# CHAPTER 4 ACTION ELEMENT

This section highlights the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) planning assumptions, the regional transportation system, and actions needed to implement the plan understanding current and forecasted conditions and assessing the impacts of actions designed to address change created from them is a vital aspect of crafting an effective plan able to achieve the region's goals moving forward.

Between 2022 and 2046, Madera County is forecasted to be one of California's fastest-growing counties. Therefore, the RTP/SCS scenarios are supported by programs and projects designed to address the existing and future needs of the region as growth occurs.

2022 RTP/SCS reflects a significant increase in community investment for active transportation infrastructure and rehabilitation and maintenance to maximize existing infrastructure. Additional priority shifts to transportation technologies such as zero-emission vehicles and intelligent transportation systems aim to capitalize on smart land use development decision-making.

# **Demographics Projections**

# Population

Historical demographic trends and projections of both population and employment are essential to development of the RTP/SCS. According to US Census Data, historic population estimates for Madera County shown in Figure 4-1 have shown a sustained growth in population the past 90 years with a notable uptick beginning in the 1970s. Between 1930 and 1970, Madera County grew from 17,000 to 42,500 population. From 1970 to 2020, Madera County grew by 116,000 to nearly 159,000 people.





For the 2022 RTP/SCS, 2020 Department of Finance population projections were utilized. Madera County's population is projected to continue to grow as shown in Table 4-1 through 4-3. Illustrated in Figure 4-2, the population is expected to rise from 162,722 in 2022 by 44,316 to 207,038 in 2046, a 1.14% average annual rate of increase.



# Figure 4-2 Population Projections



Madera County DOF 2020	Projections						
Projection	2022	2025	2030	2035	2040	2046	2050
Population	162,722	168,293	178,070	187,842	197,025	207,038	213,456
Percent Increase from 2022		3.42%	9.43%	15.44%	21.08%	27.23%	31.18%
Total Growth from 2022		5,571	15,348	25,120	34,303	44,316	50,734

# **Table 4-1 Population Projections Rate of Increase**

# Table 4-2 Population Increase by Jurisdiction

Jurisdiction	2022	2025	2030	2035	2040	2046	2050
City of Chowchilla	18,196	20,195	21,368	22,541	23,643	24,845	25,615
City of Madera	65,415	69,000	73,009	77,015	80,780	84,886	87,517
Madera County	77,706	79,098	83,693	88,286	92,602	97,308	100,324
TOTAL	162,722	168,293	178,070	187,842	197,025	207,038	213,456

Population projections play a key role in establishing forecasting inputs for determining future impacts to the circulation system. Additionally, where people live and work as well as their socio-economic conditions are equally important in influencing the nature of transportation behavior. Estimates for these factors are projected in the Madera County Travel Demand Forecast Mode.

# **Table 4-3 Employment and Household Forecast**

		City of Chowchilla	City of Madera	Madera County	Total
Employment	2022	3,211	15,643	30,342	51,218
	2035	4,367	20,104	34,933	61,439
	2046	5,055	22,786	37,595	67,482
Households	2022	4,418	18,060	26,257	50,757
	2035	5,098	20,932	32,827	60,892
	2046	5,488	22,608	36,743	66,885





# **Travel Modeling**

# Madera County Travel Demand Model

MCTC maintains and runs a regional travel demand forecast model or transportation model for the Madera County region. The Madera County travel model is a conventional travel demand land forecasting model. lt uses use. socioeconomic, and road network data to estimate travel patterns, roadway traffic volumes and performance measures.

The transportation model is also important in determining conformity to both state and federal air quality requirements. The model is used to identify segments of roads that have high automobile volumes and potentially adverse impacts as a result.

The Madera County Travel Demand Model was updated in 2019. A new 2018 base year was developed to support upcoming RTP/SCS and Conformity analysis activities.

Detailed reviews of the 2018 highway network were conducted for accuracy and a 2018 transit network was developed to better represent transit level of service (LOS) for mode choice model. A new transit network consists of Madera County Connection (MCC) and Madera Metro (Metro), and Amtrak rail service fixed routes are shown with the significant roadway network in Figure 4-3.





The model parameters related to travel behaviors, such as trip generation rates, auto ownership, mode shares, and trip length distribution were recalibrated based on 2010 Census and the latest Census Transportation Planning Products (CTPP) data product which is based on 2012 – 2016 5year American Community Survey (ACS) data.

The 2018 residential data was developed based on the 2010 Census information by census block and block group and incorporating the latest 2013-2017 ACS 5-year estimates and CA Department of Finance population and households estimates data.

The 2018 employment numbers and locations in the 2018 RTP MCTC Model was updated using CA Employment Development Department (EDD) Industry Employment & Labor Force Annual Average data for Madera Metropolitan Statistical Area.

Since a transit trip can be counted as more than one boarding if one or more transfers are made on the route. Total daily transit trips were estimated by dividing ridership by (1+ average number of transfers). Three different daily transit trips were estimated using different average number of transfers assumptions, as a reference.

The average trip length of the segment of trips that are in adjacent Merced and Fresno counties were calculated using its county travel demand model, respectively. The trip length of internalexternal/external-internal (IXXI) trips were updated by including the average trip length of the segment of trips that are in an adjacent county.

> Appendix F: Madera County Travel Demand Model Documentation

This updated IXXI trip length will be used in calculating SB 743 Vehicle Miles Traveled (VMT).

A detailed process to compare model performance to observed data was undertaken in the development process. Observed traffic count sources utilized include: FY 2018 Hourly Counts, Historical Average Annual Daily Traffic (AADT) (2004-2018) (overlapped with FY 2018 Hourly Counts), FY 2017 AADT (HPMS), FY 2015 AADT (HPMS), 2018 AADT (PeMS), Caltrans 2017 AADT, and the Madera Traffic Monitoring Program Counts.

With updated input data and revised model scripts, the non-highway assignment portions of the 2018 MCTC model were re-calibrated/re-validated based on targets generated from 2010 Census and 2012 California Household Travel Survey data. The calibration and validation criteria included trip generation, person trips per household, mode split by purpose, trip purpose by mode, VMT, transit, and travel time, and highway average daily traffic among others. The updated model performs well within these criteria' established modeling thresholds. The forecasted map is seen in Figure 4-4.







#### **Healthy Communities and Environmental Justice**

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, 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 (EJ) 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 lowincome and minority communities receive an equitable distribution of the benefits of transportation activities without suffering disproportionate adverse impacts. Achieving EJ 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.

A comprehensive EJ analysis is located in **Chapter 6 – Environmental Justice**.



#### **Performance Measures**

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 its required that state departments of transportation and MPOs implement federally defined transportation system performance measures.

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

- PM 1: HSIP and Safety Performance
- PM 2: Pavement and Bridge Condition Performance
- PM 3: System Performance/Freight/CMAQ Performance

The performance measures for the Federal Transit Administration include:

- Transit Asset Management
- Transit Agency Safety Plan

Since the last RTP/SCS cycle, all measures have been adopted in the Madera Region.

See Appendix G: Transportation Performance Measures for a full report on Madera County PMs



# **Project Evaluation**

In 2021 MCTC utilized Senate Bill (SB) 1 planning funding to develop the Madera County Project Prioritization Study in partnership with the City of Madera, City of Chowchilla, County of Madera, and Caltrans. The outcome of the Study is a prioritization process for projects and programs to address traffic congestion, facilities maintenance, transit needs, aviation improvements, and active transportation (bicycle and pedestrian infrastructure and programs) to be implemented in the Madera County Region.

The Project Prioritization Study is a variable tool that will be frequently revisited by MCTC, Madera County, City of Chowchilla, City of Madera, and Caltrans staff as projects, funding assumptions, goals, and other attributes change from plan to plan, study to study, and year to year.

The Study is a key tool to track and assess project priority for the RTP/SCS, and other project implementation plans in the region.

The goals of the Project Prioritization Study were to identify and prioritize transportation projects that serve the region and help MCTC meet various goals related to Greenhouse Gas (as mandated by Senate Bill (SB) 375) reduction, reducing vehicle miles traveled (as mandated by both SB 375 and SB 743), better accommodating diverse modal choice, increasing traffic safety, supporting economic vitality, and decreasing adverse health effects related to travel throughout the Madera Region. The overall process also was designed to advance MCTC's overarching goal of further promoting social equity in transportation project delivery.

The main objectives of the Study were to:

- Develop a comprehensive database of transportation improvement projects by mode to address needs, including project prioritization and a cost estimation tool.
- Develop a comprehensive set of performance/evaluation criteria that are important to enhancing the quality of life in Madera County.
- Recognize the importance of prioritizing investment in underserved communities.
- Identify viable and available funding sources to enable multimodal project delivery.

Another objective of the Study was to enhance the capability of transportation agencies serving the Madera County region to address key transportation issues. These issues include traffic congestion, traffic safety, transportation facility maintenance, transit needs, and accommodating vehicle alternatives, such as bicycle and pedestrian travel.



See Appendix E: Madera County Project Prioritization Study for more information about how the region's projects are assessed.



# 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.

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  $\frac{1}{2}$ , 9, 12, 14, 18  $\frac{1}{2}$ , 21, and 26, and Firebaugh and Children's Boulevards.

The City of Chowchilla is in north-central Madera County primarily along the west side of SR 99, straddling SR 233 (Robertson Boulevard). The City of Madera is 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 4-5, are part of the Madera County Regionally Significant Road System.







Figure 4-5 Significant Communities and Roadways

# **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 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 4-5 highlight the incorporated cities, key rural communities, state highways and regionally significant streets and roads in the Madera County region.



# **State Highways**



SR 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 and Avenue17 and Avenue 12 were 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.

SR 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).





SR 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.

SR 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.





SR 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.

SR 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.





# **Goods Movement**

The San Joaquin Valley is a key trade and transportation gateway, vital for Madera County's local economy. The San Joaquin Valley generates more than \$35 billion every year. Agriculture plays a major role in the national and international distribution of processed foods and energy products and has created a burgeoning logistics and distribution industry. The agriculture industry in Madera County alone had a value of \$1.95 billion in 2020. Approximately half of the goods moving through the San Joaquin Valley passes through to ports, major urban centers, and/or out of state. The San Joaquin Valley is California's fastest-growing region, with a population of over 4 million that is anticipated to grow to more than

Commodity	2020 Dollar Value
Almonds, Nuts & Hulls	\$689,402,000
Milk	\$317,874,000
Pistachios	\$285,409,000
Grapes	\$221,032,000
Pollination	\$65,190,000
Cattle & Calves	\$41,443,000
Figs, All	\$31,115,000
Replacement Heifers	\$30,096,000
Nursery Stock	\$27,874,000
Corn Silage	\$24,198,000

6 million by 2035. State Route 99 is one of the two main corridors providing the bulk of the capacity for this goods movement flow that primarily benefits the rest of the state while greatly impacting the Valley's air emissions. Table 4-4 shows Madera County's top agricultural commodities by dollar.



# Figure 4-6 Project Truck Volumes in San Joaquin Valley

# Table 4-4 Madera County Top Ten Commodities

# Near Term Growth in the San Joaquin Valley

The San Joaquin Valley is expected to experience significant growth in the form of goods movement (intraregional movements, outbound tonnage) and residents. The valley is expected to almost double the traffic along its major corridors, including SR 99, during the next couple of decades, which could exacerbate the existing issues. Figure 4-6 shows project truck volumes in the San Joaquin Valley.

See Appendix O: Valleywide Chapter and Appendix P: San Joaquin Valley Interregional Goods Movement Plan for additional valleywide information on goods movement



Goods movement by trucking is the most used mode, followed by rail then air Trucks can utilize a wider network within the region than rail or air, providing direct access to goods for transport from farms, processing and distribution centers, product deliveries, and other transport modes. A significant portion of trucks operating in Madera County filter onto the state highway system, with SR 99 having a heavier share of truck volumes. Caltrans Average Annual Daily Traffic Counts show segments of SR 99 that see as many as 85,000 vehicle trips per day. As much as 25% of those volumes are from trucks.

# State Route 99 Business Plan

In 2005, Caltrans published the SR 99 Business Plan, which outlined a strategic approach to transforming SR 99 into a safe and efficient trade corridor. The plan solidified Caltrans' long-term goals for the route and a corresponding list of projects to achieve those goals, thereby streamlining funding decisions for corridor improvements. A key priority for this work was completing widening projects necessary for SR 99 to be a six-lane corridor.

Today, the goal established in the Business Plan of widening SR 99 from 4 to 6 lanes from Kern County to San Joaquin County, remains unfinished. As a result, the corridor is needlessly congested and unsafe, hampering economic activity, negatively impacting the quality of life in the San Joaquin Valley, and adversely impacting air quality and the environment.

Currently, SR 99 in Madera County is a mix of 4-lane to 6-lane segments (three 4-lane segments and two 6-lane segments). Figure 4-7 highlights the back and forth from 4-lanes to 6-lanes in Madera County. From the Merced/Madera County line to the SR 152 interchange, from Avenue 21.5 to Avenue 17, and from Avenue 12 to the Madera/Fresno County line are currently 4-lanes. This creates four bottleneck points in Madera County which are the cause of frequent congestion and collisions creating serious risks to public safety and health. These problems are exacerbated by the high levels of truck volume currently utilizing SR 99.



# Figure 4-7 2020 SR 99 Existing Facilities



The SR 99 Business Plan was last updated in 2020. Finishing SR 99 throughout the San Joaquin Valley is a Priority of the Plan. A minimum width six-lane SR 99 corridor is essential to support jobs, the economy, goods movement, farm-to-market needs, reduce air quality and climate impacts. While the primary goal of projects to achieve a 6-lane SR 99 corridor is to meet travel demand, there are also safety benefits as well as enhancements of freight movement through the corridor. Projects in this category include capacity-increasing such as 4-lane to 6-lane /managed lanes to reduce recurring congestions, relieves bottlenecks, and improve travel time reliability for freight movements. Figure 4-8 highlights the 2035 concept facility design in Madera County from the SR 99 Business Plan.







Finishing SR 99 projects in alignment with current Caltrans and Federal priorities while maintaining past priorities continues to be a priority in the Madera region and San Joaquin Valley for economic, safety and environmental reasons. Projects to close gaps and improve SR 99 have been supported by local Measure T funds, State Transportation Improvement Program funding, Interregional Transportation Improvement Program (ITIP), and awarded Trade Corridor Enhancement Program grant funding. Priority SR 99 Goods Movement projects include:





- Avenue 7 to Avenue 12 Gap Closure Near-term project, scheduled for completion in 2026. ITIP funding awarded for construction and is pending State Highway and Operation Protection (SHOPP) award. This Project will improve safety, reduce congestion, increase connectivity, improve travel-time reliability of time-sensitive goods, and preserve acceptable facility operation on SR 99. The 2020 annual daily truck traffic is 21% of total traffic and the number of truck trips is expected to nearly double within 20 years. Traffic projections indicate current capacity will be exceeded within 15 years, resulting in greater delay, congestion, and safety issues.
- Avenue 17 to Avenue 21 1/2 Gap Closure Currently accruing funding for environmental review and planning, specifications, and estimates. This Project will increase safety, reduce congestion, increase connectivity, improve travel-time reliability of time-sensitive goods, and preserve acceptable facility operation on SR 99. The 2020 annual daily truck traffic is 22% of total traffic and the number of truck trips is expected to nearly double within 20 years. Traffic projections indicate current capacity will be exceeded within 15 years, resulting in greater delay, congestion, and safety issues.
- Merced/Madera County Line to State Route 152 Gap Closure This Project will increase safety, reduce congestion, increase connectivity, improve travel-time reliability of time-sensitive goods, and preserve acceptable facility operation on SR 99. The 2020 annual daily truck traffic is 25% of total traffic and the number of truck trips is expected to nearly double within 20 years. Traffic projections indicate current capacity will be exceeded within 15 years, resulting in greater delay, congestion, and safety issues. The project would complete the SR 99 mainline corridor through the County of Madera.





Figure 4-9 SR 233/SR 99 Interchange Improvement

# State Route 233 Interchange Roundabouts

MCTC has worked closely with the City of Chowchilla and Caltrans to improve the Robertson's Boulevard/SR 233 at SR 99 interchange. A plan is in place to construct northbound and southbound on and off ramps. The project is part of the Madera County Measure T Regional Program as a Tier 1 project.

The project will reduce congestion that is occurring and is projected to worsen, provide ADA access, and install pedestrian and bicycle infrastructure that are currently absent. The SR

99/SR 233 Improvement Project is currently in the environmental document preparation phase and pursuing Local Partnership Program funding. Caltrans is the lead agency on the environmental design. The project is planned to begin in 2025. Figure 4-9 shows the design concept for the project.

This segment is incredibly important to the residents of Chowchilla as it is the primary connector between the east and west sides of town. The largest grocery store in the city and the 3rd - 4th grade school is on the east side of town. As a result, residents have expressed concern with safety for all methods of travel over this section. Another important element of the SR 233/99 interchange is goods movement. SR 233 primarily serves as a connection for SR 152. As there currently is no northbound connection directly from SR 152 to SR 99, SR 233 helps to facilitate the movement of goods from western regions to northern parts of the State.

# Interregional Corridor Planning

Madera and Fresno Counties have long shared a significant number of interregional travelers utilizing the SR 41 corridor connecting the Clovis and north Fresno metro areas to locations in the City of Madera and foothill and mountain communities in eastern Madera County. Avenue 9 connecting SR41 to SR 99 has also seen significant increase in traffic volumes the past decade. This has increased congestion and collisions on both facilities.

In 2020 MCTC joined with the Fresno Council of Governments to prepare the State Route 41/Avenue 9 Sustainable Corridor Study. The study was prepared to identify future mobility improvements in the State SR 41 and Avenue 9 corridors in Fresno and Madera Counties. These two corridors play a central role in the region's mobility network, connecting commuters to several national parks, as well as supporting local and regional employment and education centers. The region is also expected to change significantly once the new California High-Speed Rail project is completed, bringing new mobility options to workers throughout California. The SR 41/Avenue 9 Sustainable Corridors Study looks at existing and future transportation projects in the region, as well as existing and future land uses, setting in place sustainable mobility strategies that will seamlessly integrate transportation infrastructure within the local fabric and support resiliency over time. Together, these strategies will help Fresno and Madera Counties achieve their ambitious air quality goals and support a healthy, sustainable, and equitable mobility environment for residents.

See Appendix I: State Route 41/Avenue 9 Sustainable Corridor Study for additional information on the studies



# **Public Transit**

Across Madera County, transit agencies are implementing changes for the near future that will create a more efficient and accessible public transportation experience. These changes include streamlining and reorganizing routes, implementing more fixed-route services, and improving user accessibility with new online resources. Work is also ongoing for coordinating schedules to provide seamless service between transit agencies within and beyond Madera County. Infrastructure improvements are also planned, ranging from new bus shelters to replacing fleets with electric vehicles.

# COVID-19 Impacts and Recovery – enduring and moving on from an unprecedented event.

The transit industry worldwide has experienced an unprecedented ridership decline due to the COVID-19 pandemic. The Pandemic resulted in significant declines in ridership and farebox revenue. Madera County transit operators have been challenged to ensure safe, reliable, and quality services can be provided to return to and surpass pre-pandemic ridership levels. Madera Metro is embarking on the two-phase Madera Transit Plan to reorganize the fixed-route system. CATX is exploring converting its demand-response system to a fixed-route system.

Fixed Route Services – Serving all residents in core population areas and major corridors (Figure 4-10)

Madera County currently has three public fixed-route operators operating throughout the county: Madera Metro, Madera County Connection, and Yosemite Area Regional Transportation System.

*Madera Metro* – Madera Metro operates in the City of Madera on three routes with access to Madera Community College, Madera Community Hospital, and the Madera Intermodal Center.

*Madera County Connection (MCC)* – Madera County Connection operates across Madera County, connecting the City of Chowchilla, and the communities of Bass Lake, Coarsegold, Eastin Arcola, Fairmead, La Vina, Madera Ranchos, North Fork, Oakhurst, Yosemite Lakes Park, and Valley Children's Hospital to the City of Madera

*Yosemite Area Regional Transportation System* – YARTS provides public transit in the Yosemite region, with buses entering Yosemite Valley from Merced, Mammoth Lakes, Sonora, and Fresno – as well as many different towns along the way.

**Demand Response Services** – Serving elderly, disabled and hard to reach communities (Figure 4-11)

Due to the low density of much of the County's population, multiple demand response services are operated that provide point-to-point travel to residents in locations at the periphery of core population areas. Within the County of Madera are six demand-response operators. Each is specialized to service different geographic and demographic areas.

*Madera Dial-A-Ride (DAR)* – a general public system primarily serving the elderly and disabled operating weekdays from 7:00 am to 6:30 pm and Sundays from 8:30 am to 2:30 pm within the Madera urban area covering a five-mile radius form the downtown area.

Appendix J: Madera County Short-Range Transit Development Plan



# Figure 4-10 Fixed-Route Transit



*Chowchilla Area Transit Express (CATX)* – a general public service in the City of Chowchilla offered weekdays from 7:30 am to 5:00 pm. The City of Chowchilla is considering initiation of fixed-route service in the near future.

*MCC Madera Dial-A-Ride* – general public service to County areas surrounding the City of Madera on weekdays from 7:00 am to 6:30 pm, Saturday from 9:00 am to 4:00 pm, and Sunday from 8:30 am to 2:30 pm.

*MCC Chowchilla Dial-A-Ride* – general public service to County areas surrounding the City of Chowchilla on weekdays from 8:30 am to 3:30 pm Eastern Madera County Senior Bus – a service for Eastern Madera County seniors 60 years or older and disabled residents operating weekdays (except holidays) from 9:00 am to 4:00 pm.

*Medical Escort Program* – a general public transportation service providing transportation to medical-related appointments in Madera and Fresno Counties serving Eastern Madera County residents with an emphasis on serving senior residents 60 years and older and the disabled.



# Figure 4-11 Demand Response Transit



Accommodating Riders from Near and Far: Yosemite Area Regional Transportation System – Improving mountain/foothill transit access and accommodating international travel to Yosemite National Park.

The Yosemite Area Regional Transportation System (YARTS) provides public transit in the Yosemite region, with buses entering Yosemite Valley from Merced, Mammoth Lakes, Sonora, and Fresno – as well as many different towns along the way. YARTS began service in May 2000, and now provides an alternative to driving.

YARTS is managed by the Merced County Association of Governments. YARTS offers rides to all visitors to Yosemite.

YARTS fares vary based on distance; all fares to the park include the entrance fee to Yosemite National Park. Round trip fares for the Highway 41 route range from \$5.00 to \$34.00. YARTS service on Highway 41 is seasonal providing service through the summer months.







# Madera Metro Transit Center

In the Fall of 2020, the City of Madera opened the new Madera Transit Center. The facility provides facilities for fueling, washing, maintenance, parking, and administrative functions. Additionally, the facility was designed for the eventual installation of electric vehicle charging infrastructure. In the coming years, the Madera Metro fleet, currently running on gas, CNG, and diesel fuels, will be phased out and replaced with electric vehicles in accordance with Executive Order N-79-20 to have all buses in the State of California be zero-emission vehicles by 2045. To meet this goal, the Transit Center was designed in order to satisfy present needs as well as anticipate the needs of the near future.





# Madera Metro Mobility Hubs

In the spring of 2022, Madera Metro completed Phase 1 of the Madera Transit Plan. This plan looks to reorganize and streamline the existing fixed-route bus system by removing some bus stops and changing the routes buses travel on. Once Phase 1 is implemented for a trial period of 1 year, the changes will be assessed and incorporated into Phase 2. Phase 2 will continue to refine and optimize the system or take another attempt at redesigning the fixed-route systems. Additionally, Phase 2 aims to incorporate local mobility hubs across the City of Madera (Figure 4-12).



# Figure 4-12 Madera Transit Hubs

The purpose of these mobility hubs is to tie together the four designated quadrants of the City of Madera, divided by CA-99, Yosemite Ave, and Howard Road. Currently, transfer hubs are planned at SR-99 and Avenue 17, Schnoor Ave and Cleveland Ave, and Madera Community College. These hubs will offer transfers to other Metro routes, MCC routes, and other fixed-route services, allowing additional transfer points to traverse the city outside of downtown.

See Appendix J: Madera County Short Range Transit Plan for additional details on near-term public transit investments.



# **Transition to Zero Emission Transit**

With the signing of Executive Order N-79-20 in 2020, all buses sold and operated in the State of California are to be zero-emission vehicles by the year 2045. In accordance with this objective, agencies are beginning work today to prepare for the transition to a fully zero-emission fleet.

By replacing the current fossil-fuel dependent fleet with clean zero-emission vehicles, residents of Madera County will receive benefits with cleaner and quieter buses operating around their neighborhoods.

# Fleet Conversion Planning

Over the next decade as older buses are phased out and once the infrastructure to accommodate them are built, new electric buses will be procured to operate for agencies throughout the county.



# **Charging Infrastructure**

Before zero-emission vehicles can be procured, fueling infrastructure to support them must be implemented. Both Madera Metro and CATX have plans for installing EV Infrastructure within the next 5 vears. With the construction of the Transit Center, Metro is expected to install EV infrastructure with ease by designing the facility to accommodate it in the near future

*Madera Metro Shelter Expansion –* ongoing investment in City of Madera Transit Investments

Continual investments in infrastructure are critical to creating a transit network that is comprehensive and efficient. New shelters with reflective signage are continually being added.

*Madera County Connection* – ongoing investment in Madera County Transit Infrastructure

Madera County Connection has procured new buses for fixed-route, Senior Bus, and Escort Services. New signage has been installed at multiple bus stops.



*Madera Transit on Mobile Apps –* ease in plotting trips across the region



Usability is an important concern to ensure passengers fullv utilizina are available transit networks. MCC Fixed Route is available on Transit, and both MCC Fixed Route and Madera Metro Fixed Route are available on Apple Maps and Google Maps.





# **Active Transportation**

# Biking

The City of Madera has a limited number of dedicated bike facilities on 6<sup>th</sup> Street, eastbound Olive Avenue, and southbound Tozer Street. On-Street bike lanes are striped along Cleveland Avenue, Sunset Avenue, and southbound Lake Street. While many streets may have lower volumes and be comfortable, they are not consistently striped or signed to indicate such streets as the preferred bike routes. Many of the existing bike facilities are in the northern part of the city while the southern part has limited connectivity.

The City of Chowchilla does not have bikeway facilities within the downtown or surrounding neighborhood areas. A small portion of Avenue 26 to the east of SR-99 has on-street bike lanes. While neighborhood streets have relatively lower volumes and speeds, allowing cyclists to feel comfortable, preferred routes are generally not signed or striped to indicate where cyclists should travel.

Bike facilities vary between unincorporated communities. Yosemite Lakes does not have designated bike facilities and preferred routes are not signed or striped to indicate where cyclists should travel. Bike and pedestrian facilities in Oakhurst are almost entirely absent in residential areas, although the Oakhurst River Parkway trail has been extended from the community park near SR-41 and Road 426. Cyclists in the Oakhurst area primarily consist of long-distance recreational riders who are used to sharing the road with traffic or use wide shoulders where available. Bike facilities are entirely absent in the communities of Coarsegold, Raymond, North Fork, and Bass Lake.

# Pedestrian

Major downtown intersections in the City of Madera experience heavy traffic volumes and are surrounded by commercial and office uses. This area is generally more pedestrian accessible. Outside of the core downtown area, marked crosswalks become spaced farther apart on Yosemite Avenue, and crossings are not signalized. Sidewalk gaps begin to appear on SR-145 and East Yosemite Avenue, especially toward outer lying rural areas. Select intersections in the northwest retail portion of Madera have visible brick-colored crosswalks.

The City of Chowchilla's SR-233 generally has difficult crossings and lacks high visibility crosswalks, pedestrian refuge islands, and overhead street name signs at unsignalized intersections. Lighting is provided along SR-233, but not consistently in surrounding neighborhoods. Signalized intersections have push-to-walk buttons, and many crosswalk lines are fading or are no longer visible.

Unincorporated valley floor communities of Madera Ranchos-Bonadelle Ranchos, Fairmead, Rolling Hills, and La Vina all feature similar gaps in pedestrian infrastructure. Unincorporated foothill communities of Yosemite Lakes, Oakhurst, Coarsegold, Raymond, Bass Lake, and North Fork all feature similar pedestrian infrastructure due to natural terrain and lower densities. With a main thoroughfare through each community, sidewalks are normally minimally present.





Fresno River Trail – a scenic and practical crosstown connection along the Fresno River

The Vern McCullough Fresno River Trail is a recognized feature of the city and provides recreation, access and mobility opportunities for pedestrians, runners, and bicyclists. It runs along the dry river in Madera and is approximately 3.5 miles long. The trail was once divided in two by active railroad tracks and Gateway Drive, but the city has recently completed a new undercrossing to bridge the gap, detailed in Figure 4-13.



# Figure 4-13 Fresno River Trail at SR 99 Bridge



# Madera Bike Map - all bike routes in the City of Madera illustrated by class of facility

All bike routes in the City of Madera are illustrated in Figure 4-14 with solid lines with Purple denoting Class I bikeways, Blue denoting Class II bikeways, and Green denoting Class III bikeways. Proposed bikeways are denoted in dotted lines with Orange denoting Class II B, Yellow denoting Class III B, and Pink denoting Class IV.



# Figure 4-14 City of Madera Bike Network

Chowchilla Bike Map - all bike routes in the City of Chowchilla illustrated by class of facility

All bike routes in the City of Chowchilla are illustrated in Figure 4-15 with solid lines with Purple denoting Class I bikeways, Blue denoting Class II bikeways, and Green denoting Class III bikeways. Proposed bikeways are denoted in dotted lines with Orange denoting Class II B, Yellow denoting Class III B, and Pink denoting Class IV. Figure 4-16 shows the wider county bike network.

# Active Transportation Plan

Finished in 2018, the Active Transportation Plan supports the Madera County Complete Streets Policy by providing a vision for a cohesive network of bicycle and pedestrian facilities across the country. The Active Transportation Plan supports the Complete Streets Policy's goals of creating a more equitable, healthy, and safe environment for Madera County residents and visitors. To implement the vision of the all ages and abilities network and address the barriers to access formed by the high-stress arterials and rural





Figure 4-15 City of Chowchilla Bike Network







roads, the ATP proposes a network of bicycle facilities that creates a unified countywide network while enhancing local connectivity.

The goals of the Active Transportation Plan are:

- Expand pedestrian and bicycle access throughout Madera County for both visitors and residents
- Improve and maintain existing bicycle and pedestrian facilities across Madera County
- Increase walking and bicycling in Madera County
- Improve safety and accessibility across Madera County through active transportation facilities
- Increase awareness and appreciation of active transportation through public engagement

See Appendix K: Madera County Active Transportation Plan and Complete Streets Guide for detailed information about active transportation in Madera County.

# SR 233/Robertson Boulevard Study – redesigning Robertson for residents

Finished in 2021, the SR 233/Robertson Boulevard Corridor Planning Study and Downtown Master Plan was intended to analyze existing conditions for all modes of transportation, and to develop a plan to implement appropriate improvements that benefit all roadway users, residents, and businesses along the corridor. The study aimed to increase safety for all modes of transportation and mitigate adverse truck traffic impacts, while improving traffic operations, along the corridor. The goals and objectives of the study were:

- Improve bicycle, pedestrian, and transit facilities along the study corridor
- Recommend traffic calming solutions to enhance safety for all modes of transportation
- Encourage the use of active transportation
- Improve traffic operations and reduce congestion along the corridor
- Address the transportation needs of the community
- Improve public health and enhance community livability

See Appendix L: SR 233/Robertson Boulevard Corridor Planning Study and Downtown Master Plan





# **Central Valley Passage Bicycle Route**

Proposed by the California Bicycle Coalition, or CalBike, the Central Valley Passage envisions a long-distance bicycle route connecting large and small cities across the Central Valley from Bakersfield to Merced. This bikeway aims to be an essential car-free connection in the Central Valley and an economic engine by connecting to popular destinations. The plan aims to connect the bikeway to the California High-Speed Rail at every station along the route from Merced to Bakersfield. Once all segments are complete, it will include approximately 250 miles of connected, low-stress bikeways. Figure 4-17 highlights the Central Valley Passage bicycle corridor.

**Phase I** of this project includes building the route through what CalBike has deemed "high-priority" areas, particularly those near large city centers with a significant number of bicycle riders. These cities include:

- Madera
- Fresno
- Delano
- Richgrove
- McFarland
- Wasco
- Shafter
- Bakersfield

**Phase 2** includes building in the central area of the proposed Phase I of the High-Speed Rail Projects. Because distances between services in this phase are greater than the distances between services in Phase I of the project, Phase II is more focused on developing longdistance bike tourism. Cities include:

- Porterville
- Exeter
- Visalia
- Hanford
- Reedley

**Phase 3** contains segments key to completing a contiguous long-distance route. Based on the smaller population in these areas, fewer services, and lower frequency of inter-city travel, this segment is a lower priority. The cities include:

- Richgrove
- Reedley
- Merced



Figure 4-17 Central Valley Passage Bicycle Route



# La Vina Mobility

Madera County commissioned a mobility study of the La Vina and Parkwood communities to develop solutions able to improve community mobility, access, and safety.

The community identified improvement areas, including the intersection at Road 24 and Avenue 9, Avenue 9 itself, and the route to La Vina Elementary School. For Avenue 9 and Road 24, the objectives are to improve safety at the intersection, increase accessibility to commercial corner, and shorten the crossing distance. The proposed design concept would extend the sidewalk to the intersection, add bulb-outs, adding painted bicycle lanes, and install a protective curb to the parking lot.

For Avenue 9, the objectives are to have a safer pedestrian crossing, safer bike routes, and protected parking. The proposed design concepts would repave, restripe, and add painted bike lanes, add pedestrian signage, elevated crosswalks, and blinking crossing lights to intersections along Avenue 9, add bulb-outs and sidewalk extensions, install speed limit signage, and potentially remove dumpster-style trash bins from right-of-way. Figure 4-18 shows the changes.

For La Vina Elementary, the objectives are to create a safer route to school, encourage walking and cycling, and prevent vehicular/pedestrian conflicts. The proposed design concept would add an 8' wide gravel multi-use path along Avenue 9 and Road 23, install bollards at the intersection, construct raised crosswalks with flashing lights and pedestrian signage at the school entrance, and add a sidewalk extension to the front of the school.



# Figure 4-18 Avenue 9 Improved Mobility in La Vina

These priority improvements are designed to align with the goals of the State's Active Transportation Program as well as 2022 RTP/SCS. This is done by promoting safety for residents, increasing pedestrian visibility, and quality of life by reducing GHG. Implementation of the projects in the La Vina Mobility Study will foster safe and accessible community mobility, reduce transportation barriers for disadvantaged communities, reduce the cost of transportation, and better maintaining facilities by refurbishing infrastructure.

See Appendix M: La Vina Mobility Study for more information about transportation investments in La Vina/Parkwood.



# **Commuter Rail**

Commuter rail service is transforming how residents of Madera County travel for work and leisure. Currently, the Amtrak San Joaquins Service is the only commuter rail service provider to Madera County. In the coming months and years, many new improvements are planned that will transform commuter rail for residents of Madera and the wider region. The Amtrak San Joaquin Service will be upgrading its rolling stock, a new Madera Amtrak station will be built, and the new California High-Speed Rail service is set to be inaugurated. These future improvements are planned to advance transit-oriented development in the region and provide the necessary infrastructure and services to get rail passengers to their destinations with ease.

#### COVID-19 Impacts and Recovery – enduring and moving forward from an unprecedented event.

The transit industry worldwide has experienced an unprecedented ridership decline due to the COVID-19 pandemic. The Pandemic resulted in one round-trip service to Oakland and all round-trip services to Sacramento being discontinued. However, in the time since, the cancelled Oakland round-trip service and 1 of the 2 Sacramento round-trip services have been reinstated.

#### San Joaquin Joint Powers Authority

With the passage of Assembly Bill 1779 in 2012, regional government agencies were enabled to form the San Joaquin Joint Powers Authority (SJJPA) to take over the administration and management of the existing Amtrak San Joaquin Rail Service from the state. The SJJPA was established in 2013 and is comprised of ten member agencies including the San Joaquin Regional Rail Commission, Madera County Transportation Commission, Sacramento Regional Transit, Stanislaus Council of Governments, Merced County Association of Governments, Alameda County, Fresno Council of Governments, and Kings County Association of Governments. An Interagency Transfer Agreement between the SJJPA and the State was signed in 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 interagency passenger rail services. AB 1779 was sponsored by the San Joaquin Regional Rail Commission (SJRRC), Sacramento Regional Transit, the Central Valley Rail Working Group, and the San Joaquin Valley Regional Policy Council.



# **Amtrak San Joaquins**

The San Joaquins is an Amtrak commuter rail service operated by the SJJPA that contracts with the San Joaquin Regional Rail Commission (SJRRC). This service provides 2 daily roundtrips between Bakersfield and Sacramento and 5 daily roundtrips between Bakersfield and Oakland. As of 2022, this service carries nearly 400,000 annual riders. This is the second highest state supported rail service in California and the fourth highest in the United States. While the line terminates at Bakersfield, Oakland, and Sacramento, the San Joaquins service is unique in the state and country because of its extensive network of dedicated Amtrak thruway bus routes that are critical to the performance of the service. Amtrak Thruway routes are timed to meet trains and offer connections to points in Southern California, San Francisco, the Central Coast, the North Coast, Las Vegas, Redding, Reno, and Yosemite Valley. Figure 4-19 shows the route map.









# Figure 4-20 ACE Expansion and System Area

#### **ACE Railway Expansion**

The Altamont Corridor Express (ACE) is a commuter rail service that currently connects Stockton and San Jose operated by the San Joaquin Regional Rail Commission, the managers that the San Joaquin Joint Powers Authority contracts with. In 2018, ACE was awarded \$500 million for expanded service to Ceres and Sacramento. At the end of 2021. the San Joaquin Regional Rail Commission approved the ACE Ceres-Merced Extension Project. This project aims to turn Merced into an intermodal hub for rail services in the Central Valley with Amtrak, ACE, and High-Speed Rail services. Once the first operational segment of California High-Speed Rail is opened, Amtrak San Joaquins service will be truncated at Merced, and California High-Speed Rail will become Madera's main and only regional rail service. Figure 4-20 has the current route as well as the proposed expansion.

# New Amtrak Station

Madera County is on track to have a major improvement to its commuter rail service in the coming years with the construction of a new Amtrak Station. In 2021, the San Joaquin Joint Powers Authority voted to begin engineering for the new Amtrak station to be built north of Avenue 12, an important cross-county route, and to the east of SR 99, the most utilized regional route. This location will ensure that the station is

accessible with adequate infrastructure for people across the county to reach. This station will replace the current Amtrak Station off Road 26 in Madera Acres. Funding was secured from the Transit and Intercity Rail Capital Program (TIRCP). This new station will be located near Madera Community College and is part of the College Area Master Plan for multimodal and commuter rail connectivity. Figure 4-21 has the plans as of February 2022.



Figure 4-21 – Madera Station Relocation Interim Design



The new station location is currently served by both City of Madera and Madera County fixed route transit services, lies on the region's busiest east-west regional corridor utilized by local and interregional travelers, is bound by SR 99 and the City of Madera to the east and SR 41 and burgeoning southern Madera County communities and northern Fresno and Clovis metros, and adjacent to the growing Madera College Campus.

The new station will initially provide Amtrak service and future service for the California High Speed Train. The high-speed rail segment from south of Fresno to north of Madera, Construction Package 1, is estimated to be completed December 2023. The Merced to Bakersfield segment of California High-Speed Rail is expected to be operational by 2029. The Merced station is designed to be a regional intermodal center with connections to ACE Valley Rail, Amtrak San Joaquins, and state bus services. As a busy facility for connecting Fresno/Clovis metro travelers to northbound SR 99, the new station location is in a prime location to attract riders for those with long range destinations in the norther San Joaquin Valley, Sacramento, and Bay Area. Figure 4-22 highlights the High-Speed Rail alignment and segment status.

#### **TOD Station Area Planning Grant**

In preparation for the new Amtrak Station and future commuter rail developments. the County was awarded a Caltrans Sustainable Planning Grant. This grant will assist in the preparation of community development plans that will shape future land use developments near the station to properly accommodate transit and active transportation access. This is done so the station will have adequate utility to the immediate surrounding neighborhoods such the area in the vicinity of the Madera College Campus. The objective is to enact smart growth design principles which will create livable places, healthy people, and shared prosperity into these new developments. Madera County will be the lead agency in a collaborative effort between Madera County, the City of Madera, Caltrans, the SJJPA, the California High Speed Rail Authority (CHSRA), CalSTA and MCTC.





# **Fairmead Community Planning**

The alignment of the Merced to Madera Highspeed Rail system passes through the Fairmead area. The residents of Fairmead, Fairmead Community and Friends, worked with the CHSRA to ensure the project would help improve the community rather than harm it. These efforts yielded commitments from CHSRA to address improvement priorities identified by Fairmead residents.

CHSRA will fund the following identified improvements:

- Construction of a Fairmead Community Center, Library and Park. Madera County will own and operate the facilities and be responsible for providing community access.
- Extension of sewer line from the City of Chowchilla to Fairmead with payment of Fairmead resident's sewer bills for 10 years.
- Improvements to the stability of Fairmead's water system, including forgiveness of customers water depts up to March 31, 2021.
- Repair to Fairmead roads, installation of sidewalks and storm drainage, landscaping, and other beautification elements.
- Support for the development of new quality affordable housing in Fairmead.

The Fairmead Community Area Plan is currently being updated to help effectively plan for the implementation of these various improvements. MCTC will support Fairmead, the City of Chowchilla, Madera County and the CHSRA as the community of Fairmead moves

forward with these important improvements by coordinating and working collaboratively towards advancing needs identified in this planning effort..





Fairmead, CA



# CALIFORNIA High-Speed Rail Authority

Your Madera

# Zero Emission Travel and Infrastructure

# **Executive Order N-79-20**

In September of 2020, the Governor signed Executive Order N-79-20 that stipulates that 100% of in-state sales of new passenger cars and light-duty trucks will be zeroemission by 2035 and 100% of medium- and heavy-duty vehicles sales must be zero emission by 2045 where feasible. Providing appropriate infrastructure is crucial for residents to not encounter significant inconvenience due to the order. Zero Emission Vehicle (ZEV) infrastructure includes electric vehicle chargers for Battery Electric Vehicles and hydrogen fueling stations for Fuel Cell Electric Vehicles.

# Planning for ZEV and ZEV Infrastructure

MCTC is proactively planning for the region's transition to zero-emission travel. In 2021 the development of the Madera County ZEV Readiness and Implementation Plan was initiated. The plan has several objectives to address the region's shift to zero emission:



- Assess existing ZEV infrastructure environment
- Identify key community challenges and barriers to advancement
- Recommend infrastructure improvements and investments
- Identify implementation strategies and policies to promote ZEV infrastructure adoption
- Provide stakeholders with tools to procure, site and install ZEV infrastructure

The Madera County ZEV Readiness and Implementation Plan is scheduled to be adopted in the Fall of 2022.

Madera County Transit Providers are currently developing Zero Emission Bus Rollout Plans. The Innovative Clean Transit (ICT) regulation requires each transit agency to submit a complete Zero-Emission Bus Rollout Plan, approved by its governing body, showing how it plans to achieve a full transition to zero-emission buses (ZEBs). The ZEB Rollout Plans will be completed in 2023 and submitted to CARB.

MCTC is currently working with The California Energy Commission (CEC) and Caltrans as part of a working group for the California State Electric Vehicle Infrastructure Deployment Plan, a plan required by the National Electric Vehicle Infrastructure Formula Funding Program (NEVI). In November 2021, the Investment and Jobs Act (IIJA) allocated up to \$7.5 billion over five years for states to enhance their Electric Vehicle charging infrastructure through the NEVI Program. The electric vehicle infrastructure funding will help EV drivers to have regular access to charging stations to help avoid a situation where a driver could be stranded without services. Additionally, the added infrastructure will bolster tourism as EV vehicles become more popular nationwide.

California has identified SR 99 an Alternative Fuel Corridor able to make use of state funding through the NEVI Program.



#### Vanpool and Rideshare

An important segment of reducing VMT and emissions and vehicle traffic is rideshare and vanpool services. These services are utilized when passengers share the same vehicle while traveling to the destination. Each same passenger that shares a trip another with potentially removes a vehicle from the roadway; one vehicle with multiple passengers can theoretically eliminate multiple vehicles from the road, reducing emissions and congestion.



MCTC supports the California Vanpool Authority (CalVans) and is represented on their Board of Directors. CalVans is a service that provides vanpooling vehicles to people who work in various places where public transit may not go, such as to agricultural field working locations. CalVans currently serves the County of Madera as well as the Counties of Fresno, Imperial, Kern, Kings, Merced, Monterey, Riverside, San Benito, San Joaquin, San Luis Obispo, Santa Barbara, Santa Cruz, Stanislaus, Tulare, and Ventura. Madera residents utilize CalVans to access employment within the region as well as outside it to other San Joaquin Valley and Central California Coastal counties.



# Intelligent Transportation Systems and Emerging Technologies

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

Intelligent Transportation Systems (ITS) and new or emerging technologies will allow maximum use of the transportation infrastructure including streets and highways and transit. Further, the need for traveler information is critical to lessen the impacts of accidents and other events in the region. Realtime traveler information can make traveling in Madera County more enjoyable and reduce delay and congestion.



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).

See Appendix B: Project Listing for information on ITS Investments

Residents from rural communities such as Fairmead, La Vina in the valley and North Fork and Oakhurst in the foothills and mountains have indicated lack of reliable broadband internet. Efforts are currently underway to bring a statewide broadband network to disadvantaged communities under the Broadband for All initiative. With the County of Madera residing in Region 3, the development and eventual

implementation of the plan will be closely monitored in the hopes of adding connections to areas like La Vina from any potential connection between Madera and Kerman in neighboring Fresno County. Figure 4-23 highlights the Broadband for All Region 3 coverage.





2022 Madera County Regional Transportation Plan and Sustainable Communities Strategy

#### Figure 4-23 Broadband for All Region 3

# 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.



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.

See Appendix B: Project Listing for information on Aviation Investments

