

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 twelve (12) 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. 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 (NO₂), ozone (O₃), sulfur dioxide (SO₂), fine particulate matter (PM_{2.5}), coarse particulate matter (PM₁₀) 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 statues 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 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.

In addition to federal requirements, MCTC must comply with California Government Code Section 11135, which states that, “no person in the State of California shall, on the basis of race, national origin, ethnic group identification, religion, age, sex, sexual orientation, color, or disability, be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination under any program or activity that is conducted, operated, or administered by the state or by any state agency that is funded directly by the state, or receives any financial assistance from the state.” California Senate Bill 115, passed in 1999, also established the definition of “EJ” in the California Government Code as “The fair treatment of people of all races, cultures and income with respect to development, adoption and implementation of environmental laws, regulations and policies.” The State of California also provides guidance for those involved in transportation decision-making to address environmental justice.

Other legislation relevant to environmental justice in recent years includes:

- Senate Bill 1000 (SB 1000), the Planning for Healthy Communities Act, which requires all local jurisdictions in California with disadvantages communities, as defined by SB 535, to develop an environmental justice element as part of their general plan update or consider environmental justice goals, policies, and objectives throughout their general plan.
- Assembly Bill 617 (AB 617) brings air quality monitoring to a more localized level. While MCTC does not have statutory requirements from this legislation, it is evident that environmental justice is becoming an increasingly significant topic in all sectors of planning. As a result of this, MCTC aims to provide support, as needed, to its members agencies.

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 2020 MCTC Public Participation Plan (see Appendix). Ongoing outreach efforts are listed below:

The 2022 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 2018, MCTC staff has continued to engage the public through workshops, public meetings, and presentations at service clubs and professional organizations, and on-line workshops. 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 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.

Public workshops were held in the 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 6:00 and 8:30 p.m. to make attendance more accessible, as well as, per stakeholder request. For a detailed list of outreach activities for the 2022 RTP-SCC, please see Section 2.4.

The MCTC Public Participation Plan (PPP), consistent with SAFETEA-LU guidance, Moving Ahead for Further Progress in the Twenty-first Century (MAP-21) requirements, and 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 2022 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 and 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 2022, the poverty level has been set at \$27,750 for a family of four¹

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 thresholds².

Analysis Methodology

MCTC staff began by analyzing racial and income data from the 2020 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

¹SOURCE: [California Department of Public Health](#)

² 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>>

geographic analysis of income and race. With 98 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 34 tracts within Madera County.

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 target areas to analyze equity of the 2022 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 target areas and the population density of the County are displayed in Figure 1. The locations with the highest concentrations of persons in the county are the City of Madera. Figure 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 7,372 persons. Target area I accounts for roughly 5% of the total county population.

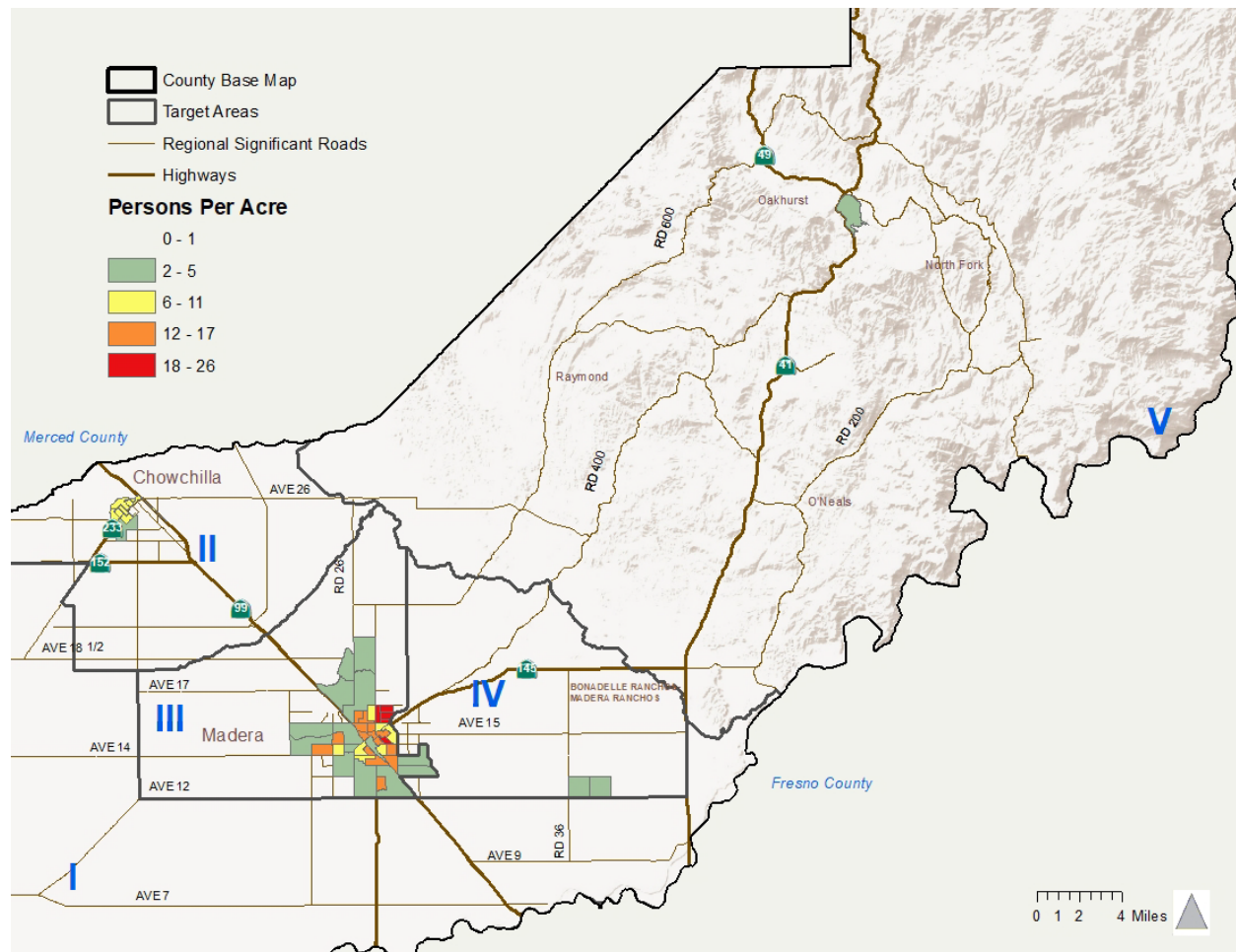
Target area II includes all of the City of Chowchilla and surrounding block groups. Racial and population figures from the two prisons within this area have been omitted. There are 22,070 persons within the target area. Target area II represents 14% of the total county population.

Target area III includes all of the City of Madera and is therefore, the most populous of the five target areas. There are 84,689 persons within the area. Target area III represents 56% 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 14,201 persons in the target area. Target area IV represents 9% of the total county population.

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



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 27,593 persons within target area V. Target area V represents 18% of the county's total population.

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

FIGURE 2: Total Population by Target Area

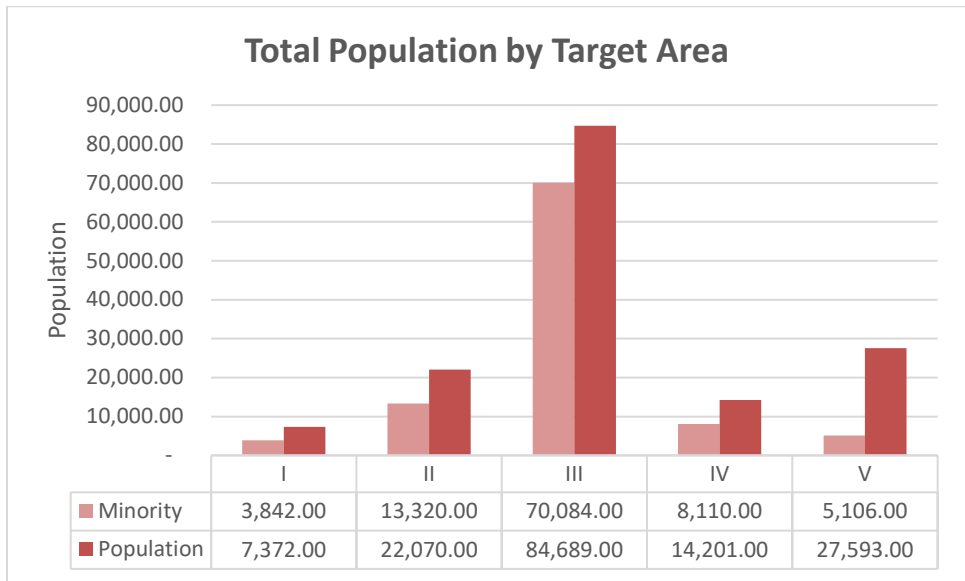
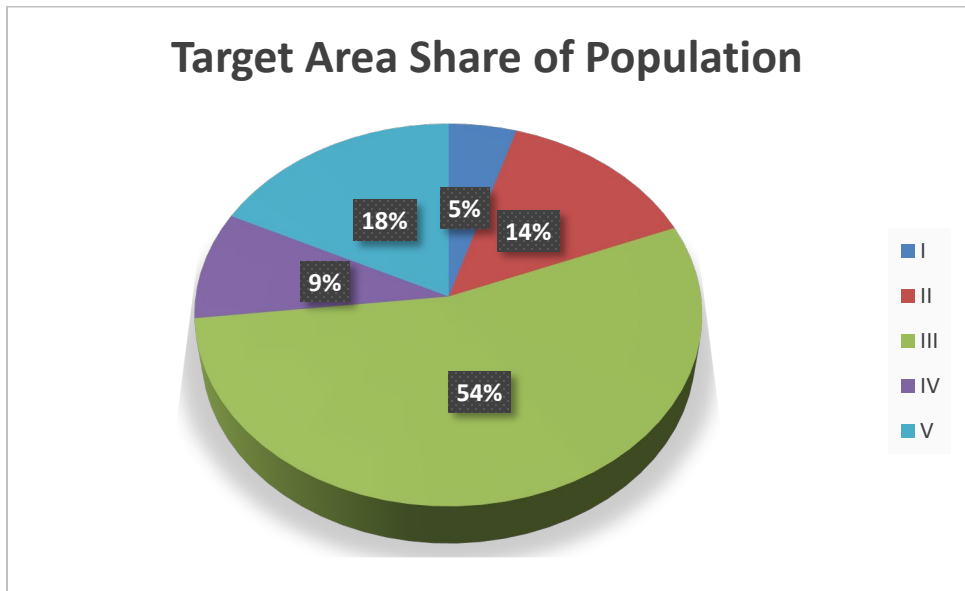


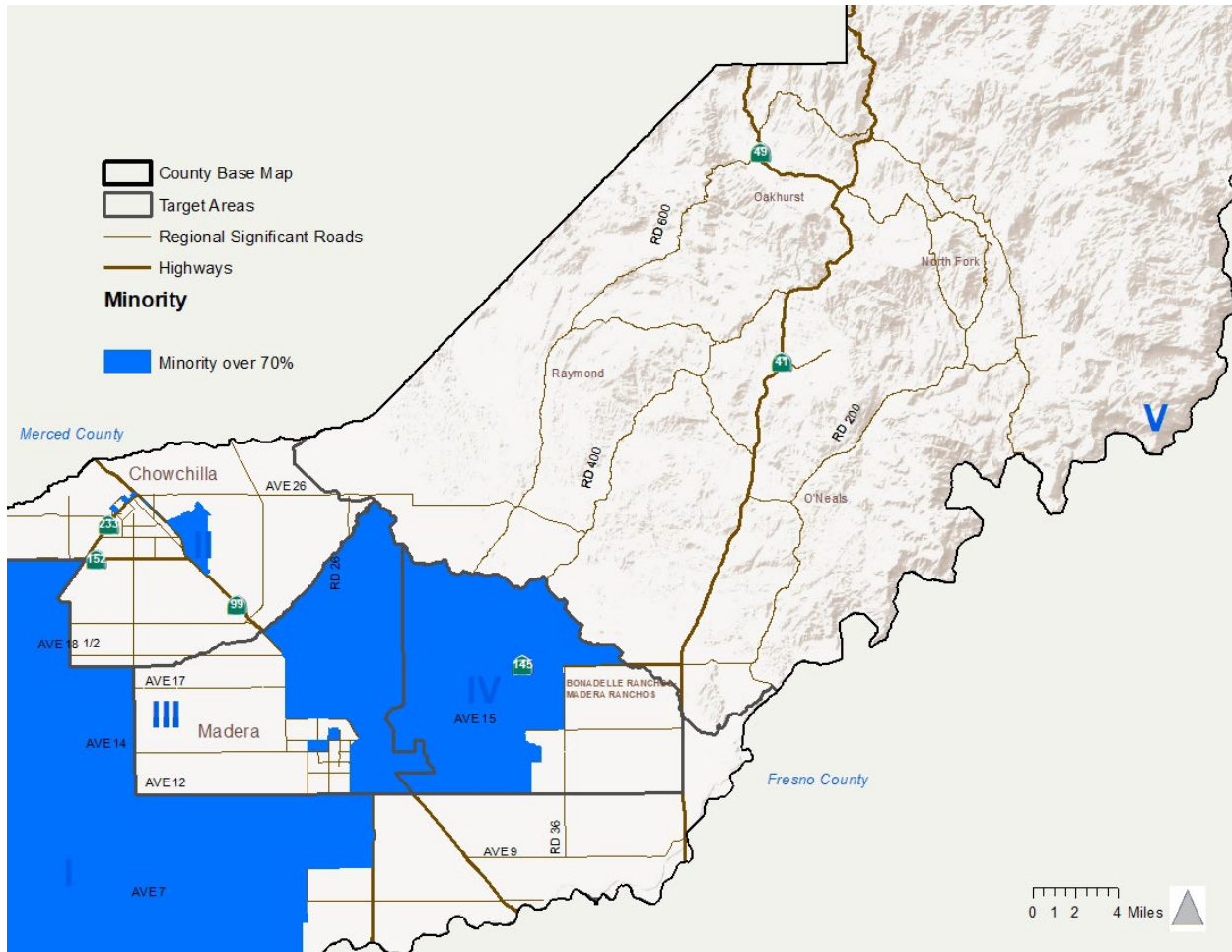
FIGURE 3: Target Area Share of Population



Racial Minority Populations

Figure 4 shows qualifying zones containing racial minorities by block group according to the American Community Survey 5- Year Estimates 2020 . Within the County of Madera, 100,462 persons, or 64% of the County population fall under the category of racial minority. In Figure 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 Ripperdan. 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.

FIGURE 4: Madera County Ethnic Minority Areas



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 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 2022 for a family of four is \$27,750¹.

In Figure 5, low-income areas are shown according to their percentage. 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 6, block groups containing both low-income populations and minority populations are demarcated in the color blue. The only target area which does not have block groups that meet both criteria is target area V.

FIGURE 5: Low-Income Areas

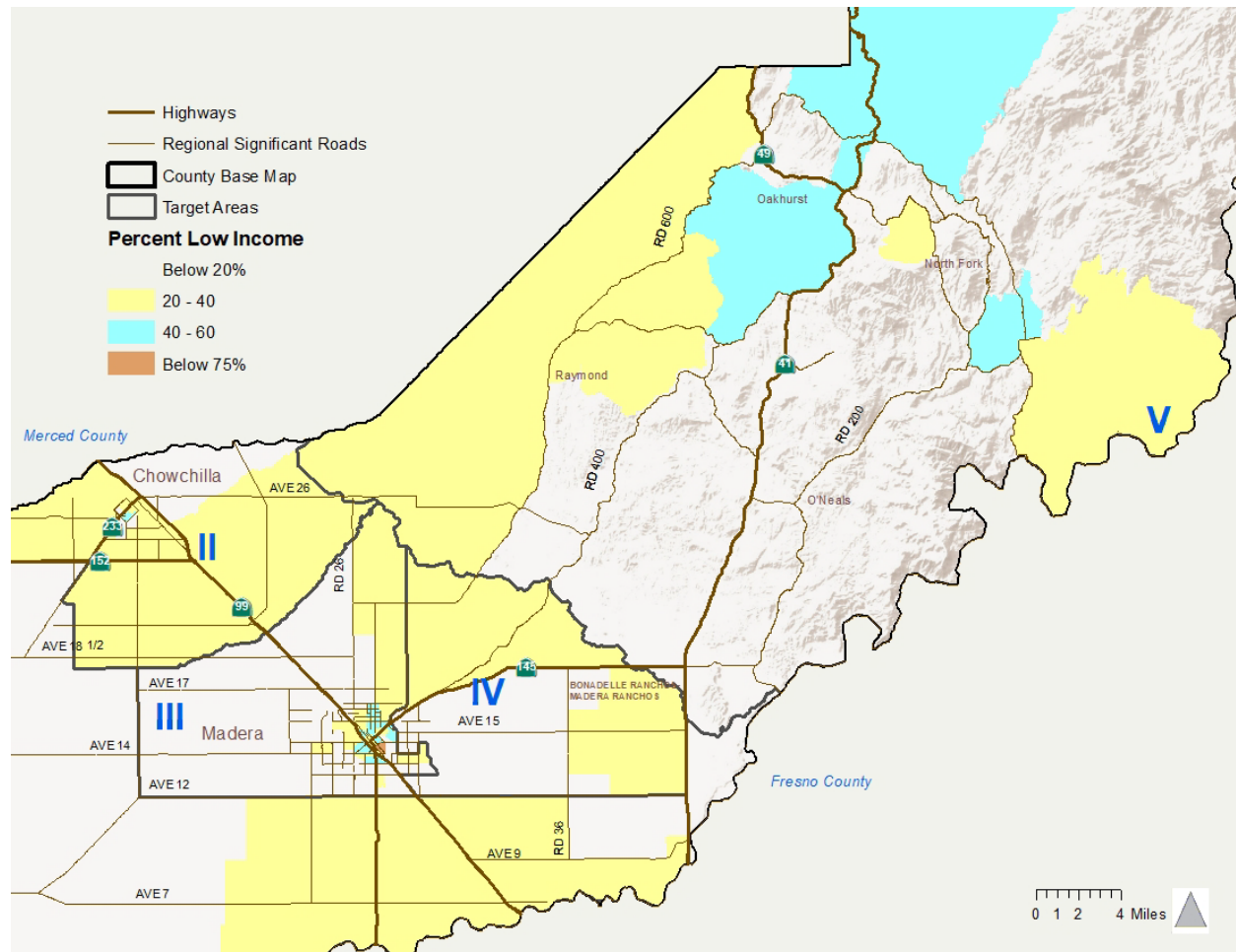
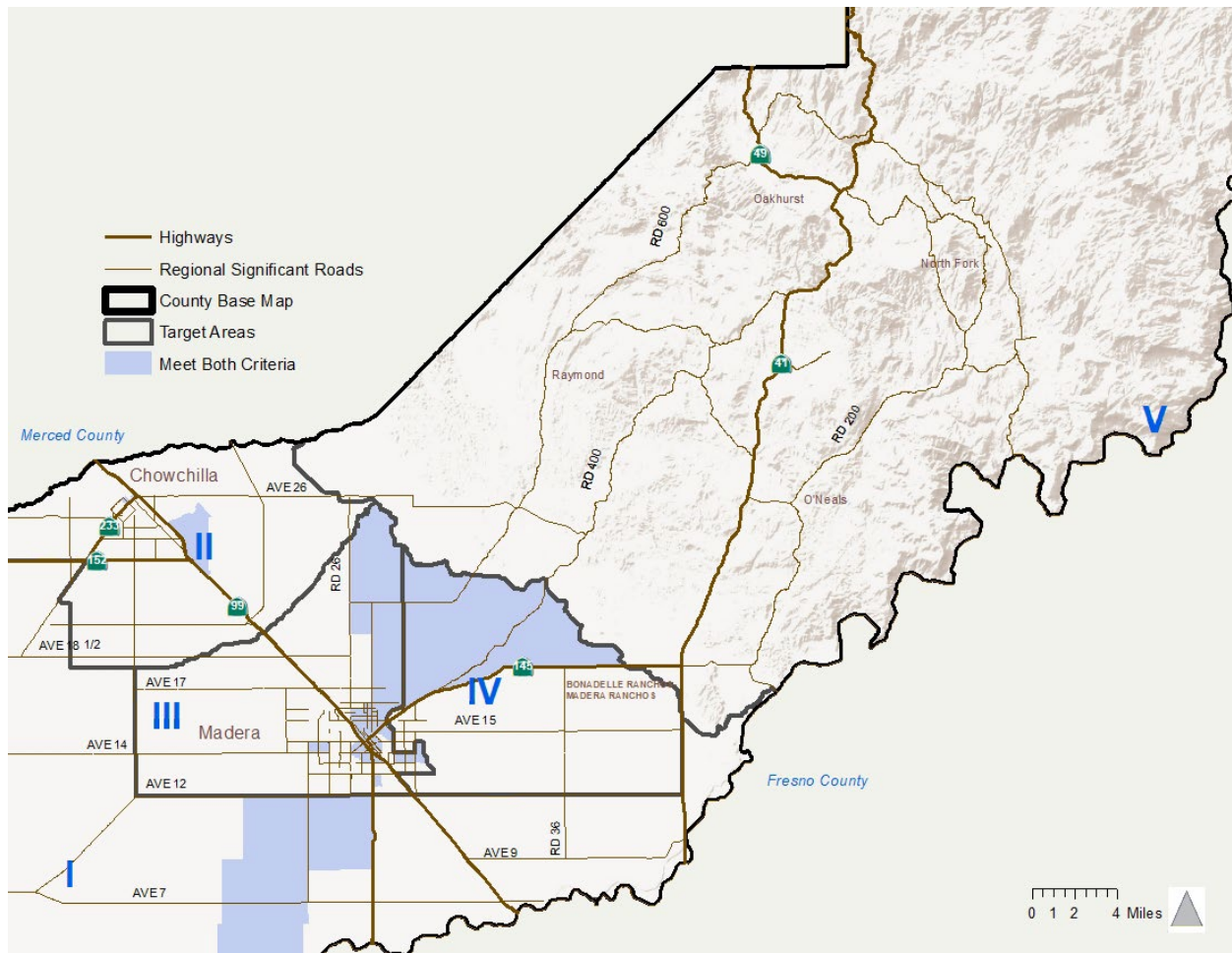


FIGURE 6: Madera County Ethnic Minority and Low-Income Areas



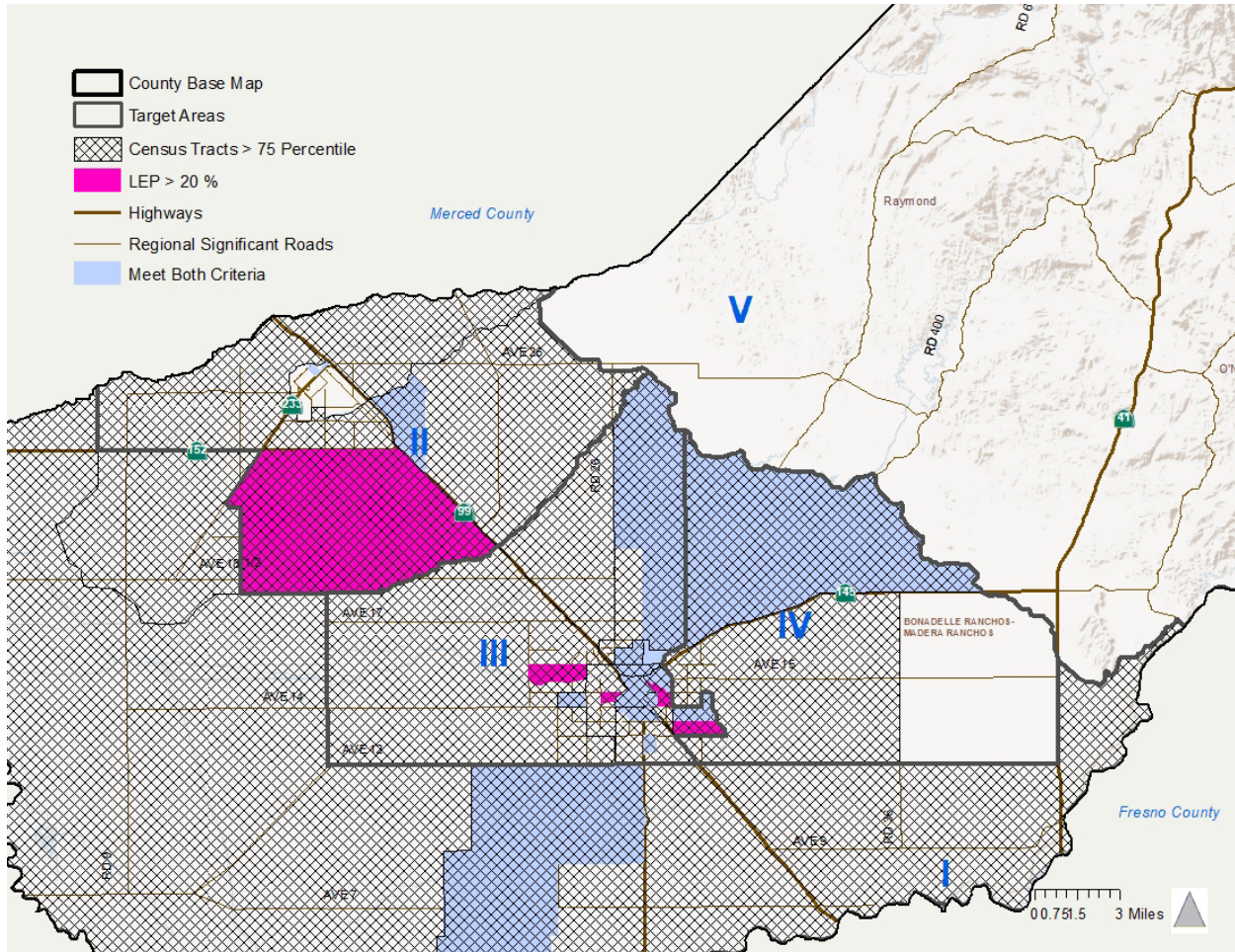
Environmental Justice Areas

Analysis was performed on the state designated SB 535 disadvantaged communities as determined by CalEnviroScreen 4.0 (CES). According to CES, disadvantaged communities are census tracts that rank in the top 25th percentile in the state for pollution burden, along with several other social and environmental factors.³ Using these criteria MCTC identified 14 census blocks for the equity analysis. Figure 7 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 meet both criteria forminority and/or low-income residents and Language English Proficiency (LEP) above 20%. Figure 7 Shows that target zones II and III, primarily within the City of Chowchilla rank in the top 25 percentile pollution burden, meet the EJ criteria of minority and limited means, and the City of Madera also includes LEP population.

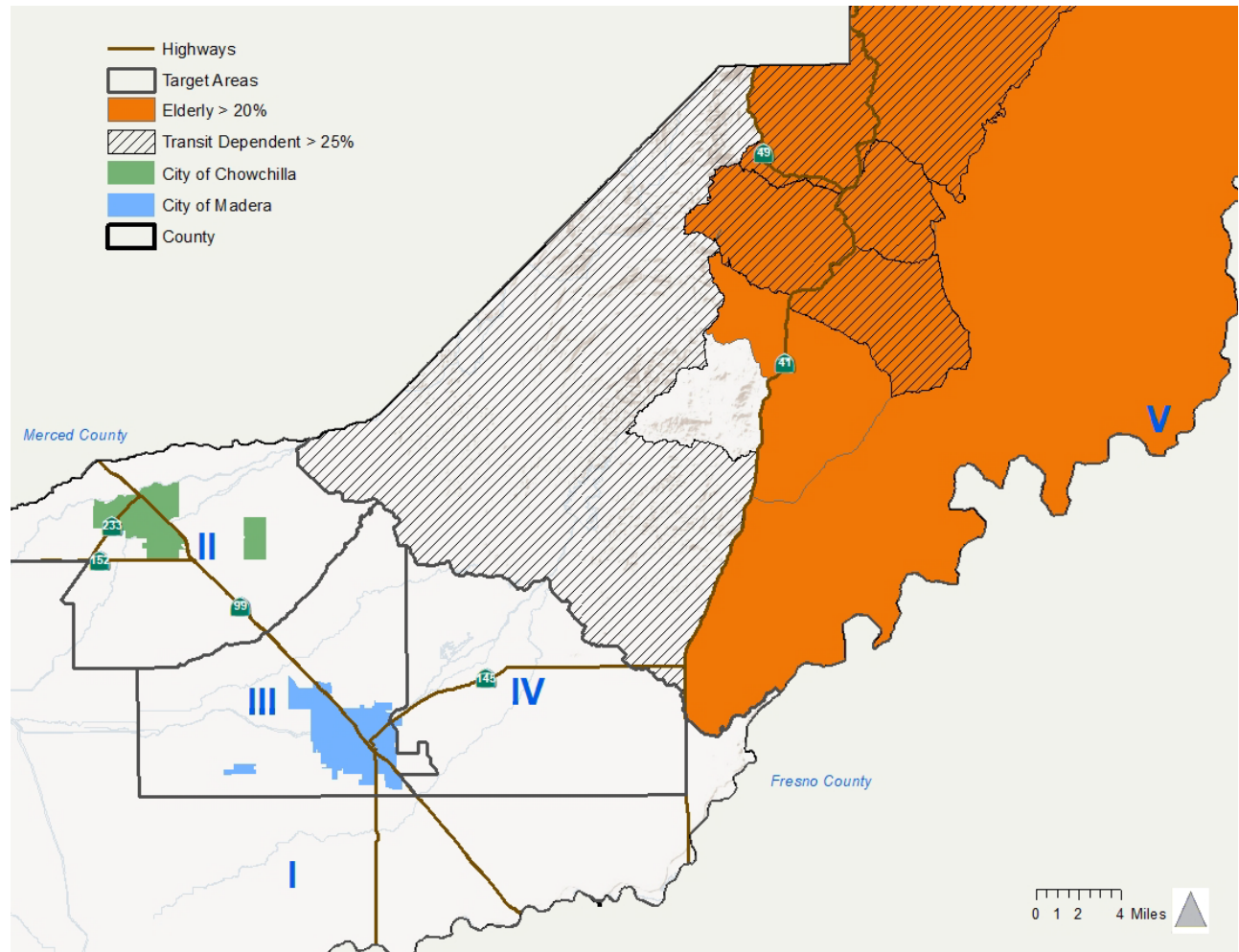
The majority of the elderly and transit dependent population are located in target zone V, as shown in Figure 8.

FIGURE 7: Environmental Justice Areas, Minority, Limited Means, and Language English Proficiency (LEP)



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

FIGURE 8: Transit Dependent and Elderly



Roadway-Emphasis Projects

Roadway-emphasis projects include mainline highway, highway interchange, highway maintenance, regional roadway and regional roadway maintenance projects as listed in the 2022 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.

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 II and III 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 9 through 13 identify the proposed capacity increasing street and highway projects compared to 2020 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 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 Metro fixed route and Dial-a-Ride, Madera County Connection, Eastern Madera Senior Bus, Escort Program, Chowchilla Area Transit Express, specialized social service transportation services, Greyhound, and taxi service. Public transportation is provided by fixed-route and demand-response transit systems, as described in the Public Transit Chapter.

To determine the adequacy of the current transit system and areas needed for improvement, public participation is critical. MCTC is committed to annually complete 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 Metro, 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 9: Madera County Population Density Compared to Capacity Increasing Street and Highway Projects

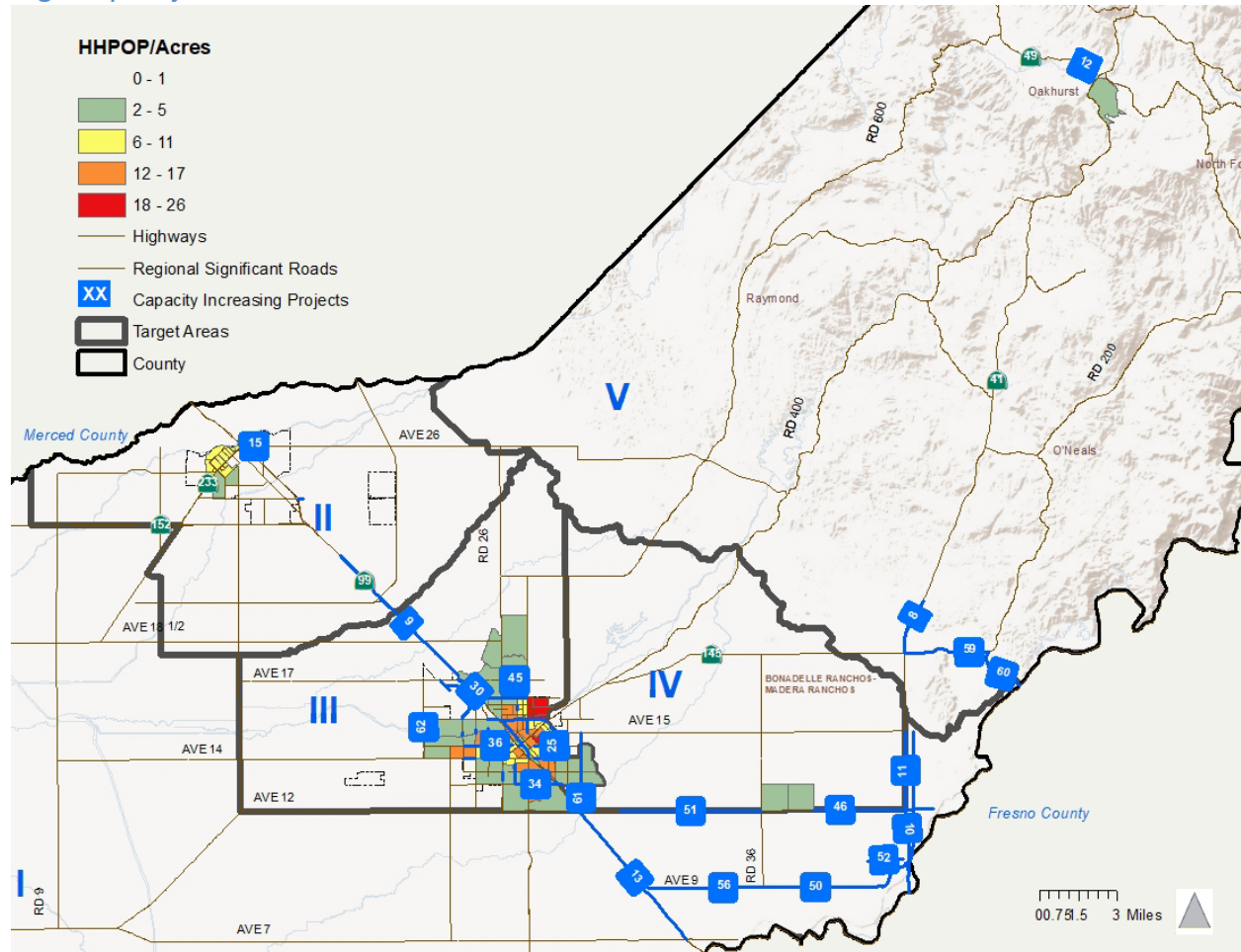


FIGURE 10: Chowchilla Poverty Levels Compared to Capacity Increasing Street and Highway Projects

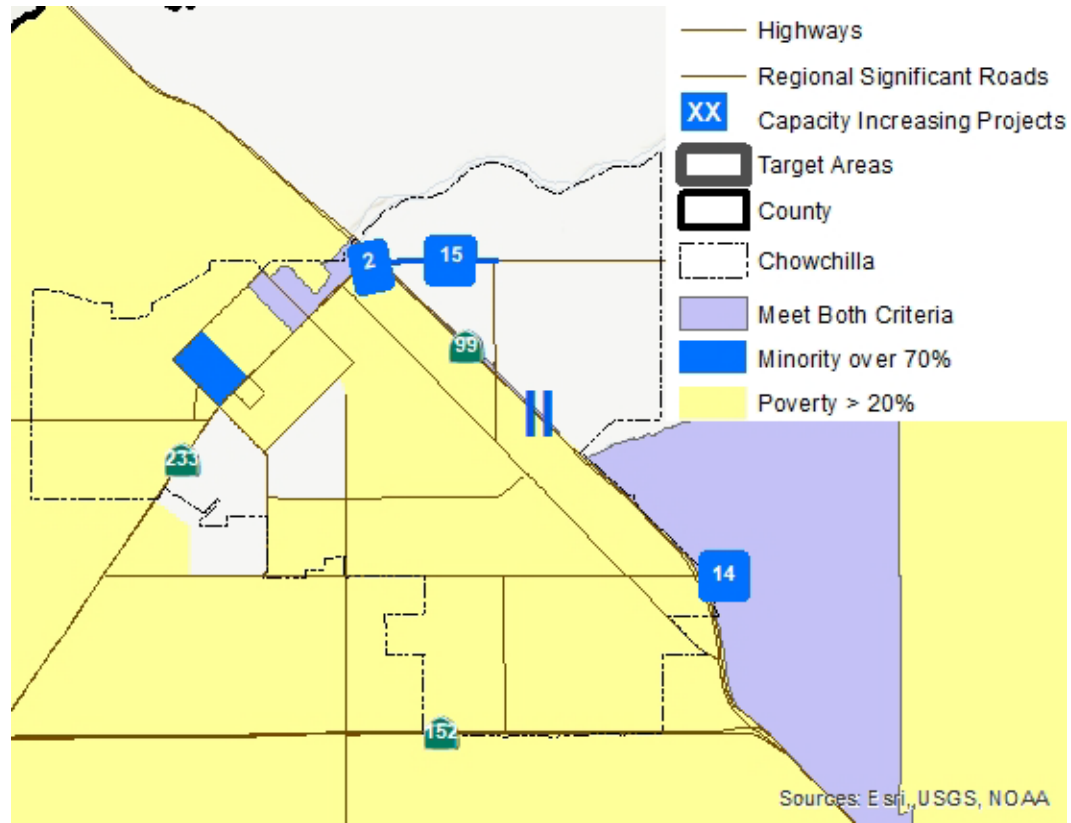


FIGURE 11: Chowchilla Population Density Compared to Capacity Increasing Street and Highway Projects

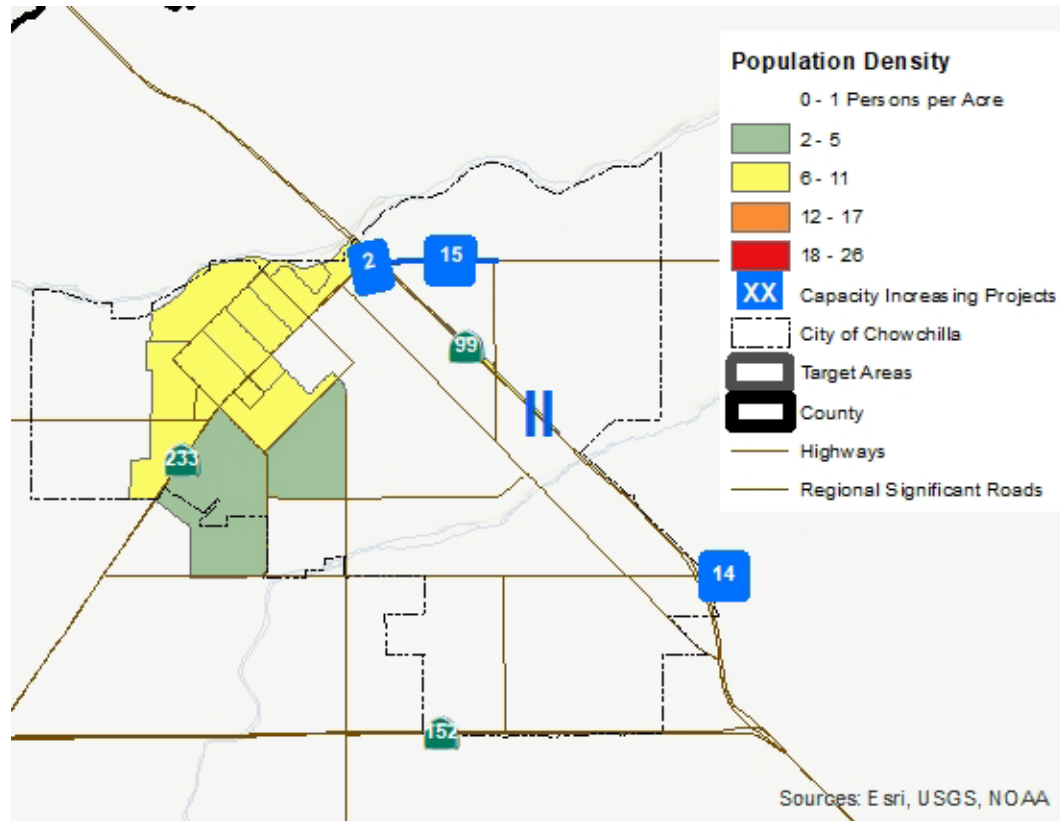


FIGURE 12: Madera Poverty Levels Compared to Capacity Increasing Street and Highway Projects

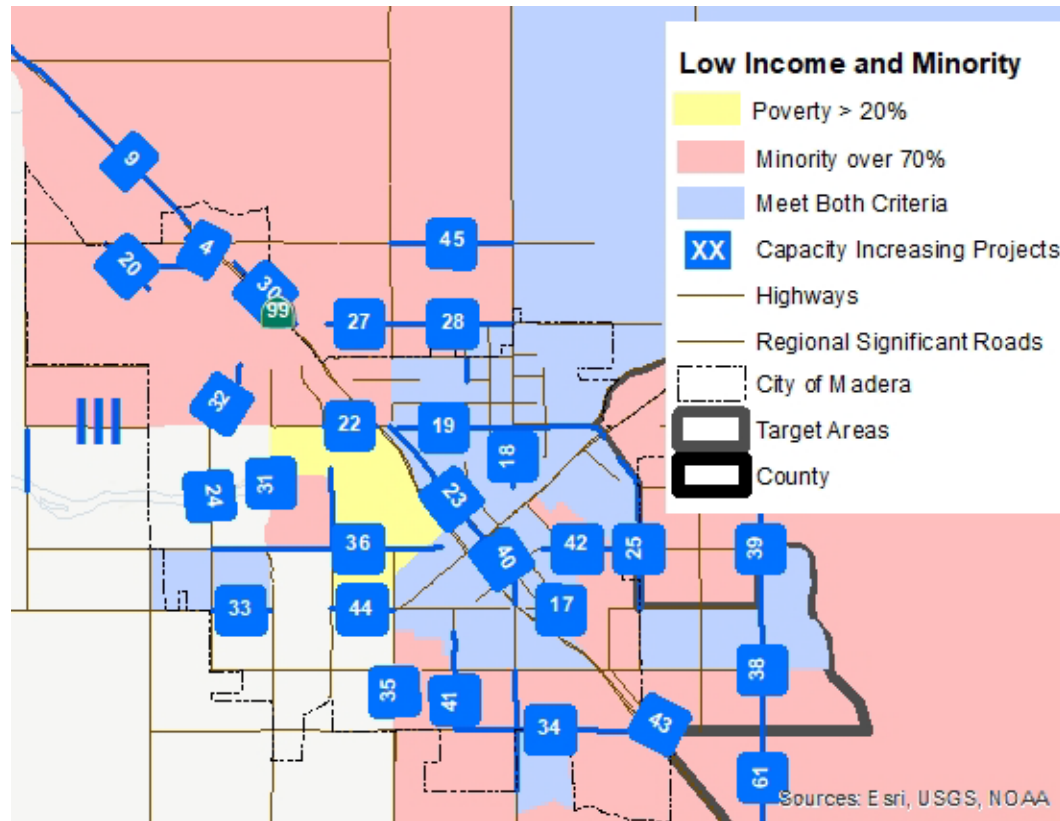
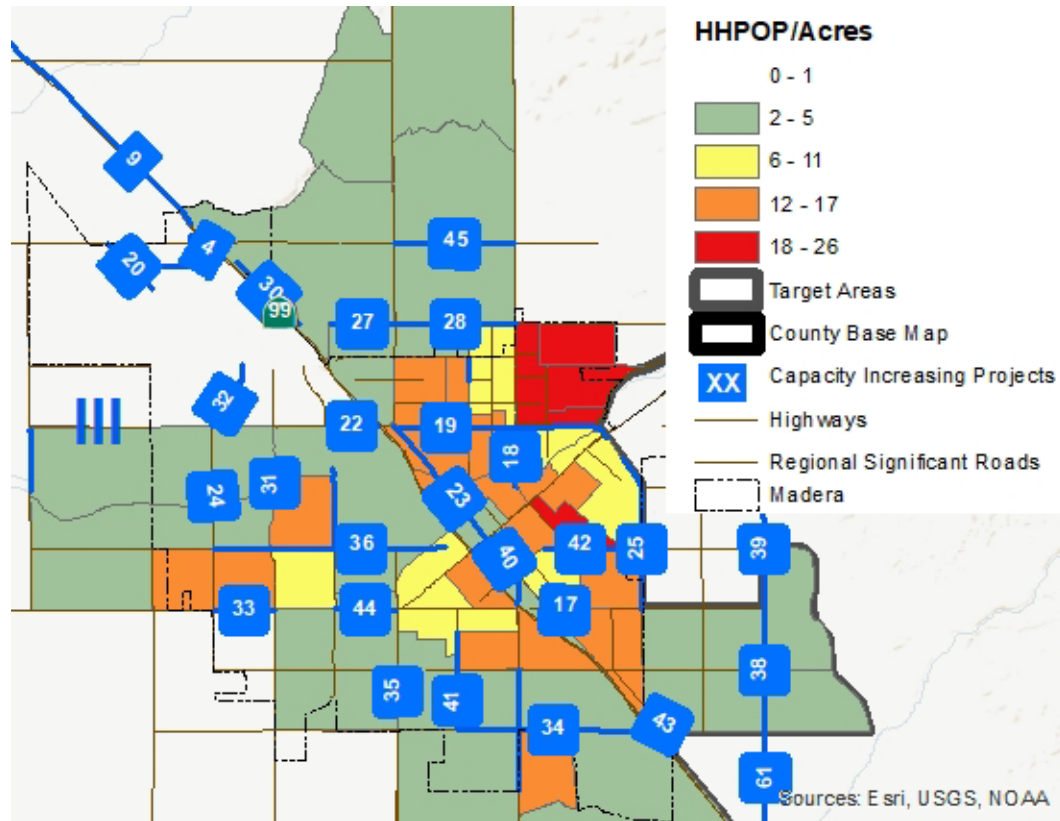


FIGURE 13: Madera Population Density Compared to Capacity Increasing Street and Highway Projects



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 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 Metro 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, dollars and there is an estimated \$160 million dollars 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 14 through 16, show the existing and priority projects proposed for the bicycle network in the region. These projects are consistent with the ones in the Active Transportation Plan.

FIGURE 14: Madera County Existing Bicycle Network

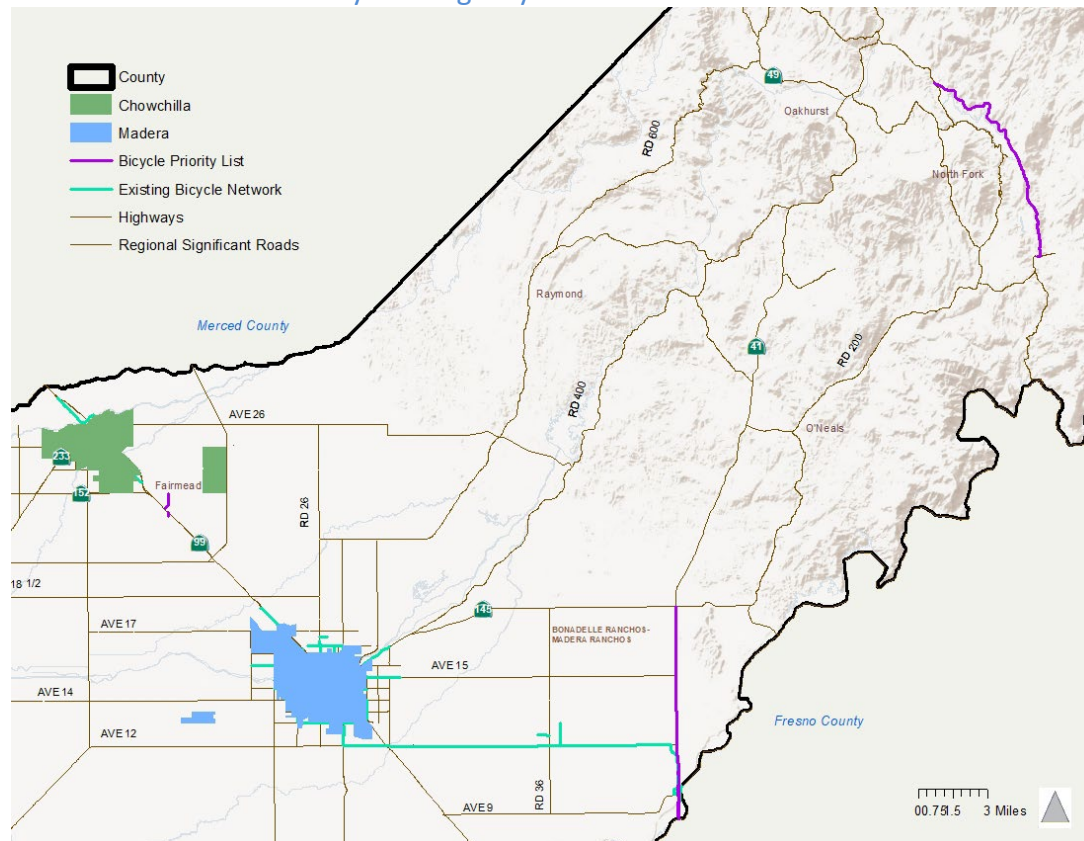


FIGURE 15: City of Madera Existing Bicycle Network

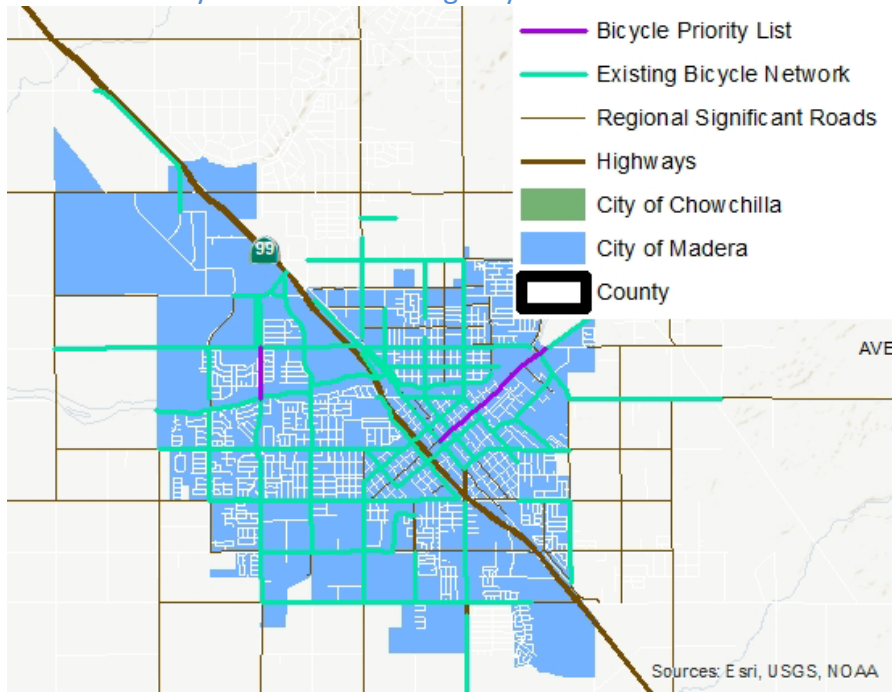
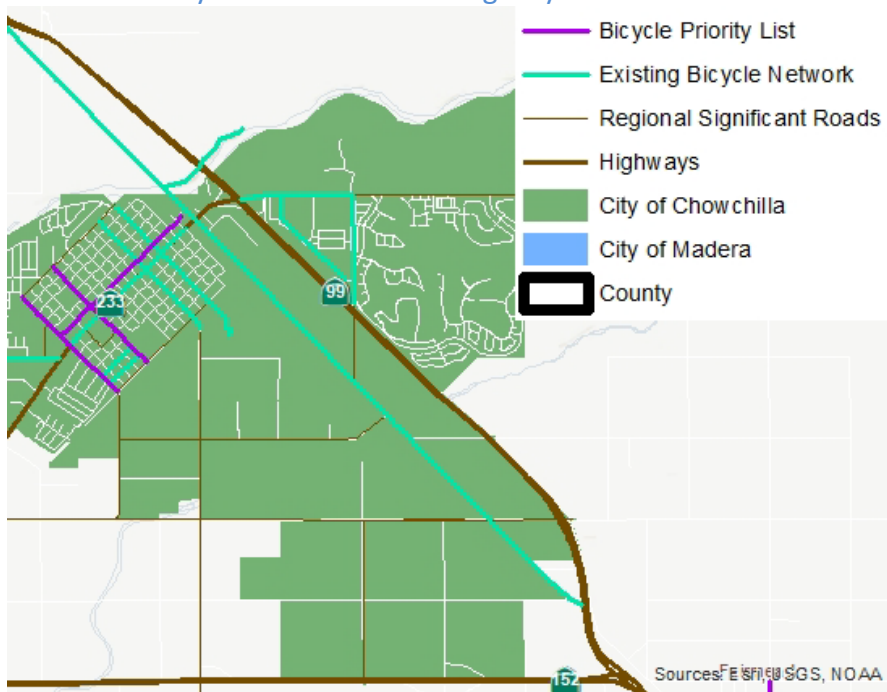


FIGURE 16: City of Chowchilla Existing Bicycle Network



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 vehicle 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 has also been recognized for its 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 and SCS.

Considering all the analyses as a whole, 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.