46

### Programming/ Operations

1. Is the RTP consistent (to the maximum extent practicable) with the development of the regional ITS architecture? (23 CFR 450.306(g))
2. Does the RTP identify the objective criteria used for measuring the performance of the transportation system?
3. Does the RTP contain a list of un-constrained projects?

X	5-50
X	6-22, 9-1
X	7-8

### Financial

1. Does the RTP include a financial plan that meets the requirements identified in 23 CFR part 450.324(t)(1)?
2. Does the RTP contain a consistency statement between the first 4 years of the fund estimate and the 4-year STIP fund estimate? (65080(b)(4)(A))
3. Do the projected revenues in the RTP reflect Fiscal Constraint? (23 CFR part 450.324(t)(1)(ii))
4. Does the RTP contain a list of financially constrained projects? Any regionally significant projects should be identified. (Government Code 65080(4)(A))
5. Do the cost estimates for implementing the projects identified in the RTP reflect "year of expenditure dollars" to reflect inflation rates? (23 CFR part 450.324(t)(1)(iv))
6. After 12111107, does the RTP contain estimates of costs and revenue sources that are reasonably expected to be available to operate and maintain the freeways, highway

	7-1
X	7-1
X	7-4
X	5-8, 5-13, 5-20, 5-29, 5-34, 5-42, 5-52
X	7-3
X	7-2

and transit within the region? (23 CPR 450.324(t)(1)(i))

7. Does the RTP contain a statement regarding consistency between the projects in the RTP and the ITIP? (2016 STIP Guidelines Section 33)
8. Does the RTP contain a statement regarding consistency between the projects in the RTP and the RTIP? (2016 STIP Guidelines Section 19)
9. Does the RTP address the specific financial strategies required to ensure the identified TCMs from the SIP can be implemented? (23 CPR part 450.324(t)(1)(vi) **(nonattainment and maintenance MPOs only)**)

X	5-6, 7-1
X	5-6, 7-1
Yes/No	Page#
X	5-9, 5-42, 5-49 & Conformity Finding Appendix B

### Environmental

1. Did the MPO/RTPA prepare an EIR or a program EIR for the RTP in accordance with CEQA guidelines?
2. Does the RTP contain a list of projects specifically identified as TCMs, if applicable?
3. Does the RTP contain a discussion of SIP conformity, if applicable?
4. Does the RTP specify mitigation activities? (23 CPR part 450.324(f)(10))
5. Where does the EIR address mitigation activities?
6. Did the MPO/RTPA prepare a Negative Declaration or a Mitigated Negative Declaration for the RTP in accordance with CEQA guidelines?
7. Does the RTP specify the TCMs to be implemented in the region? **(federal nonattainment and maintenance areas only)**

X	Draft EIR 1-1
X	5-9, 5-42, 5-49 & Conformity Finding Appendix B
X	Conformity Finding
X	Draft EIR 1-13
X	Draft EIR 3-1
No	
X	5-9, 5-42, 5-49 & Conformity Finding Appendix B

**I have reviewed the above information and certify that it is correct and complete.**



\_\_\_\_\_  
(Must be signed by MPO Executive Director or designated representative)

September 19, 2019

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

Executive Director  
\_\_\_\_\_  
Title



Madera