TUOLUMNE COUNTY TRANSPORTATION COUNCIL

2016 Final Regional Transportation Plan







Tuolumne County Transportation Council
2 Green Street (mailing)
48 W. Yaney Ave (physical)
Sonora, CA 95370

This page is left intentionally blank.

Tuolumne County
2016 Final Regional Transportation Plan

February 2017

Tuolumne County Transportation Council Regional Transportation Plan
© 2016 Tuolumne County Transportation Council (TCTC)

This document cannot be copyrighted with all rights reserved. TCTC is a public agency, and this document is public domain. All rights reserved.

Many individuals assisted in the preparation of the 2016 TCTC Regional Transportation Plan.

Tuolumne County Transportation Council (TCTC)

Council Members

Michael Ayala - Chair – Citizen At Large Member
Evan Royce – Member – Tuolumne County District 3 Board of Supervisor
John Gray – Member – Tuolumne County District 4 Board of Supervisor
Connie Williams – Member – City of Sonora Council Member
George Segarini – Member – City of Sonora Council Member
Randy Hanvelt – Alternate Member – Tuolumne County District 2 Board of Supervisor
Karl Rodefer – Alternate Member – Tuolumne County District 5 Board of Supervisor
Jim Garaventa - Alternate Member - City of Sonora

TCTC Staff

Darin Grossi – Executive Director
Laura Shinn – Senior Administrative Analyst
Tyler Summersett – Senior Transportation Planner
Alex Padilla – Transportation Planner
Denise Bergamaschi – Department Support Technician

Technical Advisory Committee (TAC)

Craig Pedro – Tuolumne County - Administrator
Tim Miller – City of Sonora - Administrator
Bev Shane – Tuolumne County - Community Resources Director
Rachelle Kellogg – City of Sonora - Community Development Director
Benny Stuth – Tuolumne County - Airport Manager
Duke York – Tuolumne County - Deputy CRA Director of Roads
Tanya Allen– Tuolumne County - Supervising Engineer
Jon Otterson – Tuolumne Me Wuk Tribal Council
Dore Bietz - Tuolumne Me Wuk Tribal Council
Betty Kibble – Transportation Planner - Caltrans District 10
Carl Baker – Rural Planning Chief - Caltrans District 10
Scott Clamp - Lt Commander - CHP

Citizens Advisory Committee (CAC)

Bob Asquith - District 4 Representative
Dick Southern - District 3 Representative
Jim Grinnell - City of Sonora Representative
Stephen Dietrich - City of Sonora Representative

Chapter

Table of Contents

Pg #

1. Executive Summary 1
2. Introduction 8
2.1 Purpose of Plan 9
2.2 Tuolumne County Transportation Council 10
2.3 Regional Setting 11
2.4 Population 13
2.5 Coordination with Other Plans 14
2.6 Emerging Transportation Technologies 15
3. Regional Transportation 18
3.1 Introduction 19
3.2 Interregional Transportation 20
3.3 Regional Transportation 23
3.4 Regional Performance Measures 24
3.5 Transportation System Management 26
3.6 Goods Movement 27
3.7 Emergency Management 27
3.8 Intelligent Transportation Systems 29
3.9 Complete Streets 30
3.10 Smart Mobility Framework 31
3.11 Context Sensitive Solutions 32
4. Rural Sustainable Strategies 34
4.1 Introduction 35
4.2 California Laws Addressing Greenhouse Gases 35
4.3 What is a Rural Sustainable Strategy? 38
4.4 Previous Planning Efforts 39
4.5 Defined Community Boundaries 44
4.6 Goals, Objectives, Policies 47
4.7 List of Rural Sustainable Strategies 48
4.8 Air Quality Indicators 50
4.9 Greenhouse Gas Emission Reductions 53
5. State Highways 60
5.1 Introduction 61
5.2 Existing Conditions 62
5.3 Goals, Objectives, Policies 65
5.4 Regional Travel Demand Model 66
5.4 LOS Deficiencies 68
5.5 Tier Capital Improvement Projects 72
5.6 Funding Sources 76
5.7 Supporting Documents 77
5.8 Expenditure Plan 78

Chapter

Table of Contents

Pg #

6. Local Streets and Roads 89
6.1 Introduction 90
6.2 Roadway Classification 91
6.3 Urban Areas 93
6.4 Pavement Management Program 96
6.5 Regional Travel Demand Model 98
6.6 LOS Deficiencies 99
6.7 Bridges 103
6.8 Goals, Objectives, Policies 105
6.9 Future Capital Improvement Projects 107
6.10 Funding Sources 111
6.11 Supporting Documents 113
6.12 Expenditure Plan 115
7. Aviation 131
7.1 Introduction 132
7.2 Existing Conditions 133
7.3 Objectives and Policies 138
7.4 Funding Sources 140
7.5 Supporting Documents 141
7.6 Expenditure Plan 143
8. Non-Motorized Transportation 149
8.1 Introduction 150
8.2 Existing Conditions 152
8.3 Goals, Objectives, Policies 160
8.4 Future Capital Improvement Projects 161
8.5 Funding Sources 171
8.6 Supporting Documents 173
8.7 Expenditure Plan 177
9. Railroad 197
9.1 Introduction 198
9.2 Existing Conditions 200
9.3 Objectives and Policies 204
9.4 Funding Sources 205
9.5 Supporting Documents 206
9.6 Expenditure Plan 209

Chapter

Table of Contents

Pg #

10. Public Transportation 211
10.1 Introduction 212
10.2 Transit Services and Programs 213
10.3 Goals, Objectives, Policies 221
10.4 Future Capital Projects & Services 223
10.5 Public Transportation Service Expansions 225
10.6 Funding Sources 226
10.7 Supporting Documents 227
10.8 Expenditure Plan 229
11. Financial Plan 235
11.1 Introduction 236
11.2 Transportation Funding Shortfall 239
11.3 Financial Plan Summary 240
11.4 RTP Expenditure Plan - Status Quo 245
11.5 Transportation Financing Alternatives 272
11.6 Financial Alternative A 272
11.7 Financial Alternative B 273
11.8 Financial Alternative C 279
11.9 Financial Recommendation 285

Appendices
Appendix A - Regional Transportation Plan Checklist
Appendix B - Public Participation Plan
Appendix C - Population Projections
Appendix D -Tuolumne County Traffic Study Report - Addendum
Appendix E - List of Roadway Classifications
Appendix F - Rural Sustainable Strategies - Project Level Assessment
Appendix G - Residential Areas Emergency Access Improvements
Appendix H - Blueprint Performance Measures
Appendix J - Results of the RTP Public Participation
Appendix K - Financial Projections and Historic Revenues

Chapter.Figure #

List of Figures

pg #

1.1 Chapter One Cover Picture 1
2.1 Chapter Two Cover Picture 8
2.2 Tuolumne County Map 12
3.1 Chapter Three Cover Picture 18
4.1 Chapter Four Cover Picture 34
4.2 Three Principles of Sustainability 35
4.3 Blueprint Grant Awards Locations 40
4.4 Planning Scenarios Guiding Principles 43
4.5 Defined Community Boundaries Map 46
5.1 Chapter Five Cover Picture 60
5.2 East Sonora Bypass Stage II 61
5.3 State Highways in Tuolumne County Map 63
5.4 Sonora TAZ Map 67
5.5 Tier 1a State Highway Projects Map 85
5.6 Tier 1b State Highway Projects Map 86
5.6 Tier 1c State Highway Projects Map 87
6.1 Chapter Six Cover Picture 89
6.2 Mono Way Widening Project 90
6.3 Urban Area Boundaries Map 95
6.4 Phoenix Lake Road Bridge Crossing Sullivan Creek 103
6.5 Tier 1a Local Streets and Roads Projects Map. 127
6.6 Tier 1b Local Streets and Roads Projects Map 128
6.7 Tier 1c Local Streets and Roads Projects Map. 129
7.1 Chapter Seven Cover Picture 131
7.2 Tuolumne County Airport Location Map 133
7.3 Pine Mountain Lake Airport. 134
7.4 Columbia Airport. 135
7.5 Tier 1a Aviation Projects Map 147
8.1 Chapter Eight Cover Picture 149
8.2 Dragoon Gulch Trail Sign 152
8.3 SR 49 Jamestown to Columbia Map 165
8.4 Dragoon Gulch Trails Map. 166
8.6 Vision Sonora Plan Logo 174
8.7 Tier 1a Non-Motorized Transportation Projects Map 193
8.8 Tier 1b Non-Motorized Transportation Projects Map 194
8.9 Tier 1c Non-Motorized Transportation Projects Map 195
9.1 Chapter Nine Cover Picture. 196
9.2 Sierra Railroad Map 198
9.3 Railtown State Historic Park Map 200
9.4 Railtown Train Ride 200

Chapter.Figure # **List of Figures** pg #

10.1 Chapter Ten Cover Picture 211
10.2 Indian Rock Bus Stop 213
10.3 Ski Bus. 214
10.4 YARTS Bus 215
10.5 NextBus Live Bus and Route Map. 216
10.6 TCT Routes Map 217
10.7 Ski Bus Service Banner 217
10.8 YARTS Bus Service 218
10.9 TCT Ridership 219
10.10 Law and Justice Center Transit Facility 223
10.11 Law and Justice Center Shade Structure 223
10.12 Tier 1a-c Public Transportation Projects Map 233
11.1 Chapter Eleven Cover Picture 235
11.2 Tier 1a Map 248
11.3 Tier 1b Map 249
11.4 Tier 1c Map 250
11.5 Tier 2 - Financial Alternative B Map 275
11.6 Tier 2 - Financial Alternative C Map 281

Chapter.Table #

List of Tables

pg #

2.1 Tuolumne County Historical Population 13
2.2 Tuolumne County Population Projections 14
3.1 Statewide Transportation Issues and Solutions 20
3.2 Interregional Transportation Issues and Solutions 21
3.3 Regional Transportation Issues and Solutions 23
3.4 Regional Performance Measures 25
4.1 Average Daily VMT 42
4.2 Defined Community Boundaries 44
4.3 List of Rural Sustainable Community Strategies 48
4.4 Tuolumne County Air Quality Classifications 51
4.5 2008 Ozone NAAQS 52
4.6 1997 Ozone NAAQS 53
4.7 Tuolumne County GHG Inventory 54
4.8 Comparison of Growth Scenarios GHG Emissions 55
4.9 Countywide Emission Targets 55
4.10 Transportation Policies and GHG Reductions 56
5.1 State Highways in Tuolumne County 62
5.2 Locally Designated Scenic Routes 64
5.3 National Scenic Byways 64
5.4 State Highways Issues and Solutions 65
5.5 2015 Unacceptable Peak Hour LOS - Intersections 69
5.6 2015 Unacceptable Peak Hour Turning Movements - Intersections 70
5.7 2030 Unacceptable Peak Hour LOS - Intersections 70
5.8 2040 Unacceptable Peak Hour LOS - Intersections 70
5.9 2015 Unacceptable Peak Hour LOS - Roadway Segments 71
5.10 2030 Unacceptable Peak Hour LOS - Roadway Segments 71
5.11 2040 Unacceptable Peak Hour LOS - Roadway Segments 72
6.1 Functional Roadways Classifications 91
6.2 Urban Areas - US Census Bureau 93
6.3 Urban Areas - FHWA 94
6.4 Pavement Conditions Summary 96
6.5 2015 Unacceptable Peak Hour LOS - Intersections 99
6.6 2030 Unacceptable Peak Hour LOS - Intersections 100
6.7 2030 Unacceptable Peak Hour Turning Movements - Intersections . . . 100
6.8 2040 Unacceptable Peak Hour LOS - Intersections 100
6.9 2040 Unacceptable Peak Hour Turning Movements - Intersections . . . 101
6.10 2015 Unacceptable Peak Hour LOS - Roadway Segments 101
6.11 2030 Unacceptable Peak Hour LOS - Roadway Segments 102
6.12 2040 Unacceptable Peak Hour LOS - Roadway Segments 102

Chapter.Table # **List of Tables** pg #

6.13 Tuolumne County Bridges - Qualify for Replacement 104
6.14 Local Streets and Roads Issues and Solutions 104
7.1 Existing Conditions Airport Facilities 136
7.2 Pine Mountain Lake Airport- Issues and Solutions 137
7.3 Columbia Airport - Issues and Solutions. 137
7.4 Aviation Performance Measures 139
8.1 Means of Transportation to Work 153
8.2 Existing Class II Facilities 155
8.3 Existing Trails Facilities 157
8.4 Pedestrian Issues and Solutions. 159
8.5 Bicycle Issues and Solutions. 159
9.1 Existing Conditions Railroads. 199
9.2 Sierra Railroad Issues 202
9.3 Railroad Performance Measures 203
10.1 Public Transportation Issues and Solutions. 220
11.1 Summary of RTP Projected Revenues 240
11.2 Summary of 25 Year Road Maintenance 242
11.3 Summary of 25 Year Public Transit. 243
11.4 Summary of 25 Year Bridge Replacements 244
11.5 RTP Capital Improvements Project Costs Summary. 245
11.6 RTP Tier 2 and 3 Unfunded Project Cost Summary 246
11.7 Alternative B New Potential Funding Sources 274
11.8 Alternative C New Potential Funding Sources 280

This page is left intentionally blank.

Chapter One - Executive Summary



Figure 1.1 Algerine Road, Photo Courtesy of TCTC

The 2016 Regional Transportation Plan (RTP) is a vision, policy, action, and financial plan that is focused on the future transportation needs of Tuolumne County for the next 25 years. This summary of the Regional Transportation Plan highlights the key actions presented in this document and some of the major changes from the 2006-2007 Tuolumne County Regional Transportation Plan.

The Regional Transportation Plan issues transcend the boundaries of local jurisdictions as the regional transportation planning agency, Tuolumne County Transportation Council (TCTC), collaborates by partnering with local, state, tribal, and federal governments to achieve an effective multi-modal transportation system. The RTP focuses on transportation, and the movement of people and goods for purposes such as working, shopping, school, or recreation, by means of autos, trucks, buses, trains, planes, bicycling, or walking. The RTP must balance transportation priorities with anticipated funding because the RTP is a financially constrained document. Each mode of transportation element identifies and describes:

- Goals, policies and objectives
- Issues and solutions
- Performance measures
- Expenditure Plan - a constrained and unconstrained list of capital improvement projects
- Funding sources to complete the constrained project list
- Potential alternative funding sources

New Rural Sustainable Strategies (RSS) Chapter

The new Rural Sustainable Strategies (RSS) is a new optional chapter that discusses rural sustainable strategies that will achieve TCTC's RTP goals as well as goals in SB 375, AB 32, and Governor Brown's Executive Order B-30-15. As a rural regional transportation planning agency (RTPA), TCTC is not required to comply with SB 375, as it only applies to Metropolitan Planning Organizations (MPOs). This chapter provides an opportunity to discuss past, present, and future sustainable transportation efforts that can help achieve RTP and State goals. Implementing AB 32 and SB 375 presents major challenges to rural RTPAs. The staff resource requirements can be a financial burden to small agencies. An important part of this chapter is defining: what is sustainable to rural communities? Addressing a reduction in greenhouse gas (GHG) emissions is only a piece of the overall sustainable transportation strategy for Tuolumne County. A focus on all three economic, environmental, and livability indicators can help achieve a well-balanced multi-modal regional transportation system. A full list of Rural Sustainable Strategies is located in Chapter 4.

Tuolumne County Transportation Council is uniquely positioned to take advantage of the State's direction in being sustainable. Tuolumne County can be the leader in Rural Sustainable Strategies (RSS) should the State provide funding for rural projects consistent with this Rural Sustainable Strategies Chapter. Without adequate funding from the State, attaining the forecasted GHG emission reductions as well as meeting the RTP Rural Sustainable Strategies is unlikely.

New Regional and Interregional Transportation Chapter

The Regional Transportation Element discusses the State, interregional, and regional transportation issues, goals, and policies that affect multiple modes of transportation in Tuolumne County. The 2016 Tuolumne County Regional Transportation Plan has ten regional performance measures that track progress toward attaining the ten regional goals. These measures provide a baseline to measure existing conditions with desired future outcomes of the Regional Transportation Plan over the next 25 years.

Six New Individual Modes of Transportation Chapters

The six new Chapters include: State Highways - Chapter 5; Local Streets and Roads - Chapter 6; Aviation - Chapter 7; Non-Motorized Transportation - Chapter 8; Railroads -Chapter 9; and Public Transportation - Chapter 10. The RTP balances transportation needs and priorities with anticipated funding as the RTP is a financially constrained document. Each mode of transportation element identifies and describes:

- Goals, objectives, policies
- Existing conditions
- Transportation issues and potential solutions
- A list of constrained and unconstrained capital improvement projects
- Funding sources to complete the constrained project list
- Potential alternative funding sources

Financial Plan Chapter - Transportation Funding Shortfall

A major challenge for transportation funding has been revenues generated at the gas pumps have not kept up with inflation. The Federal gas taxes and fees have not increased since 1993 and automobile drivers are using less in fuel because of increased vehicle fuel efficiency combined with the growing use and popularity of plug-in electric vehicles, which do not use gasoline fuels, is resulting in a deep decline in gasoline tax revenues. The problem is compounded when gas prices are low, resulting in less gasoline tax revenues.

The transportation funding shortfall has recently reached a critical moment. The California Transportation Commission (CTC) approved a reduction in the projected funds available by $754 million dollars over the next 5 years for the State Transportation Improvement Program (STIP). This means the CTC will have to remove 754 million dollars in programmed projects in the 2016 STIP. The Transportation Council adopted a revised 2016 Regional Transportation Improvement Program (RTIP) Plan in February 2016. According to the Final 2016 STIP, the Tuolumne County region will see a cut of $1.995 million dollars in RTIP funds and a delay in the construction of the Peaceful Oaks Interchange Project.

The transportation funding shortfall has impacted rural areas much more because of the recent changes to State laws such as the Active Transportation Program (ATP). The previous formula based Transportation Enhancement (TE) funds that Tuolumne County received for pedestrian and bicycle projects was combined into one new program as a result of new Federal legislation creating the Transportation Alternatives Program (TAP). As a result of the TAP, the State created a competitive based, Caltrans administered program called the Active Transportation Program (ATP). The ATP scoring criteria prioritizes non-motorized transportation projects that improve safety by reviewing project site accident rates to support the justification. Tuolumne County and the City of Sonora have had a lack of success in the ATP program, because of the lack of high accident rates. Urbanized areas can make a stronger case for the safety need based upon having larger populations and more accident data. Additionally, the State now uses criteria from the Disadvantaged Communities Program to prioritize project funding in both the ATP and Cap and Trade Programs. The criterion used to prioritize Disadvantaged Communities does not include environmental disadvantages found in rural mountain communities. The ATP program is just one example, where the Tuolumne County region is losing transportation funds. The lack of reliable funding for non-motorized transportation improvements has resulted in AB 32 and Executive Order B-30-15 becoming unfunded mandates for local agencies.

It is important to note that transportation funding can be unpredictable, when State and Federal actions can result in the elimination of certain funding programs or the diversion of transportation funds to non-transportation uses. Some of the funding sources assumed within the financial projections for this plan will not actually be realized, depending on a number of factors. Even if all of the revenues assumed in this document are realized, projected funds are insufficient to keep up with the maintenance, operational, safety, and major improvement needs of the region. The Financial Plan identifies additional alternative new funds that could potentially become available. The TCTC collaborates with local, State, and Federal agencies to seek new transportation revenue sources.

Financial Alternatives B and C - New Potential Revenue Sources

It is important to note, that some of the potential new revenue sources in the alternatives require changes in State law, passing of local ordinances or voter initiatives. These financial alternatives present a discussion on what new transportation revenue sources are available and what priorities or actions the TCTC should pursue in the future to help reduce the transportation funding shortfall.

Financial Alternatives B and C list potential new revenue sources that could become available in the future. These alternatives include a list of future- planned capital improvement projects that would be constructed with these new funds.

Financial Alternative B focuses on funding non-motorized transportation projects and road maintenance projects. This alternative anticipates three new revenue sources: Congestion Mitigation and Air Quality (CMAQ), Active Transportation Program (ATP), and Cap and Trade Funds. In this alternative, all new funding is designated for specific transportation modes such as non-motorized transportation and road maintenance projects. The alternative provides a path towards compliance with AB 32 and Executive Order B-30-15.

Financial Alternative C focuses on improving road network deficiencies on the State Highways and on local roads, maintenance of local roads, transit service increases, and transit capital improvements projects. This alternative anticipates three new revenue sources: a quarter-cent sales tax, redirecting some of the existing Cap and Trade funds to Tuolumne County, and an increase in the Regional Traffic Impact Mitigation Fee Program's (TIMF) fees.

Expenditure Plan – Constrained Capital Improvement Projects

The 2016 Expenditure Plan utilizes future transportation funding estimates and plans capital improvement projects with those limited constrained funds. Some of the key projects that the Expenditure Plan would fund include:

- Maintenance of the existing transportation network including: local roads, State Highways, bicycle lanes, sidewalks, bridges, and transit.
- Safety and operational improvements to State Routes 49, 108, and 120.
- Widening of State Route 108/49 to five lanes with Complete Streets Improvements from South Main St. to Fifth Ave.
- North-South Connector - Phase I - Greenley Road Extension from Lyons Rd to State Route 49 with Complete Streets Improvements.
- Expanded transit services and transit facilities including the Law & Justice Center Transfer Facility and new seasonal bus service to Pinecrest.

- Complete Streets Improvements to the sidewalk network along State Routes 49, 108, 120 in downtown Sonora, Jamestown, and Groveland and American with Disabilities Act (ADA) compliant enhancements.
- Completion of the SR 108 and Peaceful Oak Road Interchange
- Greenley Road and Mono Way Intersection Improvement Project

This page is left intentional blank

Chapter Two: Introduction



Figure 2.1: Covered Bridge, Photo Courtesy of Tuolumne County Visitors Bureau

Purpose of the Plan

The Tuolumne County Transportation Council (TCTC) is the designated Regional Transportation Planning Agency (RTPA) for Tuolumne County. A primary responsibility of the TCTC is to adopt and update the Regional Transportation Plan (RTP) for the Tuolumne County region in accordance with State and Federal laws. The Regional Transportation Plan serves as the planning blueprint to guide future transportation investments in Tuolumne County involving local, state, and federal funding over the next twenty-five years.

The overall focus for this 2016 RTP is directed at developing a coordinated and balanced multi-modal transportation system. The RTP focuses on considering short-range (0-10 years) and long-range (11-25 years) transportation investment for all modes, including highways, public transportation, bicycle facilities, pedestrian facilities, railroads, aviation, and goods movement within a financially constrained environment. The 2016 RTP establishes regional transportation goals, objectives, and rural sustainable strategies. The RTP identifies present and future needs, deficiencies and constraints, analyzes potential solutions, estimates available funding, and proposes investments for short and long term projections.

The TCTC is responsible for determining the priorities for all proposed new transportation facilities included in the RTP. Current State law (Government Code Sections 14522 and 65080) requires that the RTP be submitted to the California Transportation Commission (CTC) and Caltrans. Projects prioritized in each RTP update are then submitted for funding consideration to Caltrans and the CTC in December of odd numbered years as part of the State Transportation Improvement Program (STIP). The TCTC last completed an extensive update of its RTP in 2008.

RTP's are required to gather public input into the planning process. The Public Participation Plan outlines different strategies that will be used by the TCTC to gather community input into the planning process identified in Appendix B. The results of the 2016 RTP public participation process will be included in Appendix J.

The 2016 RTP is consistent with State and Federal transportation planning requirements including the 2010 Regional Transportation Plan Guidelines. The 2016 RTP is consistent with the Caltrans Regional Transportation Plan Checklist, which is included in Appendix A.

Tuolumne County Transportation Council

On December 18, 1967, a Joint Powers Agreement (JPA) between the County of Tuolumne and the City of Sonora was executed to create the Tuolumne County and Cities Area Planning Council, an independent agency with the capability of dealing with area wide transportation needs and concerns. On July 20, 1972, the Tuolumne County and Cities Area Planning Council (TCCAPC) was designated as the transportation planning agency for the County of Tuolumne by the State.

On September 16, 2003, the original Joint Powers Agreement was superseded by a new JPA. The 2003 Agreement established the duties and powers of a new entity consistent with SB 45, to succeed the powers and functions of the TCCAPC, and to change the name of the TCCAPC to the Tuolumne County Transportation Council (TCTC).

On July 1, 2010, the City and County amended and restated the JPA establishing changes in the employee organizational structure to provide for the hiring of employees to directly serve at the pleasure of TCTC allowing greater organization outcomes. The new JPA also transferred the responsibilities of the Public Transportation System from the County Board of Supervisors to the TCTC.

On August 24, 2011, the City and County adopted a further revised JPA which removed the public transportation system operation responsibilities from the TCTC, and created the Tuolumne County Transit Agency to oversee the operations and management of the public transportation system.

TCTC is comprised of two members from, and appointed by, the Tuolumne County Board of Supervisors, two members appointed by the Sonora City Council, and one citizen member at large voted in by a majority of the TCTC members.

TCTC's Purpose

1. To provide a forum for discussion and study of County wide transportation of mutual interest to the member agencies;
2. To identify, inventory, and comprehensively plan for the solutions to regional transportation problems requiring multi-government cooperation;
3. To facilitate actions and agreements among the members agencies' units for special project development;
4. To act as the leading planning, programming, monitoring, and administrative agency for transportation projects and programs in Tuolumne County;
5. Take action as necessary to qualify local transportation projects and programs for funding.

Regional Setting

Tuolumne County is located in the foothills of the Sierra Nevada mountain range in what has been traditionally called the Mother Lode area of California (Figure 2.1). The County extends from the foothills to the Sierra crest, and is bordered on the north by Calaveras County, on the south by Mariposa and Madera Counties, on the west by Stanislaus County, and Alpine and Mono Counties to the East. Tuolumne County encompasses approximately 2,217 square miles in area and includes portions of the Stanislaus National Forest and Yosemite National Park. Approximately 78 percent of the land within the County is under the jurisdiction of Federal government agencies.

As displayed in Figure 2.1, the Regional Transportation Plan includes the entire County of Tuolumne and the City of Sonora. Due to the high percentage of publicly owned lands, Tuolumne County's population is more centralized in the western part of the County. The City of Sonora and unincorporated communities of Jamestown, Columbia, Tuolumne City, Groveland and Twain Harte are distinctive communities, each with its own rich history. The unincorporated communities of Groveland and Big Oak Flat benefit from their proximity to Yosemite National Park. Recreational and tourist attractors such as Dodge Ridge Ski Resort, Columbia State Historic Park, Railtown 1897 State Historic Park, Stanislaus National Forest and Yosemite National Park are key tourist destinations.

City of Sonora

The City of Sonora is named after the miners from Sonora, Mexico who settled the City in 1848. Sonora is known as the "Queen of the Southern Mines"; the City has many historic buildings dating back to the 1850's.

As the county seat, and the major employment and commercial center of Tuolumne County, the City of Sonora sees a daily influx of non-resident population that increases the city's daytime population well beyond the its regular population.

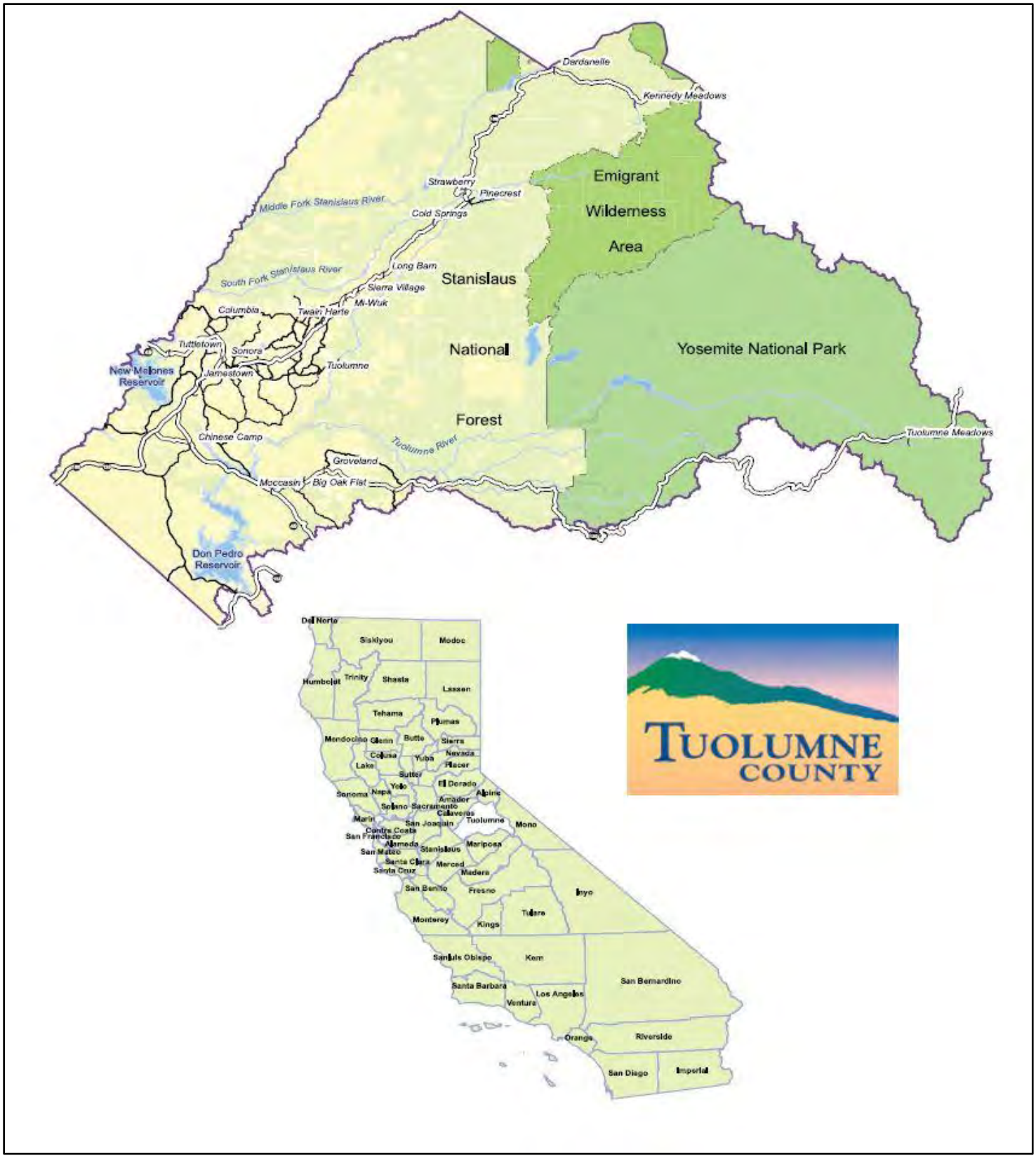


Figure 2.2: Tuolumne County

Population

Tuolumne County experienced a high rate of population growth from 1960 to 2000. But from 2000 to 2010, Tuolumne County experienced a slow to modest rate of population growth due to the County's very rural nature, topography, and lack of expanding employment opportunities. During the Great Recession, population in Tuolumne County declined.

Table 2.1 shows the population growth from 1930 to 2013 for Tuolumne County. The population in the County does not reflect the hundreds of thousands of visitors and tourists who travel to the County each year and impact the regional transportation system. Yosemite National Park is one of the most visited parks in the nation. According to Yosemite National Park in 2015, there were approximately 1.2 million visitors using the Big Oak Flat Entrance to Yosemite along State Route 120. The Tuolumne County Visitors Bureau estimates that visitors to Tuolumne County added approximately $205 million to the local economy in 2014.

Tuolumne County Historical Population

Years	Population	Numerical Increase	Percent Increase
1930	9,271	------	-------
1940	10,887	1,616	17.43%
1950	12,584	1,697	15.59%
1960	14,404	1,820	14.46%
1970	22,169	7,765	53.90%
1980	33,928	11,759	53%
1990	48,456	14,528	42.82%
2000	54,501	6,045	12.48%
2010	55,365	864	1.59%
2011	55,048	-317	-0.57%
2012	54,524	-524	-0.95%
2013	54,360	-164	-0.30%

Table 2.1: Tuolumne County Historical Population

In the last twenty years, Department of Finance (DOF) future population estimates have fluctuated immensely, and ultimately led local leaders to pursue establishing their own growth models. TCTC has approved its own future population projections that reflect estimates of the future population using a combination of DOF estimates and local data. The projected population growth is calculated based upon the average number of annual new building permits in the City of Sonora and Tuolumne County combined over the past 10 years from 2004 to 2013. This provides a population benchmark that best represents a localized historical population growth rate. The RTP utilizes the population projection in Table 2.2 to evaluate traffic impacts over the next 25 years.

Tuolumne County Population Projections	
Future Years	Population
Base year – 2013	54,360
2020	56,663
2030	59,953
2040	63,243

Table 2.2: Tuolumne County Population Projections

Coordination with Other Plans and Studies

The following is a list of some of the major regional plans and studies that the Regional Transportation Plan coordinates with. It should be noted that this list is not exhaustive. More specific coordination is listed in each element of the Regional Transportation Plan.

Tuolumne Tomorrow: Tuolumne County Regional Blueprint – 2012

Tuolumne Tomorrow is the Regional Blueprint planning process for studying future growth alternatives and enhancing quality of life in Tuolumne County for the next twenty-five years. The Blueprint evaluated three different growth scenarios and projected future growth for each scenario. The Distinctive Communities Growth Scenario was selected as Tuolumne County's preferred growth scenario.

Tuolumne County's Regional Blueprint Greenhouse Gas Study Report – 2012

The Greenhouse Gas (GHG) Study helped facilitate the Regional Blueprint planning process by creating an inventory of existing GHG emissions and projected GHG emissions for three growth scenarios. The GHG Study identified policies and projects that Tuolumne County can implement to reduce GHG emissions and be consistent with AB 32 and SB 375.

Tuolumne County's General Plan and TCTC's Regional Transportation Plan Evaluation and Analysis Report – 2013
This report provides goals, objectives, and policies, recommendations to the General Plan, Regional Transportation Plan and other supporting documents to be consistent with the Distinctive Communities Growth Scenario from the Blueprint Project Report.

Tuolumne County General Plan Land Use and Circulation Elements – 2016
The General Plan is a comprehensive long-term plan for the physical development of the community. The Draft General Plan is undergoing a comprehensive update that is being coordinated with the 2016 RTP.

City of Sonora General Plan Land Use and Circulation Elements - 2007
The General Plan is a comprehensive long-term plan for the physical development of the community. The City of Sonora has an obligation to provide the community with a clean, safe and secure environment in which to live and work, and to preserve and promote its historic character.

Emerging Transportation Technologies

Autonomous Vehicle Technology
Autonomous vehicle technology would operate independently from human input and would utilize internal sensors to survey and respond with the areas surroundings. Autonomous vehicles would communicate wirelessly with other connected vehicles and operate cooperatively with other autonomous vehicles on the road. This cooperation with other autonomous vehicles could reduce congestion, decrease fuel consumption, improves transit service, and reduce accidents and fatalities. It is projected that fully autonomous vehicles would reach 50% of vehicle market penetration by 2035, based on current vehicle lifecycle trends.

The 2016 RTP recognizes the potential benefits of autonomous vehicle technology, but stops short of developing a plan to incorporate the new technology into the planning process. The TCTC should maintain an awareness of the benefits of this new technology as it is implemented in other regions. When, appropriate, planning for autonomous vehicles should be included in the RTP.

Zero Emission Vehicles

California's Zero Emission Vehicles (ZEV) Action Plan projects 1.5 million ZEVs will be on the road by 2025. With the transportation sector being the largest contributor to greenhouse gas (GHG) emissions in California, ZEV's are a large part of the solution to help reduce GHGs. In order to meet statewide greenhouse gas emission reductions laws including AB 32, AB 197, and SB 32, the TCTC is pursuing a ZEV Regional Readiness Plan. The ZEV Plan will help achieve State and local goals, objectives, and policies by improving opportunities for ZEV Readiness, resolving barriers, and increasing the deployment of ZEV infrastructure in the region.

This page is left intentional blank

Chapter Three - Regional Transportation



Figure 3.1 Construction on East Sonora Bypass Phase II – 2013, Photo Courtesy of TCTC

Introduction

The regional transportation system plays a critical role in the movement of both people and goods. The Regional Transportation Element discusses the big picture transportation issues, goals, and policies that affect multiple modes of transportation in Tuolumne County. There are six separate but interrelated elements in this RTP that focus on each specific mode of transportation.

- Chapter 5 - State Highways Element
- Chapter 6 - Local Streets and Roads Element
- Chapter 7 - Aviation Element
- Chapter 8 - Non-Motorized Transportation Element
- Chapter 9 - Railroad Element
- Chapter 10 - Public Transportation Element

California Transportation Plan (CTP) 2040

The California Transportation Plan (CTP) 2040 describes California's statewide transportation system and explores major trends that will likely influence travel behavior and transportation decisions over the next 25 years. It outlines goals, policies, strategies, performance measures, and recommendations to achieve that vision. The CTP 2040 is a policy framework designed to guide transportation related decisions for the betterment of all who live, work, and conduct business in California. Its aim is to help ensure that policy decisions and investments made at all levels of government and within the private sector will work congruently to enhance the State's economy, improve social equity, support local communities, and protect the environment.

CTP 2040 has six goals:

1. Improve Multimodal Mobility and Accessibility for All People;
2. Preserve the Multimodal Transportation System;
3. Support a Vibrant Economy;
4. Improve Public Safety and Security;
5. Foster Livable and Healthy Communities and Promote Social Equity; and
6. Practice Environmental Stewardship.

California - Statewide Transportation Issues & Solutions

Issues	*Solutions*
Decline in Transportation Revenue	Index the excise fuel tax to match inflation
Decline in Transportation Revenue - Caused by a decline in gasoline and diesel consumption and an increase in more fuel efficient and alternative energy cars	California Road Usage Charge Pilot Program (SB 1077)
Road Maintenance is falling behind	Sustainable funding source to meet the needs of road maintenance projects and underfunded backlog
State Goal - Reduce Greenhouse Gases Emissions – Lack of Funding for Alternative Modes of Transportation	Cap & Trade Funds (Not enough funds) - Alternative Funding Sources Needed
Economic recession led to a decrease in sales tax revenue (Local Transportation Funds)	The economy is now picking back up – Statewide Sales tax revenue is increasing. (Local Transportation Funds)

Table 3.1 California – Statewide Transportation Issues & Solutions

Interregional Transportation

Interregional transportation promotes the role of improving mobility while providing opportunity for the efficient movement of goods. In Tuolumne County, interregional travel is the movement of people and goods from within Tuolumne County to beyond the County boundaries.

Interregional Transportation Strategic Plan (ITSP)

The Interregional Transportation Strategic Plan recommends priorities to the Interregional road system (IRRS) capital improvements to the Interregional Transportation Improvement Program (ITIP). The original State statute (Government Code 164B) was focused on expanding the capacity of the State's Interregional Road System (IRRS) "that are outside the boundaries of an urbanized areas of a population of more than 50,000," to supplement rural areas' lack of funding.

Interregional Road System (IRRS)

The Interregional Road System (IRRS) was identified as part of the State Legislation in 1989. The IRRS is defined as a series of interregional State highway routes, outside the urbanized areas, that provides access to, and links between, the State's economic centers, major recreation areas, and urban and rural regions. The IRRS was conceived as part of the larger effort to address the critical transportation system funding and development needs of the State. There are four IRRS routes within Tuolumne County: SR 49, SR 108, SR 132 and SR 120.

IRRS High Emphasis Routes

High Emphasis Routes, segments of highways which have been identified as being the second most critical routes in the IRRS, are a priority for programming and construction to minimum facility standards. High emphasis routes are priority candidates for projects intended to relieve congestion or facilitate goods movement. SR 120 is considered a High Emphasis route. The 2015 ITSP has eliminated all of the High Emphasis routes.

Strategic Interregional Corridors (Focus Routes)

Focus Routes, a higher priority subset of High Emphasis Routes, are earmarked for completion to minimum facility standards by the year 2018. Completion of the Focus Routes to minimum facility standards will serve high volume interregional trip movements and connections. There are no Strategic Interregional Corridors are located in Tuolumne County.

Recreational Travel

Recreational travel and goods movement play critical roles in interregional travel in Tuolumne County. Tuolumne County offers an abundance of recreational tourism destinations. Recreational travel peaks during the summer weekends and on holiday weekends including Memorial Day and Labor Day. Consistent with California's population increase, recreational travel destinations in Tuolumne County continue to experience growth in visitor traffic.

Interregional Transportation Issues & Solutions

Issues	*Solutions*
No public transportation from Tuolumne County to Stanislaus County and to Amtrak in the City of Modesto	Possible grant opportunities and collaborative partnerships with neighboring counties, cities, regional transportation planning agencies.
Lack of funds to build capacity, safety, and operational improvements along the interregional road system	Work with the State to identify needs and address funding shortfalls.
Caltrans changed the priorities in the Interregional Transportation Strategic Plan (ITSP) to focus on interregional freight corridors connecting to major ports.	Consider focusing on recreational transportation studies which focus, on recreational travel and highlight the needs and impacts in rural areas.

Table 3.2 Interregional Transportation Issues & Solutions

Caltrans District 10

For administrative purposes, California Department of Transportation (Caltrans) divides the State of California into 12 districts. Caltrans District 10 covers eight counties in the Central Valley and in the Foothills and its headquarters is in Stockton, CA.

The District System Management Plan

The District System Management Plan (DSMP) is a long-range (20 year) strategic and policy planning document that presents the long range goals, policies and programs the district intends to follow in maintaining, managing, and developing the transportation system. It serves as a resource for informing Federal, State, regional and local agencies, and the public and private sector of the plans the district intends to follow in its partnership role with local and regional agencies.

Transportation Concept Report

Each Caltrans district creates a Transportation Concept Report (TCR) for each State route within that district. The TCR provides a long term plan for that route and the TCR identifies current operating conditions, future deficiencies, a target level of service (LOS) for each segment in that route, and improvements needed to sustain or reach those targets. There are TCR reports available for SR 49, 108, 120, and 132.

Regional Transportation

The TCTC defines the region as an area within the boundaries of Tuolumne County including the City of Sonora, Native American tribal lands, State, and Federal lands.

Regional Transportation Issues & Solutions

Issues	*Solutions*
Lack of local funding sources for transportation projects	Look for potential local sources for transportation funding.
Non-motorized transportation access and safety	Search for and apply for Statewide competitive grants for non-motorized transportation.
The Traffic Mitigation Fund Program (TIMF) should update the fees to reflect the decline in population and lower population projections	Look to perform an update of the TIMF.
Roadway congestion	Fund roadway congestion with Traffic Impact Mitigation Fees (TIMF).
Operation and construction costs continue to rise and existing funding sources have not kept pace with inflation	Look for alternative funding sources.

Table 3.3 Regional Transportation Issues & Solutions

Corridor System Management Plan

A Corridor System Management Plan (CSMP) is used to outline the multi-jurisdictional and multi-modal management of a corridor that is experiencing delay due to congestion. A CSMP results in a listing and phasing plan of recommended operational improvements, Intelligent Transportation System (ITS) strategies, and system expansion projects to preserve or improve performance measures within the corridor. CSMPs are required for all projects receiving Proposition 1B (2006) Corridor Mobility Improvement Account (CMIA) funding. Tuolumne County used Prop 1B funding on the East Sonora Bypass Stage II project that was completed in 2013.

Regional Transportation System Goals

The regional goals are intended to guide the development of the transportation system. The goals reflect a general and regional approach to guide transportation decisions. Each mode of transportation will include its own goal, objective(s) and policies. Objectives and policies will be included for each specific regional transportation focus area such as Transportation System Management, Goods Movement, Emergency Management, Complete Streets, and etc. The Regional Transportation Element has ten regional goals, four focus area goals, five objectives and 25 policies.

• **Regional Goal 1**: Enhance the quality of life of Tuolumne County residents by providing transportation access to jobs, housing, recreation, and community services.

• **Regional Goal 2**: Preserve the multimodal system by maintaining, managing, and efficiently utilizing the existing transportation system.

• **Regional Goal 3**: Improve the multimodal system by expanding and enhancing transportation choices, and connections to meet the future transportation needs.

• **Regional Goal 4**: Promote strategic and cost-effective transportation investments that create sustainable economic growth and improve transportation services and facilities.

• **Regional Goal 5**: Practice environmental stewardship by protecting our air quality, natural resources, historical and cultural assets.

• **Regional Goal 6:** Integrate land use and transportation decisions by prioritizing infrastructure investments within the Defined Community Boundaries that strikes a balance between development, available infrastructure, conserves natural resources, and provides for a high quality of life.

• **Regional Goal 7:** Consider transportation safety, and security in all transportation funding decisions.

• **Regional Goal 8:** Support a vibrant economy by enhancing the movement of goods and people to spur economic development, growth, and job creation.

• **Regional Goal 9:** Encourage and promote public involvement and social equity in all transportation decisions.

• **Regional Goal 10:** Continue the inter-organizational commitments of cooperative, mutually dependent action that is required to provide efficient multimodal transportation system.

Regional Performance Measures

The 2016 Tuolumne County Regional Transportation Plan has ten regional performance measures that track progress toward attaining the regions ten regional goals. These measures provide a baseline from which to measure existing conditions with desired future outcomes of the Regional Transportation Plan over the next 25 years.

Regional Performance Measures

Regional Goal	Indicators	Performance Measure
Quality of Life-Social Equity	Residents have access to transit and/or pedestrian walkways and trails	The estimated number of residents within a ½ mile of a Transit Service Area? The estimated number of residents within a ½ mile of pedestrian walkways & trails?
Preserve the Multi-Modal System	What is the condition of the local roads in Tuolumne County?	Road Pavement Condition Index (PCI) for the overall County & City and PCI index breakdown for arterials, collectors, and local roads
Expand the Multi-Modal System	How many miles have been constructed for pedestrian and bicycle infrastructure projects? How many bus stops improvements have been constructed?	Miles of Pedestrian & Bicycle Infrastructure Expansion Measure
Cost Effective Transportation Systems	Rural Sustainable Community Strategies	Project Performance Assessment - Based upon 24 Environmental, Economic, & Equity Indicators
Environmental Stewardship	Is Tuolumne County in attainment for the Ozone Standard?	Ozone - Air Quality Measure
Land Use & Transportation	How many Transportation Investments are located in the Defined Community Boundaries?	Percentage of funding located within the Defined Communities Boundaries
Safety	Serious Injuries per Vehicle Miles Traveled (VMT); Fatalities per VMT; Number of Serious Injuries ; Number of Fatalities	Safety Performance Measures - Injuries & Fatalities
Economy	What is the trend on City and County sales tax revenue? What is the trend on job growth?	Sales Tax revenue and job growth
Public Participation	How many members of the public and agencies participated in community participation events?	Public Participation Report – Results of planning efforts
Intergovernmental Coordination	How is TCTC coordinating with partner agencies on projects and plans?	Partner agency survey

Table 3.4 Regional Performance Measures

Transportation System Management (TSM)

Transportation System Management (TSM) is a strategy of implementing operational projects that can enhance the efficiency of the existing transportation system. TSM techniques are designed to improve traffic flow and air quality, as well as enhance system accessibility and safety. The costs associated with TSM strategies are lower in cost than constructing new facilities. Examples include intersection and signal improvements such as: signal synchronization, HOV queue jumps and signal priority, turning lanes, incident management, and auxiliary lanes.

Transportation System Management:

Goal: Develop a transportation system that maximizes the use of transportation facilities in the most efficient and cost-effective way.

Objective: Manage the transportation system efficiently by reducing costs and managing resources.

Policy 1: Encourage complete street design incorporating public and social service transportation, bicycling, walking, ridesharing, and carpools/vanpools.
Policy 2: Identify and implement projects that incorporate Intelligent Transportation Systems into the transportation system *(Regional Blueprint Greenhouse Gas Study).*
Policy 3: Support traffic signals, roundabouts, and/or operational improvements necessary to increase the capacity and/or flow of traffic on the local streets and highways network.
Policy 4: Encourage the development of off-street parking facilities that meet the needs of local residents and tourists.
Policy 5: Facilitate the development of a parking management plan for the City of Sonora and unincorporated communities.
Policy 6: Support operational improvements necessary to increase the capacity and/or improve the operation of the public transportation network *(RTP Evaluation & Analysis Plan & Regional Blueprint Greenhouse Gas Study).*
Policy 7: Implement access management plans where appropriate to improve roadway performance and safety.
Policy 8: Support and promote existing ridesharing programs in Tuolumne County *(Regional Blueprint Greenhouse Gas Study).*
Policy 9: Develop and support a regional Electric Vehicle Infrastructure Implementation Plan for Tuolumne County.

Goods Movement

The movement of goods in and out of the County is primarily carried out by trucks. The Sierra Railroad also moves goods from Tuolumne County to Stanislaus County. It is important that freight industries are able to thrive in the region because they are critical in terms of jobs and contribution to the regional economy. Local and regional governments can continue to help the goods movement industries thrive by supporting freight and transportation projects that improve the efficiency of goods movement to major destinations and intermodal facilities. This includes:

- Maintenance of key roadways (State Routes, Arterials, & Major Collectors roads);
- Improving travel time reliability on highways and arterials;
- Improving safety on key routes;
- Increasing options for shipping freight by rail for logging, mining, and agriculture sectors and other goods movement sectors.

Goods Movement:

Goal: Provide a transportation system which allows for the efficient transportation of goods while minimizing negative impacts on the local roadway system.

Objective: Facilitate an increase in the movement of goods through Tuolumne County where appropriate.

Policy 1: Support and identify ways to improve truck and rail freight transportation by coordinating with the freight industry to identify high priority projects.
Policy 2: Encourage new industries to locate adjacent to the Sierra Northern Railway
Policy 3: Support actions which would minimize the negative impacts of truck traffic on the local roadway system.

Emergency Management

Emergency Management is the assessment of the risk of fires, floods, droughts, and landslides to threaten the safety and security of the population. Tuolumne County is a rural community with issues that impact transportation security and emergency preparedness/response planning:

- Interregional routes in Tuolumne County are limited to only a few major State Highways and Arterial roads, due to topography and the distance between neighboring Counties;

- Some County neighborhoods have limited exit points, due to topography and the existing road network;
- The population has limited resources and the ability to evacuate on their own or to a designated place to shelter for the duration of an emergency/security event;
- Limited security and emergency response resources within the County.
- Consider opportunities to provide connectivity for active transportation in planning for emergency access.
- Consider the need to include peak recreational travel scenarios in emergency management planning (Caltrans Comments)

Rim Fire - 2013

The Rim Fire was of one the most catastrophic fires in California fire history. The fire burned 257,314 acres and was the second largest fire in California in total acres burned. The Rim Fire burned forests in Tuolumne and Mariposa Counties as well as Yosemite National Park and was the worst fire in terms of cost and economic loss in Sierra Nevada history. The Rim Fire affected incredible amounts of acreage and economies in both the U.S. National Forests and the local tourism economy in Tuolumne County.

Transportation plays a key role in avoiding disaster and responding to emergencies. Key transportation routes provide evacuation routes as well as routes for emergency responders. State Highways, local roads, and aviation transportation plays a key role in disaster response in Tuolumne County. Airports are often used as staging grounds for fire suppression in rural areas. Coordination between local, State, and Federal agencies will be critical in preparing for the next emergency. A goal, an objective, and five policies have been included in this document that specifically address concerns regarding security and emergency response.

Emergency Management:

Goal: Prepare and plan for possible emergency management situations in the future.

Objective: Improve safety of the transportation system by preparing and responding to natural disasters.

Policy 1: Continue to implement and update the *Transportation Emergency Operations Plan.*
Policy 2: Continue to pursue State and Federal grants and other sources of funding for emergency operations and transit security.
Policy 3: Utilize and continue to fund Vehicle Tracking System for the public transit use and for transit operators *(Regional Blueprint Greenhouse Gas Study).*

Policy 4: Identify locations where new Interchangeable Messaging System's would benefit the public most appropriately.
Policy 5: Learn from past emergencies and look for ways to improve upon future emergency management situations.
Policy 6: Support the construction of improved road access to developed areas that do not meet current fire access standards.

Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) can help solve transportation problems by providing advanced technology applications that enable transportation users to be better informed and make better decisions on utilizing the regional transportation system. ITS technologies can provide tourists, commuters, and residents with real time information about road, transit, and weather conditions in the Sierra Nevada region. Tuolumne County has several ITS in place including but not limited to: changeable message signs, and closed circuit cameras. Caltrans installs, operates and maintains these systems along State Highways and works in cooperation with California Highway Patrol and the TCTC to ensure they are being used to the greatest benefit. Some examples of the ITS include the following:

• **Changeable Message Signs (CMS) –** Displays large messages about roadway conditions along State Highways and other busy recreational corridors.
• **Dynamic Warning Signs** - Broadcasts driver speeds and cautions drivers about safe speeds.
• **Closed Circuit TV (CCTV) Cameras** - Displays live traffic conditions online.
• **Traffic Monitoring Stations** - Obtains information about traffic speeds and counts.
• **Traffic Management Centers (TMC) –** Manage the day to day operations of the regional ITS transportation network.
- **Weather Stations**
- **NextBus – Bus Tracking System**

Intelligent Transportation Systems:

Objective: Provide innovative services that enable transportation managers and the public to be better informed and make safer, more coordinated, and smarter use of transport networks.

Policy 1: Promote the continued use of the Vehicle Tracking System for the public transportation system.
Policy 2: Promote the continued use and expansion of the Changeable Message Signs along the Interregional Road System (IRRS).
Policy 3: Continue to search for opportunities to fund the Northern Yosemite Transit Access Center which is traffic management/mobility center and visitor information office.

Policy 4: Coordinate efforts to implement new technology in the region necessary for mass evacuation of people during and after catastrophic events such as a natural disaster.

Complete Streets

The Complete Streets Act (AB 1358) requires California cities and counties to adopt transportation plans that accommodate all users of roadways, including pedestrians, transit, bicyclists, the elderly, motorists, and the disabled.

While AB 1358 provides no statutory requirement for MPOs and RTPAs, the integration of Complete Streets policies should be considered. RTPAs should integrate Complete Streets policies into their RTPs and identify the financial resources necessary to accommodate such policies. The Complete Streets Act states regional planning transportation agencies should consider accelerating programming for projects that retrofit existing roads to provide safe and convenient travel by all users. Caltrans support of Complete Streets is delineated in the Caltrans's *Main Street Guidelines*.

Definition Complete Street – A transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truck drivers, and motorists, appropriate to the function and context of the facility. Complete street concepts apply to rural, suburban, and urban areas.

Complete Streets:

Goal: Plan for a balanced multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel. *(AB 1358) Complete Streets Act*
Objective: Improve alternative modes of transportation by adding new bicycle lanes, pedestrian walkways, and improving bus stops.
Policy 1: Incorporate bicycle, pedestrian, and transit improvements when designing roadway improvements when appropriate.
Policy 2: Provide new bicycle, pedestrian, and transit facilities on existing streets and roads where appropriate.
Policy 3: Seek funding for bicycle and pedestrian facilities adjacent to roadways and provide bus stop improvements along fixed transit routes.
Policy 4: Prioritize projects within the Defined Community Boundaries that would close infrastructure gaps and provide Safe Routes to School.
Policy 5: Support legislation that streamlines the regulatory burden to construct Complete Streets.

Policy 6: Develop and designate marketing materials promoting the use alternative transportation modes.

Smart Mobility Framework

The Smart Mobility Framework emphasizes travel choices, healthy communities, livable communities, reliable travel times for people and freight, and safety for all users. This vision supports the goals of climate change adaption and energy security.

Location Efficiency

Integrate transportation and land use in order to achieve high levels of non-motorized travel and transit use, reduced vehicle trip making, and shorter average trip length while providing a high level of accessibility.

Reliable Mobility

Manage, reduce, and avoid congestion by emphasizing multi-modal options and network management through operational improvements and other strategies. Provide predictability and capacity increases focused on travel that supports economic productivity.

Health and Safety

Design, operate, and manage the transportation system to reduce serious injuries and fatalities, promote active living, and lessen exposure to pollution.

Environmental Stewardship

Protect and enhance the State's transportation system and its built and natural environment. Act to reduce the transportation system's emission of GHGs that contribute to global climate change.

Social Equity

Provide mobility for people who are economically, socially, or physically disadvantaged in order to support their full participation in society. Design and manage the transportation system in order to equitably distribute its benefits and burdens.

Smart Mobility Framework:

Goal: Plan, support, and implement Smart Mobility Framework.
Policy 1: Support and implement Context Sensitive Solutions throughout the City of Sonora and Tuolumne County.
Policy 2: Support land use decisions consistent with the smart growth principle.
Policy 3: Prioritize infrastructure investments that support smart mobility principles.

Context Sensitive Solutions

"Context sensitive solutions (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist." Federal Highway Administration (FHWA)

The Deputy Directive on Accommodating Non-Motorized Travel (DD-64) – "This policy directs Caltrans to fully consider the needs of non-motorized travelers including pedestrians, bicyclists, and persons with disabilities in all planning, maintenance, operations and project development activities."

Context Sensitive Solutions:

Goal: Plan, support, and implement Context Sensitive Solutions.

Policy 1: Support and implement Context Sensitive Solutions throughout the City of Sonora and Tuolumne County.

Policy 2: Use the public input process and environmental reviews to ensure context sensitive solutions are considered in the project development phase.

This page is left intentional blank

Chapter Four -
Rural Sustainable Strategies



Figure 4-1 Snowy Day in Tuolumne County, Photo Courtesy of TCTC

Introduction

California has been the leader in the United States for addressing land use, transportation, healthy communities, greenhouse gas (GHG) emissions, and climate change issues. California has passed several pieces of legislature focusing on reducing greenhouses gases (GHG) emissions such as AB 32 and SB375. The Rural Sustainable Strategies is a new optional element that provides an opportunity to discuss the strategies and efforts that have begun in Tuolumne County which redefine what rural communities can strive to achieve with constrained resources. Addressing a reduction in greenhouse gases emissions is only a piece of the overall sustainable transportation strategy for Tuolumne County. A focus on all three economic, environmental, and social indicators will help further Tuolumne County's Regional Transportation Plan (RTP) goals and achieve State goals as well.

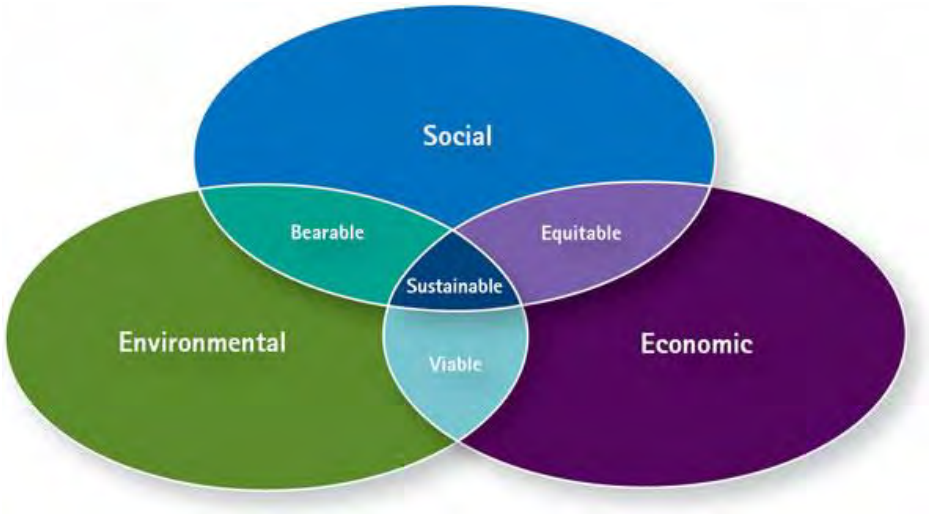


Figure 4-2 The Three principles of Sustainability

California Laws Addressing Greenhouse Gases

AB 32

Assembly Bill 32 was passed in 2006, and established a comprehensive program to reduce greenhouse gas (GHG) emissions from all sources throughout the state. AB 32 mandates that California's GHG emission levels be cut back to the 1990 levels by 2020.

The AB 32 Scoping Plan was adopted by California Air Resources Board (ARB) in 2008 and provides an outline of actions to reduce greenhouse gas emissions from significant sources in California via regulations, market mechanisms and other actions. The Scoping Plan does not identify specific reductions for local governments; it identifies overall reductions from local government operations and land use decisions as a strategy to meet the 2020 target. The Scoping Plan states that land use planning and urban growth decisions will play an important role in the state's GHG reductions because local governments have primary authority to plan,

zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions. It further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. However, the Scoping Plan stopped short of identifying mandatory targets for local government compliance. Instead, it encouraged local governments to adopt a target for municipal and community emissions that parallels the State's AB 32 target and reduces emissions by approximately 15 percent from 1990 levels by 2020.

The Climate Change Scoping Plan Update adopted in 2014 builds upon the initial Scoping Plan with new strategies and recommendations. The Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments.

SB 97

SB 97 (2007) requires lead agencies to analyze GHG emissions and climate change impacts under the California Environmental Quality Act (CEQA).

SB 375

Senate Bill 375 was passed in 2008 and requires that each Metropolitan Planning Organization include a Sustainable Community Strategy (SCS) which provides an integrated land use and transportation plan to meet greenhouse gas emission reduction targets set forth by the California Air Resources Board (CARB). Below is a list of some of the requirements of a Sustainable Community Strategy:

- Identify the general location of uses, residential densities, and building intensities within the region.
- Identify areas within the region sufficient to house all the population of the region, including all economic segments of the population, over the course of the planning period of the regional transportation plan.
- Identify a transportation network to service the transportation needs of the region.
- Set forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce GHG emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the GHG emissions reductions target approved by the state board.
- Quantify the reduction in GHG emissions projected to be achieved by the Sustainable Community Strategies (SCS) and, if the SCS does not achieve the targeted reductions in GHG emissions, set forth the difference between the amount that the SCS would reduce GHG emissions and the target for the region.

•The SCS is designed to provide an incentive-based approach to sustainable planning, in the form of CEQA streamlining. Under this streamlining, CEQA analysis of greenhouse gas emissions of future development projects can be avoided if the project is consistent with the SCS. The SCS protects local land use authority and does not preclude a local jurisdiction from planning and approving growth that is different in total units or geographic extent.

Executive Order B-30-15

Executive Order B-30-15 was signed by Governor Brown in April 2015. California's new goal is to reduce greenhouse gas (GHG) emissions by 40% below 1990 levels by 2030. Executive Order B-30-15 builds upon previous State level efforts to reduce GHG emissions such as Executive Order S-03-05, which was signed by Governor Arnold Schwarzenegger in June of 2005. Executive Order S-03-05 was the first comprehensive State policy to reduce GHG emissions. Specifically, this Executive Order (S-03-05) established these targets:

- By 2010, reduce GHG emissions to 2000 levels
- By 2020, reduce GHG emissions to 1990 levels
- By 2030, reduce GHG emissions to 40 percent below 1990 levels (B-30-15)
- By 2050, reduce GHG emissions to 80 percent below 1990 levels

SB 743

Senate Bill 743 changes in the way that public agencies evaluate transportation impacts under the California Environmental Quality Act (CEQA). The Office of Planning and Research (OPR) was tasked with the development of new transportation metrics. OPR recommended vehicle miles traveled (VMT) as the measure of a project transportation impacts and has released draft changes to the CEQA guidelines. OPR released a technical advisory on evaluating transportation impacts in CEQA. OPR is planning to submit a draft to the Natural Resources Agency, who will then commence a formal rulemaking process. Once the Natural Resources Agency adopts the changes, it will undergo review by the Office of Administrative Law.

What is a Rural Sustainable Strategy (RSS)?

As a rural regional planning agency, TCTC is not required to comply with SB 375 because it only applies to Metropolitan Planning Organizations (MPO's). However, the Rural Sustainable Community Strategies Element builds upon previous Tuolumne County Regional Blueprint Plan efforts. The Rural Sustainable Strategies (RSS) Element provides an alternative sustainability plan that is more feasible to Tuolumne County and possibly other rural agencies for compliance with AB 32. This element provides a bridge for rural planning agencies who strive to achieve the goals in SB 375, yet struggle with the financial, political, and staff resource issues that come with implementing SB 375.

What is a rural community?

According to the Tuolumne County General Plan Community Identity Element,
"The rural environment of the Sierra foothills is characterized by a population generally dispersed throughout small town communities of mixed use development surrounded by large areas of open expanses consisting of agriculture, native vegetation, and low density development. These open areas contribute to the identity of the communities.

Roads and highways traverse areas of great scenic beauty within the County, offering enjoyable experiences for passing motorists, cyclists and hikers. The visual separation of the County's communities benefits from the conservation of open areas, especially along the road corridors connecting the communities. The relatively low density and scenic routes between communities and at entrances to the County give it much of its rural and natural character. Native vegetation and tree cover are important ingredients in this regard, as are the species of plants and their patterns in the natural and managed landscape" (Tuolumne County's General Plan Community Identity Element).

What does it mean to be sustainable from a rural perspective?

"The Tuolumne County General Plan Community Identity Element is designed to recognize each of the County's communities and establish a blueprint for creating more livable environments. The Community Identity Element strives to preserve and enhance the character of each community. By doing so, future development will be guided to promote compact urban development, provide for efficient and cost-effective infrastructure, conserves resource lands, and safeguard environmentally sensitive lands."

"The County should continue to preserve the County's rural heritage and the scenic quality of the rural landscape by designating land for new urban development to be within the defined community boundaries. Maintain the integrity of separate, distinct communities and discourage inappropriately placed development between the identified community boundaries."

"It has been observed that when history and progress collide, it is a wise community that honors its heritage with good planning practices. It is the presence of the past that contributes immeasurably to community identity, rural character, cultural continuum and economic vitality in the form of tourism. It is both reassuring and invigorating to maintain this continuity with the achievements of past generations and to perpetuate them into the future" (Tuolumne County's General Plan Community Identity Element).

How can rural communities achieve State transportation goals?

A Rural Sustainable Strategies (RSS) would help achieve State transportation goals by reducing greenhouse gases as mandated by AB 32 and finding ways to reduce greenhouse gases in the transportation sector as mandated for MPO's in SB 375. A key component of the Tuolumne County's Sustainable Community Strategies is linking land use and transportation decisions together as mandated for MPO's in SB 375. One important strategy is funding multi-modal capital improvement projects that are located within the Defined Community Boundaries.

Previous Planning Efforts the Regional Blueprint Plan

California's Rural Counties Regional Blueprint Program

In 2007, Caltrans began awarding grants to single, rural Regional Transportation Planning Agencies (RTPAs) for the development of a Rural Blueprint Program. Sixteen rural RTPAs in California, including Tuolumne County, have participated in the program. The overall goal of the Rural Blueprint Program has been to help RTPAs encourage local governments, residents and business leaders to articulate a shared vision for the long-term growth of their county. Tuolumne County used geographic and demographic data to create several visual maps of different future growth scenarios, including a recent trends scenario, which shows the future if planning policies remain unchanged. With input from the public, the pros and cons for each scenario were weighed and one alternative scenario was selected as the preferred growth scenario.

Some RTPAs have embarked on a plan to create a community preferred growth scenarios. Tuolumne County included multiple public workshops to incorporate the ideas and visions of local residents. Other RTPAs have had more focused goals, with emphasis on gathering and creating county-specific spatial data that will help with future planning objectives.

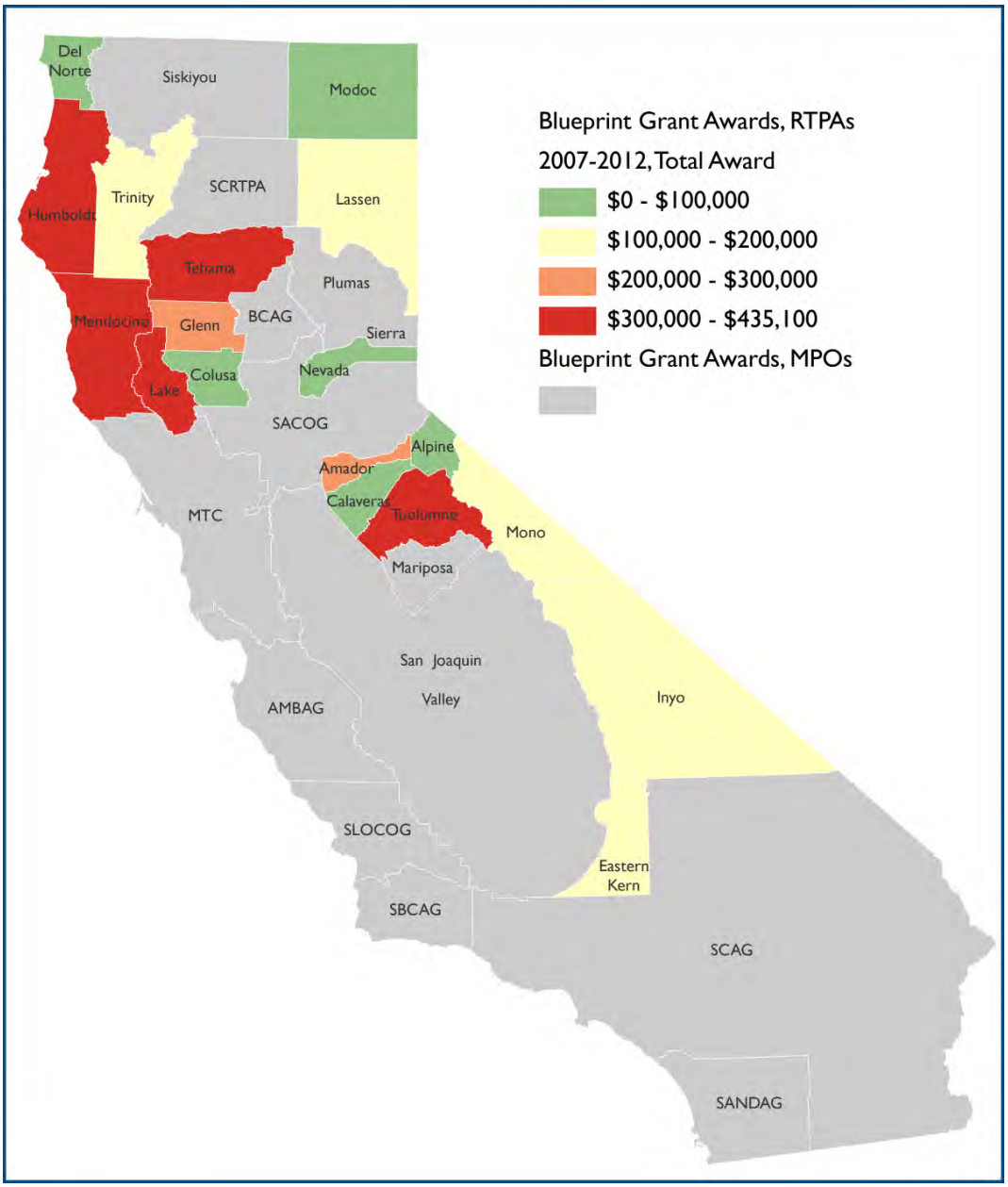


Figure 4-3 California counties showing total Blueprint Grant awards between 2007 and 2012

Tuolumne Tomorrow: Tuolumne County Regional Blueprint

The Tuolumne Tomorrow Regional Blueprint was a planning process for directing future growth and improving the quality of life in Tuolumne County for the next 20 years. Tuolumne Tomorrow is a coordinated effort between the City of Sonora, Tuolumne County, TCTC, Caltrans, local residents, cultural resources groups, and environmental groups to develop a long-range vision for the County. This is done by coordinating land use, transportation, housing, economic development, community identity, and environmental protection. Included in Appendix H is a list of Blueprint Committee Members.

UPLAN Model

The Regional Blueprint used a land use model called UPLAN which is a computer-based Geographic Information System (GIS) tool developed by UC Davis Information Center for the Environment (ICE). UPLAN enabled users to modify assumptions based on population projections, persons per household, and etc. UC Davis ICE was a partner in the Regional Blueprint by supplying data, modeling tools, and technical support for evaluation of growth scenario alternatives. Blueprint staff consulted with the Blueprint Technically Advisory Committee (TAC) and Policy Advisory Committee (PAC) on UPLAN assumptions and parameters to provide the most locally-relevant inputs for the model. UPLAN allowed users to modify land use patterns and densities to create future growth scenarios. By inserting these inputs the model produces a most likely land use based upon these assumptions.

UPlan Model Assumptions Updated for the RTP

For the 2016 Regional Transportation Plan (RTP) Update, the UPLAN Model assumptions were modified to reflect some of the changes that have occurred in 2008-2011, since the Blueprint Committee last met. With the recent economic recession, the population projections have changed substantially to reflect a population decrease for the past couple of years (See Appendix C).

Preserving Local Land Use Authority

Adoption of the 2016 Regional Transportation Plan does not mandate any changes to local zoning, general plans, or project review. The City of Sonora and Tuolumne County will maintain control of all decisions to adopt plans, permits, or deny development projects. The RTP assists local jurisdictions by providing funding for planning and constructing transportation projects. The RTP provides jurisdictions with the option of increasing the efficiency of the development process for projects consistent with the RTP.

Alternative Growth Scenarios

The Tuolumne County Regional Blueprint Plan evaluated and compared three alternative growth scenarios. These alternative growth scenarios estimated future growth patterns by using different growth assumptions and patterns in each scenario. The alternative growth scenarios were compared with nine guiding principles in the Blueprint Report and then compared with ten performance measures. The performance measures and guiding principles helped provide data and information on the outcomes of each growth scenario. Included in the Appendix K is the Blueprint Performance Measures.

Vehicle Miles Traveled (VMT)

One of the Blueprint performance measures evaluated was the projected vehicle miles traveled (VMT) for each proposed alternative growth scenario using the recently updated Tuolumne County Travel Demand Model.

Average Daily Vehicle Miles Traveled by Growth Scenario

	Alternative Growth Scenarios	
	Distinctive Communities	**Recent Trends (Status Quo)**
Year 2030	2,047,374	2,060,500
Year 2040	2,170,502	2,188,733

Table 4.1 VMT by Projected Growth Scenario – Traffic Study Report

The Distinctive Communities Growth Scenario is projected to produce the least countywide VMT under both 2030 and 2040 conditions. The Recent Trends (Status Quo) Growth Scenario is projected to produce higher VMT under the 2030 and 2040 conditions, which amount to approximately 1% more VMT than the Distinctive Communities scenario. It should be noted, that the Distinctive Communities Growth Scenario demonstrates more reductions in VMT with a higher projected population. The Distinctive Communities Growth Scenario was adopted by Tuolumne County as the basis of the preferred Growth Scenario in the Tuolumne County General Plan.

The VMT for Tuolumne County assumes a status quo funding scenario. Funding Alternatives B and C in the Financial Element illustrate potential funding investments, from existing tax revenues such as Cap and Trade and CMAQ, which will provide funding for sidewalks, bicycle lanes, transit improvements, and new connector roads, which should further decrease regional VMT.

Comparison of Alternative Scenarios with Guiding Principles

GUIDING PRINCIPLES	RECENT TRENDS	PUBLIC SERVICES	DISTINCTIVE COMMUNITIES
1. Provide for an adequate supply of housing opportunities and choices. 	• Provides sufficient land for all land use categories except Residential Medium Low and Residential Low.	• Provides a mix of multifamily, townhouses, and traditional neighborhoods.	• Provides a mixture of residential housing types near each other within urban development boundaries.
2. Create safe, healthy, walkable and vibrant communities. 	• Walkability exists only within community cores.	• Walkability exists near transit stations and community cores.	• Walkability and bicycling exists within urban development boundaries.
3. Promote distinctive, attractive communities with a strong sense of place. 	• Community boundaries become blurred.	• Community boundaries may become blurred along State Highways and transportation corridors.	• Community boundaries are buffered by rural development promoting distinct communities.
4. Increase the quantity of Mixed Use land uses. 	• Mixed-Use land uses remains the same as today.	• Mixed-Use land uses will increase near transit stations and community cores.	• Mixed-Use land uses will increase within urban development boundaries.
5. Minimize impacts to natural resources. 	• Potential impacts to natural resources are not addressed.	• Potential impacts to natural resources adjacent to community boundaries occurs from the conversion of General Plan land use designations.	• Potential impacts to natural resources and agricultural land are preserved outside of defined communities.
6. Provide a variety of transportation choices. 	• Transportation choices remains the same as today.	• Transportation choices, walking, bicycling, transit, passenger rail, and park-and-ride, increase greatly.	• Transportation choices, walking, bicycling, transit, passenger rail, and park-and-ride, increase but not to the extent of Public Services.
7. Reduce the region's greenhouse gas emissions. 	• Greenhouse gas emissions are not reduced.	• Greenhouse gas emissions are reduced through an increase in transit ridership.	• Greenhouse gas emissions are reduced greatly due to clustering within communities.
8. Make development decisions predictable, fair and cost effective. 	• Cost of development remains the same as today.	• Cost of development decreases due to concentrating development around transit corridors and community cores.	• Cost of development decreases due to clustered communities.
9. Provide for an adequate supply of commercial, industrial, recreational and tourism uses 	• Provides sufficient land for all land use categories.	• Provides sufficient land for all land use categories near transit corridors and stations.	• Provides sufficient land for all land use categories near each other within urban development boundaries.

Figure 4-4 Planning Scenarios Guiding Principles

Defined Community Boundaries

As part of Regional Blueprint effort, future high density growth is channeled into the Defined Community Boundaries. The table below summarizes the nineteen Defined Community Boundaries in Tuolumne County. The size of each community is based on a locally defined urban development boundary area. The Distinctive Communities Boundaries areas include 60% of the population in Tuolumne County. These community boundaries include community plan boundaries and city limit boundaries. The Blueprint Committee from 2008 to 2011 worked on creating a defined boundary for the rest of the unincorporated communities listed in the table below.

Defined Communities Boundaries			
Community	*Boundary*	*Population*	Acres
Big Oak Flat	Blueprint Committee	150	357
Cedar Ridge	Blueprint Committee	552	530
Chinese Camp	Blueprint Committee	23	36
City of Sonora	City Limits	4,905	2,066
Columbia	Community Plan	3,371	15,845
Crystal Fall/Mon Vista	Blueprint Committee	3,212	1,461
East Sonora	Community Plan	3,809	5,017
Groveland/Pine Mountain Lake	Blueprint Committee	2,344	6,329
Jamestown	Community Plan	3,122	3,121
Lake Don Pedro	Blueprint Committee	793	7,058
Long Barn	Blueprint Committee	57	105
Mountain Springs	Community Plan	100	1,083
Sierra Village	Blueprint Committee	194	124
Soulsbyville	Blueprint Committee	1,063	873
Strawberry	Blueprint Committee	69	459
Sugar Pine/Mi-Wuk	Blueprint Committee	922	773
Tuolumne	Community Plan	3,709	6,103
Twain Harte	Blueprint Committee	2,866	3,527
West Sonora	Blueprint Committee	1293	337
Total		**32,554 Population**	**55,204 acres**

Table 4.2 Defined Communities Boundaries

Protecting Agriculture and Forest Lands

By channeling higher density growth into the Defined Community Boundaries, dense development will be directed away from agricultural, forest and grazing lands in Tuolumne County. Infrastructure investments within defined communities could promote demand for housing inside community boundaries and facilitate the use of alternative transportation.

Planning Scenarios versus Adopted in the General Plan

An important difference between SB 375's Sustainable Community Strategies and Tuolumne County's Sustainable Rural Strategies is the adopted planning scenario (Distinctive Growth Scenario) is planned to be approved and adopted in the *Tuolumne County General Plan Update*. SB 375 only stipulates that denser development be based upon the most likely future planning scenarios. MPO's do not have to base their planning scenarios on actual locally adopted General Plans. The denser development patterns adopted in the Distinctive Growth Scenario are part of the actual planning and potential growth realities in Tuolumne County. This important difference helps distinguish Tuolumne County from other MPO's Sustainable Community Strategies.

Land Use & Transportation - Regional Performance Measures

One important way to link transportation investments with land use decisions is through regional performance measures. One of the ten regional performance measures in the Regional Transportation Plan is the Land Use and Transportation Performance Measures which is from the Regional Transportation Element (Page 46). The Land Use and Transportation Performance Measure tracks the locations of the transportation investments that are within the Defined Community Boundaries. This Performance Measure helps answer the following questions listed below.

- How many fiscally constrained (Tier 1a, 1b, and 1c) capital improvement projects (CIP's) are located within the Defined Community Boundaries? What is the percentage of fiscally constrained CIP's located within the Defined Community Boundaries? How much funding is dedicated to these projects?

- How many fiscally constrained (Tier 1a, 1b, and 1c) CIP's are located outside of the Defined Community Boundaries? What is the percentage of fiscally constrained (Tier 1a, 1b, and 1c) CIP's located outside of the Defined Community Boundaries? How much funding is dedicated to these projects?

Tuolumne County: Definied Community Boundaries

McKay's Reservoir
Beardsley Lake
Pinecrest Lake
Strawberry
Lyons Reservoir
Long Barn
Sierra Village
Sugar Pine / Mi-Wuk
Twain Harte
Cedar Ridge
Crystal Falls / Mono Vista
Columbia Area Plan Boundary
San Diego Reservoir
Phoenix Reservoir
City of Sonora
Soulsbyville
Tuolumne Community Plan Boundary
West Sonora
Jamestown Area Plan Boundary
East Sonora Area Plan Boundary
New Melones Reservoir
Quartz Reservoir
Mountain Springs Community Plan
Chinese Camp
Pine Mountain Lake
Groveland / Pine Mountain Lake
Big Oak Flat
Priest Reservoir
Don Pedro Reservoir
Lake Don Pedro
Lake Don Pedro

Parrotts Ferry Rd
Yankee Hill Rd
Springfield Rd
Sawmill Flat Rd
Jamestown Rd
Shaws Flat Rd
Racetrack Rd
South Washington St
Lyons Rd
Cabezut
Phoenix Lake Rd
Ridgewood Dr
Creekside Dr
Crestview Dr
Tuolumne Rd N
Soulsbyville Rd
Cherokee Rd
Bay Ave
Buchanan Road
Sanguinetti Rd
Mono Way
Standard Rd
Tuolumne Rd
Woodhams Carne Rd
Lime Kiln Rd
Old Wards Ferry Rd
Campo Seco Rd
Seco Street
Rawhide Rd
Stent Cut Off
Algerine Rd
Yosemite Rd
Algerine Wards Ferry Rd
Wards Ferry Rd
Jacksonville Rd
Red Hills Rd
Ferretti Rd
Old Priest Grade
Priest Coulterville Rd
La Grange Rd
Bonds Flat Rd
South Fork Rd
Sugar Pine Rd
Middle Camp Rd
Fuller Rd
Twain Harte Dr
Longeway Rd
Hunts Rd
Tuolumne Rd N

49
108
120
132

Legend

Defined Communities

- 500 or less people
- 500 - 2000 people
- 2,000 or more people

Document Path:
S:\TCTC\PL\020350 RTP (Regional Transportation Plan)\RTP update 2013\Old RTP Draft\3. Rural Sustainable Communities Strategies\Defined Communities\Defined Communities20160505.mxd

Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

N

0 1.25 2.5 5 Miles

Goals, Objectives, & Policies

The goals, policies and objectives in this document are intended to guide the development of the transportation system, and improve the quality of life in Tuolumne County. The following definitions help differentiate the planning focus of a goal, objective, and policy.

The regional goals from the Regional Transportation Chapter: Land Use and Transportation and Environmental Stewardship have included an objective and policies that help provide clarity to the Rural Sustainable Strategies Chapter. The regional goals are consistent with the List of Rural Sustainable Strategies (page 43-44), Greenhouse Gas Emission Reduction Policies (pages 51-53), and Rural Sustainable Project Level Performance Assessment (Appendix F).

Rural Sustainable Goals:

Goal 1: Ensure the balance of environmental, economic, and social equity metrics in making transportation decisions.

Objective: Implement the Rural Sustainable Strategies.

Policy 1: Utilize the Rural Sustainable Project Level Performance Assessment (Appendix F) tool for funding transportation projects.
Policy 2: Facilitate and identify new funding opportunities through TCTC's List of Rural Sustainable Strategies (page 43-44).
Policy 3: Support and prioritize the Greenhouse Gas Emission Reduction Policies (pages 51-53).

Goal 2: Integrate land use and transportation decisions by prioritizing infrastructure investments within the Defined Community Boundaries that strikes a balance between development, available infrastructure, conserves natural resources, and provides for a high quality of life. (Regional Goal 6)

Objective: Increase funding towards transportation projects that support the land uses within the Defined Community Boundaries *(Regional Blueprint Greenhouse Gas Study).*

Policy 1: Support land use and transportation decisions which encourage growth in the Defined Community Boundaries and avoid rural sprawl *(RTP Evaluation & Analysis Plan & Regional Blueprint Greenhouse Gas Study).*
Policy 2: Provide a variety of transportation choices by adopting policies that promote more alternative modes of transportation.
Policy 3: Ensure new developments are providing their fair share towards transportation impacts.

Goal 3: Practice environmental stewardship by protecting air quality, natural resources, and historical and cultural assets. (Regional Goal 5)

Objective: Identify and mitigate potential environmental impacts from the transportation system.

Policy 1: Improve air quality in the region by coordinating transportation infrastructure with air quality planning.
Policy 2: Reduce air quality emissions and greenhouse gas emissions from the transportation sector *(Regional Blueprint Greenhouse Gas Study).*
Policy 3: Reduce vehicle miles traveled (VMT's) by increasing the use of alternative modes of transportation.
Policy 4: Identify potential climate change impacts affecting the transportation system and find reasonable solutions.
Policy 5: Identify and implement Context Sensitive Solutions in the Defined Community Boundaries.
Policy 6: Support the planning and construction of plug-in electric vehicle charging stations.

List of Rural Sustainable Strategies (RSS)

An important part of this chapter is defining: what is sustainable to rural communities? Addressing a reduction in greenhouse gas (GHG) emissions is only a piece of the overall sustainable transportation strategy for Tuolumne County. A focus on all three economic, environmental, and livability indicators can help achieve a well-balanced multi-modal regional transportation system.

Tuolumne County Transportation Council is uniquely positioned to take advantage of the State's direction in being sustainable. Tuolumne County can be the leader in Rural Sustainable Strategies (RSS) should the State provide funding for rural projects consistent with this Rural Sustainable Strategies Element. Without adequate funding from the State, attaining the forecasted GHG emission reductions as well as meeting the RTP Rural Sustainable Strategies goals is unlikely.

List of Rural Sustainable Strategies

Rural Sustainable Strategies (RSS)	Supports Regional & Sub-Regional Goals
Active Transportation & Healthy Communities – Facilitate and support Safe Routes to School projects and programs. Promote tourism by supporting active transportation and recreational trail projects.	Improves Safety, Supports the Economy

System Preservation – Prioritizes funding to adequately maintain State Highways, local roads system, transit operations, and non-motorized transportation network.	Preserve the Multi-modal Transportation Goal, Cost Effective Transportation System Goal
Complete Streets – Prioritize projects that add complete streets improvements along the State Highway system and the local road network.	Quality of Life Goal, Expand the Multi-Modal Transportation Network
Highways & Local Roads – Prioritize projects that reduce traffic congestion.	Preserve & Expand the Multi-Modal Transportation Network Goals & Support the Economy Goal
Improve Traffic Operations - Improve the flow of traffic by constructing left turn channelization projects, improving traffic signal timing, constructing roundabouts where appropriate and other traffic flow improvements.	Cost Effective Transportation System, Environmental Stewardship, Expand the Multi-Modal Transportation Network
Infrastructure in the Defined Community Boundaries – Prioritize capital improvement projects within the Defined Community Boundaries to ensure the protection of agricultural lands, forest land, and open spaces**.**	Land Use & Transportation Coordination Goal, Environmental Stewardship Goal
Intelligent Transportation Systems (ITS) - Manage the transportation system efficiently through the implementation of ITS projects.	Cost Effective Transportation System Goal, ITS Goal
Non-Motorized Transportation - Prioritize non-motorized transportation infrastructure along congested corridors by improve walkability and bicycling.	Quality of Life Goal, Expand the Multi-Modal Transportation Network Goal, Non-Motorized Transportation Element Goal
Goods Movement - Prioritize transportation projects that facilitate the movement of goods.	Preserve Multi-Modal Transportation Network Goal, Support the Economy Goal, Goods Movement Goals
Safety – Support, facilitate**,** and prioritize safety studies and safety improvement projects.	Improves Safety Goal
Transit – Support, facilitate, and prioritize transit service additions/expansions when financial feasible and add transit stop improvements in congested corridors.	Quality of Life, Expand the Multi-Modal Transportation Network Goal
Transportation System Management (TSM) – Support the use of TSM strategies to improve the overall performance of the transportation network.	Cost Effective Transportation System Goal, TSM Goal
Vehicle Miles Traveled (VMT) – Prioritize capital improvement projects that reduce VMT and improve access and connectivity.	Environmental Stewardship Goal, Expand the Multi-Modal Transportation Network Goal
Zero Emission Vehicles (ZEV) – Support and facilitate ZEV planning and infrastructure projects which help improve air quality and reduce greenhouse gas emissions.	Environmental Stewardship Goal

Table 4.3 List of Rural Sustainable Strategies

Rural Sustainable - Project Level Performance Assessment

The Rural Sustainable - Project Level Performance Assessment (PLPA) is designed to review future capital improvement projects by comparing the Rural Sustainable Strategies listed in Table 4.3. The PLPA compare 26 environmental, economic and quality of life transportation indicators and provides a quantitative number that may be used as a guide to prioritize and rank tier capital improvement projects. The Rural Performance Assessment is included in the Appendix F.

Environmental Review

The 2016 Regional Transportation Plan (RTP) has included a separate document with the Environmental Impact Report (EIR) which provides a detailed analysis of the environmental impacts the RTP may have on the environment. The environmental assessment of this RTP is based on the CEQA guidelines for EIR's.

The environmental document is consistent with the California Wildlife Action Plan by incorporating mitigation to integrate wildlife conservation into local land-use decisions, restoring and protecting riparian habitats, protecting essential water sources for wildlife, and controlling for invasive species.

AIR QUALITY

The US Clean Air Act requires the US Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered to be harmful to public health and the environment. The Clean Air Act also protects the health of sensitive populations such as asthmatics, children, and the elderly. The Clean Air Act provides public welfare protection against decreased visibility, damage to animals, damage to crops, damage to vegetation, and damage to buildings. EPA has set NAAQS for six principal pollutants, which are called criteria pollutants. Ozone was previously the only criteria pollutant in Tuolumne County that was in non-attainment. As of November 2015, the 1997 Ozone Standard was revoked and Tuolumne County is in attainment for the 2008 Ozone Standard. The US EPA has lowered the NAAQS for Ozone Standard to 0.070 ppm.

Tuolumne County Air Quality	
Criteria Pollutants	*Classification*
Carbon Monoxide	Unclassified
Lead	Unclassified
Nitrogen Dioxide	Unclassified
Ozone - 2008	**Attainment**
Ozone - 2015	**Unknown**
Particulate Pollution PM 2.5	Unclassified
Particulate Pollution PM 10	Unclassified
Sulfur Dioxide	Unclassified

Table 4.4 Tuolumne County Air Quality Classifications

The US EPA designates areas as in "attainment" (meeting) or in "nonattainment" (not meeting) the ground-level ozone standards established in 1997 and in 2008. Tuolumne County is in attainment for the 2008 Ozone standard. For the 1997 Ozone standard, the Southern Mountain Counties (in which Tuolumne is included with Mariposa) is designated as non-attainment. However, the Southern Mountain Counties have been below the 1997 ozone standard threshold for the past three consecutive years. Areas that have successfully reduced ozone concentration to less than 0.084 ppm (Southern Mountain Counties) may petition the EPA to be reclassified as attainment if they meet additional criteria.

Transportation conformity is required to ensure that Federally-funded or approved highway and transit activities are consistent with and conform to the purpose of the State Air Quality Implementation Plan (SIP). Conformity to the purpose of the SIP means that transportation activities will not cause or contribute to new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS. EPA's transportation conformity rule establishes criteria and procedures for determining whether transportation plans and Federally-supported highway and transit projects conform to the SIP. Transportation conformity applies to designated nonattainment and maintenance areas for transportation-related criteria pollutants. Transportation conformity does not apply to Tuolumne County because the County is in attainment with the 2008 Ozone standard, and the 1997 Ozone standard was revoked for transportation conformity purposes as of 2012. Tuolumne County is no longer eligible to receive Congestion Mitigation and Air Quality Improvement (CMAQ) funding because the 1997 Ozone standard has been revoked and Tuolumne County is in attainment with the 2008 ozone standard.

Below are some highlights of major air quality changes in regulations, designations, the US EPA's NAAQS, air quality planning requirements, and transportation conformity requirements that have affected Tuolumne County over the past 10 years.

- In 2004, the US EPA designated Mariposa and Tuolumne counties as one multi-jurisdictional nonattainment area called Southern Mountain Counties for the 1997 Ozone NAAQS. The Southern Mountain Counties was designated as moderate non-attainment for Ozone. Previously, Mariposa and Tuolumne counties were included with the San Joaquin Valley areas.
- On March 12, 2008, the EPA revised its National Ambient Air Quality Standards (NAAQS) for ground-level ozone to provide increased protection of public health and the environment. The EPA lowered the primary 1997 NAAQS standard 8-hour ozone standard from 0.084 parts per million (PPM) to 0.075 ppm to protect against health effects associated with ozone exposure. The EPA however, did not implement the 2008 standard until 2012.
- Since 2010, the Southern Mountain Counties have been below the 1997 Ozone NAAQS threshold for three consecutive years, but are still designated as non-attainment.
- In April 2012, the Environmental Protection Agency released the most recent update of the 2008 national standards. Based off the changes to the 8-hour ozone standard levels, Tuolumne County through its 2009-2011 ppm levels did not exceed the Federal-standard. The State of California recommended to EPA that Tuolumne County and Mariposa County be considered a separate jurisdictional area for air quality. EPA agreed in December of 2012.
- The 1997 Ozone standard was revoked for transportation conformity purposes in 2012 and only the 2008 Ozone standard applies for transportation conformity.
- The 1997 Ozone Standard was revoked in 2015 and is effective starting in the new2015/2016 Federal fiscal year. CMAQ funding was eliminated as Tuolumne County was no longer in non-attainment with the 1997 Ozone Standard.

2008 Ozone NAAQS	
National Standard 0.075 ppm	
Tuolumne County	
Year	**2010-2012**
Status	**Attainment**
Design Value (PPM)	**0.073**

Table 4.5 2008 Ozone NAAQS

1997 Ozone NAAQS		
National Standard 0.084 ppm		
Southern Mountain Counties (Tuolumne & Mariposa Counties)		
Year	**Status**	**Design Value (PPM)**
2012-2010	**Attainment**	**0.078**
2011-2009	**Attainment**	**0.077**
2010-2008	**Attainment**	**0.083**
2009-2007	**Non-Attainment**	**0.086**
2008-2006	**Non-Attainment**	**0.088**
2007-2005	**Non-Attainment**	**0.085**
2006-2004	**Non-Attainment**	**0.086**
2005-2003	**Non-Attainment**	**0.088**

Table 4.6 1997 Ozone NAAQS

Greenhouse Gas Emission Reductions

TCTC conducted a regional blueprint planning effort to study future land use development patterns and review three alternative growth scenarios. This Blueprint Plan helped public officials, stakeholders, and the citizens of Tuolumne County to better evaluate future land uses and the potential impact on the transportation system, housing, local economy, quality of life, natural resources, and the environment. The Greenhouse Gas Study and Report was developed to assist in the decision making process for selecting preferred growth alternatives in the Regional Blueprint Plan. Tuolumne County, City of Sonora, and Tuolumne County Transportation Council have played a vital role in assisting the State in reducing its share of GHG emissions consistent with AB 32. The GHG Report showed the results of a countywide (including the City of Sonora) GHG emissions inventory, which evaluates existing (2010) GHG emissions, and projected 2040 emissions for three growth scenarios. The GHG Report identifies policies and measures which may reduce GHG emissions consistent with AB 32.

Greenhouse Gas Emissions in Tuolumne County

In 2010, Tuolumne County generated approximately 782,846 metric tons of carbon dioxide equivalent GHG emissions (MT CO2e), as a result of activities and operations that took place

within the transportation, residential (energy consumption), non-residential (energy consumption), off-road vehicles and equipment, agriculture and forestry, wastewater, and solid waste sectors. This equates to 9.8 MT CO2e per resident and employee in Tuolumne County's service population.

The transportation sector was the largest contributor with 58 percent of the region's total GHG emissions. The residential sector, which accounts for energy consumed in residential buildings, was the second largest contributor with 17 percent of total emissions, while the non-residential sector, which accounts for energy consumed in commercial, industrial, and public buildings, contributed 7 percent of total emissions. GHG emissions from livestock and prescribed burning in the agriculture and forestry sector produced 5 percent of total emissions and fuel used in off-road vehicles and equipment contributed 11 percent of total emissions. The remainder of the GHG emissions came from the solid waste (1 percent) and wastewater (1 percent) sectors.

GHG Emissions by Sector (2010)		
Sector	2010 (MT CO2e)	% of Total
Residential	130,318	17%
Non-Residential	50,899	7%
Transportation (On-Road)	455,532	58%
Off-Road Vehicles/Equipment	89,627	11%
Agriculture/Forestry	40,823	5%
Wastewater	6,646	1%
Solid Waste	9,001	1%
TOTAL	**782,846**	**100%**

Table 4.7 Tuolumne County GHG Inventory (Tuolumne County GHG Study - 2012)

The Greenhouse Gas (GHG) Study and Report reviewed three different growth scenarios from the Regional Blueprint Plan and provided a forecasted greenhouse gas inventory for each one.

It should be noted, the 2010 greenhouse gas inventories assumes no changes in infrastructure investment strategies due to the lack of funding received from State and Federal agencies. Implementation of the Rural Sustainable Strategies (RSS) combined with Financial Alternatives B & C would likely improve the reduction of GHG emissions.

Scenario A: Recent Trends - This Scenario provides a "business-as-usual" estimate of how emissions will change over time if consumption trends and behavior continue as they did in 2010, absent of any new local or regional policies or actions that would reduce GHG emissions. It is based on current land use designations within the City and County General Plans.

Scenario B: Public Services – This Scenario allocates new development at higher densities in locations closer to where public transit services and public facilities such as utilities, schools, and parks are available. This scenario places future growth emphasis on the general availability of public infrastructure and services, without necessarily distinguishing communities as rural or urban.

Scenario C: Distinctive Communities - This Scenario allocates more dense land use growth in or near the community boundaries and existing population centers such as the City of Sonora, community of Jamestown, etc. This scenario assumes that urban areas with and other infrastructure will attract a relatively higher rate of growth than rural or less-urbanized areas. The Distinctive Communities Growth Scenario was selected by the Tuolumne County Board of Supervisors and the TCTC as the preferred growth scenario.

Comparison of Growth Scenarios' GHG Emissions Forecasts

Growth Scenario	2030 (MT CO_2e)	2040 (MT CO_2e)	% Change (2010 to 2040)
Recent Trends	782,846	707,321	-9.7%
Public Services	782,846	706,831	-9.9%
Distinctive	782,846	707,138	-9.7%

Table 4.8 Growth Scenarios Emission Forecasts (Tuolumne County GHG Study - 2012)

Countywide GHG Emissions Target

2010 Baseline and 2040 Community Target	**GHG Emissions (MT CO_2e)**
2010 Baseline Emissions	782,846
Countywide Target (15% below 2010 emissions by 2040)	**665,419**
Scenario Forecasts and Required Reductions to Meet 2040 Target	
Recent Trends Scenario 2020 Forecast	707,321
Recent Trends Reduction Required by 2020 to Meet Target	41,902
Public Services Scenario 2020 Forecast	706,831
Public Services Scenario Reduction Required by 2020 to Meet Target	41,412
Distinctive Communities Scenario 2020 Forecast	707,138
Distinctive Communities Reduction by 2020 to Meet Target	41,719

Table 4.9 Countywide Emission Targets (Tuolumne County GHG Study - 2012)

Transportation-related emissions make up 58 percent of Tuolumne County's GHG emissions inventory. These emissions result from the use of fuel to power cars and trucks within the region. Factors affecting transportation emissions include vehicle miles traveled, vehicle type, and the overall system infrastructure. In addition, these factors are directly influenced by the geographic distribution of people and places, especially the density of development and zoning. Therefore, land use measures are included as reduction policies in this section. The key to reducing transportation-related emissions is to implement strategies which reduce vehicle miles traveled as well as a cleaner fleet of vehicles. While the US EPA and ARB have lead efforts to improve vehicle fuel efficiency standards and provide incentives to purchase zero emission vehicles, TCTC's 2016 RTP strives to provide greater access to alternative forms of transportation including transit, biking and walking, promote efficient land use development patterns that put people and jobs closer together, and establishing transit oriented development which places jobs and housing near transit locations. **The transportation policies listed in Table 4.10 focus on these strategies and have the potential to reduce Tuolumne County's GHG emissions more than 22,530 MT CO2e by 2020.**

Transportation Policies that would Reduce Greenhouse Emissions (GHG Study)

Transit System Improvement Policies	**GHG Emissions reduction estimates (MT CO_2e)**
T-1.1: Continue to expand and improve transit service (e.g., increased frequency, longer operating hours and more stops in key locations) and its consistency as identified in the Transit Development Plan.	2,786 (MT CO_2e)
T-1.2: Improve rider information and consider implementing real-time information technology on transit vehicle arrival.	1,592 (MT CO_2e)
T-1.3: Encourage transit ridership through marketing and outreach campaigns.	1,592 (MT CO_2e)
T-1.4: Provide transit shelters that are comfortable, attractive, and accommodate transit riders. Ensure that shelters provide shade, route information, and benches.	1,592 (MT CO_2e)
T-1.5: Support transit services that allow residents and tourists to access major recreational areas without the need to drive their automobiles.	To-Be-Determined (TBD) (New)

T-1.6: Support the conversion of transit vehicles to more fuel efficient vehicles that can reduce GHG emissions.	TBD (New)
Bicycle and Pedestrian Travel Policies	**GHG Emissions reduction estimates ($MT CO_2e$)**
T-2.1: Expand and improve the bikeways within Tuolumne County, focusing on safety, connectivity, and accessibility.	953 ($MT CO_2e$)
T-2.2: Promote walking and bicycling through education and outreach programs and activities such as commute campaigns, classes that teach cycling skills, and providing cycling route maps.	1,072 ($MT CO_2e$)
T-2.3: Expand and improve pedestrian sidewalks and facilities within Tuolumne County, focusing on safety, connectivity, and accessibility.	119 ($MT CO_2e$)
Commute Trip Reduction Policies	**GHG Emissions ($MT CO_2e$)**
T-3.1: Create additional, or improve existing, car-sharing and ride-sharing programs and promote within the region.	2,792 ($MT CO_2e$)
T-3.2: Work cooperatively with major local employers to offer incentives and services which decrease auto commuting (e.g., telecommuting, alternative work schedules, etc.).	2,792 ($MT CO_2e$)
Vehicle Efficiency	**GHG Emissions ($MT CO_2e$)**
T-4.1: Support the expanded use of Advanced Clean Cars by connecting residents and businesses in Tuolumne County with educational information and state financial incentive programs.	2,628 ($MT CO_2e$)
T-4.2: Support the expansion of plug-in electric vehicle (PEV) charging stations.	TBD (New)
Land Use Policies	**GHG Emissions ($MT CO_2e$)**
T-5.1: Through the General Plan, facilitate growth primarily in the Defined Community Boundaries. Provide incentives; streamline the approval process and other barriers to mixed-use and higher intensity development	4,203 ($MT CO_2e$)

at transit nodes and along transit corridors.	
T-5.2: Target public funds toward existing communities—through strategies like transit-oriented, mixed-use development and infill projects to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.	Supports Reduction Potential of other Transportation Policies
T-5.3: Through the General Plan, encourage economic development and a mix of uses in unincorporated urban service areas that minimize the need for nearby residents to travel greater distances to access services.	409 (MT CO_2e)
Road Network Policies	**GHG Emissions (MT CO_2e)**
T-6.1: Construct a regional Complete Streets network that reduces traffic congestion and reduces vehicles miles traveled (VMT's).	TBD (New)
T-6.2: Implement Intelligent Transportation System (ITS) projects that seek traffic signal synchronization.	TBD (New)
T-6.3: Implement Transportation System Management (TSM) projects which relief congestion and reduce vehicles idling unnecessarily.	TBD (New)
Goods Movement Policies	**Potential GHG Emissions Reductions**
T-7.1: Encourage the use of rail for interregional freight.	TBD (New)
T-7.2: Support alternative clean fuels for goods movement vehicles.	TBD (New)
TOTAL Potential GHG Emission Reductions	**22,530 (MT CO_2e)**

Table 4.10 Transportation Policies and Reductions (Tuolumne County GHG Study-2012)

(MT CO_2e) - Metric tons of carbon dioxide equivalent GHG emissions

It should be noted; some of the greenhouse gas (GHG) reduction policies from Table 4.10 are currently in effect and continue to provide GHG emission reduction benefits.

This page is left intentional blank

Chapter Five: State Highways



Figure 5.1 - SR 108 - between Phoenix Lake Rd & Peaceful Oak Rd, Photo Courtesy of TCTC

Introduction

There are four state highways that travel through Tuolumne County: SR 49, SR 108, SR 120, and SR 132 (Table 5.1). They traverse through a wide range of elevations, habitats, and beautiful scenery. As a rural county, travel is predominantly automobile oriented and this trend is not likely to change in the near future. These highways are important means for residents, commuters, and tourists for travel between neighboring counties.

The State Highways in Tuolumne County are a vital economic backbone of the economy. Tuolumne County is a destination for tourism from outside the region and most travelers use the State Highways to access Tuolumne County. State Park destinations include Columbia State Park and Railtown 1897. There is one National Park destination, Yosemite National Park which is located at the southeastern portion of the County.

Past State Highway Completed Projects

Since the last RTP was last approved in 2008, several State Highway capital improvement projects have been completed. A few of the projects include:

East Sonora Bypass Stage II – East Sonora

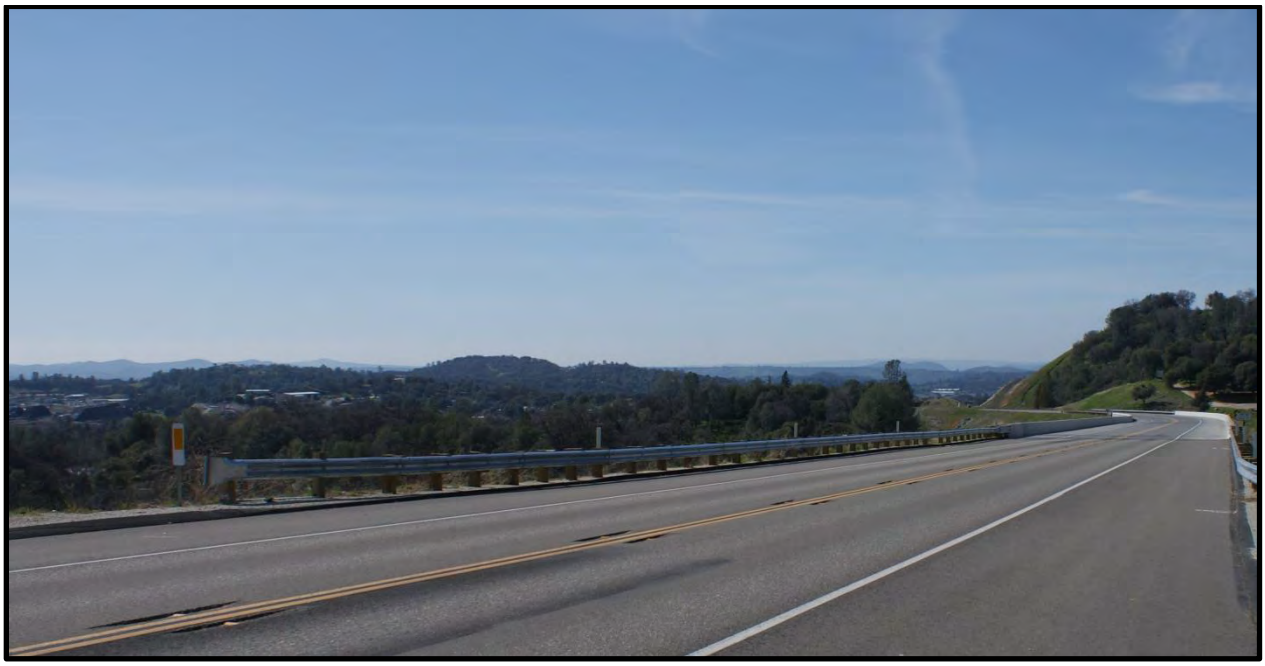


Figure 5.2 - East Sonora Bypass Stage II

The East Sonora Bypass Stage II is a new two lane expressway bypass located in East Sonora, between Peaceful Oak Road/Standard Road and Argyle Road. This $52.9 million project was

built as a continuation of the East Sonora Bypass Stage I, which was completed in 2002. This project was aided by the 2006 voter approved transportation bond and Proposition 1B, which funded $14.53 million towards the project and the project was completed on November 1, 2013.

Signalization of O'Byrnes Ferry Road @SR 108 – Tuolumne County
The intersection of O'Byrnes Ferry Road and Caltrans State Highway 120/108 was signalized to increase safety at a critical intersection.

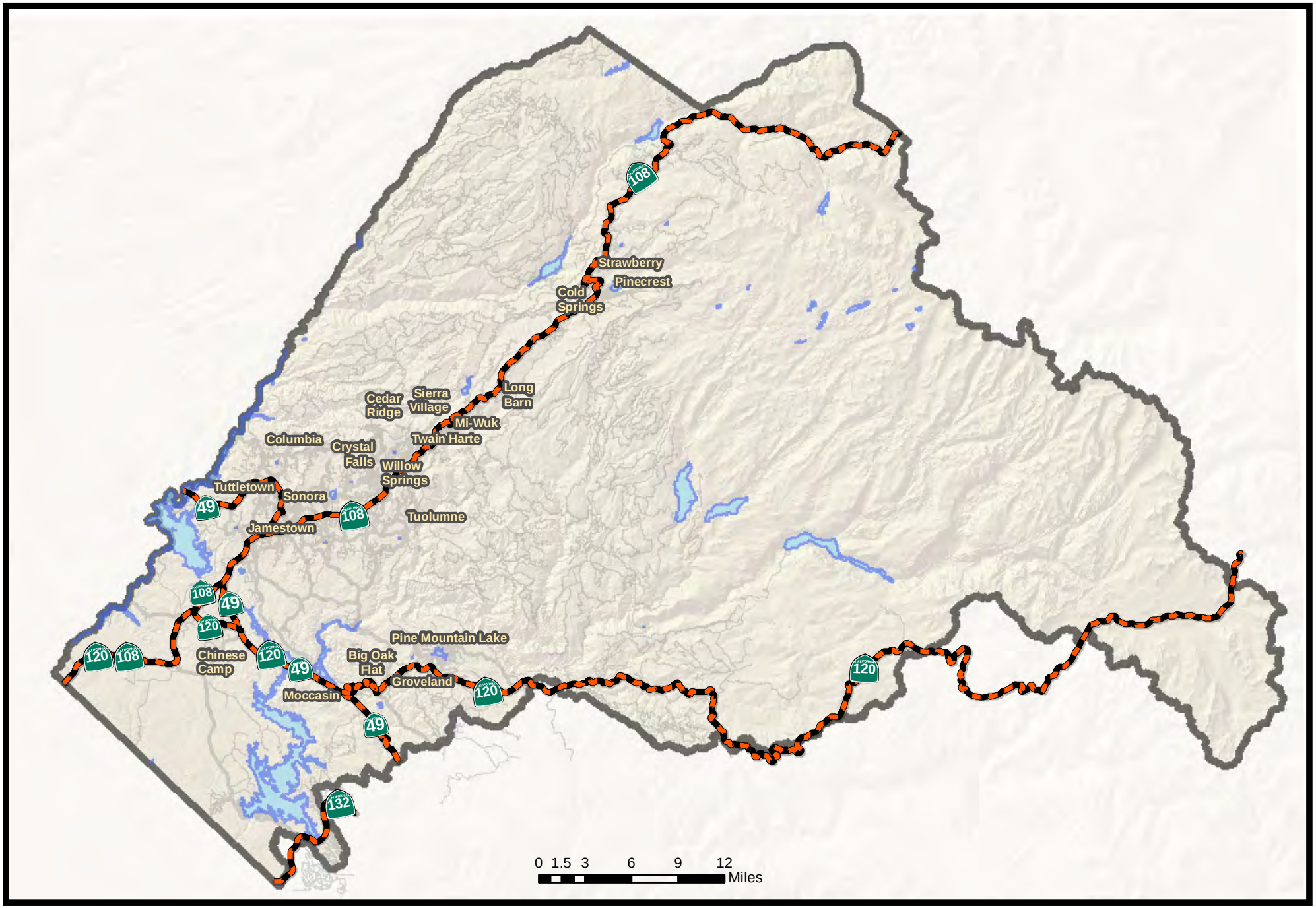
Existing Conditions

State Highways in Tuolumne County

State Highways	*Location*
SR 49 - part of the National Highway System	Calaveras County Boundary line to Mariposa County Boundary line; Excluding the City of Sonora
SR 108 - part of the National Highway System (Caltrans Comment) SR 108	Stanislaus County Boundary line to Hess Ave; Hess Ave to Mono County Boundary line
SR 120 - part of the National Highway System	Stanislaus County Boundary line to Yosemite National Park
SR 132	A portion in the southern Tuolumne County (Lake Don Pedro) and the Mariposa County Boundary line

Table 5.1 State Highways in Tuolumne County

State Highways in Tuolumne County



Scenic Routes

A scenic route is an officially designated road that traverses an area of outstanding scenic quality. Portions of State Highways 49, 108 and 120 are eligible as scenic routes by the Tuolumne County General Plan.

Tuolumne County Locally Designated Scenic Routes

SR 49	From Calaveras County Line to the Mariposa County Line
SR 108	Near SR 49 to Mono County Line.
SR 120	Near Chinese camp by SR 49 to Moccasin near the SR 120/49 intersection Contiguous segment with SR49

Table 5.2 Tuolumne County Locally designated scenic routes

There are no officially designated California Scenic Highways in Tuolumne County, but there are three State Routes that are eligible for State Scenic Highways: SR 49, SR 108, and SR 120.

National Scenic Byways

SR 120/Tioga Road/Big Oak Flat Road	Segment in Yosemite National Park.

Table 5.3 National Scenic Byways

Tuolumne County has one National Scenic Byway which is located in Yosemite National Park. The National Scenic Byways Program helps to recognize, preserve, and enhance select roads throughout the United States. The U.S. Secretary of Transportation recognizes certain roads as National Scenic Byways based on archeological, cultural, historic, natural, recreational or scenic qualities.

State Highways Issues & Solutions

Issues	**Solutions**
Some of Caltrans's maintained bridges are functionally obsolete and/or structurally deficient.	Ensure Caltrans invests in replacing obsolete and/or structurally deficient bridges and investing in sustainable maintenance upon replacement.
Some roadway segments on the State Highway System are operating below Level of Service (LOS).	Increase capacity for deficient roadway segments if feasible, and/or improve alternative modes of transportation.

Ensure accidents and fatalities on our State Highways are being addressed.	Apply for Highway Safety Improvement Program (HSIP) funds to reconcile problematic intersections and highway segments.
Perform Road Safety Audits to develop capital improvements that address future safety hazards.	Apply for Systemic Safety Analysis Report Program (SSARP) under HSIP to fund Road Safety Audits
State Highways traverse through several "Main Streets" in Tuolumne County.	Implement Context Sensitive Solutions along State Highway "Main Streets" by ensuring future transportation improvements do not impact culturally and economically vital areas.
Address safety issues for pedestrian crossings along State Highways.	Apply for funding through the Active Transportation Program And seek opportunities to partner with Caltrans to coordinate active transportation improvements with SHOPP Projects.
State Highways do not accommodate all road users, such as pedestrians and bicyclists.	Seek opportunities to partner with Caltrans to coordinate Complete Streets Improvements with SHOPP Projects.

Table 5.4 State Highways Issues and Solutions

Goal, Objectives, and Policies

The goals, policies, and objectives in this document are intended to guide the development of the transportation system and improve the quality of life in Tuolumne County. The following definitions help differentiate the planning focus of a goal, objective and policies.

A **goal** is the end toward which effort is directed; it is general and timeless.

An **objective** is a specific end, condition, or state toward attaining a goal. It is achievable, measurable, and time specific.

A **policy** is a direction statement that guides actions for use in determining present and future decisions.

The RTP includes the following priorities to guide future expenditures on State Highway transportation facilities.

Highways:

Goal: Provide a safe and well-maintained State Highway system that meets the needs for all transportation users.

Objective: Improve regional and statewide mobility, accessibility, and safety needs for residents, tourists, and commerce.

Policy 1: Use performance measures to identify, prioritize, and secure funding for State Highway capital improvement projects in Tuolumne County.
Policy 2: Coordinate with Caltrans and local partners to identify safety issues, develop solutions, and identify funding opportunities necessary to prevent capacity deficiencies and to provide adequate Levels of Service (LOS) on State Highways.
Policy 3: Coordinate with Caltrans to identify and construct Context Sensitive Solutions on State Highways.
Policy 4: Prioritize "complete streets" strategies when planning major corridor improvements that include the needs of bicyclists, pedestrians, and transit users within the Defined Community Boundaries.
Policy 5: Enhance opportunities for safe pedestrian and bicycle travel on and across State Highways.
Policy 6: Implement traffic calming measures and safety improvements along sections segments of the State Highway that function as "Main Streets" in communities including Jamestown, Groveland and the City of Sonora.
Policy 7: Maintain a minimum Level of Service D on rural and urban intersections and roadway segments for Minor Arterials, Principal Arterials, and Expressways. There may be exceptions to these Levels of Service (LOS) standards.

Regional Travel Demand Model

The Tuolumne County Regional Travel Demand Model (RTDM) was originally developed in 1997 to assist the long-range Regional Transportation Plan (RTP), and to help establish a funding mechanism to finance future transportation infrastructure. As a part of the 2006-2007 RTP Update, the 1997 Tuolumne County RTDM was recalibrated to establish base-year conditions and converted data from the *MINUTP* software to the *TransCAD* software. TCTC contracted with Wood Rogers, Inc. to update the RTDM in 2010, and this update included the development of long-range traffic volume forecasts consistent with Tuolumne County's recent trends in land use forecasting, and a revision and update of the Traffic Analysis Zones (TAZs).

Traffic Analysis Zones (TAZs) Update

A Traffic Analysis Zone (TAZ) is a unit of geography most commonly used in traffic modeling. Each TAZ unit represents an individual closed boundary such as a natural geographic barrier (such as a river or open space), or "man-made" barriers such as major streets. Several TAZ's were split based on the Distinctive Community Boundaries. A total of 11 new TAZs were created during this process, and the updated 2015 Tuolumne County TAZ system now consists of a total of 579 TAZ's. The Regional Travel Demand Model uses the land use data in each unique TAZ to generate the Annual Daily Traffic (ADT) numbers for base year, and future year roadway conditions.

Base Year Land Use Data

Wood Rodgers worked with TCTC staff to create an updated 2014-2015 land use data for use in developing the updated Base Year (2015) RTDM.

- Reallocation of prior RTDM's "year 2010" land use data per the updated 2015 TAZ numbering and boundary definitions.
- Identification of recent growth in land uses (i.e. new construction) by the County Assessor's Office between year 2009-2010 and year 2014-2015 conditions.

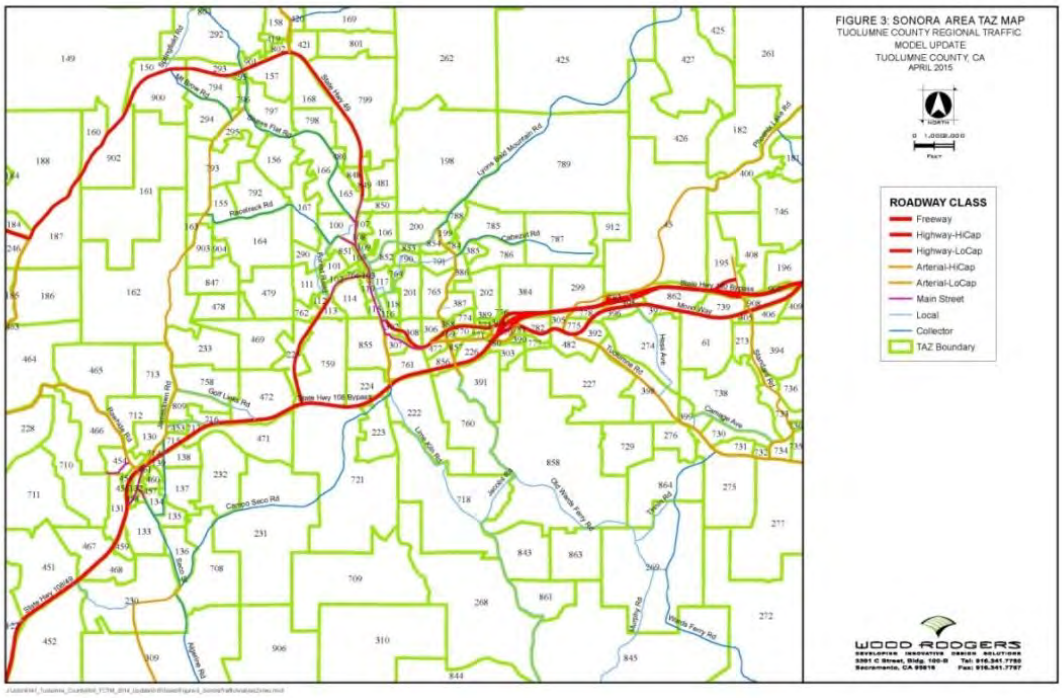


Figure 5.4: Sonora Area TAZ Map

Future Year Land Use Forecasts - UPlan

UPlan is a growth model that forecasts future land development based on a consideration of several interrelated local and regional data conditions and inputs. The *UPlan* model takes in demographics factors such as: population, employment, housing statistics, and uses Tuolumne County and City of Sonora General Plan Land Use Maps as a basic input, and then estimates where future growth is probable within a "cell" by using a system of "attractions" and "constraints". The growth attractions include: highways, roads, schools, parks, sewer, water, and gentle terrain. Constraints include flood plains, steep terrain, and environmental sensitive areas.

- *UPlan* based land use forecasting for future years was completed by County Staff. The output land use data was provided to Wood Rodgers, Inc. for use in the future year models.
- For future years 2030 and 2040, *UPlan* forecasts were developed for four alternative growth scenarios: Distinctive Communities, Public Services, Recent Trends (Existing), Recent Trends (Proposed).

The Model base year of 2015 is based on the assessor land use data and the existing transportation network. Traffic forecasts for Average Daily Traffic in all scenarios were calculated based on the Tuolumne County Transportation Council's (TCTC) Regional Traffic Demand Model (RTDM). The RTDM was modified to reflect the lower base population, since the last RTDM update was performed in 2010.

State Highway LOS Deficiencies

After the data collection was completed, the existing intersections and roadway segments were evaluated using the operating level of service (LOS) thresholds. The level of service (LOS) of roadways is a qualitative measure of the operating conditions on a section of roadway or intersection. It is defined by the motorists' perception of their mobility and comfort. The LOS ranges from LOS "A" through LOS "F":

- In general, LOS "A" through LOS "C", indicate minimal or acceptable delays.
- LOS "D" represents high density stable flow with motorists feeling noticeable congestion.
- LOS "E" indicates the roadway is operating at or near its capacity and there are frequently intolerable delays.
- LOS "F" means the traffic volume is higher than the capacity of the roadway so queuing will occur; there will be excessive delay and stop and go conditions through the queue until the demand level drops off.

The minimum level of service acceptable for roadway segments and intersections on State Highways is LOS D and the goal for rural roadway segments is LOS C. Appendix Exhibits 1, 2, and 3 show the LOS analysis for 41 study intersections from the RTP Traffic Study Report. The years 2015, 2030 and 2040 were used in all of the model analysis. Existing traffic counts were used in base year levels of service (2015) analysis; projected traffic volumes from the Regional Travel Demand Model (RTDM) were to analyze 2030 and 2040 conditions.

Intersections Level of Service (LOS)

There were 41 study intersections analyzed which is included in Appendix C: Traffic Study Report Addendum. For evaluating intersections LOS, *Synchro and SimTraffic 8* software were used to complete both signalized and un-signalized intersection LOS computations. See Tables 35.5 and 5.7.

Existing Intersections with Unacceptable Peak Hour LOS		**AM Peak**	**PM Peak**
Intersection	*Control*	*LOS*	*LOS*
SR 108/49 & Chicken Ranch Rd	TWSC	C	E
SR 108/49 & Main St & Jamestown Rd	TWSC	F	F
SR 108/49 & 5th Ave	TWSC	F	F
SR 108/49 & SR 108 & SR 49 (Stockton St)	TWSC	E	F
SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	TWSC	F	F
SR 49 (N Washington St) & School St	TWSC	E	E
SR 49 (Washington St) & SR 49 (Stockton St) & South Washington St	Signal	E	E

Table 5.5 – LOS Intersections Existing Conditions 2015 (Traffic Study Report Addendum)

The seven intersections listed above are considered as not meeting acceptable LOS standards in existing conditions (2015). Tuolumne County has two currently programmed capital improvement projects to address LOS deficiencies at these intersections.

- Reconfiguration of SR 108/49 & Main St/Jamestown Rd in the Rawhide Bridge Project
- Signalization of SR 108/49 & 5th Ave

The City of Sonora has one planned capital improvement project which will address LOS deficiencies at two intersections:

- Intersection improvements at SR 49/Columbia Way-Complete Streets Improvements which will improve the SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way intersection and SR 49 (N Washington St) & School St intersection.

One or More Turning Movements Operating at LOS E or Worse

Intersection	Control	AM-Turning Movement	PM-Turning Movement
SR 108 and Lime Kiln Rd/South Washington St	Signal	SBT	SBT

Table 5.6 –Turning Movements Existing Conditions 2015 (Traffic Study Report Addendum)

Please note: South Bound Traffic (SBT)

Caltrans has one planned capital improvement projects will address LOS deficiencies at these intersections:

- Intersection Improvements at SR 108 and Lime Kiln Rd/South Washington St.

2030 with Unacceptable Peak Hour LOS		**AM Peak**	**PM Peak**
Intersection	*Control*	*LOS*	*LOS*
SR 108/49 & SR 108 & SR 49 (Stockton St)	TWSC	E	F
SR 49 (N Washington St) & SR 49(Stockton St) & South Washington St	Signal	E	E

Table 5.7 – LOS 2030 Future Conditions (Traffic Study Report Addendum)

Please note: Two-Way Stop Control (TWSC)

The two intersections listed above are considered as not meeting acceptable LOS standards in 2030 future year conditions. Three capital improvements projects would alleviate the LOS issues at these intersections. By 2040 with these improvements there would be no LOS deficiencies.

- A planned capital improvement project includes the North-South Connector Phase I – Greenley Road Extension. This project would help alleviate downtown Sonora congestion at the South Washington St & SR 49 (Washington St) & SR 49 (Stockton Rd) signalized intersection to an acceptable LOS standard by 2040.
- Intersections improvements at SR 49-SR 108/SR 108 & SR 49 (Stockton St)

2040 with Unacceptable Peak Hour LOS		**AM Peak**		**PM Peak**	
Intersection	*Control*	*Delay*	*LOS*	*Delay*	*LOS*
SR 49 (N Washington St) & SR 49(Stockton St) & South Washington St	Signal	62.5	E	58.1	E
SR 49 and Bradford St	TWSC	-	-	35.8	E

Table 5.8 – LOS 2040 Future Conditions (Traffic Study Report Addendum)

Please note: Two-Way Stop Control (TWSC)

With all of the Tier 1 fiscally constrained capital improvement projects constructed by 2040, there would be two unacceptable LOS intersection deficiencies on the State Highway system.

Roadway Segments - Level of Service (LOS)

As part of the Traffic Study Report, 152 roadway segments were studied. An LOS analysis was calculated by comparing the existing and/or future roadway segments' Average Annual Daily Traffic (AADT) volumes with the corresponding AADT thresholds in the Generalized ADT Lookup Table. The Generalized ADT Lookup Table uses custom AADT thresholds for each unique roadway classification, matched up with a roadway segment's corresponding AADT. The Lookup Table has unique AADT road thresholds for urban, mountainous, and rolling roadway classifications.

Existing (2015) Roadway Segments Operating at LOS E or Worse	
Roadway Segment	*LOS*
SR 108/49 b/w SR 49 (Stockton Rd) & Fifth Ave	E
SR 108/49 b/w South Jct. Main St & Chicken Ranch Rd	E
SR 49 b/w Stockton Rd and Dodge St	E
SR 49 b/w N Washington St/Columbia Way & St Dodge St	E
SR 49 b/w Dodge St & Stockton Rd	E

Table 5.9 – Roadway Segments- 2015 Existing Conditions

The five State Highway roadway segments listed above are currently operating below acceptable LOS for existing conditions (2015). One SR 108/49 widening project is planned:

- SR 108/49 b/w Fifth Ave and South Main St

2030 Roadway Segments Operating at LOS E or Worse	
Roadway Segment	*LOS*
SR 108 b/w South Washington St/Lime Kiln Rd and SR 49 (Stockton Rd)	E
SR 108/49 b/w SR 49 (Stockton Rd) and Fifth Ave	E
SR 108/49 b/w South Main St & Chicken Ranch Rd	E
SR 108/49 b/w & Chicken Ranch Rd and SR 49 (Montezuma Junction)	E
SR 108 b/w SR 49 (Montezuma Junction) and SR 120 (Yosemite Junction)	E
SR 108/120 b/w SR 120 Yosemite Junction and O'Byrnes Ferry Rd	E
SR 49 n/o N Washington St/Columbia Way	E
SR 49 s/o N Washington St/Columbia Way	E
SR 49 n/o Dodge St	E
SR 49 b/w Stockton Rd & Dodge St	E

Table 5.10 – Roadway Segments- 2030 Existing Conditions

The ten roadway segments listed above operate at unacceptable LOS for the future 2030 conditions. The North-South Connector - Greenley Road Extension project would help relieve congestion in Downtown Sonora, and help alleviate these roadway segments:

- SR 49 n/o N Washington St / Columbia Way
- s/o N Washington St/Columbia Way
- SR 49 n/o Dodge St

2040 Roadway Segments Operating at LOS E or Worse	
Roadway Segment	*LOS*
SR 108 b/w South Washington St/Lime Kiln Rd and SR 49 (Stockton Rd)	E
SR 108/49 b/w Fifth Ave and SR 49 (Stockton Rd)	E
SR 108/49 b/w South Main St & Chicken Ranch Rd	E
SR 108/49 b/w & Chicken Ranch Rd and SR 49 (Montezuma Junction)	E
SR 108 b/w SR 49 (Montezuma Junction) and SR 120 (Yosemite Junction)	E
SR 108/120 b/w SR 120 Yosemite Junction and O'Byrnes Ferry Rd	E
SR 49 b/w Stockton Rd and Dodge St	E
SR 49 e/o Parrotts Ferry Rd (Columbia WYE)	E

Table 5.11 – Roadway Segments- 2040 Existing Conditions

The eight State Highway roadway segments listed above are operating below acceptable LOS conditions in 2030 and 2040. Without more dedicated funding, these roadway segment deficiencies will not be improved in the future.

Tier Capital Improvement Projects

Tier 1a Projects

Tier 1a projects are programmed capital improvements with dedicated funding that are planned to begin construction in the next 6 years.

Peaceful Oak Road/State Route 108 Interchange Ramps Project

This project will construct two ramps that were eliminated from the original scope of the East Sonora Bypass Stage II Project. Caltrans has approved a Project Study Report (PSR) and is moving forward with the project approval and environmental (PA&E) phase of the project.

Mono Way Operational and Safety Improvement Project

With the completion of East Sonora Bypass Stage II in 2013, the former SR 108 segment along Mono Way has been relinquished to Tuolumne County, to maintain and manage in the future. A Cooperative Agreement has been executed between the County of Tuolumne and Caltrans to facilitate the relinquishment, and identify the project area. The Mono Way Safety Improvement

Project has been developed to enhance the safety and operation of the roadway as a Major Collector.

SR 120 & SR 108 - Yosemite Junction Intersection Safety Improvement Project
This project will upgrade a stop controlled intersection and reduce the severity and number of broadside collisions at this site. As part of the Project Approval and Environmental (PA&E) Phase, several different intersection improvement alternatives will be studied including a roundabout, signalization, and a High T- Intersection.

SR 120 – New Priest Grade Turnouts
This project will construct new eastbound turnouts at three locations for slower moving vehicles, to allow other vehicles to pass, improving operational traffic flow.

Tier 1b and 1c projects
Tier 1b projects are planned capital improvements that will be constructed in the next 6 to 15 years. Tier 1c projects are planned capital improvement that will be constructed in the next 16 to 25 years. These projects are planned to be funded based upon the RTP's financially constrained Expenditure Plan.

SR 108/49 Widening to Five Lanes – Stage 1 - from South Main Street to Fifth Ave
The widening of State Route 108/49 from South Main Street to Fifth Ave to a five lane arterial road has been designated the highest need and priority in Tuolumne County for RTIP funding. This project is part of a larger widening project that would widen SR 108/49. This project would also include a complete streets component which would include pedestrian and bicycle improvements, and study opportunities for a transit stop(s) along the State Highway. This project is planned to begin construction in 2025.

SR 108 and South Washington Rd/Lime Kiln Intersection Improvements
This capital improvement project will improve congestion and the operational performance at this vital gateway intersection. The Traffic Study Report showed several deficient turning movements at this location.

Intersection & Complete Streets Improvements - SR 49 and Columbia Way/School St/North Washington St
This capital improvement project would improve level of service (LOS), safety, and travel time delay at this intersection. As part of the Project Approval and Environmental (PA&E) Phase, several different intersection improvement alternatives will be studied, including a roundabout

and signalization. This project would also include a complete streets component of pedestrian and bicycle crossing improvements to facilitate critical safe access to Sonora High School.

SR 120 & Old Priest Grade Top Grade - Left Turn Channelization
This capital improvement would construct a left turn lane along SR 120 and Old Priest Grade Rd at the top of the grade.

SR 49 Left Turn Channelization Shaws Flat Road
This capital improvement project would construct a continuous left turn lane from at the intersection of SR 49 and Shaws Flat Rd. Review and implement Complete Streets improvements whenever possible.

SR 108/49 - Chicken Ranch Rd to South Main St - Continuous Left Turn Lane
This capital improvement project would construct and continuous left turn lane from the Chicken Ranch Rd to South Main St. Review and implement Complete Streets improvements whenever possible.

Tier 2 – Financial Alternative C - Capital Improvement Projects
Tier 2 projects use alternative funding sources that are not currently available, but might be available in the future based upon Local and State policy decisions. If these funding sources do become available, the projects below would be constructed with these funds.

SR 108/49 Widen to Five Lanes – Stage 2 - from Fifth Ave to Stockton St
This capital improvement project would be a second phase of widening of SR 108/49 to five lanes between Fifth Ave and Stockton Rd (SR 49 exit). This project will help relieve congestion and improve operational performance at a vital state highway connecting Jamestown with Sonora and the rest of Tuolumne County. This project would also include a complete streets component of pedestrian and bicycle improvements, and study opportunities for a transit stop(s) along the State Highway.

SR 108/49 Widen to Five Lanes – Stage 3 - from Chicken Ranch Rd to South Main Street
This capital improvement project would be a second phase of widening of SR 108/49 to five lanes between Chicken Ranch Rd and South Main Street. This project will help relieve congestion and improve operational performance at a vital state highway connection with the rest of Tuolumne County. This project would also include a complete streets component for pedestrian and bicycle improvements.

SR 49 Widen to Five Lanes – from Parrotts Ferry Rd to new Greenley Rd Extension
This capital improvement project would widen SR 49 to five lanes between Parrotts Ferry Road and the new Greenley Road Intersection. This project will help relieve congestion and improve

operational performance at a vital state highway connecting Columbia with Sonora. This project would also include a complete streets component of pedestrian and bicycle improvements and study opportunities for a transit stop(s) along the State Highway.

East Sonora Bypass Stage III

The East Sonora Bypass Stage III would be the last component of the East Sonora Bypass project. However, based upon the Updated Traffic Model, the East Sonora Bypass Stage III would not be needed in the next 25 years, based on the lower population projections in the future. The need for this project might change in the future, predicated upon new growth or changing traffic demands. We recommend that the right of way be protected in the area where the new roadway alignment is proposed to be used for the highway.

The East Sonora Bypass Stage III Project Study Report (PSR) was released in 2006, and a thorough traffic study was completed for this future project. The preferred alternative in the PSR was constructing a two-lane expressway with complete access control on a new alignment, on State Route 108 from Via Este to North Sunshine Road / Mono Vista Road South. The following alternatives were studied by Caltrans for the project:

- **Alternative I - Widen existing State Highway to 5 Lanes**. This alternative would widen existing SR 108 to a 4 lane conventional highway. This alternative would need an access management plan to address access to the highway from the multiple roadway intersections and driveways which encroach on the highway.

- **Alternative II – 2 Lane Expressway on a New Alignment (East Sonora Bypass Stage III)**. This alternative would construct an expressway on a new alignment with complete access control. The existing SR 108 would be relinquished to Tuolumne County, and remain a 2 lane roadway. The project would begin at the eastern end of the East Sonora Bypass Stage II near Mono Way and end at the beginning of the existing 4 lane expressway segment of SR 108 at the intersection of Sunshine Road/Mono Vista Road South. The existing State Highway would be realigned to connect with Mono Vista Road South forming a southern frontage road. The existing connector from Mono Vista Road South to SR-108 would be removed. Draper Mine Road would be extended from its intersection with existing SR-108, crossing under the bypass, and ending at a southerly extension of South Sunshine Road. South Sunshine Road would be improved and extended from North Sunshine Road to form a northern frontage road, meeting with the future extension of Draper Mine Road. The existing connector from North Sunshine Road to SR-108 would be removed.

- **Alternative III – 4 Lane Expressway on a New Alignment**. This alternative is similar to the previous one, except the project would construct a 4 lane Expressway.

Upon completion of the study, Alternative II proved to be the preferred alternative.

Tier 3 - Unfunded Capital Improvement Projects

Tier 3 projects are capital improvements that have no available funds to construct projects in the next 25 years. The Tier 3 list includes projects that are needed now, based on the 2016 RTP Financially Constrained Plan and the alternative funding scenarios.

SR 108/120 Widen to a Four Lane Expressway – from La Grange Road to O'Byrnes Ferry Road

This capital improvement project would construct a four lane expressway starting at the end of the four lane expressway west of La Grange Road to O'Byrnes Ferry Road.

SR 108 Widen to a Four Lane Expressway – from O'Byrnes Ferry Road to Chicken Ranch Road

This capital improvement project would construct a four lane expressway starting at the end of the four lane expressway west of La Grange Road to Chicken Ranch Road.

Funding Sources

State Transportation Improvement Program (STIP)

STIP is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the Transportation Investment Fund and other funding sources.

Interregional Transportation Improvement Program (ITIP)

ITIP is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the Transportation Investment Fund and other funding sources.

Regional Transportation Improvement Program (RTIP)

RTIP is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the Transportation Investment Fund and other funding sources.

State Operation and Protection Program (SHOPP)

The State Highway Operation and Protection Program (SHOPP) funds capital improvement and maintenance/pavement rehabilitation projects along the State Highway System. SHOPP capital improvements projects are limited to operational and safety enhancement that do not add capacity to the State Highway System.

Supporting Documents

2015 California Transportation Plan

The California Transportation Plan is a long range policy framework, defining goals, performance-measure based policies, and strategies that will achieve California's future statewide multi-modal transportation goals.

2011 Statewide Transportation System Needs Assessment

This Needs assessment Report is a thorough inventory of what the transportation needs are for the State of California, and what the different funding mechanisms are to pay for the future transportation needs.

Complete Streets Implementation Action Plan 2.0 (CSIAP 2.0)

The Action Plan discusses Caltrans Complete Street policy framework and provides an overview for continued Complete Streets efforts.

Interregional Transportation Strategic Plan - 2015

The Interregional Plan is a long range planning document that helps prioritize transportation projects across the State, improving the interregional movement of people, vehicles, and goods.

2015 Travel Demand Model Development Report Update

The Model update included recalibrating the model to existing conditions with revised population figures for Tuolumne County, and development of long-range traffic volume forecasts consistent with updated population projections, Tuolumne County's land use forecasts, revision of the Traffic Analysis Zone (TAZ's), and centroid structure, and enhancement of the model's functionality.

Traffic Study Report for 2015 RTP Update EIR

The Traffic Study Report evaluates intersection and roadway traffic operations under existing conditions, 2030 future conditions, and 2040 future conditions. The Report evaluates roadway segments' average annual daily traffic (AADT) counts and designates a LOS.

2016 SHOPP Program List and SHOPP Ten Year Plan

The 2016 Draft SHOPP program is Caltrans financially-constrained plan used by Caltrans to program State Highway System projects for the next four years. The SHOPP program list is updated with new projects every two years.

Financially Constrained Expenditure Plan

State Highway Projects

Tier 1a - Short-Range Capital Improvement Program (0-5 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
SR 120 - New Priest Grade - Turnouts	Tier 1a	Minor SHOPP	Caltrans	Groveland	Construct eastbound turnouts at 3 locations for slow moving vehicles and to allow other vehicles to pass to reduce queues and improve traffic flow.	945	2017	Safety, Operational
Signalization @ Fifth Avenue at State Route 108 & Shoulder Improvements to Fifth Ave	Tier 1a	TIMF	Tuolumne County	Jamestown	Construct a new signal at Fifth Avenue and Highway 108 in Jamestown. Construct additional right turn lanes on 5th Avenue in the northbound and southbound directions. Widen SR 108/49 for a right lane turn pocket. (Non Motorized Transportation Project)	2,800	2017	Capacity
Peaceful Oak Road/SR 108 Off Ramps Project	Tier 1a	RTIP, local	Caltrans	East Sonora	Construct two off ramps at the Peaceful Oak Rd/State Route 108 interchange that were eliminated from the original scope of the East Sonora Bypass Stage II project.	10,195	2018	Operational
Parrotts Ferry Rd @ SR 49 Intersection Improvements	Tier 1a	HSIP, local	Tuolumne County	Columbia	Construct geometric improvements at the intersection of SR 49 and Parrotts Ferry Road. Construct wider shoulders from SR 49 to Union Hill Rd. (Non Motorized Transportation Project)	1,111	2018	Safety
Mono Way Operational and Safety Project	Tier 1a	RTIP	Tuolumne County	East Sonora	A segment of SR 108 from Peaceful Oak Rd to Via Este will be relinquished to the County and become a County maintained road. Improvements to the roadway geometry will accommodate pedestrian traffic, improve drainage, realign the intersection and install left turn pockets. (Non Motorized Transportation Project)	1,860	2019	Operational & Safety
SR 108/120 - Safety Improvements at the Yosemite Junction Intersection	Tier 1a	SHOPP	Caltrans	Jamestown	Construct safety improvements at the intersection of SR 108 and SR 120 also called the Yosemite Junction. Implement Complete Streets improvements when reasonable feasible.	2,450	2020	Safety
								State Highways - 78

Financially Constrained Expenditure Plan

State Highway Projects

Tier 1b - Mid-Range Capital Improvement Program (6-15 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
SR 120 & Old Priest Grade Top Grade - Left Turn Channelization	Tier 1b	SHOPP	Caltrans	Groveland	Construct a left turn lane along SR 120 and Old Priest Grade Rd at the top of the grade. Implement Complete Streets improvements when reasonable feasible.	900	2021	Safety
SR 108/49 - Chicken Ranch Rd to South Main St - Continuous Left Turn Lane	Tier 1b	SHOPP	Caltrans	Jamestown	Construct an continuous left turn lane from the Chicken Ranch Rd to South Main St. Implement Complete Streets improvements when reasonable feasible.	1,300	2022	Safety
Intersection Improvements at SR 49/Columbia Way - Complete Streets Improvements	Tier 1b	RTIP, SHOPP, TIMF	Caltrans	Sonora	Construct intersection improvements at SR 49/North Washington St/Columbia Way/School St. The intersection improvements would include ADA crossings, pedestrian, and bicycle improvements. (Non Motorized Transportation Project)	3,000	2022	Operational Safety, ADA
SR 49 Left Turn Channelization Shaws Flat Road	Tier 1b	SHOPP	Caltrans	Columbia	Construct a continuous left turn lane from at the intersection of Sr 49 and Shaws Flat Rd. Implement Complete Streets improvements when reasonable feasible.	900	2022	Safety
SR-108/SR-49 - Stage 1 -Widen to Five Lanes - from South Main St to Fifth Ave	Tier 1b	RTIP, ITIP, local, SHOPP	Caltrans	Jamestown	Widen SR-49/SR-108 to 5-lanes in Jamestown from west of South Main Street to Fifth Ave. Construct Complete Streets improvements. (Non Motorized Transportation Project)	13,037	2025	Capacity
South Washington Rd/SR 108/Lime Kiln Road Intersection - Operational Improvements	Tier 1b	RTIP, TIMF, SHOPP	City of Sonora	Sonora	Construct a southbound right turn lane and construct a southbound 2nd left turn lane along South Washington Road at the intersection of SR 108/Lime Kiln Road. (Non Motorized Transportation Project)	1,168	2025	Operational, Safety, ADA
SR-120/SR-49 Moccasin - Left Turn Channelization	Tier 1b	SHOPP	Caltrans	Moccasin	Construct a left turn lane along SR 120 & SR 49 near Moccasin. Implement Complete Streets improvements when reasonable feasible.	900	2025	Safety
								State Highways - 79

Financially Constrained Expenditure Plan

State Highway Projects

Tier 1b - Mid-Range Capital Improvement Program (6-15 years)

SR 49 Realignment of Curve from Jack Ass Hill Rd to Tim Horne Mine Rd	Tier 1b	SHOPP	Caltrans	Tuttletown	Construct curve realignments between Tim Horn Mine Rd and Jack Ass Hill Rd. Implement Complete Streets improvements when reasonable feasible.	3,287	2030	Safety
SR 108/120 Eastbound Realignment of Rockhouse Curve	Tier 1b	SHOPP	Caltrans	Western Tuolumne County	Construct curve realignments for SR 108/120 eastbound for the Rockhouse Curve which is 2.6 miles east of Tulloch Rd. Implement Complete Streets improvements when reasonable feasible.	3,500	2030	Safety
SR 120 Install Guardrails from Old Priest Grade to Coulterville Rd	Tier 1b	SHOPP	Caltrans	Groveland	Install guardrails along SR 120 from Old Priest Grade Rd to Coulterville Rd where appropriate. Implement Complete Streets improvements when reasonable feasible.	900	2030	Safety
								State Highways - 80

Tier Projects Table Summary

Tier 1a - Programmed Projects with dedicated funding

Tier 1b – Plan to fund these projects by 2030

Tier 1c – Plan to fund these projects by 2040

Tier 2 - Alternative Funding Scenario - If new funds become available

Tier 3 - Unfunded Projects

Financially Constrained Expenditure Plan

State Highway Projects
Tier 1c - Long-Range Capital Improvement Program (15-25 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
Install Bicycle Signs along State Highways	Tier 1c	SHOPP	Caltrans	Tuolumne County	Install new "Share the Road" Signs along designated Class II facilities. (Non Motorized Transportation Project)	50	TBD	Safety
SR-108/49 & Chicken Ranch Rd - Intersection Improvements	Tier 1c	SHOPP	Caltrans	Jamestown	Construct geometric improvements at the intersection of Chicken Ranch Rd & SR 108/49. Implement Complete Streets improvements when reasonable feasible.	1,500	TBD	Operational
SR-108 & SR 49 Stockton Rd Intersection Improvements	Tier 1c	SHOPP	Caltrans	Sonora	Construct geometric improvements at the intersection of SR 49 (Stockton Rd) & SR 108/49 & SR 108. Implement Complete Streets improvements when reasonable feasible.	2,500	TBD	Operational
SR 108 - Chicken Ranch Rd to SR 49 - Climbing, Acceleration, De-acceleration Lanes	Tier 1c	SHOPP	Caltrans	Jamestown	Construct an acceleration, deacceleration, and climbing lanes from Chicken Ranch Rd to the SR 49 exit Montezuma Junction. Implement Complete Streets improvements when reasonable feasible.	2,500	TBD	Safety & Operational
SR 108 - SR 49 to SR 120 - Climbing Lanes	Tier 1c	SHOPP	Caltrans	Jamestown	Construct eastbound climbing lanes from Montezuma Junction/SR 49 to Yosemite Junction/SR 120. Implement Complete Streets improvements when reasonable feasible.	2,000	2030	Safety & Operational
SR 108/120 - La Grange Rd to O'Byrnes Ferry Rd - Climbing Lanes	Tier 1c	SHOPP	Caltrans	Western Tuolumne County	Construct westbound and eastbound climbing and deacceleration lanes between west of La Grange Rd to SR O'Brynes Ferry Rd. Implement Complete Streets improvements when reasonable feasible.	3,500	2035	Safety & Operational
SR 120 - New Priest Grade - Widen Road, install and Add Climbing Lanes	Tier 1c	SHOPP	Caltrans	Groveland	Construct a turnout and climbing lanes on SR 120 @ New Priest Grade. Implement Complete Streets improvements when reasonable feasible.	2,100	2020	Safety & Operational
								State Highways - 81

Expenditure Plan

State Highways Projects

Tier 2 - Financial Alternative C

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
SR-108/SR-49 - Stage 2 Widen to Five Lanes from Chicken Ranch Rd to South Main Street	Tier 2	Local, ITIP, Cap & Trade, TIMF	Caltrans	Jamestown	Widen SR-49 to 5-lanes from Chicken Ranch Rd to South Main Street. Construct Complete Streets improvements.	9,750	TBD	Capacity
SR-108/SR-49 - Stage 3 Widen to Five Lanes from Fifth Ave to Stockton Street	Tier 2	Local, ITIP, Cap & Trade, TIMF	Caltrans	Jamestown, Sonora	Widen SR-49/SR-108 to 5-lanes from Fifth Ave to SR-49 junction south of Sonora (Stockton St). Construct Complete Streets improvements.	22,735	TBD	Capacity
East Sonora Bypass Stage III	Tier 2	Local, ITIP, Cap & Trade, TIMF	Caltrans	East Sonora	Construct a new 2 lane expressway from Mono Way/Argyle Rd to N. Sunshine Rd/Mono Vista Rd.	44,000	TBD	Capacity
SR-49 Widen to Five Lanes from Parrotts Ferry Rd to the New Greenley Rd Intersection	Tier 2	Local, ITIP, Cap & Trade, TIMF	Caltrans	Sonora, Columbia	Widen SR-49 to 5-lanes from Parrotts Ferry Rd to the Greenley Rd intersection. Construct Complete Streets improvements.	9,316	TBD	Capacity
								State Highways - 82

Expenditure Plan
State Highways Projects
Tier 3 - Unfunded Capital Improvement Projects

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
SR-120/SR-108 - Widen to a Four Lane Expressway from La Grange Rd to O'Brynes Ferry	Tier 3	TBD	Caltrans	Western Tuolumne County	Construct a four lane expressway along SR-108/SR-120 to west of La Grange Rd to O'Brynes Ferry Rd.	20,601	TBD	Capacity
Intersection Improvements - Ferretti Rd @ SR 120	Tier 3	TBD	Tuolumne County	Groveland	Construct geometric improvements to the intersection of SR 108 and SR 120. (Western Most Intersection).	900	TBD	Safety
SR 108 - New freeway alignmenet from (west) Twain Harte Drive to Long Barn Road	Tier 3	TBD	Caltrans	Twain Harte	Construct an alternative 2 lane expressway on a new alignment between Twain Harte Drive and Long Barn Road.	37,000	TBD	Capacity
SR-108/49 New Signal intersection - Mackey Ranch Rd & Sierra Rock Rd	Tier 3	TBD	Tuolumne County	Jamestown	Construct a new signal intersection at the intersection of Mackey Ranch Rd/Sierra Rock Rd & SR 108/49.	1,500	TBD	Capacity & Safety
SR 108 Widening to 5 lanes from Mono Way/Via Este to N. Sunshine/Mono Vista Rd	Tier 3	TBD	Caltrans	East Sonora	Widen SR 108 to five lanes from Mono Way/Via Este to N. Sunshine Rd/Mono Vista Rd.	24,000	TBD	Capacity
SR 108 Widen to a Four lane Expressway from SR 49(Stockton Rd to S Washington St/Lime Kiln	Tier 3	TBD	Caltrans	Sonora	Widen SR 108 to a Four Lane Expressway from SR 49(Stockton Rd to South Washington St./Lime Kiln.	27,000	TBD	Capacity
SR 49 and Southgate Drive Intersection and Complete Street Improvements	Tier 3	TBD	City of Sonora	Sonora	Construct intersection improvements at Southgate Drive/Woods Creek Drive, and South Forest Drive and SR 49 including Complete Street Improvements. (Non-Motorized Transportation Project)	2,500	TBD	Safety
SR 49 Realignment of curve from Fraguero Rd to Mormon Creek Rd	Tier 3	TBD	Caltrans	Tuttletown	Construct curve realignments from Fraguero Rd to Morman Creek Road.	3,287	TBD	Safety
SR-108/SR-120/SR-49 Widen to a Four Lane Expressway from O'Byrnes Ferry to Chicken Ranch Rd	Tier 3	TBD	Caltrans	Jamestown	Construct a four lane expressway along SR-108/SR-120/SR-49 from O'Byrnes Ferry Road to Chicken Ranch Road	18,767	TBD	Capacity
SR-49 Continuous Left Turn Lane from Parrotts Ferry Rd to Columbia Way	Tier 3	TBD	Caltrans	Sonora, Columbia	Construct a continuous left turn lane from Parrotts Ferry Rd to Columbia Way.	3,500	TBD	Capacity
								State Highways - 83

Expenditure Plan
State Highways Projects
Tier 3 - Unfunded Capital Improvement Projects

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
Changeable Message Signs	Tier 3	TBD	Caltrans	Tuolumne County	Construct several Changeable Message Signs along SR 108/120 Corridor	900	TBD	ITS, TMS
Intersection Improvements Twain Harte Drive (North) & SR 108	Tier 3	TBD	Caltrans	Twain Harte	Construct geometric improvments to the intersection of Twain Harte Drive (north) and SR 108.	1,500	TBD	Safety
Intersection Improvements Twain Harte Drive (South) & SR 108	Tier 3	TBD	Caltrans	Twain Harte	Construct geometric improvments to the intersection of Twain Harte Drive (south) and SR 108.	885	TBD	Safety
Plan & Design SR 49 Western Bypass of Sonora	Tier 3	TBD	Caltrans	Jamestown	Plan and study potential alternative scenarios for a SR 49 Western Bypass of Sonora.	1,500	TBD	Bypass
Signalize SR 108/49 & Chabroullian Rd	Tier 3	TBD	Caltrans	Jamestown	Signalize the intersection of SR 108/49 and Chabroullian Rd.	1,500	TBD	Safety
SR 108/49 & Bell Mooney Rd/Harvard Mine Rd Intersection Improvements	Tier 3	TBD	Caltrans	Jamestown	Construct intersection improvements at SR 108/49 and Harvard Mine Rd/Bell Mooney Rd.	1,500	TBD	Safety
SR 108 - On Ramps - Acceleration Lanes - @ Mono Way	Tier 3	TBD	Caltrans	Sonora	Construct acceleration lanes for the SR 108 On-ramps for west and eastbound directions.	3,000	TBD	Operational
SR 120 & 49 near Chinese Camp - Left Turn Channelization	Tier 3	TBD	Caltrans	Chinese Camp	Construct a new left turn channelization to improve safety and improve traffic flow.	900	TBD	Safety
SR 120/49 & Red Hills Rd Left Turn Channelization	Tier 3	TBD	Caltrans	Chinese Camp	Construct a new left turn channelization to improve safety and improve traffic flow.	900	TBD	Safety
SR 120/49 & Jacksonville Rd - Left Turn Channelization	Tier 3	TBD	Caltrans	Chinese Camp	Construct a new left turn channelization to improve safety and improve traffic flow.	900	TBD	Safety
SR 120 & Old Priest Grade Bottom of Grade- Left Turn Channelization	Tier 3	TBD	Caltrans	Groveland	Construct a new left turn channelization to improve safety and improve traffic flow.	900	TBD	Safety
SR 49 Western Bypass	Tier 3	TBD	Caltrans	Jamestown	Construct a State Highway bypass from SR 108/49 near Jamestown to Rawhide Rd.	50,000	TBD	Capacity
								State Highways - 84

Tuolumne County: Tier 1a State Highway Projects

Intersection Improvements at Parrotts Ferry Road & SR 49

Signalization at 5th Ave at State Route 108/49

SR 108/120 - Safety Improvements
Yosemite Junction Intersection

Peaceful Oak Road/SR
108 On/Off Ramps Project

Mono Way Operational & Safety Project

SR 120 - New Priest Grade - Turnouts

Cedar Ridge
Columbia
Twain Harte
Crystal Falls
Willow Springs
Tuttletown
Sonora
Jamestown
Tuolumne
Chinese Camp
Groveland
Big Oak Flat
Pine Mount
Moccasin

Parrotts Ferry Rd
Yankee Hill Rd
Big Hill Rd
Kewin Mill Rd
Middle Camp Rd
Fuller Rd
Twain Harte Dr
Longeway Rd
South Fork Rd
Middle Camp Sugar Pine Rd
Springfield Rd
Sawmill Flat Rd
Shaws Flat Rd
Lyons Bald Mountain Rd
Creekside Dr
Crestview Dr
Hunts Rd
Tuolumne Rd
Phoenix Lake Rd
Ridgewood Dr
Jamestown Rd
Racetrack Rd
Cabezut
South Washington St
Sanguinetti Rd
Mono Way
Standard Rd
Soulsbyville Rd
Cherokee Rd
Bay Ave
Rawhide Rd
Lime Kiln Rd
Old Wards Ferry Rd
Tuolumne Rd
Woodhams Carne Rd
Campo Seco Rd
Seco Street
Stent Cut Off
Algerine Rd
Yosemite Rd
Algerine Wards Ferry Rd
O Byrnes Ferry Rd
Twist Rd
Wards Ferry Rd
Red Hills Rd
Jacksonville Rd
Old Priest Grade
Priest Coulterville Rd
La Grange Rd

49 108 120

Legend

CIP:Tier 1a Short Range

- CIP:Tier 1a Short Range Points
- State Highway

N

0 0.5 1 2 3 4 Miles

Tuolumne County: Tier 1b State Highways Projects

State Highway 49
Left Turn Channalization-Shaws Flat Rd

State Highway 49 - Realignment of Curve nearTuttletown

Intersection Improvements at SR 49/Columbia Way
Complete Streets Improvements

SR-108/49 Widen to Five lanes
from South Main St to Fifth Ave

State Highway 108/49
Chicken Ranch to S. Main St
Continuous Left Turn Lane

SR108/S.WashingtonSt/LimeKiln Rd
Operational Improvements

SR 120 & Old Priest Grade Top Grade
Left Turn Channelization

SR 108/120 Eastbound Realignment
of Rockhouse Curve

SR 120 & 49 near Moccasin
Left Turn Channelization

SR 120 Install Guardrails from west
of Old Priest Grade to Coulterville Rd

Columbia
Sonora
Tuttletown
Jamestown
Chinese Camp
Cedar Ridge
Twain Harte
Crystal Falls
Willow Springs
Tuolumne
Mi-Wuk
Pine Mountain Lake
Groveland
Big Oak Flat
Moccasin

Parrotts Ferry Rd
Springfield Rd
Sawmill Flat Rd
Shaws Flat Rd
Yankee Hill Rd
Big Hill Rd
Lyons Bald Mountain Rd
Phoenix Lake Rd
Ridgewood Dr
Creekside Dr
Crestview Dr
Longeway Rd
Tuolumne Rd N
Middle Camp Rd
Fuller Rd
Twain Harte Dr
Middle Camp
Sugar Pine Rd
South Fork Rd
Kewin Mill Rd
Draper Mine Rd
Soulsbyville Rd
Cherokee Rd
Mono Way
Standard Rd
Cabezut
Racetrack Rd
Jamestown Rd
S Washington St
Rawhide Rd
Campo Seco Rd
Old Wards Ferry Rd
Lime Kiln Rd
Tuolumne Rd
Woodhams Carne Rd
Bay Ave
Buchanan Road
Cocco Street
Stent Cut Off
Algarine Rd
Algerine Wards Ferry Rd
Yosemite Rd
Twist Rd
Ward's Ferry Rd
O Byrnes Ferry Rd
Red Hills Rd
Jacksonville Rd
Ferretti Rd
Old Priest Grade
Priest Coulterville Rd
La Grange Rd
Bonds Flat Rd
SR 49
SR 132

108
49
120
132

Legend

CIP:Tier 1b Mid Range

CIP:Tier 1b Mid Range Points

State Highway

N

0 0.5 1 2 3 4 Miles

Tuolumne County: Tier 1c State Highways Projects

SR-108/49 & Chicken Ranch Rd
Intersection Improvements

SR-108 & SR 49 Stockton Rd
Intersection Improvements

SR 108 - From SR 120 to SR 49 - Climbing Lanes

SR-108/SR 49 from SR 49 to Chicken Ranch Rd
Climbing Lanes

Install Bicycle Signs along State Highways

SR 120 - New Priest Grade
Widen Road, Install and Add Climbing Lanes

SR 108/120
La Grange Rd to O'Byrnes Ferry Rd - Climbing Lanes

Sierra Village
Mi-Wuk
Cedar Ridge
Twain Harte
Crystal Falls
Willow Springs
Tuttletown
Sonora
Jamestown
Columbia
Chinese Camp
Tuolumne
Pine Mountain Lake
Groveland
Big Oak Flat
Moccasin

Parrotts Ferry Rd
Yankee Hill Rd
Big Hill Rd
Springfield Rd
Sawmill Flat Rd
Lyons Bald Mountain Rd
Phoenix Lake Rd
Creekside Dr
Crestview Dr
Ridgewood Dr
Tuolumne Rd N
Kewin Mill Rd
South Fork Rd
Middle Camp Rd
Joaquin Gully
Twain Harte Dr
Longeway Rd
Jamestown Rd
Racetrack Rd
Washington St
Cabezut
Mono Way
Draper Mine Rd
Soulsbyville Rd
Cherokee Rd
Standard Rd
Tuolumne Rd
Woodhams Camp Rd
Bay Ave
Buchanan Road
Rawhide Rd
Seco Street
Campo Seco Rd
Old Wards Ferry Rd
Lime Kiln Rd
Algerine Rd
Yosemite Rd
Algerine Wards Ferry Rd
O Byrnes Ferry Rd
Twist Rd
Wards Ferry Rd
Red Hills Rd
Ferretti Rd
Old Priest Grade
La Grange Rd
Priest Coulterville Rd
Bonds Flat Rd
Merced Falls Rd

49 108 120 132

Document Path: S:_TCTC_\PL-020350 RTP (Regional Transportation Plan)\RTP update 2013\Expenditure Plan - CIP Maps\Tier 1\Map Files\CIPprojects_Tier1c_StateHighways_11x17_20160105.mxd

Legend

CIP:Tier 1c Long Range

CIP:Tier 1c Long Range Points

State Highway

N

0 0.5 1 2 3 4 Miles

This page is left intentional blank

Chapter 6: Local Streets and Roads



Figure 6.1 – Algerine Road in Tuolumne County – Photo Courtesy of TCTC

Introduction

The locally maintained streets and roads in Tuolumne County are a vital backbone of the economy. These roads provide vital links for residents and visitors to get to and from work, school, shopping, and their daily recreational needs. There are 610 centerline miles of Tuolumne County maintained roads and 27.5 centerline miles of City of Sonora maintained roads. The locally maintained roads system is a valuable asset worth $185 million, according to the 2014 Tuolumne County Pavement Management Report There are over 2,000 miles of Federal and privately maintained roads in Tuolumne County.

Past Accomplishments

Since the last RTP was approved in 2008, several local street and road capital improvement projects have been completed. A few of the projects that were completed include:



Figure 6.2 Mono Way Widening Project

Mono Way Widening Project – City of Sonora & Tuolumne County

The Mono Way Widening Project was a capital improvement project that widened Mono Way from three to five lanes from Greenley Road to Fir Drive/Sanguinetti Road. New sidewalks were built on both sides of the road and a new bus stop at Mono Way and Fir Drive was built.

Realignment and Signalization of Greenley Road and Sanguinetti Road– City of Sonora

The realignment of Greenley Road to Old Wards Ferry Road and the signalization of the intersection with Sanguinetti Road, including railroad crossings and pedestrian walkways improved accessibility and safety on that corridor. The project corrected substandard geometrics that hindered growth in the area.

Signalization and Widening of Greenley Road at Sonora Elementary– Tuolumne County
Greenley Road was widened and signalized at the Elementary School under the Safe Routes to Schools Program (SR2S), to accommodate sidewalks for safe travel along Greenley Road.

Phoenix Lake Road crossing Sullivan Creek Bridge Replacement Project
Replacement of the Sullivan Creek Bridge at Phoenix Lake Road was necessary, due to the substandard width, strength, and hydraulic capacity of the bridge, which was constructed in 1948. The County replaced the bridge in 2010, and removed it from the Eligible Bridge List.

Carlon Deck Replacement Project
Replacement of the concrete deck for the South Fork of the Tuolumne River Bridge at Evergreen Road was necessary, due to deterioration from thermal and chemical action. The bridge is located at the trail head of Carlon Falls within the Stanislaus National Forest. The County replaced the existing concrete bridge deck with a new cast-in-place bridge deck.

Old Priest Grade Guardrail Project
Old Priest Grade Guardrail Project widened the steep, narrow, and very curvy existing road sufficiently to provide standard width lanes and shoulders allowing the installation of guard rail and other safety enhancements.

Roadway Classification

Each roadway in Tuolumne County has a functional classification and it is defined by Title 23, Code of Federal Regulations. The functional classification of a roadway is often determining factor of funding eligibility. Urban and rural roads use the same FHWA road classification. A list of City, County, and Caltrans maintained roads grouped within each functional classification category is located in Appendix E. Below is a brief overview of the different types of roadway classifications. There are no roads that are classified as Interstate (1) and/or Other Freeways and Expressways (2) in Tuolumne County.

Functional Classification

Type of Road	FC#
Interstate	1
Other Freeways and Expressways	2
Other Principal Arterials	3
Minor Arterials	4
Major Collector	5
Minor Collector	6
Local Roads	7

Table 6.1 – Functional Classification

Other Freeways and Expressways (Functional Class Code 2)

Roadways in this functional classification category have directional travel lanes and are usually separated by some type of physical barrier, and their access and egress points are typically limited to on- and off-ramp locations, or a very limited number of at-grade intersections. These roadways are designed and constructed to maximize their mobility function, and abutting land uses are not directly served by them.

Other Principal Arterial (Functional Class Code 3)

These roadways provide a high degree of mobility, and provide access between urban and rural areas. The principal arterial system consists of a network of regional routes functioning primarily for the movement of through traffic, usually on continuous routes, with trip length and capacities suitable for substantial statewide or interstate travel. In July of 2014, the FHWA approved reclassification of SR 49 in Tuolumne County and throughout District 10 from a Minor Arterial to Other Principal Arterial.

Minor Arterial (Functional Class Code 4)

The minor arterial functions in conjunction with the principal arterials to form a regional network providing high speed, high volume travel corridors for movement between traffic generators such as cities, large towns, and resort areas for uninterrupted inter-county travel. Minor arterials provide service for trips of moderate length, serve geographic areas that are smaller than their higher Arterial counterparts, and offer connectivity to the arterial system. In an urban context, they interconnect and augment the higher arterial system, to provide intra-community continuity. Urban arterials are designed to accommodate all modes of transportation and lower travel speeds.

In rural settings, minor arterials should be identified and spaced at intervals consistent with population density, so that all developed areas are within a reasonable distance of a higher level arterial. Additionally, Minor arterials in rural areas are typically designed to provide relatively high overall travel speeds, with minimum interference to through movement.

Collectors

Collectors serve a critical role in the roadway network by gathering traffic from Local Roads and funneling them to the Arterial network. Within the context of the functional classification system, collectors are broken down into two categories, major collectors and minor collectors. Until recently, this division was considered only in the rural environment. Currently, all Collectors, regardless of whether they are within a rural area or an urban area, may be sub-stratified into *major* and *minor* categories.

Major Collector (Functional Class Code 5)

These routes function as corridors for through traffic within local areas providing service to towns and other major traffic generators within the County. They also serve to link minor collectors and local access roads with nearby towns and communities or the arterial system.

Minor Collector (Functional Class Code 6)

These routes generally serve lower density areas and, therefore, do not have the traffic volume that major collectors do. Minor collector roads often serve to funnel traffic from groups of local roads onto the major collectors and arterial routes. Minor collectors should be spaced to bring all developing areas of the County within reasonable distance of major collectors or arterial routes.

Local Road (Functional Class Code 7)

Locally classified roads account for the largest percentage of all roadways in terms of mileage. They are not intended for use in long distance travel, except at the origin or destination end of the trip. Local roads account for approximately 404 miles.

Urban Areas

According to the 2010 Census, Tuolumne County has a designated urban cluster called Sonora-Jamestown- Phoenix Lake Area with a population of 28,255. This urban cluster also includes the communities of Columbia, Twain Harte, East Sonora, and Mi-Wuk Village in its urban boundaries. The US Census Bureau has two different types of urban areas: urban cluster and an urbanized area.

US Census Bureau – Urban Areas

Urban Area	*Population*
Urban Area	2,500+
Urban Cluster	2,500-49,999
Urbanized Area (UZA)	50,000+

Table 6.2 – Urban Areas Census Bureau

For transportation funding and programing purposes, the distinction between urban and rural areas can affect the type of Federal funding available. Most Federal agencies including the Federal Transit Administration (FTA) and Federal Highway Administration (FHWA) use the Census Bureau's designated Urbanized Areas (UZA's) with a population over 50,000 or more people as their definition of urban areas, whereas populations below 50,000 are considered rural for transportation funding purposes.

The Federal Highway Administration (FHWA) defines urban areas differently than the US Census Bureau. For purposes of transportation planning, the FHWA allows local jurisdictions to configure their own urban area boundaries based upon population, road, and terrain constraints.

Federal Highway Administration (FHWA) – Urban Areas

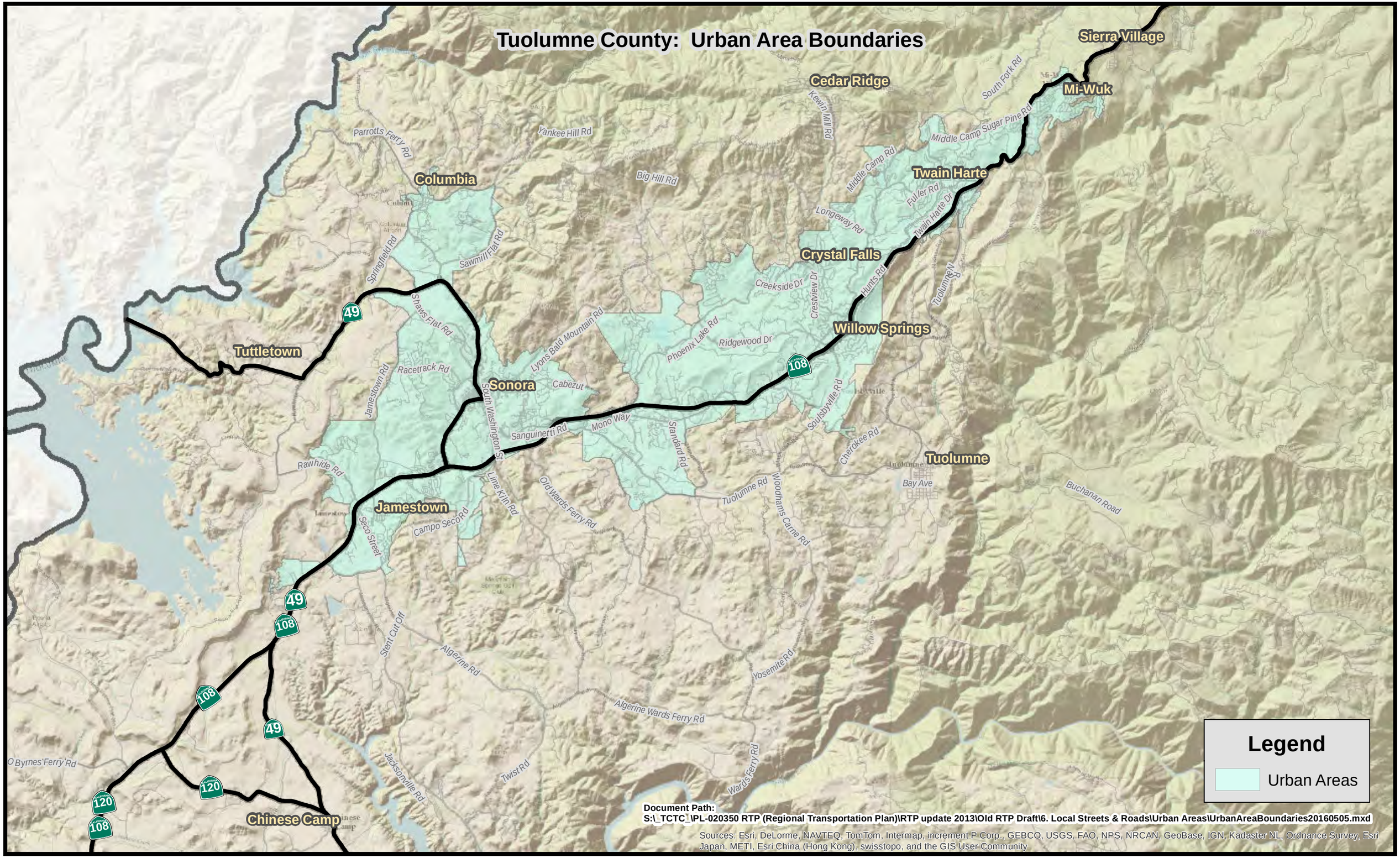
Urban Area	*Population*
Urban Area	5,000+
Small Urban Area	5,000-49,999
Urbanized Area (UZA)	50,000+

Table 6.3 – Urban Areas - FHWA

Urban Streets

All roads located within urban area boundaries regardless of the functional classification are considered urban streets for transportation planning purposes. An urban street provides access for automotive and transit vehicles as well as increased pedestrian and bicyclist usage to the urban areas of Tuolumne County. The city limit boundaries of the City of Sonora are within the urban area boundaries. Urban street designs shoulder consider all modes of transportation.

Tuolumne County: Urban Area Boundaries



Legend

Urban Areas

Document Path:
S:_TCTC_\PL-020350 RTP (Regional Transportation Plan)\RTP update 2013\Old RTP Draft\6. Local Streets & Roads\Urban Areas\UrbanAreaBoundaries20160505.mxd

Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

N

0 0.5 1 2 Miles

Pavement Management Program (PMP)

In 2007, the County of Tuolumne implemented a Pavement Management Program (PMP), in which it uses StreetSaver Software to create and maintain a database that monitors the condition of the pavement of all County-maintained roads. PMP's are important tools for local agencies to inventory, monitor, and help make cost effective decisions concerning the maintenance and rehabilitation of the paved road network. The PMP identifies an overall condition of each individual roadway segment and an overall Pavement Condition Index (PCI) rating for the entire Tuolumne County maintained roadway network.

The PCI is a numerical pavement condition ranging rating, from 0 to100. A newly paved road would have a PCI of 100. Pavement condition is affected by the climate, traffic volumes, construction materials, and the age of the road. Tuolumne County's maintained roadway network has an average PCI rating is currently 39. The average rating has continuously decreased each year, from its rating of 46 in 2012. The arterial roads and collector roads are in overall generally better condition than the local roads, as shown in Tables 6.4 and 6.5.

Pavement Condition and Pavement Summary

Functional Class	***Centerline Miles***	***Lane Miles***	***No of Management Sections***	***% of the Area by %***	***Average PCI***
Arterial	16.7	41.1	45	5%	82
Major Collectors	84.5	169.6	232	38%	60
Minor Collectors	110.6	209.7	303		38
Local	318.5	629.6	1247	57%	27
Total	230.3	1050	1827	100%	**39 network average**

Table 6.4 – Pavement Conditions

County Service Areas (CSAs)

County Service Areas (CSA's) provide a mechanism for funding road maintenance and associated services on neighborhood roads that are dedicated to the public, but are not part of the County of Tuolumne's maintained system.

The County Board of Supervisors serves as the board of directors for each CSA. Most CSAs are funded by Benefit Assessments. The benefit determination is normally based on road use, length of roads, traffic generation and other special factors. CSAs may also be funded by special

or general taxes. Most new subdivisions have CSAs formed to maintain their roads. The Appendix section provides a list of the 24 active CSA's within the County, along with a general summary of the road inventory.

2015 Rural Roads Pavement Needs Assessment

The *Rural Roads Pavement Needs Assessment Report* was prepared for the Rural Counties Task Force, of which TCTC is a member. This Needs Assessment Report was produced for 26 rural counties and lists the average PCI for each county. The average PCI for rural roads is 58, which is significantly lower than the State of California average PCI of 66.

The Report states that the countywide PCI Index for Tuolumne County is 47, which also includes an estimate for the PCI conditions for the City of Sonora. For the County of Tuolumne, the recent data projects an average network PCI of 39. Information presented in this Report appears to have been collected not only by the City of Sonora, but also some of the CSA's in the County, whose roadway condition is tracked on the County's StreetSaver software.

Roadway Circulation Safety Measures

The State Department of Forestry and Fire Protection and the City of Sonora Fire Department impose regulations establishing minimum wildfire protection standards in conjunction with building, construction, future design and construction of structures, subdivisions, and developments in the State, to provide basic emergency access and perimeter wildfire protection. Developed and built prior to the implementation of Public Resources Code, Section 4290, many older subdivisions' roadways in various regions of Tuolumne County do not meet current standards for fire protection and safety ingress and egress.

The TCTC has included a safety goal and a performance measure in the RTP to reduce severe congestion during a wildfire or natural disaster, by encouraging safety improvements on roadways. In Appendix G, the Residential Areas Emergency Access Improvements is a document that identifies residential areas that would benefit from improved roadway access in the event of an emergency, such as a wildland fire or flash flood. Some examples of improvements include constructing additional new roads that would provide a second ingress/egress option. Residential areas emergency access improvements which would meet Public Resources Code, Section 4290 lack adequate funding.

2015 Regional Travel Demand Model (RTDM)

The Tuolumne County Regional Travel Demand Model (RTDM) was originally developed in 1997 in order to assist the Tuolumne County Transportation Council's (TCTC) long-range Regional Transportation Plan (RTP) Update. Additionally the update helped establish a funding mechanism to finance future transportation infrastructure through the Regional Traffic Impact Mitigation Fee Program. The TDM has been updated and recalibrated several times over the past decade. As a part of the County's 2006/2007 RTP Update, the 1997 Tuolumne County RTDM was recalibrated to Year 2002 base-year conditions, and data was converted from the *MINUTP* software to *TransCAD* software. This process was documented in the *Tuolumne County Travel Demand Model Development Report* (dated April 2005) included in the appendix.

As a part of TCTC's RTP 2010-2011 Update, the Tuolumne County RTDM was updated and recalibrated again. The 2010 update included development of long-range traffic volume forecasts consistent with Tuolumne County's *Recent Trends* land use forecasts, revision of the Traffic Analysis Zone (TAZ) and centroid structure, and enhancement of the model functionality to include a basic "travel mode choice" module. This process was documented in the *Tuolumne County Regional Travel Demand Model Update Report* (dated May 2010).

Wood Rogers Inc. performed an update to the Tuolumne County's Regional Traffic Demand Model in 2015. The first step in the RTDM update was collecting existing traffic data on 41 intersections and 152 road segments in Tuolumne County. As a part of the RTP update, TCTC determined that a comprehensive update of the RTDM was necessary due to recent Department of Finance population forecasts indicating that the County's resident population has reduced since the last model update in 2010. Additionally, based on these recent trends, TCTC's projections for regional population growth through year 2040 have been significantly adjusted. The following tasks were performed to accomplish the current RTDM update:

- Update to the model's Traffic Analysis Zone (TAZ) structure and centroid connection scheme consistent with updated base-year (2015) and anticipated future year land use and consistent with the County General Plan Update and circulation conditions.
- Validation of the model's zonal trip generation rates with the latest field-counted trip generation rate studies.
- Re-calibration and validation of the existing (Base Year) annual average traffic model to 2015 travel/traffic conditions.
- The Model base year is 2015 and the forecast is based on the Tuolumne County build-out land use scenario using the expected 2040 roadway network. Traffic forecast for Average Annual Daily Traffic (AADT) for all scenarios were calculated based on the 2015 Tuolumne County Transportation Council (TCTC) traffic model.

Level of Service (LOS) Deficiencies

After the data collection was completed, the existing intersections and roadway segments were evaluated using the operating level of service (LOS) thresholds. The level of service (LOS) of roadways is a qualitative measure of the operating conditions on a section of roadway or intersection. It is defined by the motorists' perception of their mobility and comfort. The LOS ranges from LOS "A" through LOS "F":

- In general, LOS "A" through LOS "C", indicate minimal or acceptable delays;
- LOS "D" represents high density stable flow with motorists feeling noticeable traffic congestion;
- LOS "E" indicates the roadway is operating at or near its capacity and there are frequently intolerable delays;
- LOS "F" means the traffic volume is higher than the capacity of the roadway so queuing will occur; there will be excessive delay and stop and go conditions through the queue until the demand level drops off.

The minimum Level of Service acceptable for intersections is a LOS D. In Appendix D, the Traffic Study Addendum studied 41 intersections. The LOS standard is consistent with the General Plan.

Intersections Level of Service (LOS)

As part of the Traffic Demand Model Update turning movement counts were generated for the 41 study intersections. For evaluating intersections LOS, *Synchro and SimTraffic 8* software were used to complete both signalized and un-signalized intersection LOS computations. See Table 6.6, 6.7, and 6.8.

Existing Intersections with Unacceptable Peak Hour LOS		**AM Peak**	**PM Peak**
Intersection	*Control*	*LOS*	*LOS*
SR 108/49 Main St/Jamestown Rd	TWSC	F	F
SR 108/49 5th Ave	TWSC	F	F
Parrotts Ferry Rd & Sawmill Flat Rd	TWSC	E	F
South Washington St & Church St	TWSC	F	F
Tuolumne Rd & Woodham Carne Rd/Black Oak Rd	TWSC	E	D
Tuolumne Rd & Soulsbyville Rd	TWSC	F	C

Table 6.5 – LOS Intersections Existing Conditions 2015 (Traffic Study Report Addendum)

Please note: Two-Way Stop Control (TWSC)

The six intersections listed above are considered as not meeting acceptable LOS standards in existing conditions (2015). Five planned capital improvement projects will address LOS deficiencies at these intersections:

- Reconfiguration of the intersection with Main Street & SR 108/49 in the Rawhide Bridge Project;
- Signalization of Fifth Avenue at State Route 108 and geometric improvements;
- Intersection Improvements at Woodham Carne Rd/Black Oak Rd & Tuolumne Rd;
- Intersection Improvements at Tuolumne Rd & Soulsbyville Rd;
- Signalization at Parrotts Ferry Rd & Sawmill Flat Rd.

2030 with Unacceptable Peak Hour LOS		**AM Peak**	**PM Peak**
Intersection	*Control*	*LOS*	*LOS*
South Washington St & Church St	TWSC	E	F

Table 6.6 – LOS 2030 Future Conditions (Traffic Study Report Addendum)

Please note: Two-Way Stop Control (TWSC)

One or More Turning Movements Operating at LOS E or Worse

Intersection	*Control*	*AM-Turning Movement*	*PM-Turning Movement*
SR 108/49 & 5th Ave	Signal	WBL	WBL

Table 6.7 – Turning Movements -2030 Future Conditions (Traffic Study Report)

2040 with Unacceptable Peak Hour LOS		**AM Peak**	**PM Peak**
Intersection	*Control*	*LOS*	*LOS*
South Washington St & Church St	TWSC	F	F

Table 6.8 – LOS 2040 Future Conditions (Traffic Study Report Addendum)

Please note: Two-Way Stop Control (TWSC)

The North-South Connector Phase I – Greenley Road Extension would help alleviate downtown Sonora congestion at the South Washington St/SR 49 (N Washington) SR 49 Stockton Rd signalized intersection to an acceptable LOS standard by 2040. However, this project would not alleviate the LOS issues at the South Washington Street and Church Street intersection but it would reduce the overall traffic delay.

One or More Turning Movements Operating at LOS E or Worse

Intersection	*Control*	*AM-Turning Movement*	*PM-Turning Movement*
SR 108/49 & 5th Ave	Signal	WBL	WBL
Greenley Rd & Lyons St/Lyons Bald Mt Rd	Signal	-	WBL
Greenley Rd & Morning Star Dr./Cabezut Rd	Signal	NBL, SBL	NBL, NBT, SBL

Table 6.9 – Turning Movements - 2040 Future Conditions (Traffic Study Report Addendum)

Note: West Bound Left turning movement (WBL), North Bound Left turning movement (NBL), South Bound Left turning movement (SBL)

The North-South Connector Phase I – Greenley Road Extension would improve downtown Sonora congestion but would add more traffic to Greenley Road and contribute to two intersection turning movements that would operate at a LOS E, or worse.

Roadway Segments - Level of Service (LOS)

Road segment LOS was calculated by comparing the roadway segments Average Annual Daily Traffic (AADT) volumes. The traffic counts and the most recent Caltrans traffic counts were used as the base year volume-to capacity thresholds. The minimum Level of Service acceptable for arterial and collector roads is a LOS D. The minimum LOS standard for local roads is LOS C. In Appendix D, the Traffic Study Addendum studied 162 roadway segments.

The Generalized AADT Lookup Table (Appendix D) is used to see what LOS each roadway segment would be designated, based upon the roadway type or roadway classification. All study roadways were classified as urban, rolling, or mountainous zones. Each urban, mountainous, or rolling road zones has a unique LOS AADT threshold. LOS designations were determined for each roadway segment based on the most recently adopted Tuolumne County LOS standards for Urban Streets and Rural Streets.

Existing Roadway Segments LOS 2015	
Roadway Segment	*LOS*
Mono Way west of Sanguinetti Rd	E
South Washington St between Restano Way & Church St	E

Table 6.10 – Roadway Segments- 2015 Existing Conditions (Traffic Study Report Addendum)

The two roadway segments listed above are considered as not meeting acceptable LOS standards for existing conditions.

2030 Roadway Segments LOS	
Roadway Segment	*LOS*
Mono Way west of Sanguinetti Rd	E
South Washington St between Restano Way & Church St	E

Table 6.11 – Roadway Segments- 2030 Existing Conditions (Traffic Study Report Addendum)

The two roadway segments listed above are considered as not meeting acceptable LOS standards in 2030 future conditions. Alternative modes of transportation could help alleviate congestion in these areas. The Greenley Road Extension project would help relieve congestion in downtown Sonora and help alleviate these roadway segments.

- SR 49 north of Dodge St;
- SR 49 south of Washington St / Columbia Way;
- SR 49 between Washington St and Dodge St;
- Mono Way west of Sanguinetti Rd;
- South Washington St between Restano Way & Church St.

2040 Roadway Segments LOS	
Roadway Segment	*LOS*
Mono Way west of Sanguinetti Rd	E
South Washington St between Restano Way & Church St	E
Tuolumne Rd between Mono Way & Lambert Lake Rd	E
Greenley Rd between Morning Star Rd/Cabezut & Delnero Dr.	E

Table 6.12 – Roadway Segments- 2040 Existing Conditions (Traffic Study Report Addendum)

The four roadway segments listed above are not meeting acceptable LOS standards in 2040 future conditions. On three of the four roadway segments, there are no feasible roadway widening improvements that could improve LOS based upon Context Sensitive Solutions. Alternative modes of transportation could help alleviate congestion in these areas. The North South Connector Phase II & III, would extend Fir Drive from Mono Way/SR 108 to Lyons Bald Mountain Road, and would lower the AADT for these three roadways but, no significant change to LOS is predicted.

- SR 49 between Washington St and Dodge St;
- Mono Way west of Sanguinetti Rd;
- South Washington St between Restano Way & Church St.

The North South Connector – Fir Drive Extension Project, Phase II & III would help alleviate congestion along Greeley Road between Morning Star/Cabezut and Delnero Drive. This project might be a more feasible alternative than to widening Greenley Road as there are significant right of way issues.

Bridges



Figure 6.4 Phoenix Lake Rd Bridge Crossing Sullivan Creek

Bridges are an important part of the transportation infrastructure in Tuolumne County. There are 56 bridges that are owned and maintained by the City of Sonora and Tuolumne County. Many bridges in Tuolumne County were built in the 1920's through the 1960's and are reaching the end of their life spans. The cycle of replacing bridge infrastructure is every 50 to 60 years, and requires sustainable funding to keep the structures operational. Within the next 25 years, many more bridges in Tuolumne County will fall on the Eligible Bridge List (EBL). The Federal Highway Administration's (FHWA), Highway Bridge Program (HBP), supports local agencies, funding the necessary maintenance, rehabilitation, and replacement of the structures. The purpose of the HBP is to replace or rehabilitate public highway bridges over waterways, other topographical barriers, other highways, or railroads, when the State and the FHWA determine that a bridge is significantly important, and unsafe because of structural deficiencies, physical deterioration, or functional obsolete. Table 6.15 identifies ten bridges that currently qualify for replacement in Tuolumne County and the City of Sonora. The RTP expenditure plan includes a list of programmed and planned bridge projects.

Tuolumne County Bridges – Qualify for Replacement

Road	Crossing	Location	SD/FO	Sufficiency Rating	Health Index	YEAR BUILT	ADT	LANES
Draper Mine Rd	*Curtis Creek*	1 MI S FROM SH 108	SD	26.2	66.9	1925	632	2
Big Creek Shaft Rd	*Big Creek*	0.4 MI N OF SR 120	FO	28.2	63.1	1960	120	1
Wards Ferry Rd	*Deer Creek*	4.95 MI N GROVELAND	SD	32.8	91.2	1915	120	1
Hardin Flat Rd	*South Tuolumne River*	2.2 MI SE/O SR 120	SD	36.7	0.0	1933	130	1
Cedar Springs Rd	*Turnback Creek*	1.1 MI S TUOLUMNE RD	FO	44.6	100.0	1925	150	2
Italian Bar Rd	*Rose Creek*	10.7 MI NE BIG HILL Rd	SD	45.9	93.7	1925	140	1
Rawhide Rd	*Woods Creek*	0.05 MI NW OF SR 49	FO	47.3	100.0	1920	2456	1
Southgate Dr.	*Sonora Creek*	SOUTH OF SR 49	FO	48.7	100.0	1940	3000	2
Old Strwbrry Rd	South Stanislaus River	0.85 MI S/O SR 108	FO	49.2	90.9	1910	275	1
Italian Bar Rd	*Eagle Creek*	11.9 MI NE BIG HILL Rd	FO	50.9	87.7	1925	140	2

Table 6.13 – Tuolumne County Bridges – Qualify for Replacement

SD=**Structurally Deficient**

FO=Functional Obsolete

All of the bridges listed above in Tuolumne County would qualify for the Highway Bridge Program. Note some of the bridges included in this list are programmed as future capital improvement projects in the Expenditure Plan.

Local Streets and Roads - Issues & Solutions

Issues	***Solutions***
State and Federal transportation funding shortfalls is failing to meet the local transportation needs of the County.	Pursue alternative funding sources.
New development has impacts to the road network system.	Continue to use Traffic Impact Mitigation Fees (TIMF), to ensure new development contributes its fair share to the road network system.
Tuolumne County's PCI of 39 is below the rural roads average of 58 in the State.	Pursue alternative funding sources such as increasing the sales tax, gas taxes, etc.
Local bridges are functionally obsolete and	Replace bridges through the Highway Bridge

or structurally deficient	Program (HBP).
Several roadway segments in Tuolumne County are congested.	Increase capacity on roadways, build bypasses, and/or improve alternative modes of transportation.
Several congested roadway segments cannot be widened because of environmental and building constraints.	Pursue funding for alternative modes of transportation that can help reduce traffic congestion.
Accident rates on some roadway segments exceed statewide average with limited funding available to address safety concerns.	Apply for funds through the Highway Safety Improvement Program (HSIP)
Ensure roadways accommodate all roadway users.	Prioritize "complete streets" strategies when planning and implementing local street improvements, including the addition of bicycle facilities, pedestrian facilities, and transit stops.
Maintain safety for students walking and bicycling to nearby schools.	Collaborate with schools and community partners to prioritize funding capital improvement projects for Safe Routes to School.

Table 6.14 – Local Streets and Roads Issues and Solutions

Goal, Objectives, and Policies

The goals, policies and objectives in this document are intended to guide the development of the local streets and roads, and improve the quality of life in Tuolumne County. The following definitions help differentiate the planning focus of a goal, objective and policies.

A **goal** is the end toward which effort is directed; it is general and timeless.

An **objective** is a specific end, condition or state toward attaining a goal. It is achievable, measurable and time specific.

A **policy** is a direction statement that guides actions for use in determining present and future decisions.

Local Streets and Roads:

Goal: Provide a safe and well-maintained local circulation system that meets the needs for all transportation users.

Objective 1: Improve regional and local mobility, accessibility, and safety for all road users.

Policy 1.1: Identify, prioritize, and secure funding for capital improvements to the regional and local road system.
Policy 1.2: Actively pursue all road funding sources including local, state, federal, and private funding sources.
Policy 1.3: Balance the need for safety, operational, and capacity improvements with the need for maintenance of the existing system.
Policy 1.4: Prioritize "complete streets" strategies when planning and implementing local street and road improvements, including the addition and improvement of bicycle facilities, pedestrian facilities, and transit stops within the Defined Community Boundaries.
Policy 1.5: Use performance measures to prioritize improvements to local roadways.
Policy 1.6: Municipalities should implement a Pavement Management Program (PMP) as a system to determine cost effective methods for funds available for pavement maintenance and rehabilitation. This program shall use distress ratings to calculate a Pavement Condition Index (PCI), on a scale from 0 to 100.
Policy 1.7: Collaborate with schools and community partners to prioritize funding for capital improvement projects for Safe Routes to School.

Objective 2: Traffic impacts shall be evaluated and mitigated.

Policy 2.1: Update the regional Traffic Impact Mitigation Fee Program (TIMF).
Policy 2.2: In the development review process, use performance measures to determine the needs of street and road users.
Policy 2.3: Coordinate with state and local agencies, and developers, to secure financing in a timely manner for all components of the transportation system to achieve and maintain adopted Level of Service (LOS) standards and safety.
Policy 2.4: Maintain a minimum Level of Service D on rural and urban intersections and roadway segments for Minor Arterials, Major Collectors, and Minor Collectors and a maintain minimum Level of Service of C for Local Roads. There may be exceptions to these Levels of Service (LOS) standards.
Policy 2.5: TCTC shall encourage the identification and implementation of mitigation measures for all projects impacting or creating the need to expand the transportation system including: public transportation, bicycle, and pedestrian infrastructure *(RTP Evaluation & Analysis Plan).*

Future Capital Improvement Projects

Tier Projects Summary
Tier 1a - Programmed Projects with dedicated funding sources
Tier 1b – Plan to fund these projects by 2030
Tier 1c – Plan to fund these projects by 2040
Tier 2 - Alternative Funding Scenario - If new funds become available
Tier 3 - Unfunded Projects

Tier 1a Projects

Tier 1a projects are programmed capital improvements with dedicated funding that are planned to begin construction within the next 6 years.

Signalization of Fifth Avenue at State Route 108/49

This capital improvement project will signalize the intersection of State Route 108/49 and 5th Avenue in Jamestown, add turn lanes on 5th Avenue in the northbound and southbound directions, widen SR 108/49 for a right turn pocket, and realign the intersection of Jamestown Road and 5th Avenue to provide a "through alignment" for westbound traffic on Jamestown Road to southbound 5th Avenue. The project should include a pedestrian crossing signal.

New Rawhide Bridge and Rawhide Road Realignment

This capital improvement project will construct a new concrete bridge with two through lanes and a left turn lane east of the existing single lane bridge located on Rawhide Road crossing Woods Creek in Jamestown. As part of the construction of the new bridge Rawhide Road will be realigned with Main Street, and the existing traffic signal at Humbug Street will be moved to Main Street. The project will also construct a cul-de-sac at the south end of Jamestown Road, and create a "right in only" access from westbound SR 108/49 to Jamestown Road. The realigned road, new bridge, and traffic signal should include pedestrian and bicycle facilities.

Greenley Rd & Mono Way Intersection – Capacity Improvements

This capital improvement project will construct capacity improvements, by adding new through lanes at the intersection of Greenley Road and Mono Way additionally the project will fill critical gaps in sidewalks along Greenley and Mono Way

Tuolumne Road Improvements

This capital improvement project will widen and realign the roadway to improve sight distance and create a continuous left turn lane. The project will also include rehabilitation or replacement of drainage features on Tuolumne Road, right turn lanes, and installation of shoulders that accommodate pedestrians and bicyclists. The Tuolumne Road improvements will be located from Terrace Drive to Lambert Lake Road.

Phoenix Lake Road Improvements

This capital improvement project will widen and realign the roadway cross section to improve sight distance. The project will also include rehabilitation or replacement of drainage features on Phoenix Lake Road, and installation of shoulders that accommodate pedestrians and bicyclists.

Intersection Improvements at Parrotts Ferry Road and SR 49

This capital improvement project will widen the roadway to accommodate a right turn lane on State Route 49, eliminating the free right turn lane from State Route 49 to Parrotts Ferry Road, and construct a northbound left turn lane on Parrotts Ferry Road at Union Hill Road.

Tier 1b & 1c projects

Tier 1b projects are planned capital improvement projects that will be constructed in the next 6 to 15 years. Tier 1c projects are planned capital improvement projects that will be constructed in the next 16 to 25 years. These projects are planned to be funded based upon the 2016 RTP financially constrained Expenditure Plan.

North-South Connector – Phase I – Greenley Road Extension

This Tier 1c project will construct a new collector road from Greenley Road to SR 49 near the Brown's Flat area. The North-South Connector Phase I project is intended to provide local residents with an alternative route that bypasses downtown Sonora. The Regional Traffic Model shows a resulting reduction in traffic congestion on SR 49 (North Washington Street). SR 49 in Downtown Sonora serves as the community's Main Street for shopping, dining, and local government offices. SR 49 provides a critical access for truck traffic, tourists, and local residents.

The North-South Connector has been proposed in the past as a major collector by the County. The potential design of the connector would be a two lane facility, with one twelve-foot lane in each direction, two eight-foot shoulders for pedestrians, and room for bike lanes in each direction. Total roadway width is 40 feet with 36 feet of pavement, a design speed of 35 miles per hour, and a maximum grade of 10 percent. To further investigate the feasibility of the North-South Connector, the County authorized a study to identify and prioritize potential alignments. The Feasibility Study for the North-South Connector Project was completed by the County in February 2006. The County should consider initiating an EIR for the Greenley Road – Phase I segment as part of their capital improvement program.

Intersection Improvements @ Tuolumne Rd and Woodhams Carne/Black Oak Road including
This capital improvement project will improve the intersection of Tuolumne Road and Woodham Carne/Black Oak Road with the potential to realign Woodham Carne Road.

Intersection Improvements Tuolumne Road & Soulsbyville Road
This capital improvement project will provide channelization to improve the safety of the intersection of Tuolumne Road and Soulsbyville Road.

Signalization Parrotts Ferry Road & Sawmill Flat Road
This capital improvement project will signalize the intersection of Parrotts Ferry Road and Sawmill Flat Road. This signal should be designed to safely accommodate pedestrians and bicyclists.

Extend Gardella Ranch Road to Justice Center Drive
Constructing this new road will help alleviate congestion at the Law and Justice Center, by providing a new alternative route for traffic to connect with SR 108 at the Mono Way overpass. This project is a required mitigation as part of the construction of the Law and Justice Center.

Intersection Improvements on Sanguinetti Road at Loop Road
Constructing these intersection improvements will help alleviate congestion and improve safety. This project is a required mitigation as part of the construction of the Law and Justice Center, Wal-Mart Expansion, and the construction of McDonalds.

Tier 2 – Financial Alternative C - Capital Improvement Projects
Tier 2 capital improvement projects use alternative funding sources that are not currently available, but might be available in the future based upon local and State policy decisions. If these funding sources do become available, the projects below could be constructed with these funds.

North-South Connector – Phase I – Greenley Road Extension
This project would be the same scope as the currently planned expenditure plan - Tier 1c project. If funds become available sooner, by at least 2025, than this project could be constructed as a Tier 1b project, and this could potentially save money on construction costs.

North-South Connector – Phase 2 - Fir Drive Extension – From Mono Way to Cabezut Road
This project would construct a new collector road from Mono Way/SR 108 to Cabezut Road by extending Fir Drive. The potential design of the connector would be a two lane facility, with one

twelve-foot lane in each direction, two eight-foot shoulders, and room for bike lanes in each direction. Total roadway width is tentatively 40 feet with 36 feet of pavement, a design speed of 35 miles per hour, and a maximum grade of 10 percent.

Parrotts Ferry Road Capacity Improvements – From SR 49 to Sawmill Flat Road

The capital improvement project would include capacity improvements to accommodate multi-modes of transportation for various users along Parrotts Ferry Road from SR 49 to Sawmill Flat Road**.** The potential design would include, but not be limited to a four lane facility, with twelve foot lanes (two in each direction), a median lane, two eight foot shoulders, and room for bike lanes in each direction, and pedestrian facilities.

Tuolumne Road Capacity Improvements – From Mono Way to Hess Ave

The capital improvement project would include capacity improvements to accommodate multi-modes of transportation for various users along Tuolumne Road from Mono Way to Hess Ave**.** The potential design would include, but not be limited to a four lane facility, with twelve foot lanes (two in each direction), a median lane, two eight foot shoulders, and room for bike lanes in each direction.

Tuolumne Road Capacity Improvements – From Hess Ave to Standard Road

The capital improvement project would include capacity improvements to accommodate multi-modes of transportation for various users along Tuolumne Road from Hess Ave to Standard Road**.** The potential design would include, but not be limited to a four lane facility, with twelve foot lanes (two in each direction), a median lane, two eight foot shoulders, and room for bike lanes in each direction, and pedestrian facilities.

<u>Tier 3 - Unfunded Capital Improvement Projects</u>

Tier 3 projects are capital improvements that have no available funds to construct projects in the next 25 years. The Tier 3 list includes projects that are needed now, and will be needed in future.

North-South Connector – Phase 3 – Fir Drive Extension from Cabezut Road to Lyons Bald Mountain Road

This project would construct a new collector road from Cabezut Road to Lyons Bald Mountain Road by extending Fir Drive. The potential design of the connector would be a two lane facility, with one twelve-foot lane in each direction, two eight-foot shoulders, and room for bike lanes in each direction. Total roadway width is tentatively 40 feet with 36 feet of pavement, a design speed of 35 miles per hour, and a maximum grade of 10 percent.

North-South Connector – Phase 4 – Fir Drive Extension from Lyons Bald Mountain Road to Greenley Road Extension

This project would construct a new collector road from Lyons Bald Mountain Road to Greenley Road extension by extending Fir Drive. The potential design of the connector would be a two lane facility, with one twelve-foot lane in each direction, two eight-foot shoulders, and room for bike lanes in each direction. Total roadway width is tentatively 40 feet with 36 feet of pavement, a design speed of 35 miles per hour, and a maximum grade of 10 percent.

Funding Sources

Regional Surface Transportation Program (RSTP)

Regional Surface Transportation Program (RSTP) funds are distributed by the State on a formula basis to the TCTC. The TCTC then determines a methodology to distribute these funds to local agencies. These funds can be used for a variety of project types, including construction, reconstruction, rehabilitation, resurfacing, restoration and operational improvements on roads classified above a local or rural minor collector. Additionally, these funds may be used for pedestrian, bicycle, and transit improvements.

Highway Bridge Program (HBP)

The Highway Bridge Replacement and Rehabilitation Program (HBP or HBRRP) is authorized by the Fixing Americas Surface Transportation Act or Fast Act and is administered through Caltrans. The purpose of the Program is to replace, rehabilitate, and maintain public highway bridges over waterways, other topographical barriers, other highways, or railroads. The Federal–Aid Highway Act of 1970 regulated bridge inspections to follow the national bridge inspections standards (NBIS), in order to determine the eligibility of a public bridge under this program.

Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program (HSIP) is a competitive grant program based on a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance. There are twenty-one project categories that are eligible projects include pedestrian and bikeway safety improvements, traffic calming measures, traffic signs, sight distance improvements, pavement marking programs, guardrails, and roadway realignment projects.

Traffic Impact Mitigation Fee (TIMF) Program

The local Traffic Impact Mitigation Fee (TIMF) program is a local administered program that new development pays to help mitigate traffic impacts to the roadway network. The TIMF Program funds are used to improve roadway deficiencies such as intersection improvements or

road widening projects. The City of Sonora and Tuolumne County administer their own TIMF programs.

Highway User Tax Account (HUTA)
The Highway User Tax Account (HUTA) receives revenue directly from diesel and gasoline fuel taxes. Appointments are made directly to cities and counties such as City of Sonora and Tuolumne County and are used for the maintenance of the local public streets and roads.

State Transportation Improvement Program (STIP)
The State Transportation Improvement Program (STIP) is a biennial five year capital improvement program that funds new transportation projects. Projects may be located on and off the State Highway system and these funds originate from the Highway Trust, the State Highway Account, and other funding sources.

Transportation Development Act (TDA)
The Transportation Development Act (TDA) provides funding to be allocated to transit and non-transit related purposes that comply with regional transportation plans. The TDA governs two funding sources: Local Transportation Fund (LTF) and the State Transit Assistance (STA).

Local Transportation Fund (LTF)
The Local Transportation Fund (LTF) is derived from a quarter cent of the general sales tax collected statewide. The sales tax collected in each county is returned to the county in which the tax was generated.

Federal Lands Access Program (FLAP)
The Federal Lands Access Program (FLAP) was established to improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands. The FLAP Program supplements State and local resources for public roads, transit systems, and other transportation facilities, with an impact on high-use recreational sites and economic producers.

Community Development Block Grant (CDBG)
The CDBG program is a flexible program that provides communities with resources to address a wide range of unique community development needs. The CDBG program is a U.S. Department of Housing and Urban Development (HUD) program, administered by the State of California. Within the parameters of the program, one of a number of eligible project categories includes the construction or reconstruction of streets.

One-Time Funding Opportunities

Local agencies have benefitted from one-time funding opportunities to complete road paving projects in the region. One-time funding opportunities are likely to occur in the future, and it is important for the TCTC and other agencies to be prepared and flexible to capitalize on such opportunities.

Proposition 1B - Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006

Proposition 1B was approved by a majority of California voters as Proposition 1B on November 7, 2006, authorized the state to sell $19.9 billion in general obligation bonds for transportation projects. These projects focus on improving state highways, local roads, transit networks, freight mobility, and air quality.

Supporting Documents

Tuolumne County Circulation Plan – 2015

The Tuolumne County Circulation Plan helps set the goals, policies, and implementation programs in this plan to guide the development of a transportation system which will maintain and improve the quality of life in Tuolumne County while accommodating new growth.

City of Sonora Circulation Plan – 2007

The City of Sonora Circulation Plan helps set the goals, policies, and implementation programs to guide the development of a transportation system which will maintain and improve the quality of life in City of Sonora while accommodating new growth.

Highway Functional Classification: Concepts, Criteria and Procedures - 2013 Edition

This Federal Highway Administration document describes the procedures and processes for assigning functional classifications to roadways and adjusting urban area boundaries.

2015 Rural Counties Pavement Needs Assessment – California Rural Counties Task Force

The 2015 Rural Counties Pavement Needs Assessment Report provided a comparison of revenues versus pavement needs and three future funding scenarios for 26 rural counties including Tuolumne County. A baseline Pavement Condition Index (PCI) was either provided, or estimated for all 26 counties.

Tuolumne County Regional Travel Demand Model Development Report - 2015

The Regional Travel Demand Model (RTDM) Report recalibrated the model to existing conditions with revised population estimates for Tuolumne County, development of long-range traffic volume forecasts consistent with updated population projections, Tuolumne County's land use forecasts, revision of the Traffic Analysis Zones (TAZ's), and centroid structure, and enhancement of the RTDM functionality.

Tuolumne County Traffic Study Report Addendum - 2016

The Traffic Study Report evaluates intersection and roadway traffic operations under existing conditions, 2030 future conditions, and 2040 future conditions. The Report evaluates roadway segments average annual daily traffic (AADT) volumes and designates a Level of Service (LOS) for roadway segments and intersections in the study.

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Local Streets & Road Projects

Tier 1a - Short Range Capital Improvement Program

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
Signalization @ Standard Rd at Tuolumne Rd & Adding Geometric Improvements	Tier 1a	TIMF, Tribal Fees	Tuolumne County	East Sonora	Construct a new signal at Tuolumne Rd and Standard Rd. Constructing a new left and right turn lane on Standard Rd and construct a new left and right turn lane on Tuolumne.	1,246	2016	Operational & Capacity
Construct a Park N- Ride Facility - Sonora	Tier 1a	CMAQ, local	City of Sonora	Sonora	Construct a new park and ride facility project to serve users of public transit and commuters traveling outside the City.	220	2016	Reduce Congestion
Law & Justice Center Drive, Bus Transfer Facility, & Complete Streets	Tier 1a	RSTP, local	Tuolumne County	Sonora	Construct an extension of Justice Center Drive to the new Law & Justice Center Bus Transfer Facility. Construct sidewalks on the south side of the road. (Non Motorized Transportation & Public Transportation Projects)	198	2016	New road
Tuolumne Road Improvements from Terrace Dr to Lambert Lake Rd	Tier 1a	HSIP, Local	Tuolumne County	East Sonora	Widen and realign Tuolumne Road from Terrace Dr to Lambert Lake Rd. Construct a 6 foot wide shoulder will be constructed on both sides of Tuolumne Road. (Non Motorized Transportation Project)	1,609	2018	Safety
Phoenix Lake Rd from Ridgewood to Paseo de Los Portales Rd	Tier 1a	HSIP, local	Tuolumne County	Phoenix Lake	Widen and realign Phoenix Lake Road from Ridgewood Rd to Paseo de Los Portales Rd. Construct a five foot wide shoulder which will be constructed on both sides of Phoenix Lake Road. (Non-Motorized Transportation Project)	1,578	2018	Safety
New Rawhide Bridge and Rawhide Rd Realignment with SR 108/49	Tier 1a	HBP, TIMF	Tuolumne County	Jamestown	Construct a new concrete bridge with two through lanes and a left turn lane east of the existing single lane bridge. The new bridge will realign with Main Street and SR 108/49 in Jamestown. Construct pedestrian sidewalks on the new bridge and consider using the existing bridge for non-motorized use only. (Non-Motorized Transportation Project)	6,878	2018	Capacity
								Local Streets - 115

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Local Streets & Road Projects

Tier 1a - Short Range Capital Improvement Program

Rehab & Reconstruct Buchanan Road	Tier 1a	FLAP, local	FHWA	Tuolumne County	Rehabilitate and reconstruct 2.5 miles of Buchanan Road from Carter Road to the Buchanan Mine Road Bridge. Construct a new Buchanan Mine Road Bridge.	18,107	2018	Maintenance
Reconstruction of Evergreen Road	Tier 1a	FLAP, local	FHWA	Tuolumne County	Reconstruct 7 miles of Evergreen Road from State Highway 120 to Hetch Hetchy Road. The project will provide additional pedestrian signs, as well as other signs that will warn drivers of upcoming pedestrian facilities. (Local Roads Project)	14,643	2019	Maintenance
Greenley Rd & Mono Way Intersection Improvements	Tier 1a	TIMF, local	City of Sonora	Sonora	Construct capacity improvments at the intersection of Greenley Rd and Mono Way. Construct new sidewalk and bicycling improvements. (Non Motorized Transportation Project)	3,437	2020	Capacity
								Local Streets - 116

Tier 1a - Programmed Projects with dedicated funding

Tier 1b – Plan to fund these projects by 2030

Tier 1c – Plan to fund these projects by 2040

Tier 2 - Alternative Funding Scenario - If new funds become available

Tier 3 - Unfunded Projects

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Local Streets & Roads Projects

Tier 1b - Mid-Range - Capital Improvement Program (6-15 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
Safety Improvements @ Tuolumne Rd & Soulsbyville Rd	Tier 1b	Tribal, local	Tuolumne County	Tuolumne	Construct safety improvements at the intersection of Tuolumne Rd and Soulsbyville Rd. Implement Complete Streets improvements when reasonable feasible. (Non Motorized Transportation Project)	1,000	2021	Safety
Construct a Park N- Ride Facility - Tuolumne City	Tier 1b	CMAQ, Local	Tuolumne County	Tuolumne	Construct a 56 parking spot Park and Ride facility in Tuolumne. Implement Complete Streets improvements when reasonable feasible. (Non Motorized Transportation Project)	319	2025	Reduce Congestion
Extend Gardella Ranch Rd to Justice Center Drive	Tier 1b	Local	Tuolumne County	Sonora	Construct a new roadway connecting Gardella Ranch Rd with Justice Center Drive. Implement Complete Streets improvements when reasonable feasible. (Non Motorized Transportation Project)	2,500	2025	New road
Intersection Improvements @ Sanguinetti Rd	Tier 1b	EIR Fees, local	Tuolumne County	Sonora	Construct a new Roundabout on Sanguinetti Road & Sanguinetti Loop Rd. Implement Complete Streets improvements when reasonable feasible. (Non Motorized Transportation Project)	3,000	2025	Deficiency
Safety Improvements @ Tuolumne Rd & Woodham Carne/Black Oak Rd including Possible Realignment	Tier 1b	Tribal, local	Tuolumne County	Tuolumne	Construct safety improvements at Tuolumne Rd & Woodham Carne/Black Oak Rd. Include a realignment of Woodham Carne Rd. Implement Complete Streets improvements when reasonable feasible. (Non Motorized Transportation Project)	1,300	2025	Safety
Install Bicycle Signs along Various Roads	Tier 1b	Local	City of Sonora, Tuolumne County	Tuolumne County	Install new "Share the Road" Signs along designated Class III facilities. (Non Motorized Transportation Project)	50	TBD	Safety
Parrotts Ferry Road Signalization @ Sawmill Flat Road	Tier 1b	TIMF, Local	Tuolumne County	Columbia	Construct a new signalized intersection at the Parrotts Ferry Rd & Sawmill Flat Rd. Implement Complete Streets improvements when reasonable feasible. (Non Motorized Transportation Project)	2,100	2040	Safety
								Local Streets - 117

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Local Streets & Roads Projects

Tier 1c Long- Range - Capital Improvement Program (16-25 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
North-South Connector - Phase 1 - Greenley Extension to SR 49	Tier 1c	RTIP, TIMF	Tuolumne County & City of Sonora	Sonora	Construct a new collector road from the intersection of Greenley Rd/Lyons Bald Mountain Rd/Lyons St to SR 49 in between Jack Hage Rd/Old Sonora Columbia Rd & Pesce Way. Construct a new signal at the intersection of Greenley Rd & Lyons/Lyons Bald Mt Rd. Construct a new signal at the intersection of SR 49 & new Greenley Extension. Construct Complete Streets improvements for pedestrian and bicycle uers. (Non Motorized Transportation Project)	23,164	2040	Bypass
								Local Streets - 118

Tier Projects Table Summary
Tier 1a - Programmed Projects with dedicated funding
Tier 1b – Plan to fund these projects by 2030
Tier 1c – Plan to fund these projects by 2040
Tier 2 - Alternative Funding Scenario - If new funds become available
Tier 3 - Unfunded Projects

Expenditure Plan

County, City, and Community Sponsored Local Streets & Roads Projects

Tier 2 - Financial Alternative C

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
North-South Connector - Phase 1 - Greenley Extension to SR 49	Tier 1c to Tier 1b	Local, Cap & Trade, TIMF	Tuolumne County & City of Sonora	Sonora	Construct a new collector road from the intersection of Greenley Rd/Lyons Bald Mountain Rd/Lyons St to SR 49 in between Jack Hage Rd/Old Sonora Columbia Rd & Pesce Way. Construct a new signal at the intersection of Greenley Rd & Lyons/Lyons Bald Mt Rd. Construct a new signal at the intersection of SR 49 & new Greenley Extension.	17,253	2025	Bypass
North South Connector - Phase 2 - Fir Drive Extension - from Mono Way/SR 108 to Cabezut Rd	Tier 2	Local, Cap & Trade, TIMF	Tuolumne County	Sonora	Construct a new collector road by extending Fir Drive from the intersection of Mono Way & SR 108 to Cabezut Road.	20,045	TBD	Capacity
Parrotts Ferry Rd Capacity Improvements from SR 49 to Sawmill Flat Rd	Tier 2	Local, Cap & Trade, TIMF	Tuolumne County	Columbia	Construct road capacity improvements include Complete Streets improvements along Parrotts Ferry Road from SR 49 to Sawmill Flat Road.	3,500	TBD	Capacity
Tuolumne Road Capacity Improvements from Mono Way to Hess Ave	Tier 2	Local, Cap & Trade, TIMF	Tuolumne County	East Sonora	Construct road capacity improvements from Mono Way to Hess Ave. Construct Complete Streets improvements.	5,158	TBD	Capacity
Tuolumne Road Capacity Improvements from Hess Ave to Standard Rd	Tier 2	Local, Cap & Trade, TIMF	Tuolumne County	East Sonora	Construct road capacity improvements from Hess Ave to Standard Road. Construct Complete Streets improvements.	7,500	TBD	Capacity
								Local Streets - 119

Expenditure Plan

Tuolumne County - Local Streets & Road Projects

Tier 3 - Unfunded Capital Improvement Projects

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
Jamestown Road - Capacity Improvements	Tier 3	TBD	Tuolumne County	Sonora, Jamestown	Construct road capacity improvements with complete streets improvements along Jamestown Road from 5th Ave to Shaws Flat Rd.	3,000	TBD	Safety & Operational
Jamestown Park-N- Ride Facility	Tier 3	TBD	Tuolumne County	Jamestown	Construct a new Park-N-Ride Facility in Jamestown.	600	TBD	Reduce Congestion
Intersection Improvements La Grange Road and Bonds Flat Road	Tier 3	TBD	Tuolumne County	Don Pedro	Construct intersection improvements at La Grange Rd & Bonds Flat Rd.	750	TBD	Safety & Operational
Longeway Road Continuous LTL	Tier 3	TBD	Tuolumne County	Mono Vista	Widen Longeway Rd and add continuous left turn lane from Soulbyville Rd to Hunts Rd.	850	TBD	Capacity & Operational
Parrotts Ferry Rd - Continuous LTL from Sawmill Flat Rd to Airport Rd	Tier 3	TBD	Tuolumne County	Columbia	Widen Parrotts Ferry Rd by adding a continuous left turn lane from Sawmill Flat Rd to Airport Rd.	4,500	TBD	Capacity
Racetrack Rd Widening From Jamestown Rd to Leland Dr	Tier 3	TBD	Tuolumne County	Sonora	Widen Racetrack Rd by adding a continuous left turn lane from Jamestown Road to Leland Road and realign the intersection with Jamestown Rd.	3,400	TBD	Capacity & Operational
Rawhide Road - Capacity Improvements	Tier 3	TBD	Tuolumne County	Jamestown	Construct road capacity and complete streets improvements along along Rawhide Road from SR 108/49 in Jamestown to SR 49 in Tuttletown.	3,000	TBD	Safety & Operational
Signalization of Soulsbyville/ Crestview & N.Sunshine Rd/Longeway	Tier 3	TBD	Tuolumne County	Mono Vista	Install a Traffic Signal at the intersection of Soulsbyville Rd/Crestview Dr and Longeway/N Sunshine Rd.	2,000	TBD	Safety & Operational
Twain Harte Drive - Left Turn Channelization	Tier 3	TBD	Tuolumne County	Twain Harte	Construct a left turn pockets on Twain Harte Drive and Joaquin Gully Rd.	3,000	TBD	Safety & Operational
Twain Harte Drive - Capacity Improvements	Tier 3	TBD	Tuolumne County	Twain Harte	Construct road capacity and complete streets improvements where appropriate along along Twain Harte Drive.	1,500	TBD	Safety & Operational
								Local Streets - 120

Expenditure Plan

East Sonora & Tuolumne - Local Streets & Road Projects

Tier 3 - Unfunded Capital Improvement Projects

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
East Sonora Park & Ride Facility	Tier 3	TBD	Tuolumne County	East Sonora	Construct a new Park & Ride Facility in East Sonora.	700	TBD	Reduce Congestion
Emergency Access Roads Improvements	Tier 3	TBD	Tuolumne County	-	Emergency Access Roads Improvements thoughout Tuolumne County - See Appendix H	39,000	TBD	Safety
Intersection Improvements Tuolumne Rd and Carter St	Tier 3	TBD	Tuolumne County	Tuolumne	Re-design Carter Street and Tuolumne Road intersection to improve safety.	900	TBD	Safety
Intersection Improvements Tuolumne Rd and Cherokee Rd	Tier 3	TBD	Tuolumne County	Tuolumne	Construct safety improvements at the intersection of Tuolumne Rd and Cherokee Rd.	900	TBD	Safety
Left Turn lane Channelization along Tuolumne Rd at the Tuolumne Shopping Center	Tier 3	TBD	Tuolumne County	Tuolumne	Install an east bound left turn lane into the Tuolumne Square Shopping Center.	900	TBD	Safety & operational
Mono Way Widening to Five Lanes from Hess Ave to Standard Rd/Peaceful Oak Dr	Tier 3	TBD	Tuolumne County	East Sonora	Construct a road widening to five lanes from Hess Ave to Standard/Peaceful Oak Road.	4,029	TBD	Capacity
Standard Road Widen to Five Lanes from Mono Way to Standard Townsite	Tier 3	TBD	Tuolumne County	East Sonora	Construct a five lane road widening along Standard Road from Mono Way to Standard Townsite.	5,500	TBD	Capacity
Tuolumne Road Widening to Five Lanes from Standard Rd to Woodham Carne Rd	Tier 3	TBD	Tuolumne County	East Sonora	Construct a road widening to five lanes from Standard Rd to Woodham Carne Rd/Black Oak Rd.	7,500	TBD	Capacity
Tuolumne Rd - Passing Lanes -	Tier 3	TBD	Tuolumne County	Tuolumne	Construct climbing lanes in both directions along Tuolumne Rd Woodham Carne/Black Oak Rd to Tuolumne Rd North.	2,500	TBD	Safety & operational
Tuolumne Rd North - Passing Lanes	Tier 3	TBD	Tuolumne County	Tuolumne	Construct climbing lanes in both directions along Tuolumne Rd North from Tuolumne Rd to Black Oak Casino.	2,500	TBD	Safety & operational
								Local Streets - 121

Expenditure Plan

City of Sonora - Local Streets & Road Projects

Tier 3 - Unfunded Capital Improvement Projects

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
Church Street Extension	Tier 3	TBD	City of Sonora	Sonora	Extend Church Street to SR 49(Stockton Road) and Southgate Drive.	TBD	TBD	New road
Child Road Extension	Tier 3	TBD	City of Sonora	Sonora	Extend Child Drive to Delnero Drive.	TBD	TBD	New road
Intersection Improvements Greenley Road and Morning Star Drive/Cabezut Road	Tier 3	TBD	Tuolumne County	Sonora	Construct capacity improvements at the intersection of Greenley Road and Morning Star Drive/Cabezut Road	900	TBD	Capacity
Delnero Extension to Truckenmiller	Tier 3	TBD	City of Sonora	Sonora	Connect Mono Way to Delnero Drive via Truckenmiller.	TBD	TBD	New road
Delnero Drive to Cemetery Road	Tier 3	TBD	City of Sonora	Sonora	Extend Delnero Drive to Cemetery Road.	TBD	TBD	New road
New Road - South Washington St to Old Wards Ferry Rd	Tier 3	TBD	City of Sonora	Sonora	Construct a new roadway segment that would connect Old Wards Ferry Road to South Washington Street near the Lowe's Shopping Center.	TBD	TBD	New road
Signalization @South Washington & Church St	Tier 3	TBD	City of Sonora	Sonora	Install a traffic signal at the intersection with South Washington Rd & Church St.	TBD	TBD	Deficiency
West Lytton Road Extension	Tier 3	TBD	City of Sonora	Sonora	Construct an extension of West Lytton Road to SR 49 and Southgate Drive.	TBD	TBD	New road
								Local Streets - 122

Expenditure Plan

Tuolumne County - Local Streets & Road Projects

Tier 3 - Unfunded Capital Improvement Projects

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
Cabezut Road Capacity Improvements	Tier 3	TBD	Tuolumne County	Sonora	Construct road capacity improvement where appropriate with Complete Streets improvements along Cabezut Road from Greenley Rd to the end of Cabezut Road.	9,000	TBD	Operational, Capacity
Greenley Road - Capacity Improvements from Lyons Rd to Morning Star Dr.	Tier 3	TBD	Tuolumne County	Sonora	Construct road capacity improvements with Complete Streets improvements where appropriate along Greenley Rd from Lyons/Lyons Bald Mountain Road to Morning Star Drive/Cabezut Road.	2,000	TBD	Operational, Capacity
Greenley Road - Capacity Improvements from Cabezut Rd to Delnero Dr	Tier 3	TBD	Tuolumne County	Sonora	Construct road capacity improvements with Complete Streets improvements where appropriate along Greenley Road from Cabezut Rd/Morning Star Drive to Delnero Drive.	2,000	TBD	Operational, Capacity
North South Connector - Phase 3 - Fir Drive Extension from Cabezut Rd to Lyons Bald Mountain Rd	Tier 3	TBD	Tuolumne County	Sonora	Construct a new collector road by extending Fir Drive from the intersection of Cabezut Road to Lyons Bald Mountain Road.	15,000	TBD	Bypass
North South Connector - Phase 4 - Fir Drive Extension- Greenley Rd Extension to Lyons Bald Mt Rd.	Tier 3	TBD	Tuolumne County	Sonora	Construct a new major collector by extending Fir Drive from Lyons Bald Mountain Rd to the Greenley Road Extension.	12,000	TBD	Bypass
North South Connector - Phase 5 - Cabezut Rd Extension to Phoenix Lake Rd	Tier 3	TBD	Tuolumne County	Sonora	Construct a new major collector by extending Cabezut Road to Phoenix Lake Road/Hess Ave and the SR 108 Off Ramps.	9,426	TBD	Bypass
Peaceful Oak Rd Extension from SR 108 to Phoenix Lake Rd.	Tier 3	TBD	Tuolumne County	Phoenix Lake	Extent Peaceful Oak Rd from SR 108 to Phoenix Lake Rd.	17,000	TBD	Bypass
Sommette Drive ROW and Pavement Project	Tier 3	TBD	Tuolumne County	Phoenix Lake	Purchase the ROW of the existing gravel Sommette Drive. Construct a paved road connecting the gravel road with the paved portions.	6,000	TBD	Capacity
Columbia Bypass	Tier 3	TBD	Tuolumne County	Columbia	Construct a new collector road that would bypass Columbia and connect with Parrotts Ferry Road.	17,000	TBD	Bypass
La Grange Road - Operational Improvements	Tier 3	TBD	Tuolumne County	Do Pedro	Construct new passing lanes along various portions of La Grange Road (J59).	TBD	TBD	Operational
								Local Streets - 123

Expenditure Plan
County, City, and Caltrans Sponsored Bridge Projects
Short Range Capital Improvement Program Tier 1a (0-6 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construction Year
SR 49 -James E Roberts Memoral Bridge	Tier 1a	SHOPP	Caltrans	Tuolumne County	Roberts Memorial Bridge is located near Moccasin and is crossing the Tuolumne River. Replace the bridge deck and retrofit bridge.	19,484	2016
Bridge Preventive Maintenance Program 10 Bridges	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Bridge preventive maintence for various bridges in Tuolumne County. The program concentrates on preservation of bridges before rehabilitation or replacement are necessary.	1,145	On going
Algerine Road - Crossing Blanket Creek Bridge Replacement	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing bridge with a one span reinforced concrete slab.	2,303	2016
Hardin Flat Road - Crossing South Fork Tuolumne River Bridge	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the wood post and beam bridge with reinforced concrete slab bridge. The abutment and stringers of the existing bridge suffered burn damage during the RIM Fire in 2013.	2,238	2016
Draper Mine Road - Crossing Curtis Creek Bridge Replacement	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Removal of the existing bridge and construction of a new bridge. Draper Mine Road will be realigned so the "S" curve in the existing road will be eliminated.	3,430	2017
Jacksonville Road - Crossing Tuolumne River Bridge	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Rehabilitate or replace the existing concrete slab bridge.	1,025	2017
Big Creek Shaft Road - Crossing Big Creek Bridge Replacement	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing bridge and realign the roadway to eliminate the 90 degree turns on both sides of the bridge.	2,316	2017
Lime Kiln Road Crossing Curtis Creek Bridge Replacement	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing one lane bridge with a two lane concrete bridge and realign Lime Kiln Road.	3,463	2017
Italian Bar Road - Crossing Rose Creek Bridge Replacement	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing concrete two span bridge with a concrete single span bridge.	2,239	2018
Rawhide Road - Crossing Woods Creek Bridge	Tier 1a	HBP, local	Tuolumne County	Jamestown	Replace the existing one lane concrete slab bridge.	6,878	2018
							Bridges - 124

Expenditure Plan

County, City, and Community Sponsored Local Bridge Projects

Short Range Capital Improvement Program Tier 1a (0-6 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year
Old Wards Ferry Road - Crossing Curtis Creek Bridge	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing one lane concrete slab bridge.	1,621	2018
Red Hill Road - Crossing Six Bit Creek Ford	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing one lane concrete slab bridge.	914	2019
Wards Ferry Road - Crossing Deer Creek Bridge	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing one lane concrete slab bridge.	2,000	2019
Simms Road Bridge- Crossing Six Bit Creek Ford	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing one lane concrete ford with a two lane bridge	1,420	2019
Crystal Falls Drive - Crossing Sullivan Creek Bridge Replacement Project	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Rehabilitate or replace the existing concrete slab bridge.	962	2020
Algerine Road - Crossing Algerine Creek Bridge Replacement	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Rehabilitate the existing bridge by widening the bridge and constructing new railing that meets current standards.	944	2020
Lime Kiln Road Crossing Sullivan Creek Bridge Replacement	Tier 1a	HBP, lcoal	Tuolumne County	Tuolumne County	Replace the existing bridge abd realign Lime Kiln Road to elminiate the tight "U" curve in the road alignment.	2,895	2021
Rawhide Road Bridge - Crossing Peppermint Creek	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Rehabilitate or replace the existing concrete slab bridge.	1,399	2021
							Bridges - 125

Expenditure Plan

County, City, and Community Sponsored Local Bridge Projects

Tier 3 - Unfunded Capital Improvement Program

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year
Ponderosa Way Bridge - Crossing Turnback Creek	Tier 3	HBP, local	Tuolumne County	Tuolumne County	Rehabilitate or replace the existing concrete slab bridge.	2,000	TBD
Wards Ferry Road Culvert - Crossing Blanket Creek	Tier 3	HBP, local	Tuolumne County	Tuolumne County	Rehabilitate or replace the existing concrete slab bridge.	2,000	TBD
Cedar Springs Road Crossing Turnback Creek	Tier 3	HBP, local	Tuolumne County	Tuolumne County	Replace the existing concrete slab bridge.	2,000	TBD
Old Strawberry Road Crossing Stanislaus River	Tier 3	HBP, local	Tuolumne County	Tuolumne County	Replace the existing concrete slab bridge.	2,000	TBD
Italian Bar Rd Crossing Eagle Creek	Tier 3	HBP, local	Tuolumne County	Tuolumne County	Replace the existing concrete slab bridge.	2,000	TBD
Soulsbyville Road Crossing Curtis Creek	Tier 3	HBP, local	Tuolumne County	Tuolumne County	Replace the existing concrete slab bridge.	2,000	TBD
Southgate Drive Crossing Sonora Creek	Tier 3	HBP, local	City of Sonora	Tuolumne County	Replace the existing concrete slab bridge.	2,000	TBD
Green Street Crossing Sonora Creek	Tier 3	HBP, local	City of Sonora	Tuolumne County	Replace the existing concrete slab bridge.	2,000	TBD
South Barretta Street Crossing Barretta Street	Tier 3	HBP, local	City of Sonora	Tuolumne County	Replace the existing concrete slab bridge.	2,000	TBD
SR 49 (Stockton Rd) Crossing Sonora Creek	Tier 3	HBP, local	Caltrans	Tuolumne County	Rehabilitate or replace the existing concrete slab bridge.	2,000	TBD
							Bridges - 126

Tuolumne County: Tier 1a Local Street & Road Projects

Construct Park-N-Ride Facility in Sonora

Phoenix Lake Rd Improvements
Ridgewood toPaseo de Los Portales

New Rawhide Bridge and Rawhide Rd Realignment

Greenley Rd & Mono Way
Intersection Improvements

Tuolumne Road Improvements
Terrace Dr to Lambert Lake Rd

Law & Justice Center Drive

Signalization @ Standard Rd at Tuolumne Rd
& Intersection Improvements

Rehab & Reconstruct
Buchanan Road

Reconstruction of Evergreen Road

Columbia
Cedar Ridge
Sierra Villa
Mi-Wuk
Twain Harte
Crystal Falls
Willow Springs
Tuttletown
Sonora
Jamestown
Tuolumne
Chinese Camp
Groveland
Big Oak Flat
Moccasin
Pine Mountain Lake

Parrotts Ferry Rd
Yankee Hill Rd
Big Hill Rd
Sawmill Flat Rd
Springfield Rd
Shaws Flat Rd
Jamestown Rd
Racetrack Rd
Lyons Bald Mountain Rd
Phoenix Lake Rd
Ridgewood Dr
Creekside Dr
Crestview Dr
Hunts Rd
Tuolumne Rd
Kewin Mill Rd
South Fork Rd
Middle Camp Sugar Pine Rd
Middle Camp Rd
Fuller Rd
Twain Harte Dr
Longeway Rd
South Washington St
Sanguinetti Rd
Mono Way
Standard Rd
Soulsbyville Rd
Cherokee Rd
Bay Ave
Buchanan Road
Woodhams Came Rd
Cabezut
Rawhide Rd
Seco Street
Campo Seco Rd
Lime Kiln Rd
Old Wards Ferry Rd
Stent Cut Off
Algerine Rd
Algerine Wards Ferry Rd
Yosemite Rd
Twist Rd
Wards Ferry Rd
Jacksonville Rd
Red Hills Rd
La Grange Rd
O Byrnes Ferry Rd
Ferretti Rd
Old Priest Grade
Priest Coulterville Rd

49
108
120
132

Legend

CIP:Tier 1a Short Range

CIP:Tier 1a Short Range Points

Local Road

N

0 0.475 0.95 1.9 2.85 3.8
Miles

Tuolumne County: Tier 1b Local Streets & Roads Projects

Parrotts Ferry Rd Signalization @ Sawmill Flat Road

Intersection Improvements @ Sanguinetti Rd

Construct a Park N- Ride Facility Tuolumne City

Extend Gardella Ranch Rd to Justice Center Drive

Safety Improvements @ Tuolumne Rd & Soulsbyville Rd

Safety Improvements @ Tuolumne Rd & Woodham Carne Black Oak Rd including Possible Realignment

Install Bicycle Signs along Various Roads

Columbia
Tuttletown
Sonora
Jamestown
Chinese Camp
Cedar Ridge
Twain Harte
Long Barn
Sierra Village
Mi-Wuk
Crystal Falls
Willow Springs
Tuolumne
Groveland
Pine Mountain Lake
Big Oak Flat
Moccasin

Parrotts Ferry Rd
Yankee Hill Rd
Big Hill Rd
Sawmill Flat Rd
Springfield Rd
Shaws Flat Rd
Lyons Bald Mountain Rd
Creekside Dr
Crestview Dr
Tuolumne RdN
Phoenix Lake Rd
Ridgewood Dr
Longeway Rd
Middle Camp Rd
Fuller Rd
Twain Harte Dr
Middle Camp Sugar Pine Rd
South Fork Rd
Jamestown Rd
Racetrack Rd
Cabezut
Mono Way
Standard Rd
Draper Mine Rd
Soulsbyville Rd
Cherokee Rd
Bay Ave
Buchanan Road
Rawhide Rd
S Washington St
Old Wards Ferry Rd
Lime Kiln Rd
Tuolumne Rd
Woodhams Carne Rd
Campo Seco Rd
Seco Street
Stent Cut Off
Algerine Rd
Yosemite Rd
Algerine Wards Ferry Rd
O Byrnes Ferry Rd
Twist Rd
Wards Ferry Rd
Jacksonville Rd
Redhills Rd
La Grange Rd
Ferretti Rd
Old Priest Grade
SR 49
Priest Coulterville Rd
Bonds Flat Rd
SR 132

108
49
120
132

Legend

CIP:Tier 1b Mid Range

- CIP:Tier 1b Mid Range Points
- Local Road

N

0 0.5 1 2 3 4 Miles

Tuolumne County: Tier 1c Local Streets & Roads Projects

North-South Connector - Phase 1 - Greenley Rd Extension

Cedar Ridge
Sierra Village
Mi-Wuk
Twain Harte
Crystal Falls
Willow Springs
Tuttletown
Sonora
Columbia
Jamestown
Tuolumne
Chinese Camp
Pine Mountain Lake
Groveland
Big Oak Flat
Moccasin

Parrotts Ferry Rd
Yankee Hill Rd
Big Hill Rd
South Fork Rd
Middle Camp Rd
Joaquin Gully
Twain Harte Dr
Longeway Rd
Springfield Rd
Sawmill Flat Rd
Shaws Flat Rd
Lyons Bald Mountain Rd
Creekside Dr
Crestview Dr
Tuolumne Rd N
Phoenix Lake Rd
Ridgewood Dr
Jamestown Rd
Racetrack Rd
Cabezut
Draper Mine Rd
Soulsbyville Rd
Mono Way
Washington St
Standard Rd
Cherokee Rd
Rawhide Rd
Tuolumne Rd
Bay Ave
Buchanan Road
Seco Street
Campo Seco Rd
Lime Kiln Rd
Old Wards Ferry Rd
Woodhams Camp Rd
Jacksonville Rd
Algerine Rd
Yosemite Rd
Algerine Wards Ferry Rd
O Byrnes Ferry Rd
Twist Rd
Wards Ferry Rd
Red Hills Rd
La Grange Rd
Ferretti Rd
Old Priest Grade
Priest Coulterville Rd
Bonds Flat Rd
Merced Falls

49
108
120
132

Document Path: S:_TCTC_\PL-020350 RTP (Regional Transportation Plan)\RTP update 2013\Expenditure Plan - CIP Maps\CapitalImprovementProjects\Jan2016\CIPprojects_Tier1c_LocalStsRds_11x17_20160105.mxd

Legend

CIP:Tier 1c Long Range

CIP:Tier 1c Long Range Points

Local Road

N

0 0.5 1 2 3 4 Miles

This page is left intentional blank

Chapter Seven: Aviation



Figure 7.1 Airplane, Photo Courtesy of Jim Thomas

Introduction

Aviation plays a key part in Tuolumne County's multimodal transportation system. Local airports provide links to interregional travel patterns. Local airports serve travel and transportation for businesses, recreation tourism, freight, goods movement, and government. Local airports serve air couriers, air ambulances, air charter, law enforcement and private pilots.

Past Accomplishments

In the past 6 years there have been two projects completed at the Pine Mountain Lake Airport. Both projects were funded by the Pine Mountain Lake Airport Fundraising Committee because the Pine Mountain Lake Airport is currently ineligible for FAA project funding due to the Residence Thru the Fences Issue. The projects are as follows:

1. Filling Cracks in the Asphalt on the Runway, the Taxiway and the Ramp
2. Re-striping of the Airport Markings

Both of these projects help maintain the existing infrastructure at PML Airport and were funded through private donations.

In the past couple of years there have been three projects completed at the Columbia Airport. These projects were funded with FAA and Caltrans. The projects are as follows:

1. Extension to Taxiway C

This project extended Taxiway C from Mountain Air Aviation to the west approximately 1,600 feet. This included the relocation of the 8 inches TUD waterline. This taxiway and waterline relocation will allow the construction of additional hangars along the taxiway extension.

2. Automated Weather Observing System (AWOS)

This project included replacing the sensors, the computer system, a National Weather Service interface.

3. Repainted Runway and Taxiway Markings

Existing Conditions

Tuolumne County owns and operates two airports: Pine Mountain Lake Airport near Groveland, CA and the Columbia Airport in Columbia, CA.

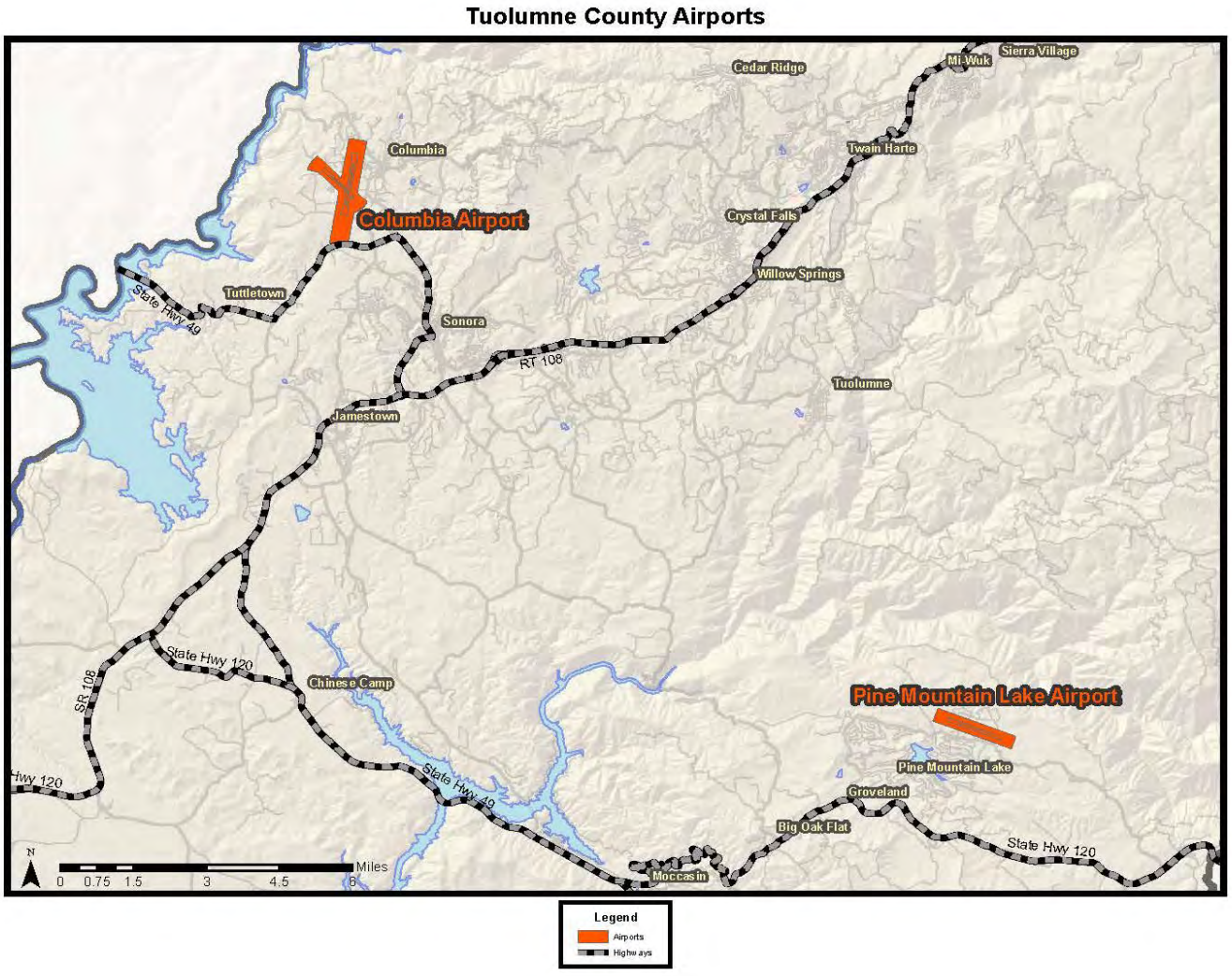


Figure 7.2 Tuolumne County Airport Location Map

Pine Mountain Lake Airport

Pine Mountain Lake Airport (PML) has 37 tie-downs, five County owned hangar spaces, and 11 private hangars for based aircraft. There are also 11 tie-downs for transient aircraft. Pine Mountain Lake Subdivision's covenants allow residents to store their own personal aircraft on their own property resulting in an estimated 100 additional aircraft. The airport runway length is approximately 3,640 feet. The Pine Mountain Lake airport is a non-towered airport and aircraft operation. The number of operations is calculated using the based number of aircraft

and supplied to the airport each year by the FAA's Terminal Area Forecast (TAF). The Pine Mountain Lake airport has approximately 32 based aircraft on county owned airport property. These based aircraft average an estimated 15,000 operations. (An operation is defined by one takeoff or landing.) The estimated 100 based aircraft at Pine Mountain Lake airport located at private residences could provide for an additional estimated 36,500 operations per year if they were included in the FAA's TAF. Other services available at the airport include offices, fuel sales, automobile parking, and restrooms. The airport is a general aviation facility. It is used as needed as an emergency management station for air services and as a staging area when wildfires are burning in the area.



Figure 7.3 Pine Mountain Lake Airport

Columbia Airport

Columbia Airport has 89 tie-downs, 74 County owned hangars and 18 privately owned spaces for based aircraft. There are 26 tie-downs for transient aircraft. The airport has two runways: Runway 17/35 is an asphaltic concrete surface with a length of 4,660 feet and two overrun areas. Runway 11/29 is a turf runway and measures approximately 2,600 feet in length. Columbia Airport is home to several aviation businesses that serve the aviation community. These businesses include two air charter companies, a flight school, two aircraft maintenance facilities, and an air ambulance service. Columbia Airport is used as a CAL FIRE tanker base. Columbia Airport also features a "fly in only" campground which is a travel destination for numerous pilots and aviation groups primarily during the summer months.



Figure 7.4 Columbia Airport

The Columbia airport has approximately 150 based aircraft. Columbia airport is a non-towered airport and aircraft operations are estimated by the FAA TAF. Currently the Columbia Airport TAF is estimated at 44,000 operations per year.

Both airports are used by private aircraft, business aircraft, air taxi operators, law enforcement, air ambulance services, and for aerial firefighting aircraft.

Existing Conditions Airport Facilities

Airport Name	Based Aircraft	Runways	Hangars	Tie Downs	Transient Tie-Downs	Surface	Longest Runway
Pine Mountain Lake Airport	115	1	5	37	11	Asphalt	3,640 Ft.
Columbia Airport	150	2	92	89	26	Grass/ Asphalt	4,660 Ft.

Table 7.1 Existing Conditions Airport Facilities 2014

Helicopter Parking

In Tuolumne County there are two designated helicopter parking sites Columbia Airport and Sonora Regional Medical Center Heliport. There are also at least six designated heliport facilities: Long Barn – US Forest Service; Bald Mountain - US Forest Service; Buck Meadows – US Forest Service; Moccasin – City and County of San Francisco; Sonora – Sonora Regional Medical Center; Crane Flat - National Park Service.

Air Attack Base

The Columbia Air Attack Base operated by Cal Fire is an important and long established function at Columbia Airport. Cal Fire operates two air tankers and an air attack aircraft at during the fire season and a helicopter year round. Cal Fire leases part of the Columbia Airport.

Multimodal Links

County Roads

Airport Road provides direct access from Columbia Airport to Parrotts Ferry Road. Parrotts Ferry Road connects with Highway 49 to the south. Parrotts Ferry Road connects to the Townsite of Columbia and Columbia State Park to the north. Parrotts Ferry Road also connects with Highway 4 in Calaveras County.

Tuolumne County Transit

Tuolumne County Transit (TCT) has an on demand stop at the Columbia Airport for Route 3.

Dondero Trail

The Dondero Trail provides access from the Columbia Airport parking lot to Parrotts Ferry Road. Columbia Elementary School is adjacent to the trail and Columbia State Park is located a short walk away.

Columbia Airport Trail

The proposed Columbia Airport Trail would link Pioneer Park (North Airport Road) with Horseshoe Bend Road. This trail would follow along Airport property and would connect with the Dondero Trail.

Assessment of Needs

Future aviation needs are based upon improvements required to accommodate the forecasted growth in demand for commercial and general aviation operations.

Issues and Solutions- Pine Mountain Lake Airport

Issue	Solution
Residence Thru The Fence Issue – Some private residences (Hangar Homes) have unrestricted automobile/plane access to taxiways at the Airport. The airport is not fenced /closed off to local residents.	Access Agreement with individual property owners or create a Special Assessment District

Table 7.2 Pine Mountain Lake Airport– Issue and Solutions

The Residence Thru the Fence Issue is the highest priority issue at Pine Mountain Lake Airport. The FAA is withholding California Aid to Airports Program (CAAP) funds until the issue is resolved. There are no Federal funds available for capital improvement projects.

Issues and Solutions - Columbia Airport

Issue	Solution
The Columbia Airport Master Plan was last updated in 1997 and is out of date.	Update the Columbia Master Plan
Future hangar bay construction needs more water suppression for fire protection.	Construct water towers
There is a strong demand for additional hangar bay storage.	Construct hangar bay storage.
Using Tie Down without a roof can bake the interior of airplanes tied down in the sun all day.	Convert existing ties-downs into T-Shades which have a roof structure to protect from sun damage.

Table 7.3 Columbia Airport – Issues and Solutions

Goals, Objectives, and Policies

The goals, policies and objectives in this document are intended to guide the development of the aviation transportation system, and improve the quality of life in Tuolumne County. The following definitions help differentiate the planning focus of an objective and policy.

An **objective** is a specific end, condition or state toward attaining a goal. It is achievable, measurable and time specific.
A **policy** is a direction statement that guides actions for use in determining present and future decisions. The RTP includes the following priorities to guide future expenditures on aviation facilities.

Aviation

Goal: Provide a safe and reliable network of aviation facilities.

Objective 1: Promote the planned development, maintenance, and expansion of aviation facilities.

Policy 1: Support the development of the Columbia and Pine Mountain Lake (PML) Airports in accordance with the adopted airport master plans.
Policy 2: Update the 1997 Columbia Airport Master Plan.
Policy 3: Support the creation and expansion of a capital improvement fund for the Columbia and PML Airports.
Policy 4: Support the continued existence of an Airport Enterprise Fund for each Airport, and the dedication of all revenues generated from airport properties and for use in funding airport operational maintenance and capital improvement costs.
Policy 5: Maintain existing facilities to preclude premature repair or excessive replacement cost.
Policy 6: Plan and support projects that increase intermodal connections between aviation facilities and other modes of transportation.

Objective 2: Identify and fund infrastructure improvements that address FAA airport design and safety hazards.

Policy 1: Support the airport operator in identifying, avoiding, and eliminating activities that affect potential safety, airspace hazards, or security hazards.
Policy 2: Plan and prioritize for airport enhancements that update the airports to meet FFA safety standards where practical.

Performance Measures

The table below lists performance measures for the regions aviation system.

Factors	Indicators	Performance Measures	Data Sources
Airport Rates & Hazards	Have rates of crashes, fatalities, and injuries decreased?	Number of runway incursions and or operation errors. Severity of accidents and injuries.	FAA, Caltrans District 10 Safety Division, County Airport Division
System Condition	Do aviation facilities meet standards for state of good repair?	Condition of aviation facilities. Maintenance cost per capita to preserve system at base year conditions.	Caltrans, CARB, CHP, County Airport Division

Table 7.5 Performance Measures

Funding Sources

Below is a list of Aviation Funding Sources and a brief description of each one.

Federal Airport Improvement Program (AIP) – The AIP has an entitlement program and a competitive grant program that funds planning, surveying, and design work; and capital improvements to enhance airport safety, capacity, security, and environmental concerns. The AIP Program provides funding for small primary, reliever, and general aviation airport facilities and projects on a 90-95 % Federal and 5-10% local matching basis.

California Aid to Airports Program (CAAP) – The CAAP program is made up of three parts: Acquisition and Development Program, the Annual Grant Program, and the California Airport Loan Program.

- **Acquisition and Development Program** - This program is similar to Federal AIP Program, this State program provides grant funding for selected airport facilities and projects on a matching/sharing basis, which is currently 90% State and 10% local. These grant dollars are allocated through the California Transportation Commission.

- **Annual Grant Program** – Under this program all publicly owned and licensed airports in the State receive $10,000 per year for grant eligible capital improvement projects and or operations. These funds may be accumulated, up to a maximum of five years at the State level, toward a large project or used as part of a local match for a Federal grant. In addition, grant funds can be annually drawn down for costs associated with ongoing airport operations.

- **California Annual Loan Program** – This program assists public entities in the development of airport facilities by making available special low interest loans from the state.

Local Funds – Local funding is derived from two basic sources: airport generated revenues and County General Fund transfers. Airport generated revenues sources include: hangar rentals, tie-down fees, building rentals, land leases, gas concessions, and landing fees.

Private Development – Local Developers and other private interests have shown a willingness to make a variety of improvements at both of the County's airports.

Supporting Documents

Federal Aviation Administration

The Federal Aviation Administration (FAA) is the national aviation authority of the United States. As an agency of the United States Department of Transportation, (USDOT) the FAA has the authority to regulate and oversee the planning, development, and national airspace operations of all airports included in the National Plan of Integrated Airport Systems (NPIAS). The FAA oversees the Airport Improvement Program (AIP) which provides grants to public agencies for the planning and development of public-use airports that are included in the NPIAS. The NPIAS is the major planning tool and grant funding mechanism for the FAA. An airport must be listed in the NPIAS in order to receive grant funding. Responsibilities of the FAA:

- Controls all of the nation's airspace.
- Operates the Air Traffic Control system.
- Develops and enforces certification standards for all aircraft, pilots, flight crews and mechanics.
- Administers an ongoing aviation safety program.
- Develops standards for the construction of airports and heliports.
- Inspects Commercial Service airports to ensure compliance with FAA safety regulations.

California Department of Transportation's Division of Aeronautics

The California Department of Transportation's (Caltrans) Division of Aeronautics (DOA) is California's designated aviation authority. The Division of Aeronautics performs in much of the same function as the FAA but provides a more local and region review of airports. The biggest difference between the FAA and Cal Trans DOA is that the DOA maintains all state airports operational certificates. The DOA performs general airport inspections and enforces state and federal regulations through the airports operational permit.

- Permit and inspect over 300 public-use and special-use airports.
- Permit and inspect over 460 hospital and other special-use heliports. Conduct a periodic permit compliance and safety inspection program for hospital heliports.
- Authorize helicopter landings at or within 1000 feet of schools (K-12).
- Evaluate the acquisition of proposed public schools (K-12), community college, and State building sites within two miles of an airport runway.

Tuolumne County Airport Land Use Compatibility Plan

The Airport Land Use Compatibility Plan (ALCP) ensures land use adjacent to Tuolumne County airports is compatible with the airports and the Plan was adopted by the Board of Supervisors in 2003.

Pine Mountain Lake Airport Master Plan

Pine Mountain Lake Airport Master Plan forecasts future aviation demand, and plans for the timely development of new or expanded facilities that may be required to meet that demand. The ultimate goal of the Master Plan is to provide systematic guidelines for the airport's overall development and operation. The Pine Mountain Lake Airport Master Plan was approved by the Board of Supervisors in November 2006.

Columbia Airport Master Plan

The Columbia Airport Master Plan is a comprehensive examination of the current status, anticipated future use and proposed course of development of Columbia Airport for the next 20 years. The Columbia Master Plan was approved by the Board of Supervisors in March 1997.

Financially Constrained Expenditure Plan

Columbia Airport

Short Range Capital Improvement Projects (0-6 years)

Project Name	Priority	Funding Source	Description	Construction Year	Total Cost
Airport Master Plan/PMMP/Area Specific Study	Tier 1a	FAA/LOCAL	Update the 1997 Airport Master Plan, Area Specific Plan, Pavement Maintenance, Management Program and Airport Layout Plan sheets.	2016	386
Taxiway B & C Rehab/Recon Design	Tier 1a	FAA/LOCAL	Design of the reconstruct, rehab, and resealing of Taxiway B & C.	2016	195
Taxiway B & C Rehabilitation and Reconstruction	Tier 1a	FAA/CAAP/ LOCAL	Reconstruct, rehabilitation, and resealing of Taxiway B and Taxiway C.	2016	1,900
				Aviation - 143	

Tier Projects Table Summary

Tier 1a - Programmed Projects with dedicated funding

Tier 1b – Plan to fund these projects by 2030

Tier 1c – Plan to fund these projects by 2040

Tier 2 - Alternative Funding Scenario - If new funds become available

Tier 3 - Unfunded Projects

Expenditure Plan
Columbia Airport
Tier 3 - Unfunded Capital Improvement Projects

Project Name	Priority	Funding Source	Description	Construction Year	Total Cost
Alleyway Area A - Environmental Assessment	Tier 3	FAA/CAAP/ LOCAL	Evaluate the environmental issues surrounding Alleyway Area A.	2017	500
Parking Apron Rehab Design	Tier 3	FAA/CAAP/ LOCAL	Design of the rehab of Parking Apron.	2017	40
Alleyway Area A Construction	Tier 3	FAA/CAAP/ LOCAL	Construct improvements to improve Alleyway Area A.	2018	5,000
Parking Apron Rehab Construction	Tier 3	FAA/CAAP/ LOCAL	Reconstruction of the of Parking Apron.	2019	394
Runway 17-35 Rehab & Rehab Lighting & Upgrade VASI to PAPI	Tier 3	FAA/CAAP/ LOCAL	Rehab Runway 17-35 & Upgrade VASI to PAPI.	2019	70
Runway 17-35 Rehab & Lighting & Upgrade VASI to PAPI Construction	Tier 3	FAA/CAAP/ LOCAL	Rehab Runway 17-35 & Upgrade VASI to PAPI.	2020	2,000
Taxiway A Rehab Design	Tier 3	FAA/CAAP/ LOCAL	Taxiway A Rehab pavement and taxiway connector Design	2020	150
AWOS Replacement	Tier 3	FAA/CAAP/ LOCAL	Replace the AWOS system.	2021	500
Taxiway A Rehab Construction	Tier 3	FAA/CAAP/ LOCAL	Taxiway A Pavement Rehab and Taxiway Connector Construction	2021	1,500
T-Shade and Solar	Tier 3	LOCAL	Design and Construct New T-Shades (3 rows)	2020	5,000
New Hangar Rows L - M	Tier 3	LOCAL	Design and Construct New Hangar Rows L - M	2021	100
Construct Fire Protection Line - Phase 2	Tier 3	CAAP	Convert the culvert ditch to into the taxiway.	TBD	900
Design of Culvert & Concrete Surface Design	Tier 3	CAAP	Design of Culvert & Concrete Surface Design	TBD	100
				Aviation - 144	

Expenditure Plan

Columbia Airport

Tier 3 - Unfunded Capital Improvement Projects

Project Name	Priority	Funding Source	Description	Construction Year	Total Cost
Helicopter Pad VAR	Tier 3	FAA/CAAP/ LOCAL	Construct a paved Road to the Helicopter Apron	2030	250
Access Gates	Tier 3	FAA/CAAP/	Install new controlled access gates and security	2030	150
Runway 35 RSA	Tier 3	FAA/CAAP/ LOCAL	Construct full RSA at Runway 35	2030	500
Runway 17 PAR	Tier 3	FAA/CAAP/ LOCAL	Construct new perimeter access road around south end Runway 17	2040	500
Runway 35 PAR	Tier 3	FAA/CAAP/ LOCAL	Construct new perimeter access road around south end Runway 35	2040	500
Construct new tiedowns in front of Campground	Tier 3	FAA/CAAP/ LOCAL	Construct new tiedowns in front of Campground	2040	300
New Taxiway Delta	Tier 3	FAA/CAAP/ LOCAL	Design and Construct new Taxiway Delta on north side of Turf Runway & new campground apron.	2040	2,000
Replacement of Drainage Ditch and Pave in Steel Plating	Tier 3	FAA/CAAP/ LOCAL	Replacement of Drainage Ditch and Pave in Perforated Steel Plating	2030	400
Rehabilitate Transient Apron Pavement overlay	Tier 3	FAA/CAAP/ LOCAL	Rehabilitate Transient Apron Pavement overlay	2030	100
Taxiway B Culvert	Tier 3	FAA/CAAP/ LOCAL	Design and Construct Culvert for drainage swale at Taxiway B	2030	1,000
Reconstruct Terminal Area Automobile Parking Lot Area	Tier 3	FAA/CAAP/ LOCAL	Reconstruct Terminal Area Automobile Parking Lot Area	2030	5,000
Construct two Aircraft Storage Hangars	Tier 3	TBD	Construct two Aircraft Storage Hangars	TBD	10,000
Construct new Hangar Buildings south of Runaway 11-29	Tier 3	TBD	Construct new Hangar Buildings south of Runaway 11-29	TBD	4,000
Install a Campground Septic System	Tier 3	TBD	Install a Campground Septic System	TBD	7,500
Construct an Air Aircraft Museum	Tier 3	CAAP	Construct an Air Attack Aircraft Museum	TBD	5,000
				Aviation - 145	

Expenditure Plan

Pine Mountain Lake Airport

Tier 3 - Unfunded Capital Improvement Projects

Project Name	Priority	Funding Source	Description	Construction Year	Total Cost
Install Automated Weather Observation System (AWOS)	Tier 3	CAAP	Install an AWOS system.	2016	115
Acquire property within Runway Protection Zone	Tier 3	CAAP	Purchase property within Runway Protection Zone.	2016	400
Design for Taxiway Rehab	Tier 3	CAAP	Design for Taxiway Rehab	2016	50
Design for Runway 09/27	Tier 3	CAAP	Design for Runway 09/27	2017	50
Design Vehicle Access Roads	Tier 3	CAAP	Design Vehicle Access Roads and Drainage	2017	75
Construction of Vehicle Access Roads & Drainage	Tier 3	CAAP	Construction of Vehicle Access Roads & Drainage	2018	250
Design of Rehabilitation AC Ramp and Helicopter Parking	Tier 3	CAAP	Rehabilitation AC Ramp and Helicopter Parking	2018	40
Runway 09/27 Rehabilitation	Tier 3	CAAP	Runway 09/27 Rehabilitation	2018	500
Design of Parking Apron Rehabilitation	Tier 3	CAAP	Parking Apron Rehabilitation	2019	10
Rehabilitation AC Ramp and Helicopter Parking	Tier 3	CAAP	Rehabilitation AC Ramp and Helicopter Parking	2019	175
Design for Alleyway Reconstruction	Tier 3	CAAP	Design for Alleyway Reconstruction	2020	20
Parking Apron Rehabilitation	Tier 3	CAAP	Parking Apron Rehabilitation	2020	100
Alleyway Reconstruction	Tier 3	CAAP	Alleyway Reconstruction	2021	200
Construct Commercial Hangar/Terminal Building	Tier 3	CAAP	Construct Commercial Hangar/Terminal Building	TBD	500
Install Directional Signage	Tier 3	CAAP	Install Directional Signage	TBD	500
Paved Automobile Parking Area	Tier 3	CAAP	Paved Automobile Parking Area	TBD	500
Relocate Segmented Circle, Lighted Wind Cone, Wind Tee	Tier 3	CAAP	Relocate Segmented Circle, Lighted Wind Cone, Wind Tee, Beacon	TBD	500
Construct Apron and Hangar Access Taxilanes	Tier 3	CAAP	Construct Apron and Hangar Access Taxilanes	TBD	500
				Aviation - 146	

Tuolumne County: Tier 1a Aviation Projects

Taxiway B & C Rehab/Recon Construction

Airport Master Plan/PMMP/Area Specific Study

Columbia
Tuttletown
Sonora
Jamestown
Chinese Camp
Cedar Ridge
Sierra Village
Mi-Wuk
Twain Harte
Crystal Falls
Willow Springs
Tuolumne
Pine Mountain Lake
Groveland
Big Oak Flat
Moccasin

Parrotts Ferry Rd
Springfield Rd
Sawmill Flat Rd
Yankee Hill Rd
Big Hill Rd
Shaws Flat Rd
Lyons Bald Mountain Rd
Jamestown Rd
Racetrack Rd
South Washington St
Cabezut
Sanguinetti Rd
Mono Way
Rawhide Rd
Lime Kiln Rd
Old Wards Ferry Rd
Campo Seco Rd
Seco Street
Stent Cut Off
Algerine Rd
Algerine Wards Ferry Rd
Yosemite Rd
O Byrnes Ferry Rd
Twist Rd
Wards Ferry Rd
Jacksonville Rd
Red Hills Rd
La Grange Rd
Bonds Flat Rd
Kewin Mill Rd
Middle Camp Rd
Middle Camp Sugar Pine Rd
South Fork Rd
Fuller Rd
Twain Harte Dr
Longeway Rd
Creekside Dr
Crestview Dr
Hunts Rd
Tuolumne Rd
Phoenix Lake Rd
Ridgewood Dr
Standard Rd
Soulsbyville Rd
Cherokee Rd
Tuolumne Rd
Woodhams Carne Rd
Bay Ave
Buchanan Road
Ferretti Rd
Old Priest Grade
Priest Coulterville Rd

49
108
120
132

Legend

CIP:Tier 1a Short Range

CIP:Tier 1a Short Range Points

N

0 0.5 1 2 3 4 Miles

This page is left intentional blank

Chapter Eight: Non-Motorized Transportation



Figure 8.1 Dragoon Gulch Trail, Photo Courtesy of TCTC

Introduction

Non-Motorized Transportation is another critical piece of the overall transportation network for a community and the region. The ability to freely and safely walk and bike not only improves a community's social fabric and public health, it also removes automobile trips from local and regional roads, improving air quality and the quality of life. These non-motorized facilities are also viewed as a vital element of economic development in the Tuolumne County Region, encouraging people to "live where they play," as the Tuolumne County Visitors Bureau and Economic Development agency promote.

The Tuolumne County Transportation Council (TCTC) has dedicated resources to focus on non-motorized transportation improvements. There has been a strong community interest in pedestrian and bicycle infrastructure since the RTP was last updated. This is reflected in the large increase in non-motorized transportation capital improvement projects. In the 2006/2007 RTP, there were eight non-motorized projects and the 2016 RTP lists 68 non-motorized projects.

In 2011, the TCTC gave clear direction by allocating 25% of their Transportation Planners' hours on improving and expanding the non-motorized transportation system in Tuolumne County. Identifying strategic steps that can be taken by the City and County to facilitate, prioritize, fund and build trail links to connect residents from their neighborhoods to larger commercial centers is the purpose of the Trails Program.

A key component to non-motorized transportation is filling the missing gaps in non-motorized infrastructure, providing safe and aesthetically pleasing options for mobility, and providing regional connections to the defined community boundaries where 60% of Tuolumne County's population currently resides.

Active Transportation

Active transportation is powered by human energy, primarily walking and bicycling. Often called "non-motorized transportation", TCTC uses the terms active transportation and non-motorized transportation interchanging in the 2016 RTP. Active transportation has been described as a more positive statement that expresses the key connection between healthy, active living and our transportation choices.

Community Transportation Planning

Communities that are attractive to live and work in do not happen by chance. Community transportation planning helps to develop regional trails, a complete sidewalk network, and a convenient public transit system. This short and long term planning requires vision, community

support, public outreach, and multiple funding sources. The TCTC has been an active participant in securing funding to do this type of community planning. A culture of cooperation exists in Tuolumne County, allowing the TCTC to successfully partner with the City of Sonora, Public Health, the Tuolumne Band of Me Wuk Indians, Parks and Recreation districts, school districts, water agencies, and business organizations, to create multiple plans that address active transportation in Tuolumne County communities.

Partnerships

Despite a long list of Federal and State funding sources, there are very few that are intended to provide for bike and pedestrian improvements. This shortage of funding creates a very competitive environment for the few revenue streams that are available. This reality makes partnerships an essential ingredient in funding projects. The ability to leverage funding from multiple sources can help to demonstrate the strength of and support for a particular bicycle and pedestrian improvement project. Partnerships produce more resilient, well rounded and integrated projects that fare better in the design, environmental, and construction phases of the project delivery. Partnerships typically result in more robust outreach and more accountability in project follow-through. For these reasons, the TCTC looks to partner as often as possible with others who share a common goal of expanding the non-motorized transportation network.

Past Accomplishments

The list below highlights some of the major non-motorized transportation projects that have been completed since 2008 by various agencies. These projects consist of closing pedestrian and bicycle gaps, and have helped improve access to residential neighborhoods, downtown businesses, and tourist destinations. These projects also promote Active Transportation, by improving, expanding, and creating new recreational trails for residents and tourists.

Jamestown Sidewalks Project – Phase I - 2015

The Jamestown Sidewalks Project constructed new sidewalks in the community of Jamestown. This project built two bus stops with turnouts, shelters and lighted crosswalks. This project closed gaps in the existing sidewalk and created a safe and continuous pedestrian travel path between Downtown Jamestown and Jamestown Elementary, and between Main Street and Railtown State Park.

Preston Lane Sidewalk Project - 2015

The Preston Lane Sidewalk Project in Jamestown helped close a sidewalk gap along Preston Lane to Seco Street, and linked it to the completed Jamestown Sidewalks Project improvements built along Seco Street.

Greenley Road - Sonora Elementary – Safe Routes to School Project
The Greenley Road Safe Routes to School Project constructed new sidewalk along Greenley Road which linked Sonora Elementary School with the existing sidewalk network.

Sugar Pine Railroad Trail – Twain Harte – Phase I - 2009
The Sugar Pine Railroad Trail is a historic logging railroad right of way, starting in Tuolumne and continuing up through Twain Harte, Lyons Reservoir, and into Pinecrest a total of 26 miles. Phase 1 improved an approximately one mile section of the trail, from East Road to Gurney Station Road. A portion of the trail is a dirt path and a portion is along the side of the paved Korey Court and Gurney Station Road.

Dragoon Gulch Recreational Trail System – Phase I - City of Sonora - 2008
The Dragoon Gulch Trails and Open Space Park is a beautiful 102 acre site located in the City of Sonora. The Trail system is located a long a series of scenic hills with great views of Sonora. The Trail system provides two different access points with two parking lots available and access to public restroom facilities.



Figure 8.2 – Dragoon Gulch Trail Sign

Existing Conditions

Tuolumne County has predominantly focused its transportation investments on road improvement and maintenance projects for automobiles. With a renewed focus on active transportation, the 2016 RTP strives to improve access and expanding the active transportation network.

According to the US Census Bureau, the Means of Transportation to Work Dataset is defined as "the principal mode of travel or type of conveyance, by distance rather than time that the worker usually used to get from home to work during the employment status reference week."

Means of Transportation to Work

Jurisdiction	Single Occupant Vehicle	Carpool	Transit	Other	Walking	Bicycling
State of California	73%	11.5%	5.1%	6.8%	2.8%	N/A
Tuolumne County	79.4%	10.0%	0.7%	6.3%	3.2%	0.4%
Nevada County	76.3%	8.5%	.46%	11.66%	2.6%	.57%
City of Sonora	74.4%	10.6%	2.3%	6.0%	6.7%	0.0%
City of Grass Valley	70.9%	12.8%	.69%	8.8%	6.3%	.41%

Table 8.1 Means of Transportation to Work (US Census Bureau ACS 2008-2012)

Tuolumne County residents primarily travel to work using single occupant vehicles – a means accounting for almost 80% of the transportation to work. This dataset shows that Tuolumne County is demographically in line with the State of California in most categories, except for transit usage.

Safe Routes to School

Safe Routes to School is a national program encouraging children and students to walk and bicycle to school. The program uses educational events, student prizes, and safety projects, in collaboration with school staff and volunteers, police departments, public health staff and transportation planners. Safe Routes to School programs and policies make it safer and more convenient for students and their caretakers to actively commute to and from school.

Many transportation corridors within Tuolumne County lack sidewalks, bicycle lanes, or crosswalks. These roadways are often difficult and dangerous for pedestrians, thus discouraging walking and biking to school. The ability to bicycle, walk, and exercise for recreation is also limited by a relative lack of parks and recreation facilities, a cohesive bicycle network, and the distance residents must travel to reach such facilities.

"In 1969, approximately 41 percent of children walked or bicycled to school, including almost 90 percent of children living within one mile of school. Today, 22 percent of California's rural

school age children reported walking, biking, but the numbers are even lower in Tuolumne County, where fewer than 15 percent of children report doing so. Engaging in active transportation when traveling to and from school can be a convenient way for students and their caretakers to be more physically active every day" Healthy Communities Element.

Encouraging physical activity at a young age is very important. The likelihood of a student walking or riding a bike to school has fallen dramatically in the last few decades. There are many ways to increase the likelihood that a child will choose active options and in many cases it begins with a clearly-marked route that offers a safe pathway of pedestrian or bicycle travel. The TCTC recognizes its role in realizing safe routes to school and offers a number of projects in the Regional Transportation Plan that will help accomplish this goal.

State Highways – Challenges

State Highways serve as "Main Streets" for several of Tuolumne County communities, including the City of Sonora, Jamestown, and Groveland. The presence of two different goals, Caltrans' desire to move regional traffic, and the local community's desire for low speeds, pedestrian/bicycle friendly features, and convenient parking are often at odds. A significant challenge in Tuolumne County has been balancing pedestrian needs with the State Highways' lack of shoulders, roadway capacity, and lack of maintenance funding. Fortunately, a new mission and vision at Caltrans provides hope that Complete Streets design along State Highways located within the locally designated "Distinctive Communities" will a become a higher priority.

Complete Streets

"Complete Streets is a transportation facility which is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truck drivers, and motorists, appropriate to the function and context of the facility. Complete street concepts apply to all roadways in all contexts including local roads and state highways in rural, suburban, and urban areas," Caltrans Complete Streets Implementation Action Plan.

Bicycle Network - Share the Road Signage or Sharrows

A dedicated regional bicycle network is the ultimate solution for encouraging the maximum amount of bicycling in Tuolumne County. This is the gold standard, and even though this is Gold Country, unfortunately, the bicycle network has not received this level of investment. Recognizing this, TCTC encourages and supports bicycling through the widening of shoulders, adding signage, and closure of gaps.

The list of major collectors and arterials roadways below are nominated to serve as part of a regional bicycle route network which will support the use of bicycles for travel between communities. The widening of these roadway shoulders will enable a larger percentage of the local population to utilize non-motorized transportation. In many cases, these roadways already carry existing bicycle and pedestrian trips despite the absence of improvements. These candidate roadways can also benefit from new signage or sharrows and adding sharrows is a low cost alternative to support the existing bicycle network.

- Parrotts Ferry Road
- Tuolumne Road
- Mono Way
- Columbia Way/Old Sonora Road
- Phoenix Lake Road
- Racetrack/Snell Road
- State Route 108, 120, and 49

Existing Class II Facilities

Road Name	Location	Distance	Needs Improvements
Soulsbyville Road	Soulsbyville	.6 mile	
Mono Way	Sonora & East Sonora	3 miles	Signs

Table 8.2 Existing Class II Facilities

Chapter 1000 of the Caltrans Highway Design Manual defines three classes of bicycle facilities and details the minimum requirements for those facility types:

- **Class 1 Bicycle Paths** - A paved pathway completely separated from any street or highway.
- **Class 2 Bicycle Lanes** - A striped path for one-way travel on a street or highway.
- **Class 3 Bicycle Routes** - A typical roadway identified as a preferred bicycle route with signage. They may also include shared use lane markings, signage, or wide shoulders.
- **Class 4 Separated Bicycle Ways –** A bicycle pathway for the exclusive use of bicycles and includes separation required between the separated bikeway and the through vehicular traffic.

Pedestrian Facilities

Pedestrian facilities can be broken into three basic categories, with implementation and use varying based on geographic location:

- **Walkways -** In urban and suburban contexts, sidewalks with curb ramps at intersections are typical and vary in width depending on land use. In rural context, paved or unpaved graded shoulders may be typical, or a walkway may not be provided.

- **Crosswalks -** California Vehicle Code Section 275 defines a crosswalk as either "that portion of a roadway included within the prolongation or connection of the boundary lines of sideways at intersections," or, "any portion of a roadway distinctly indicated for pedestrian crossing by lines or other markings." Legal unmarked crossings are those at intersections, defined by the prolongation of sidewalk areas.
- **Crosswalk Enhancements -** The most basic crosswalk enhancement is crosswalk markings. More substantial enhancements include devices meant to induce improved motorist yielding, or to control vehicles at the crosswalk. Control devices include signals and pedestrian hybrid beacons. Yield devices include a variety of in-pavement and sign-mounted flashing yellow beacons.

Support Facilities

Support facilities are critical to bicycle use, especially as a means to encourage bicycle commuting. Support facilities consist primarily of:

- **Bicycle Parking** - Bicycle parking supply should vary to accommodate short-term and long-term trips and consist of two basic types:
- **Short-Term Parking** - Bicycle racks for users who need to stop for several hours or less, placed adjacent to key destinations such as shopping areas, schools, and parks.
- **Long-Term Parking** - Lockable bicycle lockers, bicycle cages, or bicycle rooms to which only users are allowed access, placed at major employment areas, schools, and transit centers.
- **Shower and Changing Space** - Showers and changing areas provide longer-distance commuters with an area to change and get ready for work or school.

Trails

The rural nature of Tuolumne County supports traditional walking and bicycling infrastructure. Trails are a valuable resource in rural communities, and many trails exist in locations lacking more formal improvements, as a testament that walking and biking take place in many instances, even if there is no established or designated route. Therefore, it is the goal of the Transportation Council to complete non-motorized networks in their various forms, using the most appropriate improvement, on a case by case basis. Below is a definition of trail, endorsed by the TCTC.

"A Trail may consist of a single route or a network of routes that may incorporate other bikeway and pedestrian facilities that are clearly signed and regularly maintained. In all cases, a trail is a public access route with protected status developed for one or more non-motorized recreation and/or transportation purposes. These purposes may include linkages to public transit facilities, local schools, office parks, and commercial areas, and/or provide access through parks, preserves and greenways. A trail may be designed for varying uses including

walking, jogging, hiking, bicycling, horseback riding, skating, mountain biking, and use of wheeled devices including, but not limited to, wheelchairs and strollers. In cold climate areas, a trail may also accommodate winter snow and cross country skiing" Trail Planning for California Communities.

Existing Trails in Tuolumne County – Lower Elevation (4,000 ft. or less)

Trail Name	*Location*	*Type of Trail*	*Distance*	*Owned & Maintained*	*Expansion or Trail Gaps*	*Purpose*
Dragoon Gulch Trails Phase I	Sonora	Urban Escape	5 miles	City of Sonora	Phase II & III, Dragoon Connector	Connecting Communities, Recreational
Columbia College Campus Trails	Columbia	Urban Escape	2 miles	Columbia College	Yes	Connecting Communities
Dondero Trail	Columbia	Urban Escape	.5	Tuolumne County	Yes	Connecting Communities
Moccasin Point Trails	Moccasin	Reservoir	2 miles	Don Pedro Recreation Agency	No	Recreational
Norwegian Gulch Trail	Tuttletown	Reservoir	.5	Bureau of Reclamation	No	Recreational
Peoria Area Trails	Jamestown	Urban Escape		Bureau of Reclamation	No	Recreational
Red Hills Area Critical Environmental Concern Trails	Chinese Camp	Heritage	10 miles	BLM	Yes	Recreational
Shell Road Trail	Jamestown	Urban Escape	1 mile	Bureau of Reclamation	No	Recreational
Shoreline Trail	Don Pedro	Reservoir	2 miles	Don Pedro Recreation Agency	Yes	Recreational
Sierra R/R Trail	Sonora	Railroad	.1 mile	City of Sonora	Yes	Regional Trail, Connecting Communities
Sugar Pine R/R Trail	Tuolumne City, Twain Harte, Strawberry	Railroad	12 miles	Tuolumne County, Forest Service	Yes	Regional Trail, Connecting Communities
Table Mountain Trail	Jamestown	Urban Escape	.5	Bureau of Reclamation	Yes	Recreational
Tuttletown Trails	Tuttletown	Reservoir	6 miles	Bureau of Reclamation	No	Recreational

Westside R/R Trail	Tuolumne City	Railroad	5 miles	US Forest Service/BLM	Yes	Regional Trail, Connecting Communities

Table 8.3 Existing Trail Facilities

Dragoon Gulch Trails

Dragoon Gulch Trail is a 2.5 mile looped trail travels along a natural creek up to a vista that provides a spectacular view of Sonora's historic downtown along with the surrounding mountain ranges. The trails vary in difficulty making it the perfect location for the casual walker or those who want a strenuous hike or jog. The trail is named after a group of dragoons, or cavalry soldiers of the United States Army, who stayed in the area and mined for gold in the ravine.

Tuolumne County Railroad Trails

The Tuolumne Complex is a proposed series of trails along former and existing railroad grades, stretching from the High Sierra in Tuolumne County to Stanislaus County in the Central Valley. The backbone of the Tuolumne Complex is the Sierra Railroad grade, which stretches from Oakdale (in Stanislaus County) to East Sonora. A Rails-to-Trails report was funded identifying issues and opportunities along this portion of the Trail. But there is no unified interagency plan to establish a cohesive trail. Most of these trails are former railroad grades, and some traverse private property in part. Railroads that compose the Tuolumne Complex include:

- Hetch Hetchy Trail
- Sierra R/R Trail
- Angels Spur Trail
- Sugar Pine Trail
- Westside Trail

The route for the Tuolumne Complex begins west of Oakdale along the Sierra R/R right of way, and continues east, into the Foothills of Tuolumne County. Branching off of the Sierra R/R corridor are the Hetch Hetchy, Sugar Pine and Westside R/R alignments.

- 25 miles of trail are currently improved, and open to the public
- 5 miles are in the planning and/or construction phases
- 101 miles of trail corridor are ultimately envisioned

Rails with Trails are trails adjacent to or within an active railroad corridor. The rails with trails concept provides even more opportunities for the creation of trail systems that enhance local transportation systems, offering safe and attractive community connections. See Sierra Railway: Preliminary Trail Report prepared by the Rails to Trails Conservancy.

Pedestrian Transportation Issues & Solutions

Issue	Solution
Lack of funds dedicated to non-motorized transportation.	Identify new local sources for non-motorized transportation funding.
Lack of safe walking routes for pedestrians along the State Highway.	Identify ADA and pedestrian improvements along the State Highway.
There are gaps in the sidewalk network and some sidewalks are not wide enough to accommodate multiple pedestrians.	Identify gaps and sidewalk widening, and prioritize capital improvement projects.
Lack of a regional pedestrian network connecting communities along vital transportation corridors.	Identify pedestrian gaps in the network, and prioritize capital improvements projects.
Lack of students walking and bicycling to school in Tuolumne County and the City of Sonora.	Develop and fund a Safe Routes to School Plan and Program in Tuolumne County and the City of Sonora.
Pedestrian vs. Automobile accidents	Prioritize pedestrian safety projects using accident data and apply for grants.

Table 8.4 Pedestrian Issues and Solutions

Bicycle Transportation Issues & Solutions

Issue	Solution
Limited or no shoulders on local streets and roads.	Construct wider shoulders and place signage on Class II & III bicycle routes where appropriate.
Lack of plans and priorities for bicycle improvements along the State Highway system.	Partnering with Caltrans locally to help create plans and priorities for bicycle improvements along the State Highway.
Lack of public bicycle storage facilities.	Install bicycle parking at major destinations such as employment centers, commercial/shopping, schools, parks, and governmental buildings.
Designated bicycle lanes may not have proper striping and bicycle signs.	Install signage in locations where shoulder widening in rural areas of the County is infeasible.
Limited connectivity between north-south and east-west bikeway connections.	Address immediate safety needs for bicyclists by addressing the corridors with the highest need for separating automobiles and bicyclists.
Bicyclist vs. Automobile accidents.	Prioritize bicycle safety projects using accident data and apply for grant funds.

Table 8.5 Bicycle Issues and Solutions

Goals, Objectives, and Policies

The goals, policies and objectives in this document are intended to guide the development of the transportation system, and improve the quality of life in Tuolumne County. The following definitions help differentiate the planning focus of a goal, objective, and a policy:

A **goal** is the end toward which effort is directed; it is general and timeless.

An **objective** is a specific end, condition or state toward attaining a goal. It is achievable, measurable and time specific.

A **policy** is a direction statement which guides actions in determining present and future decisions. The RTP includes the following priorities to guide future expenditures on non-motorized transportation facilities.

Non-Motorized Transportation:

Goal: Provide a safe and reliable network of non-motorized transportation facilities throughout the region as a means to reduce dependency on automobile trips, and improve the health of Tuolumne County residents.

Objective 1: Support the expansion of the trails network in Tuolumne County and the City of Sonora *(Regional Blueprint Greenhouse Gas Study).*

Policy 1.1: Raise awareness of existing trails and active transportation opportunities.
Policy 1.2: Identify a dedicated funding stream for trail development, trail projects, trail head improvement, and maintenance, etc.
Policy 1.3: Empower local civic groups through cooperative agreements, to maintain bicycle and pedestrian facilities consistent with the organizational mission.
Policy 1.4: Identify projects that local communities groups can fund and construct, such as trailhead signage, interpretative kiosks, new trail segments, etc.
Policy 1.5: To the greatest extent reasonable possible, include complete streets improvements with the construction of roadway projects.
Objective 2: Increase pedestrian and bicycle transportation trips in Tuolumne County by increasing safety, access, and security.

Policy 2.1: Seek funding for non-motorized transportation facilities through current regional, state, and federal funding programs, and private funding opportunities, such as endowments and corporate sponsorships, and encourage multi-jurisdictional funding applications.
Policy 2.2: Actively pursue funding for projects from the Active Transportation Program, Safe Routes to School, and transportation planning grants.

Policy 2.3: Actively coordinate with a wide range of local, State, and Federal agencies to help create, improve, and manage non-motorized trails within Tuolumne County.
Policy 2.4: Increase pedestrian and bicycle transportation trips to 5% in Tuolumne County by 2040.
Policy 2.5: Create and expand a regional network of bikeways, walkways, trails, and paths that serve all non-motorized user groups *(Regional Blueprint Greenhouse Gas Study).*
Policy 2.6: Reduce dependency on automobile trips by improving pedestrian and bicycle infrastructure *(RTP Evaluation & Analysis Plan).*
Policy 2.7: Plan for regional and scenic bicycle routes in Tuolumne County and neighboring counties.
Policy 2.8: Monitor and evaluate information on collisions involving non-motorized transportation.
Policy 2.9: Maintain an up to date Tuolumne County Bikeways and Trails Plan and amend the RTP when necessary to be consistent *(RTP Evaluation & Analysis Plan).*
Policy 2.10: Pursue funding and implement walkability plans in Tuolumne County.
Policy 2.11: Construct bicycle and pedestrian facilities as soon as possible when funds become available, or when they are a component of development projects.

Objective 3: Raise awareness of Non-Motorized Transportation, to help promote tourism in Tuolumne County.

Policy 3.1: Market and promote Tuolumne County's regional non-motorized transportation as a way to improve tourism to the region *(Regional Blueprint Greenhouse Gas Study).*
Policy 3.2: Plan and implement bicycle awareness and bicycle commuter days.
Policy 3.3: Install road signs on existing roadways, where walking and bicycling are regular activities, as a way to build awareness for the public.
Policy 3.4: Pursue a Non-Motorized Transportation Advisory Board for TCTC, inclusive of representatives from land management agencies: US Forest Service, (USFS) Bureau of Land Management (BLM), Bureau of Reclamation (USMR), Tribes, Municipalities, user groups, Visitors Bureau, chambers of commerce, etc.
Policy 3.5: Create maps and brochures to help promote active transportation in Tuolumne County.

Future Capital Improvement Projects

Tier 1

The 2016 RTP Expenditure Plan lists the status quo funding estimates and plans capital improvement projects that will be funded with the limited funds in the next 25 years. Five non-motorized transportation projects are planned to be constructed and are listed below.

Stockton - Washington Downtown Transit & Pedestrian Accessibility Improvement Project – (Vision Sonora Project)

The Stockton Washington Downtown Transit and Pedestrian Accessibility Improvement Project would widen the sidewalks by creating bulb outs, add crosswalk lighting, install gateway signage, and add bicycle racks. This project would add two new bus stops with shelters, signs, and a bus turnout on Stockton Road (SR 49) and is located in Downtown Sonora

Complete Streets Improvements at SR 49 - Columbia Way – North Washington St.

The Complete Streets Improvements at the intersection of SR 49, Columbia Way, School Street and North Washington Street would provide improvements for pedestrians and bicycle crossing improvements adjacent to Sonora High School. This project would help improve a safe route to school for students crossing the busy State Route 49.

SR 120 Complete Streets and ADA Improvements in Groveland

The SR 120 Complete Streets and ADA Improvements Project in Groveland would provide improvements for pedestrians and bicycle crossing improvements in Downtown Groveland. The American with Disabilities (ADA) improvements along SR 120 in Downtown Groveland would include but not be limited to: street crossings improvements, flashing lights, and street calming improvements.

SR 49 Complete Streets and ADA Improvements in Sonora (Vision Sonora Project)

The SR 49 Complete Streets and ADA Improvements Project would improve walkability and bicycling in Downtown Sonora. The American with Disabilities (ADA) improvements along SR 49 in Downtown Sonora would include but not be limited to: street crossings improvements, flashing lights, and street calming improvements.

SR 108/49 Complete Streets and ADA Improvements in Jamestown

The SR 108/49 Complete Streets and ADA Improvements Project in Jamestown would provide improvements for pedestrians and bicycle crossing improvements in along SR 49/108 from 5th Avenue to Stockton Road.

<u>Tier 2 – Capital Improvement Projects</u>

The Financial Plan discusses Financial Alternative B and lists potential new non-motorized transportation revenue sources that might become available in the future. Financial Alternatives B includes a list of 26 future planned non-motorized transportation capital improvement projects that could be constructed with these new funds. Significant energy and time has been expended by several local agencies to prepare the following eight projects to compete for State or Federal grant funding opportunities:

- Columbia Pedestrian Facility
- Red Church Pedestrian and Traffic Improvement Project
- Tuolumne Pedestrian Trail
- Groveland Sidewalks along SR 120 and Ferretti Road
- Racetrack Road Pedestrian and Bicycle Improvement Project
- Jamestown Sidewalks – Phase II
- SR 49 Jamestown to Columbia Complete Streets Corridor Plan
- Dragoon Gulch Trail – Phase II

Columbia Pedestrian Facility

The Columbia Pedestrian Facility will help provide a safe route to school along Parrotts Ferry Road to Columbia Elementary. This project would construct complete streets improvements along Parrotts Ferry Road from SR 49to Columbia Elementary School and Columbia State Park.

Red Church Pedestrian and Traffic Improvement Project (Vision Sonora Project)

The Red Church Pedestrian and Traffic Improvement Project is a safety improvement project identified under the Vision Sonora Plan. The Project is located in the City of Sonora at the intersection of Snell Street and North Washington St (SR 49). This intersection is geometrically non-standard, severely congested and the short sight distances at the pedestrian crossings are a safety concern. The proposed project would improve the Snell Street section by providing a perpendicular eastbound realignment. This improvement would improve sight distance by creating new landscaped bulb-outs, sidewalk replacements, and curb ramps.

Tuolumne Pedestrian Trail

The Tuolumne Pedestrian Trail will help provide a safe route to school for Summerville High School students living in Tuolumne City. The Pedestrian Trail will construct approximately 5,000 feet of a Class I shared bicycle and pedestrian path along Tuolumne Road from Summerville High School to Cherry Valley Blvd.

Groveland Sidewalks along SR 120 and Ferretti Road

The Groveland Sidewalks will provide a Complete Streets improvement along the State Highway 120. Groveland Sidewalk will would construct and rehabilitate pedestrian facilities such as sidewalks, signage, flashing warning signs, and crosswalks, along State Route 120 and Ferretti Road.

Racetrack/Snell Road Pedestrian and Bicycle Improvement Project

The Racetrack Road Pedestrian and Bicycle Improvement Project would provide a vital non-motorized transportation link from west Sonora to Downtown Sonora and Sonora High School.

The Racetrack/Snell road project will construct approximately 3,800 feet of sidewalk, curb, and gutter and a Class II bicycle lanes along Racetrack Road from Jamestown to Dragoon Gulch Trails Open Area.

Jamestown Sidewalks – Phase II

The Jamestown Sidewalks will help provide safe routes to school for students walking or bicycling to Jamestown Elementary School. This project will construct sidewalk, curb and gutter along Fifth Ave and along other neighborhood streets in Jamestown. This project will fill in the missing non-motorized transportation sidewalk gaps in the Jamestown community.

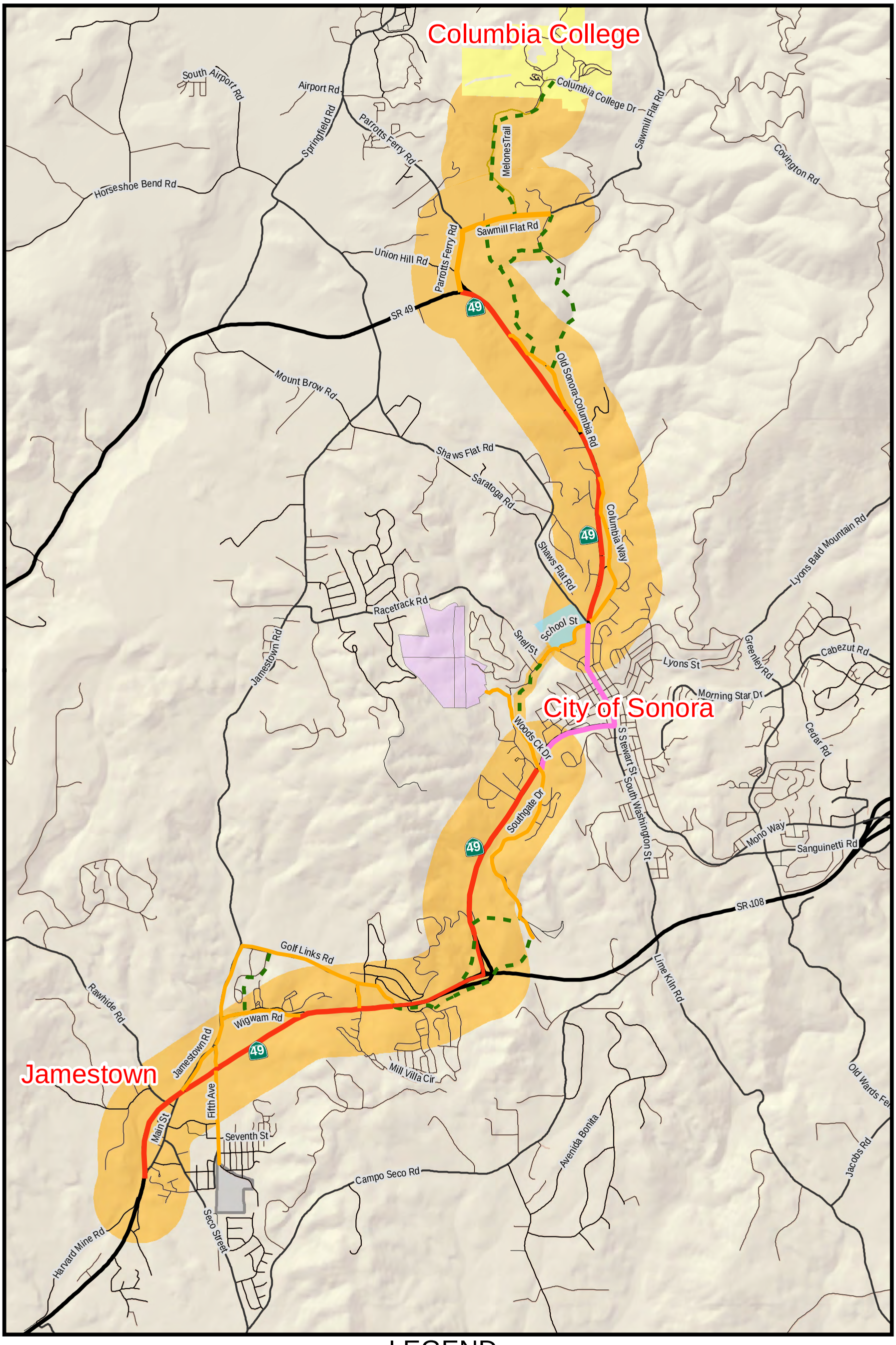
State Route 49 from Jamestown To Columbia Complete Streets Corridor Plan

The proposed Jamestown Trail to Columbia Complete Streets Corridor Plan is a planning study that would evaluate and analyze a future six mile regional pedestrian and bicycle corridor linking Columbia, Sonora and Jamestown. This non-motorized multi-use pathway would provide much needed pedestrian and bicycle access to popular travel destinations such as Columbia State Park, Columbia College, Mother Lode Fairgrounds, Downtown Sonora, Jamestown. The Jamestown to Columbia Complete Streets Corridor Plan is a candidate for a future Caltrans Sustainable Transportation Planning Grant to help identify appropriate route alignments and facilities, and to build community support for the needed improvements. The Columbia to Jamestown Complete Streets Corridor has been combined into one project two linking two highly congested and traveled corridors: Sonora to Columbia and Sonora to Jamestown.

The Columbia to Sonora Complete Streets Corridor will connect two Distinctive Communities with a class I and class II pedestrian and bicycle path along the Highway 49/Parrotts Ferry Road/Sawmill Flat Road/Trail Corridor. This pedestrian and bicycle pathway will provide a vital connection from downtown Sonora to Columbia College. The Highway 49 corridor from Parrotts Ferry Road to downtown Sonora is a highly congested road segment in Tuolumne County. Providing a non-motorized trail would be highly beneficial to reduce traffic congestion.

The Sonora to Jamestown Complete Streets Corridor will connect two rural communities with a class I and class II pedestrian and bicycle pathway along the Woods Creeks and Highway 108/49 corridors. The pedestrian and bicycle pathway will connect destinations such as: downtown Sonora, downtown Jamestown, Railtown 1897 State Park, and the Mother Lode Fairgrounds.

SR 49 Jamestown To Columbia Complete Streets Corridor Plan



LEGEND

- Proposed SR 49 Complete Streets Study
- Proposed County & City Complete Streets Study
- Proposed Non-Motorized Transportation Study
- Previous Study - Vision Sonora Plan
- Proposed Study Area - Boundaries
- Dragoon Gulch Trails
- Railtown 1897 State Park
- Sonora High School

N

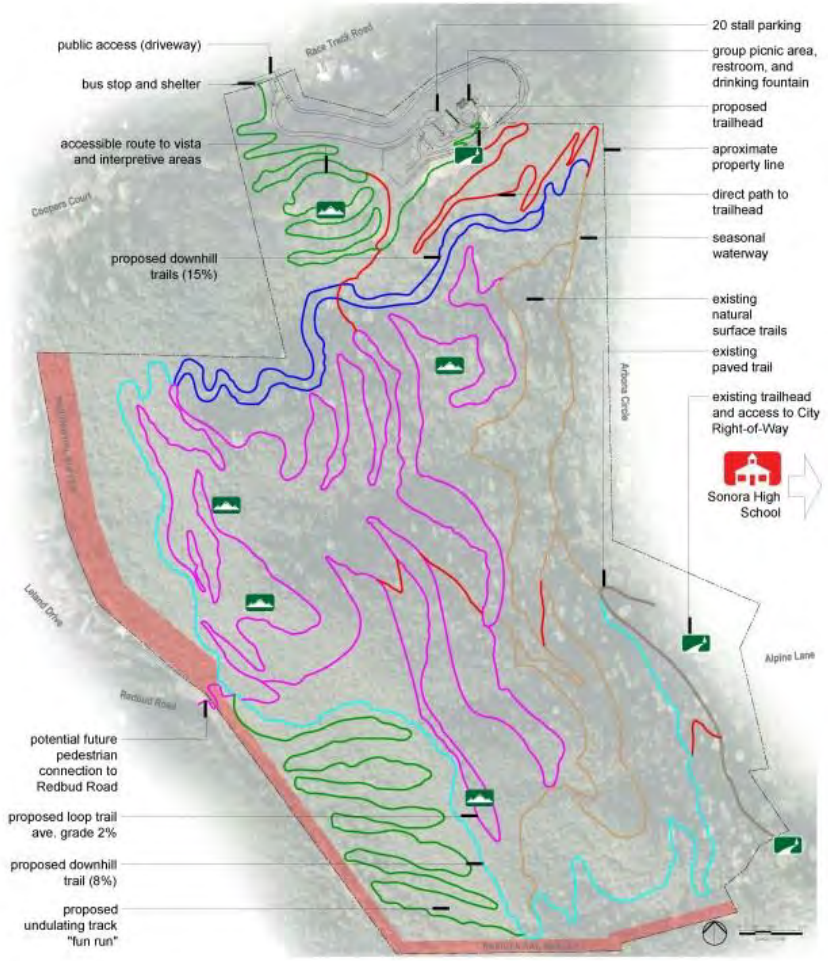


Figure 8.4 Dragoon Gulch Trails Master Plan Map (Phase II)

Dragoon Gulch Trails – Phase II

In June of 2013, the Sonora City Council approved the Dragoon Gulch Trails Master Plan. The Master Plan will expand the trail system and provide a natural trail system totaling approximately 9 miles. This trail will provide a critical linkage between residential neighborhoods in west Sonora along Racetrack Road and Jamestown Road.

Tier 2 - Railroad Trails

Hetch Hetchy Railroad Trail Project

The Hetch Hetchy is a future interregional rail to trails project which would be constructed on the former Hetch Hetchy railroad right-of-way between Moccasin and Groveland. This trail would travel through several communities including Groveland, Big Oak Flat, and Pine Mountain Lake.

Sierra Railroad Trail Project

The Sierra Railroad Trail Project is a future interregional rail with trails along the Sierra Railroad between the Counties of Stanislaus and Tuolumne, from the City of Oakdale to East Sonora. The Sierra Railroad corridor is approximately 50-100 feet wide, with a single track of active railroad located primarily in the center of the corridor.

Angels Spur Trail Project

The Angels Spur Trail Project is a future rail to trail project located along the former Angels Camp Railroad corridor right-of-way within the Counties of Tuolumne and Calaveras. Only a small section of the original right of way still exists and travels from Railtown to Highway 108. The old, historic Rawhide Bridge will be replaced with a new bridge by the year 2020. The old Rawhide Bridge could possibly be used as a non-motorized transportation bridge and as connection for the Angles Spur Railroad Trail.

Sugar Pine Railroad Trail Project

The Sugar Pine Railroad Trail is a historic logging railroad right of way starting in Pinecrest, and traverses through Twain Harte and connects to the Sierra Railroad at Tuolumne Road. This multi-phase project would close the gaps of the Trail that are not open to the public.

Westside Trail Project

The Westside Trail is a historic logging railroad right of way starting in Tuolumne City, continuing into the Stanislaus National Forest. The Westside Trail Project would close the trail gap that is not open to the public from Mira Monte Road to Downtown Tuolumne City.

Vision Sonora Plan Projects –

The Plan focused on creating a vibrant community by directing physical improvements along State Route 49 and Washington Street Corridors. The vision statement states the City of Sonora will find new ways to showcase its unique history; it is enriched with public spaces, parks, green space; its streets actively support pedestrians, bicyclists, and transit, but it is a community that openly attracts and welcomes visitors, but it still takes care of the locals; and its core is a thriving and flourishing downtown.

The Plan recommends capital improvements along gateway corridors that serve Sonora's primary entryways, and in the historic downtown core.

Stockton Street – West Gateway Corridor



Figure 8.5 – Stockton Road Trail

- Stockton - Washington Downtown Transit & Pedestrian Accessibility Improvement Project (Tier 1a Project – See page 158 and 169 for more information).
- Improve the Stockton Road (SR 49) streetscape between Southgate Drive to Washington Street (SR 49 – Stockton Rd Complete Streets - Tier 2 Project - See page 174 for more information).
- Improve the streetscape from SR 108 to the Fairgrounds - Southgate Drive. (Stockton Street West Gateway Corridor - Tier 3 Project - See page 178 for more information).
- Enhance the Fairgrounds entrance intersection. (SR 49 and Southgate Drive Intersection and Complete Street Improvements - Tier 3 project - See page 178 for more information).

South Washington – South Gateway Corridor



Figure 8.6 – Church Street & South Washington Street Intersection Improvements

Recommended improvements included:

- Stockton - Washington Downtown Transit & Pedestrian Accessibility Improvement Project Includes Improvement to the Church St and South Washington Street Intersection (Tier 1a Project - See page 158 and 173 for more information).
- Enhance the streetscape and pedestrian environment at the Washington Street (South Washington Street Improvements - Tier 2 Project - See page 179 for more information).
- Enhance the streetscape and pedestrian environment north from SR 108 (South Washington South Gateway Corridor - Tier 3 Project - See page 181 for more information).

North Washington – North Gateway Corridor

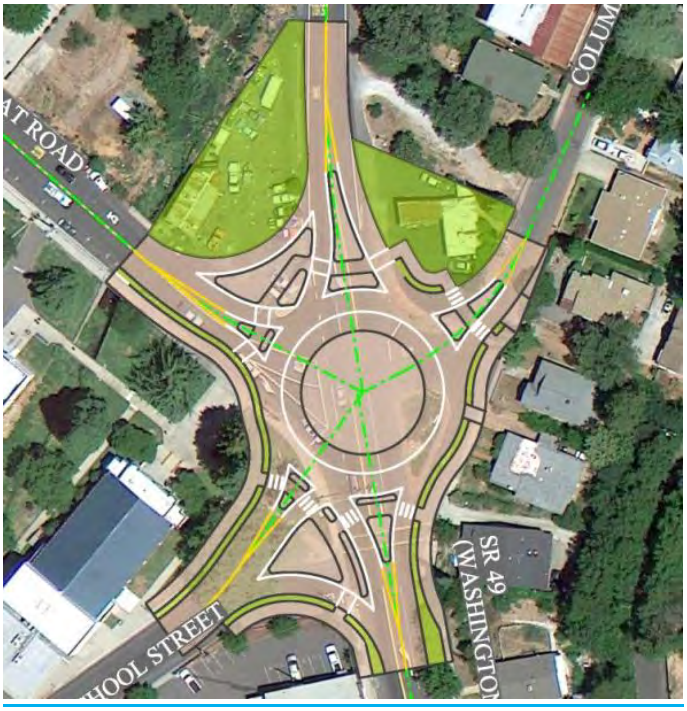


Figure 8.7 – One planning level design of the Columbia Way Intersection Improvement

Recommended improvements included:

- Improve the SR 49/Columbia Way/Shaws Flat / School Street intersection. (Intersection Improvements at SR 49/Columbia Way - Complete Streets Improvements - Tier 1b project - See page 158 and 175 for more information).
- Improve the Snell / Washington intersection. (Washington Street Corridor Red Church Pedestrian Improvements - Tier 2 Project - See page 177 for more information).
- Improve the pedestrian environment on SR-49 near the high school (North Washington Street North Gateway Corridor - Tier 3 project - See page 181 for more information).

Historic Downtown Core



Figure 8.9 – Parklets along SR 49 (Washington St)

Recommended improvements included:

- Improve the SR 49 - Washington Street streetscape and pedestrian environment. (SR 49 Complete Streets and ADA Improvements in Historic Downtown Core - Tier 1b Project - See page 158 and 175 for more information). Improvements include but are not limited to:
    - Add mid-block pop-outs with street trees.
    - Add corner pop-outs.
    - Provide additional crosswalk markings.
    - Add pedestrian-scaled street lighting.

- Linoberg Paseo – Construct new pedestrian and bicycle access only improvements on Linoberg between SR 49 and Stewards Street (Tier 2 Project - See page 179 for more information).
- Steward Street Sidewalk Improvements (Tier 3 Project - See page 179 for more information).
- Washington Street Improvements in the Historic Downtown Core - (Tier 3 Project - See page 182 for more information).



Figure 8.10 – Linoberg Pedestrian and Bicycle Plaza

Funding Sources

Active Transportation Program (ATP)

On September 26, 2013, Governor Brown signed legislation creating the ATP in the Department of Transportation (Senate Bill 99, Chapter 359 and Assembly Bill 101, Chapter 354). The ATP consolidates existing Federal and State transportation programs, including the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and State Safe Routes to School (SR2S), into a single program with a focus to make California a national leader in active transportation. The ATP is administered by the Division of Local Assistance, Office of Active Transportation and Special Programs. The purpose of ATP is to encourage the increased use of active modes of transportation by achieving the following goals:

- Increase the proportion of trips accomplished by biking and walking;
- Increase safety and mobility for non-motorized users;
- Advance active transportation efforts & achieve greenhouse gas (GHG) reduction goals;
- Enhance public health;
- Ensure that disadvantaged communities fully share in the benefits of the program;
- Fund a broad spectrum of projects to benefit many types of active transportation users.

Recreational Trail Program (RTP)

The RTP is a State-administered local assistance program of the U.S. Department of Transportation's Federal Highway Administration (FHWA). Within the State of California, the Department of Parks and Recreation is authorized to administer the RTP, which is a competitive grant program.

Congestion Mitigation and Air Quality (CMAQ)

Jointly administered by FHWA and the Federal Transit Administration (FTA), the CMAQ program was implemented to support surface transportation projects and other related efforts that contribute air quality improvements and provide congestion relief.

Regional Transportation Improvement Program (RTIP)

The Regional Transportation Improvement Program (RTIP) funds are the main source of transportation related funding within the Tuolumne County region, and are intended for capital projects. Eligible projects include improving state highways, local roads, public transit (including buses), pedestrian and bicycle facilities, grade separations, intermodal facilities, and safety projects.

Caltrans Sustainable Transportation Planning Grant Program
Caltrans provides transportation planning grants that meet State goals and other selected grants that meet Federal goals. These grants are for planning related activities.

Cap and Trade Program
Cap and Trade is a market based regulation that is designed to reduce greenhouse gases (GHG) emissions from multiple sources. Cap and Trade sets a firm limit or "cap" on GHG emissions, and minimizes the compliance costs of achieving the AB 32 goals. The cap will decline by approximately 3 percent each year, beginning in 2013. Trading creates incentives to reduce GHG emissions below allowable levels through investments in clean technologies. With a carbon market, a price on carbon is established for GHG emissions. Market forces spur technological innovation and investments in cleaner energy. Cap and Trade is an environmentally effective and economically efficient response to climate change.

- **Low Carbon Transit Operations Program**
  Allows for active transportation improvements that serve public transportation services and facilities.

- **Affordable Housing & Sustainable Communities Program (Part of Cap & Trade)**

Is a competitive grant program that the Department of Housing and Community Development (for affordable housing and sustainable communities) and Natural Resources Agency (for agriculture land preservation) administer, for active transportation projects (infrastructure & non---infrastructure), capital projects that implement Complete Streets, projects that reduce GHG emissions by reducing auto trips and VMT, and planning projects to support SCS implementation, including local plans.

Sustainable Communities Planning Grants and Urban Greening Grant Program – (Strategic Growth Council)
This grant program is meant to foster the development of sustainable communities throughout California. It is designed to help local governments meet the challenges of adopting land use plans and integrating strategies to transform communities and create long-term prosperity. Sustainable communities promote equity, strengthen the economy, protect the environment, and promote healthy, safe communities. For the Urban Greening Grants, the funds assist entities in preserving, enhancing, increasing or establishing community green areas, such as urban forests, open spaces, wetlands, and community spaces (e.g., community gardens).

State Highway Operations and Protection Program (SHOPP)
"Funding for ADA-only projects is provided in the State Highway Operations and Protection Program (SHOPP) under ADA Curb Ramp (201.361) and Pedestrian Infrastructure (201.378). In

addition, a recent ADA lawsuit settlement requires the Department to provide $1.1 billion in access improvements to its pedestrian infrastructure over a period of thirty years. Both ADA programs are considered mandates for funding priority within the SHOPP and are currently funded at a level of not less than $25 million annually," Development of Non-motorized Transportation Facilities: Report to the Legislature.

Supporting Documents

Tuolumne County and the City of Sonora, with help from the TCTC, have produced many non-motorized transportation plans. Below is a list of plans that are relevant to the RTP.

Tuolumne County Trails – Paths to Health and Prosperity - 2011

The Trails Plan presents a renewed vision, goals and strategic actions to help guide the efforts to plan, build, operate, and maintain trails. The *Trails Plan* emphasizes the value and wide range of benefits that trails offer and serves as a guide to implement these efforts.

Tuolumne County Bikeways and Trails Plan - 2004

The Bikeway and Trails Plan is a TCTC's comprehensive long range vision for the development of an extensive regional bicycle network, a regional walking trails network, and an equestrian trails network that connects the City of Sonora and the unincorporated communities in Tuolumne County.

Tuolumne County Recreation Master Plan -2002

The *Recreation Master Plan* provides a long term vision for public parks and trails with the cooperation and support of the residents of Tuolumne County. The *Master Plan* provides an inventory of existing facilities, discusses the recreational needs of residents and visitors, and identifies locations and types of new facilities.

California Recreational Trail Plan - 2002

The California Recreation Trail Plan provides a long term vision for public parks and trails for the entire state including Tuolumne County.

Groveland Circulation and Active Transportation Plan - 2014

Walking and bicycling are primary forms of transportation, exercise, and social activity. To ensure the viability of walking and bicycling as everyday transportation options requires working with community members and local businesses to build a shared vision of how to accommodate facilities, and to identify what is most achievable in the short, medium, and long terms.

Highly walkable downtowns, employment centers, and community service nodes are essential to the long term ability to attract jobs and preserve existing neighborhoods. Such locations also bring greater community benefits as more space can be devoted to people and activities. Lastly, walkable and bike-able communities are inclusive: seniors, children, and the mobility impaired have greater access, and are able to lead more independent lives. The Active Transportation Circulation Improvement Plan provides recommended bicycle and pedestrian projects and programs for the Groveland community.

Summerville Trail Feasibility Study

The Summerville Trail is envisioned as a connection between significant destinations in and around the Tuolumne City. These include Summerville High School, Downtown Tuolumne City, and Black Oak Casino Resort. An approximately two mile long route will link the largest employment center and one of the largest educational institutions in the community. The trail will provide a safe and healthy transportation option, and help mitigate traffic congestion.

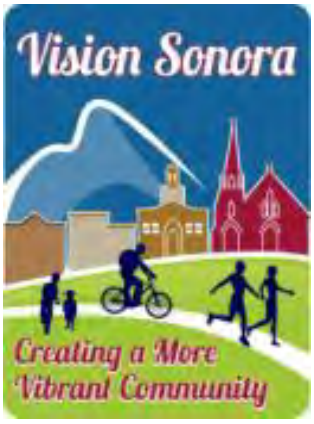


Figure 8.5 – Vision Sonora Plan Logo

Vision Sonora Plan - 2013

The Vision Sonora Plan incorporates a new vision for remodeling Downtown Sonora. The Plan incorporates new urban design elements which are pedestrian friendly, aesthetically pleasing, and creates a more vibrant community along the Highway 49 and Washington Street corridors.

Bicycle Plan, Tuolumne Band of Me-Wuk Indians - 2002

A Bicycle Plan for Tribal lands held in Trust by Tuolumne Band of Me-Wuk Indians.

Columbia Circulation Improvement Plan -2010

The Columbia Plan identifies and evaluates a range of improvement projects for existing roadways, bike paths, trails, and other circulation related improvements, to help create a network of safe, comfortable, and historically sensitive pedestrian and bicycle-friendly routes.

Tuolumne Parking and Alleyway Study -2010

This study addresses programs described in the Tuolumne Community Plan by evaluating reductions of on-site parking requirements for business in mixed-use and commercial zoning districts in Tuolumne, and established design guidelines for shared-use community parking facilities, focusing on pedestrian and vehicular connectivity and access within the designated alleyways.

Tuolumne Community Mobility Enhancement Plan - 2011

This plan provides recommendations and design guidelines for infrastructure improvements necessary to meet the goals of the Tuolumne Community Plan. Four components have been identified as unique issues of mobility and connectivity in Tuolumne. These components include sidewalk improvements, street lighting, bikeways and trails, and residential alleyways.

Tuolumne County Health in all Policies Review - 2013

This document summarizes a review of existing County policies, codes, and documents and identifies best practices and policy options aligned with key issue areas such as promoting physical activity by implementing Safe Routes to School policies and programs so that children and their caretakers can safely and conveniently get to and from school by engaging in active transportation.

Tuolumne County Trails & Active Transportation Program – Ongoing

Tuolumne County Transportation Council's website has a section dedicated to existing trails that the public can travel and explore. There is an Active Transportation Program section which also has the latest news on trails in Tuolumne County.

Dragoon Gulch Master Plan -2013

The Dragoon Gulch Recreation Area Trail Master Plan is a planned expansion of the existing trail system. This expansion incorporates an entrance for the west Sonora neighborhoods.

Tuolumne County General Plan, Circulation Element -2016

The Circulation Element helps policy makers, administrators, planners, engineers, and developers understand how to design communities and promote an efficiently balanced transportation system that reflects the needs of not just automobiles, but also pedestrians, transit riders, and bicyclists.

City of Sonora's General Plan, Circulation Element -2007

The Circulation Element provides a vision for future transportation options with a multimodal emphasis, providing alternative modes of transportation. The Circulation Element is consistent with the land use element and the rest of the General Plan.

Tuolumne County General Plan, Healthy Communities Element - 2016

The Healthy Communities Element focuses on promoting physical activity by implementing Safe Routes to School policies and programs, so that children, their caretakers, and working residents can safely and conveniently get to and from school or work by engaging in active transportation. The Plan Element also considers housing and community environments.

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 1a - Short-Range Capital Improvement Projects (0-6 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
Law & Justice Center Drive Extension, Bus Transfer Facility, & Complete Streets	Tier 1a	RSTP, local	Tuolumne County	Sonora	Construct an extension of Justice Center Drive to the new Law & Justice Center Bus Transfer Facility. Construct sidewalks on the south side of the road. (Local Roads & Public Transportation Projects)	198	2016	New road, Complete Streets
Hardin Flat Road - Crossing South Fork Tuolumne River Bridge	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the wood post and beam bridge with reinforced concrete slab bridge. The abutment and stringers of the existing bridge suffered burn damage during the RIM Fire in 2013. Construct a pedestrian path on the bridge in order to provide connectivity to the Berkley Camp Paths. (Bridge Project)	2,238	2016	Bridge Safety, Complete Streets
Signalization @ Fifth Avenue at State Route 49/108	Tier 1a	TIMF, SHOPP	Tuolumne County	Jamestown	Construct a new signal at Fifth Avenue and Highway 49/108 in Jamestown. Construct 4 foot wide shoulders along 5th Ave from SR 49/108 to Jamestown Rd. (State Highway Project)	2,800	2017	Complete Streets, Operational, Safety
Stockton - Washington Corridor - Transit & Accessibility Project	Tier 1a	RTIP, CMAQ, ATP, PTMISEA	City of Sonora	Sonora	Construct pedestrian, bicycle, ADA, landscape, and transit improvements, along with assoicated amenities included bulb-outs lighting, gateway signage, bicycle racks, and security cameras. (Public Transportation Project)	1,990	2018	Complete Streets, Safety
Mono Way Operational and Safety Project - Complete Streets	Tier 1a	RTIP	Tuolumne County	East Sonora	Improvements to the roadway shoulders will accommodate pedestrians and bicyclists, improve drainage, realign the intersection and install left turn pockets. (State Highways Project)	1,860	2019	Complete Streets, Operational Safety
Tuolumne Road Improvements from Terrace Dr to Lambert Lake Rd	Tier 1a	HSIP, Local	Tuolumne County	East Sonora	Widen and realign Tuolumne Road from Terrace Dr to Lambert Lake Rd. Construct a 6 foot wide shoulder will be constructed on both sides of Tuolumne Road. (Local Roads Project)	1,609	2018	Safety, Complete Streets
						Non-Motorized -177		

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 1a - Short-Range Capital Improvement Projects (0-6 years)

Phoenix Lake Rd from Ridgewood to Paseo de Los Portales Rd	Tier 1a	HSIP, local	Tuolumne County	Phoenix Lake	Widen and realign Phoenix Lake Road from Ridgewood Rd to Paseo de Los Portales Rd. Construct a five foot wide shoulder will be constructed on both sides of Phoenix Lake Road. (Local Roads Project)	1,578	2018	Safety, Complete Streets
Parrotts Ferry Rd @ SR 49 Intersection Improvements	Tier 1a	HSIP, local	Tuolumne County	Columbia	Construct geometric improvements at the intersection of SR 49 and Parrotts Ferry Road. Construct wider shoulders from SR 49 to Union Hill Rd. Construct a four foot wide shoulder is being provided in order to leave room for future curb, gutter, and sidewalks. (State Highways Project)	1,111	2018	Safety, Complete Streets
Reconstruction of Evergreen Road	Tier 1a	FLAP, local	FHWA	Tuolumne County	Reconstruct 7 miles of Evergreen Road from State Highway 120 to Hetch Hetchy Road. The project will provide additional pedestrian signs, as well as other signs that will warn drivers of upcoming pedestrian facilities. (Local Roads Project)	14,643	2019	Maintenance Complete Streets
New Rawhide Bridge and Rawhide Rd Realignment with SR 108/49	Tier 1a	HBP, TIMF	Tuolumne County	Jamestown	Construct a new concrete bridge with two through lanes and a left turn lane east of the existing single lane bridge. The new bridge will realign with Main Street and SR 108/49 in Jamestown. Construct pedestrian sidewalks on the new bridge and consider using the existing bridge for non-motorized use only. (Local Roads & Bridge Projects)	6,878	2018	Bridge Capacity, Operational,Complete Streets
Greenley Rd & Mono Way Intersection Improvements	Tier 1a	TIMF, local	City of Sonora	Sonora	Construct capacity improvments at the intersection of Greenley Rd & Mono Way. Construct new sidewalk and bicycling improvements.	3,437	2019	Operational, Complete Streets
Dragoon Gulch Trail Expansion - Phase I	Tier 1a	LTF, local	City of Sonora	Sonora	Construct a new trail segment along the existing Dragoon Gulch trail system.	50	2017	Healthy Communities
Steward Street Public Restroom Sidewalk	Tier 1a	LTF	City of Sonora	Sonora	Construct sidewalk and ADA improvements along Steward Street between Theall St. and Mehan St.	51	2018	Safety
								Non-Motorized -178

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 1b - Medium Range Capital Improvement Projects (6-15 years)

Intersection Improvements at SR 49/Columbia Way - Complete Streets Improvements	Tier 1b	RTIP, SHOPP, TIMF	City of Sonora / Caltrans	Sonora	Construct intersection improvements at SR 49/North Washington St/Columbia Way/School St. The intersection improvements would include ADA crossings, pedestrian, and bicycle improvements. (State Highways Project)	3,000	2020	Operational, Safety, Complete Streets
SR 120 Complete Streets and ADA Improvements in Groveland	Tier 1b	SHOPP, LTF	Caltrans / Tuolumne County	Groveland	Construct Complete Streets and ADA compliant walkways in downtown Groveland that is consistent with the Groveland Circulation Plan.	2,000	2020	Complete Streets, Safety
SR 49 Complete Streets and ADA Improvements in Downtown Sonora	Tier 1b	SHOPP, ATP, LTF	Caltrans/ City of Sonora	Sonora	Construct Complete Steets and ADA compliant walkways in the Historic Downtown Core of Sonora that is consistent with the Vision Sonora Plan.	3,000	2025	Complete Streets, Safety
SR-108/SR-49 - Stage 1 -Widen to Five Lanes - from South Main St to Fifth Ave - Complete Streets	Tier 1b	RTIP, ITIP, local, SHOPP	Caltrans	Jamestown	Widen SR-49/SR-108 to 5-lanes in Jamestown from west of South Main Street to east of Fifth Ave. Construct Complete Streets improvements with sidewalks on both sides of the Highway and Bus shelter and turnout along the State Highway. (State Highways and Public Transportation Projects)	13,037	2025	Complete Streets, Operational, Safety
South Washington Rd/SR 108/Lime Kiln Road Intersection Improvements	Tier 1b	RTIP, TIMF, SHOPP	City of Sonora	Sonora	Construct a southbound right turn lane and construct a southbound 2nd left turn lane along South Washington Road at the intersection of SR 108/Lime Kiln Road. Construct Complete Streets improvements including pedestrian crossing with a push button, and shoulder improvements. (State Highways Project)	1,168	2025	Complete Streets, Operational, Safety
Extend Gardella Ranch Rd to Justice Center Drive - Complete Streets	Tier 1b	Local	Tuolumne County	Sonora	Construct a new roadway connecting Gardella Ranch Rd with Justice Center Drive. Construct Complete Streets Improvements including sidewalks. (Local Roads Project)	2,500	2025	Complete Streets, New road
Parrotts Ferry Road Signalization @ Sawmill Flat Road	Tier 1b	TIMF, Local	Tuolumne County	Columbia	Construct a new signalized intersection at the Parrotts Ferry Rd & Sawmill Flat Rd. Construct a four foot wide shoulder is being provided in order to leave room for future curb, gutter, & sidewalks. (Local Roads Project)	2,100	2040	Safety, Complete Streets
								Non-Motorized -179

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 1b - Medium Range Capital Improvement Projects (6-15 years)

Safety Improvements @ Tuolumne Rd & Soulsbyville Rd	Tier 1b	Tribal, local	Tuolumne County	Tuolumne	Construct safety improvements at the intersection of Tuolumne Rd and Soulsbyville Rd. Construct a five foot wide shoulder will be constructed on both sides of Phoenix Lake Road. (Local Roads Project)	1,000	2021	Safety, Complete Streets
Intersection Improvements @ Sanguinetti Rd	Tier 1b	EIR Fees, local	Tuolumne County	Sonora	Construct a new Roundabout on Sanguinetti Road & Sanguinetti Loop Rd. Construct a four foot wide shoulder is being provided in order to leave room for future curb, gutter, & sidewalks. (Local Roads Project)	3,000	2025	Operational, Safety, Complete Streets
Improvements @ Tuolumne Rd & Woodham Carne/Black Oak Rd including Possible Realignment	Tier 1b	Tribal, local	Tuolumne County	Tuolumne	Construct safety improvements at Tuolumne Rd & Woodham Carne/Black Oak Rd. Include a realignment of Woodham Carne Rd. Construct a five foot wide shoulder will be constructed on both sides of Phoenix Lake Road. (Local Roads Project)	1,300	2025	Operational, Safety, Complete Streets
SR 120 & Old Priest Grade Top Grade - Left Turn Channelization	Tier 1b	SHOPP	Caltrans	Groveland	Construct a left turn lane along SR 120 and Old Priest Grade Rd/Priest-Coulterville Rd at the top of the grade. Implement Complete Streets by widening the shoulders and other improvements.	900	2021	Safety, Complete Streets
SR 108/49 - Chicken Ranch Rd to South Main St Continuous Left Turn Lane	Tier 1b	SHOPP	Caltrans	Jamestown	Construct an continuous left turn lane from the Chicken Ranch Rd to South Main St. Implement Complete Streets by widening the shoulders and other improvements.	1,300	2022	Safety, Complete Streets
SR 49 Left Turn Channelization Shaws Flat Road	Tier 1b	SHOPP	Caltrans	Columbia	Construct a left turn lane along SR 49 at the intersection of Shaws Flat Rd/Jamestown Rd. Implement Complete Streets by widening the shoulders and other improvements.	900	2022	Safety, Complete Streets
						Non-Motorized -180		

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 1b - Medium Range Capital Improvement Projects (6-15 years)

SR 49 Realignment of Curve from Jack Ass Hill Rd to Tim Horne Mine Rd	Tier 1b	SHOPP	Caltrans	Tuttletown	Construct curve realignments between Tim Horn Mine Rd and Jack Ass Hill Rd. Review and implement Complete Streets improvements whenever possible.	3,287	2030	Safety, Complete Streets
SR 108/120 Eastbound Realignment of Rockhouse Curve	Tier 1b	SHOPP	Caltrans	Western Tuolumne County	Construct curve realignments for SR 108/120 eastbound for the Rockhouse Curve which is 2.6 miles east of Tulloch Rd. Review and implement Complete Streets improvements whenever possible.	3,500	2030	Safety, Complete Streets
SR 120 Install Guardrails from Old Priest Grade to Coulterville Rd	Tier 1b	Minor SHOPP	Caltrans	Groveland	Install guardrails along SR 120 from Old Priest Grade Rd to Coulterville Rd where appropriate. Review and implement Complete Streets improvements whenever possible.	900	2030	Safety, Complete Streets
SR-120/SR-49 Moccasin Left Turn Channelization	Tier 1b	SHOPP	Caltrans	Moccasin	Construct a left turn lane along SR 120 & SR 49 near Moccasin. Implement Complete Streets by widening the shoulders and other improvements.	900	2025	Safety, Complete Streets
								Non-Motorized -181

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 1c - Long Range Capital Improvement Projects (15-25 years)

New Courthouse Park Bus Shelter and Complete Streets Improvements	Tier 1c	LTF	City of Sonora	Sonora	Rehabilitate the existing bus stop shelter and rehabilitate Jackson Street to a Complete Streets corridor with ADA improvements. (Public Transportation Project)	550	TBD	Complete Streets, Safety
SR 49-108 Complete Streets and ADA Improvements in Jamestown	Tier 1c	SHOPP, LTF	Caltrans / Tuolumne County	Jamestown	Construct Complete Streets and ADA compliant walkways from 5th Ave to Stockton Rd. These improvements will support Caltrans Complete Streets policies.	2,000	TBD	Complete Streets, Safety
North-South Connector - Phase 1 - Greenley Extension to SR 49 - Complete Streets	Tier 1c	RTIP, TIMF	Tuolumne County & City of Sonora	Sonora	Construct a new collector road from the intersection of Greenley Rd/Lyons Bald Mountain Rd/Lyons St to SR 49 in between Jack Hage Rd/Old Sonora Columbia Rd & Pesce Way. Construct a new signal at the intersection of Greenley Rd & Lyons/Lyons Bald Mt Rd. Construct a new signal at the intersection of SR 49 & new Greenley Extension. Construct Complete Streets improvements for pedestrian and bicycle uers.	23,164	2040	Bypass, Complete Streets
Install Bicycle Signs along State Highways & Local Roads	Ongoing	SHOPP, local	Caltrans, Tuolumne County	Tuolumne County	Install new "Share the Road" Signs along designated Class II facilities. (State Highways & Local Roads Projects)	50	TBD	Safety, Complete Steets
SR-108/49 & Chicken Ranch Rd - Intersection Improvements	Tier 1c	SHOPP	Caltrans	Jamestown	Construct geometric improvements at the intersection of Chicken Ranch Rd & SR 108/49. Review and implement Complete Streets improvements whenever possible.	1,500	TBD	Operational, Complete Streets
SR-108 & SR 49 Stockton Rd Intersection Improvements	Tier 1c	SHOPP	Caltrans	Sonora	Construct geometric improvements at the intersection of SR 49 (Stockton Rd) & SR 108/49 & SR 108. Review and implement Complete Streets improvements whenever possible.	2,500	TBD	Operational, Complete Streets
								Non-Motorized -182

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 1c - Long Range Capital Improvement Projects (15-25 years)

SR 108 - Chicken Ranch Rd to SR 49 Climbing, Acceleration, De-acceleration Lanes	Tier 1c	SHOPP	Caltrans	Jamestown	Construct an acceleration, deacceleration, and climbing lanes from Chicken Ranch Rd to the SR 49 exit Montezuma Junction. Review and implement Complete Streets improvements whenever possible.	2,500	TBD	Safety, Operational, Complete Streets
SR 108 - SR 49 to SR 120 - Climbing Lanes	Tier 1c	SHOPP	Caltrans	Jamestown	Construct eastbound climbing lanes from Montezuma Junction/SR 49 to Yosemite Junction/SR 120. Review and implement Complete Streets improvements whenever possible.	2,000	2030	Safety, Operational, Complete Streets
SR 108/120 - La Grange Rd to O'Byrnes Ferry Rd - Climbing Lanes	Tier 1c	SHOPP	Caltrans	Western Tuolumne County	Construct westbound and eastbound climbing and deacceleration lanes between west of La Grange Rd to SR O'Brynes Ferry Rd. Review and implement Complete Streets improvements whenever possible.	3,500	2035	Safety, Operational, Complete Streets
SR 120 - New Priest Grade - Widen Road, install and Add Climbing Lanes	Tier 1c	SHOPP	Caltrans	Groveland	Construct a turnout and climbing lanes on SR 120 @ New Priest Grade. Review and implement Complete Streets improvements whenever possible.	2,100	2020	Safety, Operational, Complete Streets
								Non-Motorized -183

Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 2 - Financial Alternative B (0-15 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	ConstructYear	Purpose & Need
Columbia Pedestrian Facility	Tier 2	ATP local	Tuolumne County	Columbia	Construct a Safe Routes to School project by adding new sidewalks along Parrotts Ferry Rd.	1,870	TBD	Safe Routes to School
Dragoon Gulch Trail - Expansion - Phase II	Tier 2	ATP, local	City of Sonora	Sonora	Construct a new pedestrian and bicycle path that will connect the West Sonora neighborhood to Sonora and to the existing Dragoon Gulch trail system.	992	TBD	Healthy Communities
Melones Water Line Trail Improvement Project	Tier 2	ATP, local	Tuolumne County	Columbia	Construct a ten foot wide two direction Class I bicycle and pedestrian facility along the existing Melones Waterline from Sawmill Flat Road to Columbia College.	540	TBD	Regional Trail
Old Rawhide Bridge Trail	Tier 2	TIMF	Tuolumne County	Jamestown	Reuse the soon to be abandoned bridge and use the right of way for part of the Angels Spur Trail.	500	TBD	Healthy Communities
Racetrack Pedestrian & Bicycle Project	Tier 2	ATP, TIMF, local	Tuolumne County	Sonora	Construct sidewalk improvements along Racetrack Road in West Sonora from Jamestown Road to future entrance of Dragoon Gulch Trail.	1,553	TBD	Safe Routes to School
Summerville Trail Project	Tier 2	ATP, local	Tuolumne County	Tuolumne	Construct a Safe Routes to School Project that includes a pedestrian and bicycle path improvements along Tuolumne Road from Summerville Rd to North Tuolumne Rd/Cherry Valley Rd.	1,445	TBD	Safe Routes to School
Sugarpine RR Trail - Twain Harte	Tier 2	ATP, local	Tuolumne County	Twain Harte	Construct a Class I trail from SR 108/Lava Rd to East Ave.	1,044	TBD	Regional Trail
Tuolumne Alleyways	Tier 2	CMAQ, local	Tuolumne County	Tuolumne	Construct a paved pedestrian alleyway project.	700	TBD	Safety
Washington Street Corridor Red Church Pedestrian Improvements	Tier 2	ATP, local	City of Sonora	Sonora	Construct a new landscaped pedestrian bulb outs and replace sidewalk and curb ramps along North Washington St/Highway 49 at the intersection of Snell St & Elkin St.	615	TBD	Safe Routes to School
								Non-Motorized - 184

Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 2 - Financial Alternative B - (16-25 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construction Year	Purpose & Need
Columbia to Sonora Regional Trail	Tier 2	ATP, local	City of Sonora	Sonora, Columbia	Construct a bicycle and pedestrian path and a Class II bicycle lane from Sonora High to Columbia College.	5,044	TBD	Safety, Regional Trail
Dragoon Gulch Connector Trail	Tier 2	ATP, local	City of Sonora	Sonora	Construct a new pedestrian and bicycle path that connects Dragoon Gulch Trail with Sonora High, Downtown Sonora, and the Fairgrounds. This trail would follow Woods Creek/Bonanza Road/Snell Steet, and School Street.	1,250	TBD	Regional Trail, Safe Routes to School
Jamestown to Sonora Regional Trail	Tier 2	ATP, local	Tuolumne County	Sonora, Jamestown	Construct a bicycle and a pedestrian path and a Class II bicycle path from the Fairgrounds to Jamestown.	6,165	TBD	Safety, Regional Trail
Greenley Trail Project	Tier 2	RTP, local	Tuolumne County	Sonora	Construct a pedestrian and bicycle trail at the Tuolumne County Main Library and Senior Center off of Greenley Rd.	450	TBD	Healthy Communities
Groveland Sidewalks Project	Tier 2	ATP, SHOPP, local	Caltrans, Tuolumne County	Groveland	Construct a Safe Routes to School project by adding new sidewalk and improving existing pedestrian walkways along SR 120 in Groveland.	2,880	TBD	Safe Routes to School
Sierra RR Trail - Sonora Section	Tier 2	ATP, local	City of Sonora	Sonora	Construct a regional pedestrian and bicycle path from South Washington St. to Sanguinetti Rd in Sonora.	2,165	TBD	Regional Trail
SR 49 - Stockton Rd Complete Streets Project	Tier 2	ATP, SHOPP, local	City of Sonora	Jamestown	Construct new sidewalks and add pedestrian and bicycle path improvements that help connect Downtown Sonora with the Motherlode Fairgrounds.	3,570	TBD	Regional Trail
Snell Road Sidewalk Improvements	Tier 2	Cap & Trade, local	City of Sonora	Sonora	Construct sidewalk improvements along the Snell Rd from Racetrack Road to east of School Street.	1,200	TBD	Safety
								Non-Motorized - 185

Expenditure Plan
County, City, and Community Sponsored Bicycle and Pedestrian Projects
Tier 2 - Financial Alternative B - (16-25 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construction Year	Purpose & Need
Jamestown Sidewalk Project Phase 2	Tier 2	ATP, local	Tuolumne County	Jamestown	Construct new sidewalk improvements along Fifth Ave in Jamestown to from Willow St to SR 108/49.	2,200	TBD	Safe Routes to School
Hetch Hetchy Railroad Trail	Tier 2	Cap & Trade , local	Tuolumne County	Groveland	Construct a regional trail on the former railroad ROW from Big Oak Flat to east of Groveland.	5,150	TBD	Regional Trail
Linoberg Paseo	Tier 2	Cap & Trade, local	City of Sonora	Sonora	Construct new pedestrian and bicycle access only Improvements on Linoberg Street between North Washington (SR 49) & Steward St.	850	TBD	Safety
Sierra Railroad Regional Trail - East Sonora Section	Tier 2	ATP, local	Sierra Railroad, Tuolumne County	East Sonora	Construct a regional pedestrian and bicycle trail along the Sierra RR (Rails with Trails) from Sanguinetti Rd to Hess Ave.	3,140	TBD	Regional Trail
South Washington Street Improvements	Tier 2	ATP, local	Tuolumne County	Sonora	Construct a new pedestrian and bicycle improvement along South Washington St from Church St to Restano Way.	1,590	TBD	Safety
Standard Mill Bypass Trail	Tier 2	Cap & Trade, local	Tuolumne County	East Sonora	This proposed trail would bypass the Sierra Pacific Industries mill site and create a new non-motorized trail connecting standard township with East Sonora.	5,690	TBD	Regional Trail
Sugarpine Railroad Regional Trail	Tier 2	ATP, local	Tuolumne County	Twain Harte	Construct a regional pedestrian and bicycle trail on the former railroad ROW from Twain Harte to Tuolumne Road.	3,450	TBD	Regional Trail
Westside Trail	Tier 2	Cap & Trade, local	Tuolumne County	Tuolumne	Construct a bicycle and pedestrian path along the Westside RR right of way from Mira Monte Road to the intersection of Tuolumne Rd & Cherry Valley Blvd.	1,150	TBD	Regional Trail
Shaws Flat Road Sidewalk Improvements	Tier 2	Cap & Trade, local	City of Sonora	Sonora	Construct sidewalk improvements along Shaws Flat Rd from Sonora High School to Roble Road.	1,200	TBD	Safety
						Non-Motorized - 186		

Expenditure Plan

Bicycle and Pedestrian Projects

Tier 3 - Unfunded Projects - Regional Projects

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construction Year	Purpose & Need
Sonora to Columbia Regional Trail	Tier 3	TBD	City of Sonora, Tuolumne County	Sonora, Columbia	Construct a Class I bicycle path and a Class II bicycle lane from Sonora High to Columbia College.	5,044	TBD	Regional Trail
Sonora to Jamestown Regional Trail	Tier 3	TBD	City of Sonora, Tuolumne County	Sonora, Jamestown	Construct a Class I and a Class II trail from Sonora High to Jamestown.	6,165	TBD	Regional Trail
Sierra Railroad Regional Trail	Tier 3	TBD	Sierra Railroad, Tuolumne County	East Sonora, Sonora	Construct a regional Class I trail along the Sierra RR (Rails with Trails) from Standard Townsite to the Tuolumne County Boundary line with Stanislaus County.	10,165	TBD	Regional Trail
Sierra Railroad Regional Trail Standard to Tuolumne Trail	Tier 3	TBD	Mi Wuk Tribe, Tuolumne County	Tuolumne	Construct a regional Class I trail on the fomer Sierra Railroad ROW (Rails to Trails) from Standard Townsite to the Tuolomne City.	10,835	TBD	Regional Trail
Woods Creek Regional Trail	Tier 3	TBD	City of Sonora & Tuolumne County	Sonora, Jamestown	Construct a regional trail from Sonora High School to Lake Don Pedro.	6,165	TBD	Regional Trail
Sugarpine Railroad Regional Trail	Tier 3	TBD	Tuolumne County	Twain Harte	Construct a regional trail on the former railroad ROW from Twain Harte to Tuolumne Road.	7,161	TBD	Regional Trail
Hetch Hetchy Railroad Trail	Tier 3	TBD	Tuolumne County	Groveland	Construct a regional trail on the former railroad ROW from Moccasin to east of Groveland.	5,150	TBD	Regional Trail
								Non-Motorized - 187

Expenditure Plan

Bicycle and Pedestrian Projects

Tier 3 - Unfunded Projects - City Sonora

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construction Year	Purpose & Need
Sonora Creek Trail	Tier 3	TBD	City of Sonora	Sonora	Construct a pedestrian and bicycle trail from Lyons Bald Mountain Rd to Downtown Sonora.	TBD	TBD	Healthy Communities
Southgate Drive Trail	Tier 3	TBD	City of Sonora	Sonora	Construct a bicycle and pedestrian path along Southgate Dr to Crooked Ln.	TBD	TBD	Healthy Communities
Dragoon Gulch Trail - Expansion Phase II	Tier 3	TBD	City of Sonora	Sonora	Construct a new pedestrian and bicycle trail on a future expansion of the Dragoon Gulch trail system.	TBD	TBD	Healthy Communities
Stockton Street West Gateway Corridor	Tier 3	TBD	City of Sonora	Sonora	Construct sidewalk improvements along Stockton Street (SR 49) from SR 108 to the Fairgrounds and install new signage, planters, landscaping, and street trees.	TBD	TBD	Safety, ADA
Steward Street Sidewalk Improvements	Tier 3	TBD	City of Sonora	Sonora	Construct sidewalk improvements along Steward Street between Bradford St and Theall St.	TBD	TBD	Safety, ADA
North Washington North Gateway Corridor	Tier 3	TBD	City of Sonora	Sonora	Construct sidewalk improvements along North Washington St (SR 49) from Snell Street to Columbia Way.	TBD	TBD	Safety, ADA
Washington Street Improvements in the Historic Downtown Core	Tier 3	TBD	City of Sonora	Sonora	Construct sidewalk improvements from Snell St to Stockton St. Add parklets, add mid-block pop-outs with street trees, add corner pop-outs, provide additional crosswalk markings, add pedestrian-scaled street lighting.	TBD	TBD	Safety, ADA
South Washington South Gateway Corridor	Tier 3	TBD	City of Sonora	Sonora	Construct a new pedestrian and bicycle improvements along South Washington St from Restano Way to SR 108 & Lime Kiln Rd.	TBD	TBD	Safety, ADA
SR 49 and Southgate Drive Intersection and Complete Street Improvements	Tier 3	TBD	City of Sonora	Sonora	Construct intersection improvements at Southgate Drive/Woods Creek Drive, and South Forest Drive and SR 49 including Complete Street Improvements.(State Highways Project)	2,500	TBD	Safety
								Non-Motorized - 188

Expenditure Plan

Bicycle and Pedestrian Projects

Tier 3 Unfunded Projects - Columbia

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construction Year	Purpose & Need
Columbia College Drive - Class II Bicycle Facilities	Tier 3	TBD	Tuolumne County	Columbia	Construct a Class II bicycle facilities from Parrots Ferry Road to Columbia College.	TBD	TBD	Safety
Ben Hur Trail	Tier 3	TBD	Tuolumne County	Columbia	Construct a non-motorized trail from Yankee Hill Road to Columbia College.	TBD	TBD	Safety
Maiden Lane or Howser Lane/Columbia Emergency Access Road	Tier 3	TBD	Tuolumne County	Columbia	Construct a non-motorized trail from these two routes to Columbia College.	TBD	TBD	Safety
Bald Mountain Road Trail	Tier 3	TBD	Tuolumne County	Columbia	Construct a new pedestrian and bicycle trail along N Bald Mountain Rd. that connects Sonora to Big Hill Rd.	TBD	TBD	Healthy Communities
								Non-Motorized - 189

Expenditure Plan

Bicycle and Pedestrian Projects

Tier 3 - Unfunded Projects - East Sonora

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construction Year	Purpose & Need
Sullivan Creek Regional Trail	Tier 3	TBD	Tuolumne County	East Sonora	Construct a pedestrian and bicycle trail along Sullivan Creek from Phoenix Lake Rd to Lake Don Pedro.	TBD	TBD	Regional Trail
Curtis Creek Trail	Tier 3	TBD	Tuolumne County	East Sonora	Construct a pedestrian and bicycle trail along Sullivan Creek from Phoenix Lake Rd to Lake Don Pedro.	TBD	TBD	Healthy Communities
								Non-Motorized - 189

Expenditure Plan

Bicycle and Pedestrian Projects

Tier 3 - Unfunded Projects - Jamestown

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construction Year	Purpose & Need
Main Street Pedestrian Improvements	Tier 3	TBD	Tuolumne County	Jamestown	Construct new and improved sidewalks along Main Street	TBD	TBD	Safety, ADA
Sierra RR Trail - Jamestown Section	Tier 3	TBD	Tuolumne County	Jamestown	Construct a regional Class I bicycle path from South Washington St/Lime Kiln St to Bell Mooney Rd in Jamestown.	TBD	TBD	Regional Trail
Woods Creek Trail	Tier 3	TBD	Tuolumne County	Jamestown	Construct a pedestrian and bicycle trail from Stockton Rd to Bell Mooney Rd in Jamestown.	TBD	TBD	Regional Trail
Angels Spur Trail	Tier 3	TBD	Tuolumne County	Jamestown	Construct a pedestrian and bicycle trail along the former RR right of way from Railtown/Sierra RR to SR 108/49.	TBD	TBD	Healthy Communities
								Non-Motorized - 190

Expenditure Plan

Bicycle and Pedestrian Projects

Tier 3 - Unfunded Projects - Twain Harte

Project Name	Priority	Funding Source	Agency	Distance (Miles)	Description	Cost ($1,000)	Construction Year	Purpose & Need
Twain Harte Sidewalks Project	Tier 3	TBD	Tuolumne County	0.9	Construct new sidewalks in Downtown Twain Harte.	TBD	TBD	Safety, ADA
Sugarpine Railroad Regional Trail	Tier 3	TBD	Tuolumne County	4	Construct a regional trail on the former railroad ROW from Twain Harte to Strawberry.	TBD	TBD	Regional
TUD Mainline Ditch Trail	Tier 3	TBD	Tuolumne County, TUD	3	Construct a Class I bicycle and pedestrian path along the TUD Mainline Ditch in Twain Harte.	TBD	TBD	Regional
								Non-Motorized - 190

Expenditure Plan

Bicycle and Pedestrian Projects

Tier 3 Unfunded Projects - Groveland

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construction Year	Purpose & Need
Big Creek Trail (Hetch Hetchy RR)	Tier 3	TBD	Tuolumne County	Groveland	Construct a pedestrian and bicycle trail from Pine Mountain Drive (PML subdivision) to Sandean Lane.	TBD	TBD	Regional Trail
Groveland - Ferretti Road Trail	Tier 3	TBD	Tuolumne County	Groveland	Construct a pedestrian and bicycle trail along Ferretti Road that will connect with Tioga High School.	TBD	TBD	Healthy Communities
State Road 120 Complete Streets Improvements	Tier 3	TBD	Tuolumne County	Groveland	Widen the shoulders for bicycle and pedestrian access along Highway 120 from Highway 49/120 to Big Oak Flat Road.	TBD	TBD	Safety & ADA
								Non-Motorized - 191

Expenditure Plan

Bicycle and Pedestrian Projects

Tier 3 - Unfunded Projects - Tuolumne City

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construction Year	Purpose & Need
Sierra RR Trail (Rails to Trails)	Tier 3	TBD	Tuolumne County	Tuolumne	Construct a Class I bicycle and pedestrian trail from Standard to Cherry Valley Blvd	TBD	TBD	Railroad Trails
Sugarpine RR Trail	Tier 3	TBD	Tuolumne County	Tuolumne	Construct a Class I bicycle path and a Class II bicycle lane from Sonora High to Columbia College.	TBD	TBD	Railroad Trails
Tuolumne Sidewalks Project	Tier 3	TBD	Tuolumne County	Tuolumne	Construct new sidewalks in the Tuolumne Townsite.	TBD	TBD	Safety, ADA
								Non-Motorized - 191

Expenditure Plan
Bicycle and Pedestrian Projects
Tier 3 - Unfunded Projects - Tuolumne County

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construction Year	Purpose & Need
Soulsbyville Road Sidewalks Project	Tier 3	TBD	Tuolumne County	Soulsbyville	Construct sidewalks and bicycle improvments on both sides of the street from Longeway/North Sunshine Road to SR 108	TBD	TBD	Safety
Soulsbyville Road Sidewalks Project	Tier 3	TBD	Tuolumne County	Soulsbyville	Construct sidewalks and bicycle improvments on both sides of the street from SR 108 to the townsite of Soulsbyville.	TBD	TBD	Safe Routes to School
State Road 120/49	Tier 3	TBD	Caltrans	Western Tuolumne County	Widen the shoulders for bicycle and pedestrian access along Highway 120/49 from Chinese Camp to Priest Grade in Moccasin.	TBD	TBD	Safety
State Road 132	Tier 3	TBD	Caltrans	Western Tuolumne County	Widen the shoulders for bicycle and pedestrian access along Highway 132 in the Tuolumne County section.	TBD	TBD	Safety
Soulsbyville Road Class II Bicycle Facility	Tier 3	TBD	Tuolumne County	Soulsbyville	Widen the shoulders for bicycle and pedestrian access along Soulsbyville Road from Soulsbyville School to Tuolumne Road.	TBD	TBD	Safe Routes to School
Red Hills - Don Pedro Connector Trail	Tier 3	TBD	Tuolumne County	Don Pedro	This proposed trail would connect the Red Hills Trail System with Don Pedro Lake Trail System. (Bob Asquith)	TBD	TBD	Healthy Communities
								Non-Motorized - 192

Tuolumne County: Tier 1a Non-Motorized Projects

SR 49 & Parrotts Ferry Rd Intersection Improvements

Phoenix Lake Rd from Ridgewood to Paseo de Los Portales Rd

Steward Street Public Restroom Sidewalk Improvements

Dragoon Gulch Trail Expansion - Phase I

Stockton-Washington Corridor Transit & Accessibility Project

New Rawhide Bridge and Rawhide Rd Realignment

Mono Way Operational / Safety Project Complete Streets

Tuolumne Rd Improvements from Terrace Dr to Lambert Lake Rd

Law & Justice Center Drive Extension Complete Streets

Greenley Rd & Mono Way Intersection Improvements

Signalization of Fifth Ave and SR 49

Reconstruction of Evergreen Road

Bridge: Hardin Flat Rd- Crossing S Fork Tuolumnne River

Sierra Village
Mi-Wuk
Cedar Ridge
Twain Harte
Crystal Falls
Willow Springs
Columbia
Tuttletown
Sonora
Cabezut
Jamestown
Tuolumne
Groveland
Pine Mountain Lake
Big Oak Flat
Moccasin
Chinese Camp

Parrotts Ferry Rd
Springfield Rd
Sawmill Flat Rd
Shaws Flat Rd
Jamestown Rd
Racetrack Rd
Yankee Hill Rd
Big Hill Rd
Kewin Mill Rd
South Fork Rd
Middle Camp Sugar Pine Rd
Middle Camp Rd
Creekside Dr
Crestview Dr
Hunts Rd
Tuolumne Rd N
Lyons Bald Mountain Rd
Phoenix Lake Rd
Ridgewood Dr
Soulsbyville Rd
Cherokee Rd
Standard Rd
Mono Way
Sanguinetti Rd
South Washington St
Rawhide Rd
Seco Street
Campo Seco Rd
Lime Kiln Rd
Old Wards Ferry Rd
Tuolumne Rd
Woodhams Camp Rd
Bay Ave
Buchanan Road
Stent Cut Off
Algerine Rd
Algerine Wards Ferry Rd
O Byrnes Ferry Rd
Twist Rd
Wards Ferry Rd
Jacksonville Rd
Red Hills Rd
La Grange Rd
Ferretti Rd
Old Priest Grade
Priest Coulterville Rd
Bonds Flat Rd

Legend

CIP:Tier 1a Short Range Points

Local Road

N

0 0.5 1 2 3 4 Miles

Tuolumne County: Tier 1b Non-Motorized Projects

Signalization Parrotts Ferry Rd & Sawmill Flat Rd

SR 49 Left Turn Channelization Shaws Flat Road

SR 49 Complete Streets and ADA Improvements in DowntownSonora

SR 49 Realignment of Curve from Jack Ass Hill Rd to Tim Horne Mine Rd

SR 49 /108 Complete Streets and ADA Improvements in Jamestown

SR-108/SR49 Stage 1 Widen to Five Lanes from South Main St to Fifth Ave Complete Streets

Intersection Improvements SR49/ Columbia Way Complete Streets Improvements

Intersection Improvements @ Sanguinetti Rd

Safety Improvements @ Tuolumne Rd & Soulsbyville Rd

Improvements @ Tuolumne Rd & Woodham Carne/ Black Oak Rd including Possible Realignment

Extend Gardella Ranch Rd to Justice Center Drive - Complete Streets

South Washington St/SR108/Lime Kiln Rd Intersection Complete Streets Improvements

SR 108/49 - Chicken Ranch Rd to South Main St Continuous Left Turn Lane

SR 108/120 Eastbound Realignment of RockhouseCurve

SR 120 Complete Streets andADA Improvements in Groveland

SR-120/SR-49 Moccasin Left Turn Channelization

SR 120 Install Guardrails - west Old Priest Grade

SR 120 & Old Priest Grade Top Grade - Left Turn Channelization

Columbia
Sonora
Tuttletown
Jamestown
Chinese Camp
Cedar Ridge
Sierra Village
Mi-Wuk
Twain Harte
Crystal Falls
Willow Springs
Tuolumne
Moccasin
Groveland
Pine Mountain Lake
Big Oak Flat

Parrotts Ferry Rd
Yankee Hill Rd
Big Hill Rd
Sawmill Flat Rd
Springfield Rd
Shaws Flat Rd
Racetrack Rd
Jamestown Rd
Lyons Bald Mountain Rd
Cabezut
South Washington St
Sanguinetti Rd
Mono Way
Standard Rd
Soulsbyville Rd
Cherokee Rd
Tuolumne Rd
Bay Ave
Buchanan Road
Rawhide Rd
Lime Kiln Rd
Old Wards Ferry Rd
Campo Seco Rd
Seco Street
Stent Cut Off
Algerine Rd
Algerine Wards Ferry Rd
Yosemite Rd
Twist Rd
Wards Ferry Rd
O Byrnes Ferry Rd
Jacksonville Rd
Red Hills Rd
Old Priest Grade
Priest Coulterville Rd
La Grange Rd
Bonds Flat Rd
Kewin Mill Rd
South Fork Rd
Middle Camp Sugar Pine Rd
Middle Camp Rd
Fuller Rd
Twain Harte Dr
Longeway Rd
Creekside Dr
Crestview Dr
Hunts Rd
Tuolumne Rd
Phoenix Lake Rd
Ridgewood Dr
Ferretti Rd

49
108
120
132

Legend

- CIP:Tier 1b Mid Range Points
- State Highway
- Local Road

N

0 0.5 1 2 3 4 Miles

Tuolumne County: Tier 1c Non-Motorized Projects

North-South Connector Phase 1
Greenley Extension to SR 49
Complete Streets

New Courthouse Park Bus Shelter &
Complete Streets Improvements

SR 49-108 Complete Streets and ADA Improvements in Jamestown

Install Bicycle Signs along
State Highways

SR 120 New
Priest Grade -
widen-install C

Mono
Village
Center

MiWuk
Village

SR 108-49 -
Chicken Ranch
Rd to SR 49

SR 108 -
SR 120
to SR 49

SR 108/120 - La
Grange Rd to
O'Byrnes Ferry Rd

Tuttletown
Sonora
Jamestown
Columbia
Chinese Camp
Cedar Ridge
Sierra Village
Mi-Wuk
Twain Harte
Crystal Falls
Willow Springs
Tuolumne
Groveland
Pine Mountain Lake
Big Oak Flat
Moccasin

Springfield Rd
Sawmill Flat Rd
Shaws Flat Rd
Jamestown Rd
Racetrack Rd
Lyons Bald Mountain Rd
Cabezut
Phoenix Lake Rd
Ridgewood Dr
Creekside Dr
Crestview Dr
Humis Rd
Tuolumne Rd
Longeway Rd
Fuller Rd
Twain Harte Dr
Middle Camp Rd
Middle Camp
Sugar Pine Rd
South Fork Rd
Kewin Mill Rd
Yankee Hill Rd
Parrotts Ferry Rd
Big Hill Rd
Sanguinetti Rd
Mono Way
Standard Rd
Soulsbyville Rd
Cherokee Rd
Bay Ave
Buchanan Road
Tuolumne Rd
Woodhams Carne Rd
Old Wards Ferry Rd
Lime Kiln Rd
Campo Seco Rd
Seco Street
Rawhide Rd
Stent Cut Off
Algerine Rd
Algerine Wards Ferry Rd
Yosemite Rd
Twist Rd
Wards Ferry Rd
O Byrnes Ferry Rd
Jacksonville Rd
Red Hills Rd
La Grange Rd
Ferretti Rd
Old Priest Grade
Priest Coulterville Rd
Bonds Flat Rd

Legend

- State Highways
- North-South Connector Phase 1
- CIP: Tier 1c Long Range Pts

N

0 0.5 1 2 3 4 Miles

This page is left intentional blank

Chapter Nine: Railroad



Figure 9.1 Railtown 1897 Train, Photo Courtesy of Railtown 1897 State Historic Park

Introduction

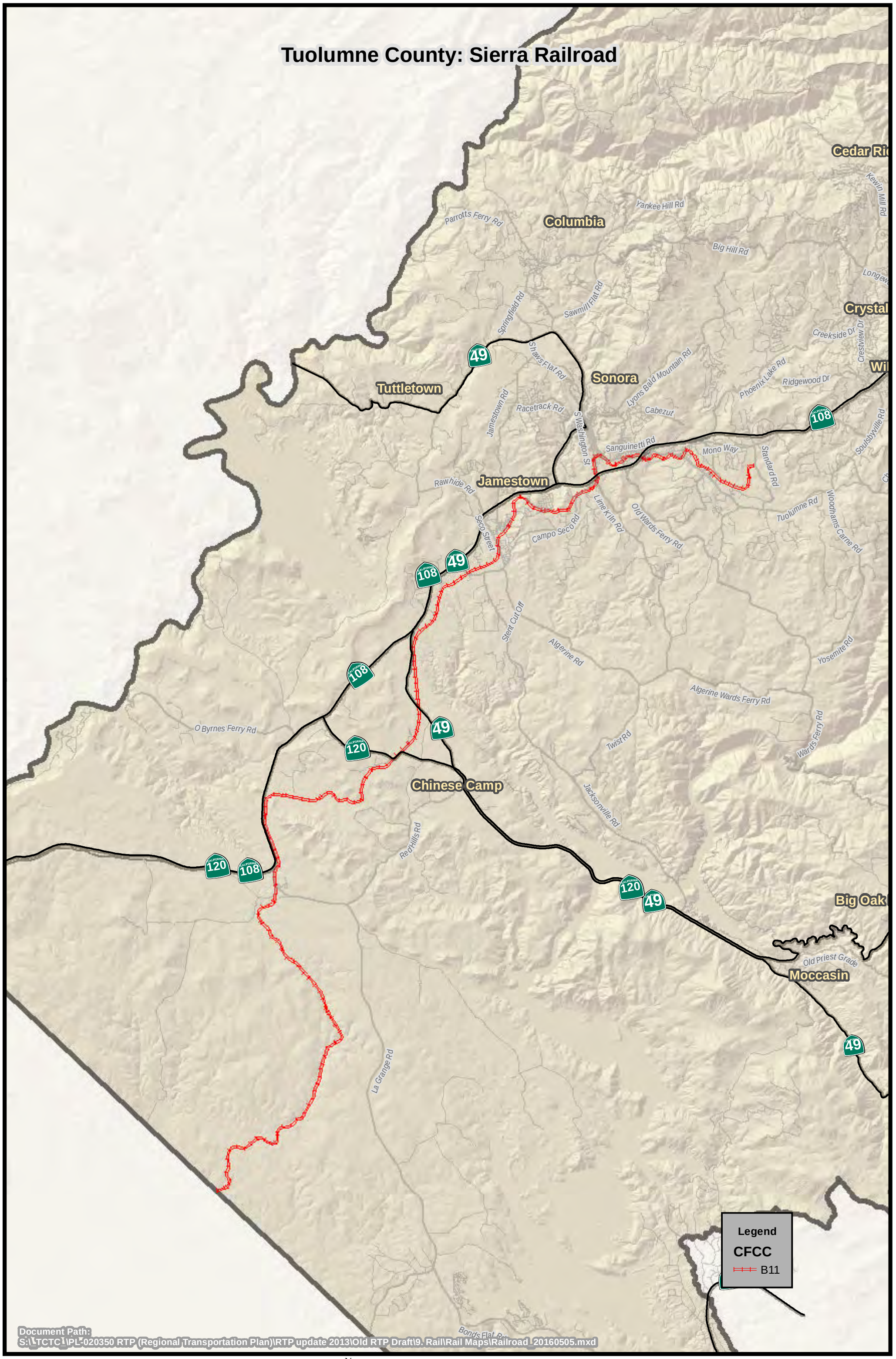
Tuolumne County is served by the Sierra Railroad which is owned by the Sierra Northern Railway. The Railway operates 50 miles of track between Oakdale, in Stanislaus County, and Standard, in Tuolumne County (See Figure 9.2). Connections are made with both the Southern Pacific and the Santa Fe Railroads in Oakdale, California. Located along the Sierra Railroad in Jamestown is the Railtown 1897 State Historic Park. The railroad plays a key role in Tuolumne County's multimodal transportation system and the movement of goods still plays a vital role in the economic foundation of the community.

Past Accomplishments

There have been several projects completed along the Sierra Railroad.

- Roadway Approach Safety Program (RASP)
- **South Washington Street** - Gates, Flashing Lights, Crossbucks
- **Tuolumne Road** - Pavement Panels, Gates, Flashing Lights, Crossbucks
- **Seco Street** - Pavement Panels, Gates, Flashing Lights, Crossbucks
- **Old Wards Ferry Road** - Pavement Panels, Gates, Flashing Lights, Crossbucks
- **Sanguinetti Road** – Pavement Panels, Gates, Flashing lights, Crossbucks
- **La Grange Road (J59)** - Gates, Flashing Lights, Crossbucks

Tuolumne County: Sierra Railroad



Legend

CFCC

B11

Document Path:
S:\TCTC\PL-020350 RTP (Regional Transportation Plan)\RTP update 2013\Old RTP Draft\9. Rail\Rail Maps\Railroad_20160505.mxd

N

0 0.75 1.5 3 Miles

Existing Conditions

Despite the importance of the Sierra Railroad to the economy of Tuolumne County, the condition of the railroad tracks has been in decline since the 1980's. Because of the poor physical condition of Sierra Railroad's tracks, about half of the tracks are restricted to a maximum authorized speed of 15 miles per hour (MPH), one third are restricted to 20 MPH and one-sixth to 10 MPH. For safety reasons, modern high capacity freight cars are not able to access lumber mills and passenger train excursions are limited to a short ride from Railtown State Historic Park.

The railroad tracks in Tuolumne County are in need of replacement in a few key areas. There are three areas where major tie replacements and resurfacing need to occur: Sullivan Creek Bridge to the Sierra Pacific lumber mill in Standard, Sierra Rock Products to Sierra Pacific lumber mill at Chinese Station, and Sierra Pacific's Chinese Station Mill to the County Line at MP 20. These areas are considered critical to the overall health of the rail system. Replacement of thousands of railroad ties at critical points along Sierra Railroad between mile posts 15 and 49.2 is needed.

Existing Conditions Railroad - Tuolumne County

Railroad	Carrier Alpha Code	Parent Company	Operated Miles	Annual carloads
Sierra Northern Railway	**SERA**	**Independent**	**35**	**6,000**

Table 9.1 Existing Conditions Railroad

Railtown 1897 State Historic Park

Railtown 1897 State Historic Park (See Figure 9.3) is a 26-acre railroad museum in Jamestown and is one of the country's last authentic operating steam railroad locomotive and rolling stock maintenance facilities. Railtown has guided tours of the railroad shops and steam train rides, where visitors can experience a bit of railroad culture. The park attracts visitors with its rich industrial heritage, railroad history, and Hollywood film industry lore. Railtown is still a popular location for television productions, films, and commercials.



Figure 9.3 Railtown State Historic Park Map, Map courtesy of Railtown 1897 State Historic Park

Sierra Railroad Dinner Train

Sierra Railroad Dinner Train is a passenger train that specializes in delicious food, luxurious cars, beautiful scenery and live entertainment. The train currently boards in Oakdale, CA and travels only through Stanislaus County. There are future plans for a Railroad Dinner Train that boards in Jamestown and traverses through Tuolumne County.



Figure 9.4 Railtown Polar Express™ Train Ride

Railtown Train Rides

From April to October, Railtown offers train rides that board at the State Park and traverse through Tuolumne County. Approximately 40,000 passengers per year ride historic trains from Railtown 1897 in Jamestown. Railtown 1897 is owned by the State of California and is operated by the California State Railroad Museum Foundation. In December, Railtown offers a special Polar Express™ train ride.

Multimodal Links

Roadway/Railroad Crossings

The Sierra Railroad intersects approximately 30 local roads, State Highways, and private driveways and review the Railroad Expenditure Plan for a list of future capital improvement projects.

Rails with Trails

Rails with Trails are trails adjacent to or within an active railroad corridor. The rails with trails concept provides even more opportunities for the creation of trail systems that enhance local transportation systems that offer safe and attractive community connections. See *Sierra Railway: Preliminary Trail Report* prepared by the Rails to Trails Conservancy.

Sierra Railroad Trail is a visionary rail-trail along the Sierra Railroad corridor right-of-way within the counties of Stanislaus and Tuolumne, from the City of Oakdale to Standard, CA. The Sierra Railroad corridor is approximately 50-100 feet wide, with a single track of active railroad located primarily in the center of the corridor. This future trail is still in the planning stages. See Non-Motorized Element for more information.

Rails to Trails

Rails to Trails are conversions of former railroad corridors into multi-use paths, typically for walking, cycling and sometimes horseback riding.

Westside Trail is a former three-foot narrow gauge railroad corridor that first operated under the name of the Hetch Hetchy & Yosemite Valley Railroad, starting in 1898. Located in the community of Tuolumne, the Westside Trail is part of a proposed State Wide Trail Corridor System. This trail is developed from the east boundary of the Tuolumne Township to approximately four miles beyond the Stanislaus National Forest boundary. Hikers, bikers, and horseback riders use the trail. See Non-Motorized Transportation Element for more information.

Sullivan Creek Trail and Elsie's Pool Regional Park

There is a future planned trail and park that is located next to Mono Way and the Sierra Railroad. This could be a future destination for the passenger rail service and or seasonal tourist train. See Non-Motorized Transportation Element for more information.

Assessment of Needs

Future railroad needs are based upon improvements required to accommodate the forecasted growth in demand for passenger and freight rail operations.

Sierra Railroad Issues

Issue	Solution
Need for upgrading of the Sierra Railroad tracks for goods movement and for passenger service	Apply for State & Federal Grants
Upgrade Railroad and Road Crossing Surfaces, Gates, and Lights	Apply for State & Federal Grants
Structural upgrades to Sullivan Creek Bridge	Apply for State & Federal Grants
Need for an easement to access trestle along Sullivan Creek Bridge	Work with the private property owner to acquire an easement
Replace Major Tie and Surfacing Project	Apply for State & Federal Grants
Potential need for a passenger rail service	Perform a feasibility study on a future commuter/passenger service
Need for a passenger rail service and/or seasonal tourist train service	Develop the Sullivan Creek/Trestle/Elsie's Pool Regional Park and build a rail stop at this location

Table 9.2 Sierra Railroad Issue

Goals, Objectives and Policies

The goals, policies and objectives in this document are intended to guide the development of the railroad transportation system in Tuolumne County.

An *objective* is a specific end, condition or state toward attaining a goal. It is achievable, measurable and time specific.
A *policy* is a direction statement that guides actions for use in determining present and future decisions.

Goal: Provide a safe and reliable railroad network.

Objective 1: Support and encourage the revitalization of the Sierra Railroad.

Policy 1: Support and encourage State and Federal grant applications aimed at upgrading and rehabilitating the Sierra Railroad tracks.
Policy 2: Support the revival of passenger, excursion and movie train operations on the Sierra Railroad.
Policy 5: Utilize the existing rail line right-of-way between Tuolumne County Line and Standard for development of a pedestrian and bicycle trail.
Policy 6: Balance pedestrian, bicycle and road safety needs with railroad infrastructure.
Policy 7: Consider a feasibility study on a future commuter/passenger service.
Policy 8: Promote economic growth by increasing rail freight transportation on the Sierra Railroad.
Policy 9: Encourage new industries to locate adjacent to the Sierra Railroad.
Policy 10: Link rail operations with other modes of transportation when appropriate.

Performance Measures

The table below lists performance measures for the region's railroad corridor.

Factors	Indicators	Performance Measures
Railcar Accident Rates & Hazards	Have rates of crashes, fatalities, and injuries decreased?	Number of railcar incursions and or operation errors. Severity of accidents and injuries.
System Condition	Do railroads meet standards for state of good repair?	Condition of railroad tracks and trestles. Maintenance cost per capita to preserve system at base year conditions.

Table 9.3 Performance Measures

Funding Sources

California Public Utilities Commission (PUC)

Section 130 Railway-Highway Crossings Program

The Railway-Highway Crossings Program provides funding to projects that reduce the number and severity of highway accidents by eliminating hazards to vehicles and pedestrians at existing railroad crossings. The California Public Utilities Commission (PUC) recommends the type of improvements that are needed to eliminate vehicular and pedestrian hazards and submits a prioritized list of projects eligible for Section 130 funding to Caltrans.

Warning Device Maintenance Fund Program

The Warning Device Maintenance Fund Program provides funds to railroads to pay for the local government's share of the costs of maintaining automatic warning devices at highway-rail crossings.

Section 190 Grade Separation Program

The Section 190 Grade Separation Program provides funding for projects seeking to eliminate or grade-separate existing at-grade crossings, and includes both crossing consolidations or track removal projects.

Federal Rail Administration (FRA)

Transportation Investment Generating Economic Recovery (TIGER)

The Transportation Investment Generating Economic Recovery, (TIGER) Discretionary Grant program is a DOT-wide program investing in critical road, rail, transit, and port projects across the nation, managed by DOT's Office of the Secretary.

Rail Line Relocation & Improvement Capital Grant Program (RLR)

The Rail Line Relocation and Improvement Capital Grant Program provides financial assistance for local rail line relocation and improvement projects that involve a lateral or vertical line relocation and also mitigate the adverse effects of rail traffic on safety, motor vehicle traffic flow, community quality of life, or economic development.

Railway-Highway Crossing Hazard Elimination

The Railway Highway Crossing Hazard Elimination provide funding for safety improvements at both public and private highway-rail grade crossings along federally designated high-speed rail corridors. This program is jointly administered by the Federal Railroad Administration (FRA) and the Federal Highway Administration (FHWA).

Railroad Rehabilitation & Repair (Disaster Assistance)

The Railroad Rehabilitation and Repair provides the Secretary of Transportation funds for necessary expenses to make grants to repair and rehabilitate Class II and Class III railroad infrastructure damaged by hurricanes, floods, and other natural disasters in areas for which the President declared a major disaster.

Railroad Safety Technology Grant Program

The Railroad Safety Technology Grant Program provides financial assistance to passenger and freight rail carriers, railroad suppliers and state and local governments for the deployment of positive train control (PTC) collision avoidance systems and complementary advanced Technologies.

Railroad Rehabilitation & Improvement Financing (RRIF) Program

The Railroad Rehabilitation and Improvement Financing Program Provides direct loans and loan guarantees to acquire, improve, or rehabilitate intermodal or rail equipment or facilities, including track, bridges, yards, buildings and shops; refinance outstanding debt incurred for the purposes listed above; and develop or establish new intermodal or railroad facilities.

Transportation Innovation & Finance (TIFIA) Program

The Transportation Innovation and Finance Program which makes three forms of credit assistance available: secured loans, loan guarantees and standby lines of credit. These loans are available for surface transportation projects of national or regional significance.

Supporting Documents

The 2013 California State Rail Plan (CSRP)

The California State Rail Plan establishes a statewide vision, sets priorities, and develops implementation strategies to enhance passenger and freight rail service in the public interest. The vision, priorities, and implementation strategies will support the State's goals of an integrated multimodal transportation network consisting of highway, freight, rail, transit, and aviation systems.

California Public Utilities Commission (CPUC)

The California Public Utilities Commission (CPUC) regulates public utilities, and regulates railroads and at-grade crossings. The CPUC employs federally certified staff inspectors and coordinates with the Federal Railroad Administration (FRA) to ensure that railroads comply with federal railroad safety regulations.

The CPUC investigates and evaluates requests to construct new rail crossings or modify existing rail crossings. CPUC also investigate train-related incidents that occur at rail crossings and complaints regarding rail crossing safety. CPUC establishes and reviews the establishment of quiet zones within the approaches of rail grade crossings.

Federal Railroad Administration (FRA)
As one of the modal agencies within the U.S. Department of Transportation (DOT), the FRA holds responsibility for developing and enforcing railroad safety rules, managing the Railroad Rehabilitation and Improvement Financing (RRIF) program, providing oversight of Amtrak for U.S. DOT, and managing a small research program.

The FRA administers federal investment and assistance to the rail industry as well as the development and implementation of policy concerning intercity passenger rail. It also sponsors projects for rail safety research and provides investment opportunities for small freight railroad projects. FRA promotes and regulates safety throughout the nation's railroad industry.

Surface Transportation Board (STB)
Established in 1996 as the successor to the long-lived Interstate Commerce Commission, the Surface Transportation Board (STB) adjudicates disputes over rates and services between shippers and carriers, and has administrative authority over rail restructuring transactions, including oversight of mergers and acquisitions, new line construction, and rail line abandonment; railroad rate regulation; and rate and service disputes involving shippers and railroads. In 2008, the STB now mediates conflicts between passenger rail operators and freight rail owners. The STB functions as an independent agency, but is administratively affiliated with the U.S. DOT.

Pipeline and Hazardous Material Safety Administration (PHMSA)
The Pipeline and Hazardous Material Safety Administration sets safety regulations for hazardous materials across all modes, including freight rail.

Sierra Railroad Company
Sierra Railroad Company (SRC) is a privately owned and operated common carrier that owns the short line Sierra Railroad branch in Tuolumne County. SRC operates a freight division called the **Sierra Northern Railway** that handles all freight operations for all branches owned by the Sierra Railroad. The company operates a diesel- and steam-powered passenger trains which include the Sierra Railroad Dinner Train (Oakdale), and the Sacramento River Train (Woodland-Sacramento).

Sierra Northern Railway

The August 2003 merger of the Sierra Railroad Company and the Yolo Shortline Railroad resulted in the present-day Sierra Northern Railway (SERA). The Sierra Railroad is one of four independently owned and operated short line railroads in California.The railroad operates about 117 miles of track in northern California, interchanging with the Union Pacific Railroad (UPR) and the Burlington Northern Santa Fe Railroad (BNSF) at three locations:

- West Sacramento, which serves customers between West Sacramento and Woodland, including the Port of Sacramento.
- Oakdale, which serves customers between Oakdale and Sonora.
- Riverbank, which serves customers between Riverbank and Sonora, as well as the 170-acre Riverbank Industrial Complex.

Railroad Classifications

For purposes of classification, railroads are typically divided into three classes. Using the 2010 Federal Railroad Agency (FRA) definitions as the basis, the three railroad classes are as follows:

- Class I railroads generate more than $399 million in annual operating revenues. BNSF and Union Pacific Railroad (UPRR) are the only Class I railroads in California. These two Class I railroads handle a majority of the State's freight rail traffic and own and operate most of the track mileage (79 percent) in California.

- Class II railroads, commonly referred to as regional railroads by the Association of American Railroads (AAR), generate between $31.9 million and $399 million in annual operating revenues. At present, there are no Class II railroads operating in California.

- Class III railroads, commonly called "short line" railroads, generate less than $31.9 million in annual operating revenues and engage in line-haul movement. There are 26 active short line railroads in California. The Sierra Northern Railway is considered a Class III railroad.

Expenditure Plan

Sierra Railroad, County, City and Community Railroad Projects

Tier 3 - Unfunded Capital Improvement Program

Project Name	Priority	Funding Source	Location	Description	Cost ($1,000)	Construction Year	Need & Purpose
Pavement Panels @Washington Street	Tier 3	Section 130	Sonora	Construct concrete Pavement Panels at the railroad intersection of South Washington Street	120	TBD	Safety
Pavement Panels @Camp Seco Road near Lime Kiln	Tier 3	Section 130	Jamestown	Construct concrete Pavement Panels at the railroad intersection of Campo Seco Road	120	TBD	Safety
Pavement Panel @Hess Road	Tier 3	Section 130	East Sonora	Construct concrete Pavement Panels at the railroad intersection of Hess Ave.	120	TBD	Safety
Pavement Panels @Campo Seco Road near Ellingwood Acres	Tier 3	Section 130	Jamestown	Construct concrete Pavement Panels at the railroad intersection of Campo Seco Road	120	TBD	Safety
Pavement Panel @Sanguinetti Rd & Sanginetti Loop Rd	Tier 3	Section 130	Sonora	Construct concrete Pavement Panels at the railroad intersection of South Washington Street	180	TBD	Safety
Pavement Panel @Junction Shopping Center Entrance	Tier 3	Section 130	East Sonora	Construct concrete Pavement Panels at the railroad intersection of	180	TBD	Safety
Pavement Panels @Hospital Road near Washington Rd	Tier 3	Section 130	Sonora	Construct concrete Pavement Panels at the railroad intersection of Hospital Road near Washington Rd.	180	TBD	Safety
Pavement Panels @Hospital Road near Mono Way	Tier 3	Section 130	Sonora	Construct concrete Pavement Panels at the railroad intersection of Hospital Road near Mono Way.	180	TBD	Safety
						Railroad - 209	

This page is left intentional blank

Chapter Ten: Public Transportation



Figure 10.1 Tuolumne County Transit's SkiBus, Photo Courtesy of TCTA

Introduction

Tuolumne County Transit (TCT) was established in December 1976, with the aid of a Federal grant. The service was operated by the County until 1985. Since that time, the management and operation of TCT has been contracted via competitive proposals. The current contract is with Storer Transportation. The Tuolumne County Transit Agency provides staff to administer the transit contract, in addition to fiscal management, planning, programming, monitoring, and administration. TCT is funded primarily by California Transportation Development Act (TDA) funds, Federal Transit Administration Section 5311 operating assistance funds, and farebox revenue.

Tuolumne County Transit has positioned itself in a special role in community events, with its operation of historic looking Trolley buses, which deliver an immediate connection between the community and the Transit Agency. Requests to use the vehicles for community events soon followed, and with the number and popularity of long standing events, a parking and congestion benefit was realized by the use of Tuolumne County Transit Trolleys.

Public Transportation remains a core value for Californians, and has been supported by the Legislature for many decades. Tuolumne County Transit plays a critical role in the lives of many Sonora and Tuolumne County residents. Furthermore, the Transit Agency also wishes to contribute positively to the local economy by offering public transportation to popular destinations within the region, including to the Dodge Ridge Ski Resort, and to Yosemite National Park.

Public Transportation can be difficult to provide in rural communities with small, sparse populations over large land areas. Typically, public transit thrives on population density and while the City of Sonora, and several other communities offer a higher population density, outside of these communities, single family residential is the predominate form of housing in Tuolumne County. These single family residential parcel sizes can vary but they typically have a quarter to a full acre of land, with many properties offering even larger parcels. This type of development pattern, while popular with many residents, hampers public transportation efforts to operate efficiently. Despite these challenges, Tuolumne County Transit provides in excess of 130,000 rides each year.

Past Accomplishments

The list below highlights some of the transit projects and service expansions that have been completed since 2008. These projects consist of adding bus stop shelters and amenities and have helped improve access to residential neighborhoods, downtown businesses, and tourist destinations.

New Bus Stop Shelters

Tuolumne County Transit has helped fund six new bus stop shelters in the past three years. The new bus stop shelters are located at Willow Springs (Soulsbyville), Mono Way at Indian Rock (East Sonora), Westside Memorial Park (Tuolumne Townsite), Mono Way & Fir Drive (Sonora), Preston Lane & Seco Street (Jamestown), and Fifth Ave & Willow Street (Jamestown).



Figure 10.2: Indian Rock Bus Stop along Mono Way

NextBus – Bus Tracking System - The TCTA approved a contract with NextBus to install Global Position Satellite (GPS) tracking antennas and hardware devices on the entire TCT Transit fleet. With this new technology, the transit riders and transit managers can pinpoint the location of TCT buses in real time. NextBus generates real time predictions to enable transit riders to know exactly when the buses will arrive. NextBus provides an online service that allows transit managers to retrieve past bus performance data and includes the data in easily accessible reports. This information is used to analyze daily and historical performance, and for long term service planning.

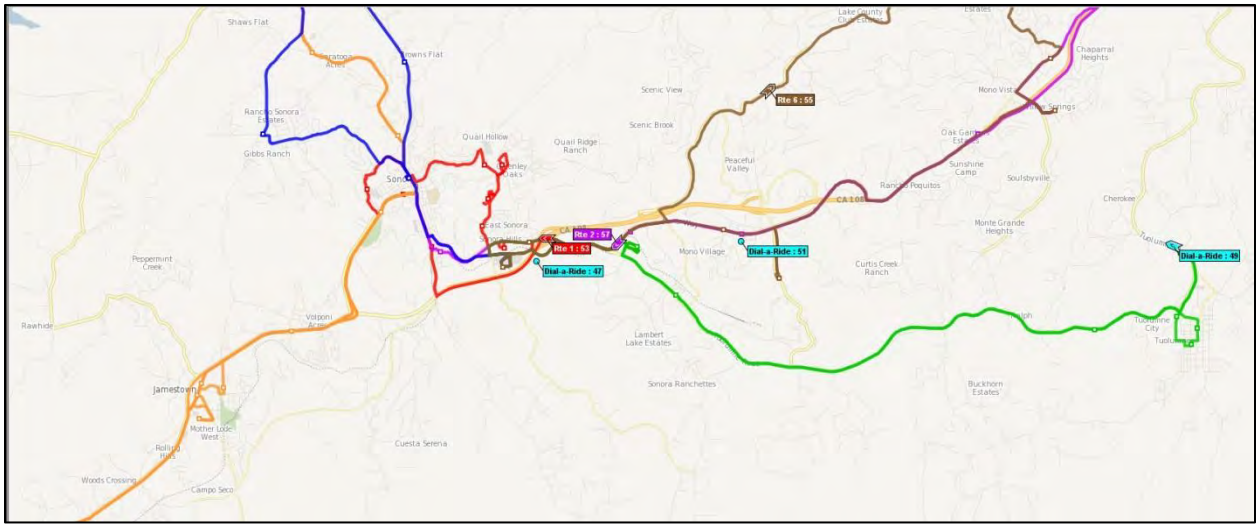


Figure 10.3 NextBUS Live TCT Bus and Route Map

NextBus also provides predictions based in real time of when the next bus will arrive. The public has four options for receiving the predictions through an automated telephone messaging system, through a text message, NextBus Mobile app (application software), and via NextBus website.

Transit Services and Programs

Fixed-Route Services

Tuolumne County Transit Agency (TCTA) operates six fixed routes within Tuolumne County serving the communities of Sonora, Jamestown, Columbia, Standard, Tuolumne, Twain Harte, Mi-Wuk Village, and Sierra Village. This service operates Monday thru Friday only, making a total of 41 total runs per day utilizing a fleet of 15 vehicles. The general span of weekday service is between the hours of 7:00 a.m. and 9:00 p.m. Figure 10.6 shows the current Tuolumne County Transit Fixed Route Map.

Fixed route cash fares are $1.50 per ride for the general public, with discounted fares of $1.00 for persons with disabilities, seniors, veterans, and Medicare riders. Day passes, ticket books, monthly passes, and Special Service passes are also available for purchase. In FY 2012/13, there were 80,819 fixed route riders.

Dial-a-Ride (Demand Response)

The Tuolumne County Transit Dial-A-Ride service provides curb-to-curb transportation for older adults and persons with disabilities within 3⁄4 mile of an existing fixed route bus during the same span of service hours between 6:00 a.m. and 8:00 p.m. The general cash fare for both weekday and Saturday service is $3.00 per trip, with options to purchase day passes, monthly passes, and ticket books.

Seasonal Services - Ski Bus



Figure 10.4 - New Ski Bus

The Ski Bus provides a connection from Sonora to the Dodge Ridge Ski Resort in Pinecrest, operating on weekends and holidays between the hours of 7:00 a.m. and 6:00 p.m. between December and April, or whenever the ski season starts and ends. Each year, round-trip tickets are sold at $10.00 per day/person or at a discounted fare of $25.00 for a group of four.

Seasonal Services - Yosemite Transit Service

Through a collaborative effort between TCTC, Yosemite National Park, Yosemite Area Regional Transportation Service (YARTS) and Yosemite Highway 120 Chamber of Commerce, and Tuolumne County Visitors Bureau, public transit service to Yosemite Valley started in 2012 in Tuolumne County. YARTS service runs from May to September from Sonora to Yosemite. Stops include Sonora, Jamestown, Groveland, Buck Meadows, Yosemite Lakes, Big Oak Flat Gate (Entrance), Crane Flat, and the Visitor Center in Yosemite Valley.



Figure 10.5 YARTS Bus

Special Event Services

TCTA has additional premium and specialized services to address specific transportation needs that traditional fixed route and Dial-A-Ride services cannot meet. For the 2013-2014 year, TCT provided Special Services to the Sonora Christmas Parade, Father's Day Fly In, Mother Lode Fair, and the 49er Festival in Groveland. These Special Services provides rides to the event from a remote parking area and general transportation throughout the events.

Tuolumne TRIP

The Tuolumne TRIP (Transportation Reimbursement and information Program) is a volunteer driver reimbursement program, designed as a low-cost, customer-driven approach for providing transportation for those that have needs not being met by current transportation programs, through mileage reimbursement to volunteer drivers. Rides are negotiated between the rider and a volunteer driver of their choosing and are utilized when needed. Volunteers deliver trips in their own vehicles and are reimbursed at $0.35 per mile. Due to the low ridership and high cost of the Groveland to Sonora Dial-A-Ride Service (DAR), the TCTA considered a more cost effective alternative for those passengers. The Tuolumne Trip Program could serve those passengers appropriately for a fraction of the cost. In the fall of 2013, the TCTA replaced the Groveland/Sonora DAR service with Tuolumne Trip.

Transit Schedules

On September 15, 2014, TCT released a modified transit schedule to the public, based on recommendations in the Short Range Transit Plan. This schedule includes a consistent bus departure time at the same time every hour or every couple of hours. The format for the schedule has been changed, with the intent of making the schedule more user-friendly.



Figure 10.6 TCT Routes Map



Figure 10.7 - Ski Bus Service Banner

Yosemite Area Regional Transportation Service (YARTS)

In the summer of 2012, Yosemite National Park funded supplemental YARTS service during the peak summer months on both the Highway 140 corridor and the Highway 120 East corridor. It also worked with Tuolumne County to introduce YARTS service connecting Sonora, Jamestown, and Groveland with Yosemite Valley.

In late 2011, Yosemite National Park and YARTS staff worked with Tuolumne County Transportation Council (TCTC) staff and key stakeholders to develop a community supported Yosemite transit service plan for a two-year pilot YARTS service between Sonora and Yosemite National Park. Based on this community plan, the National Park Service provided $171,600 to YARTS to provide one run seven days a week between Sonora and Yosemite Valley, and two additional runs on weekends and holidays between Groveland and Yosemite Valley from May 14, 2012 through September 30, 2012.

In February 2012, Yosemite National Park invited gateway communities surrounding Yosemite to request funds to "assist with programs that provide marketing, communication, or other programmatic activity to address Yosemite traffic and transportation issues." Projects were invited that would promote public transit service, improve traffic flow, and "address Visitor Experience or Visitor Information to change behaviors, smooth peak travel times or manage visitor expectations…"

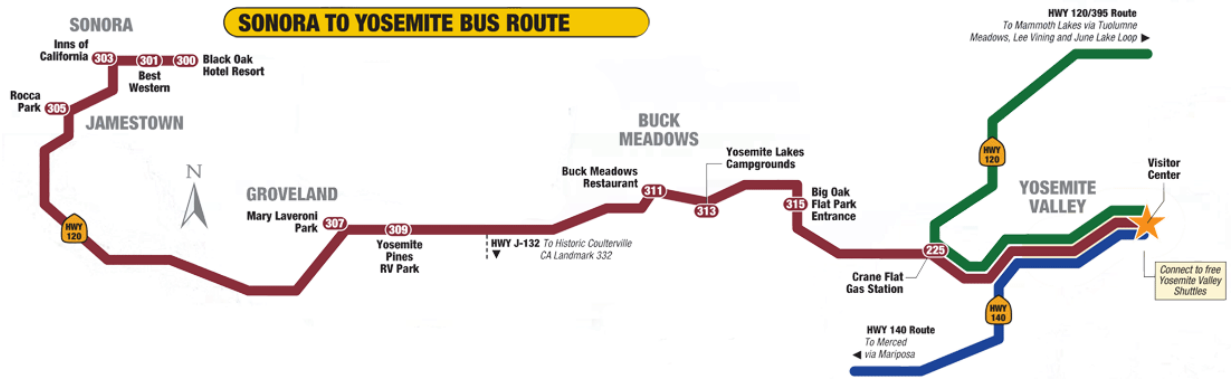
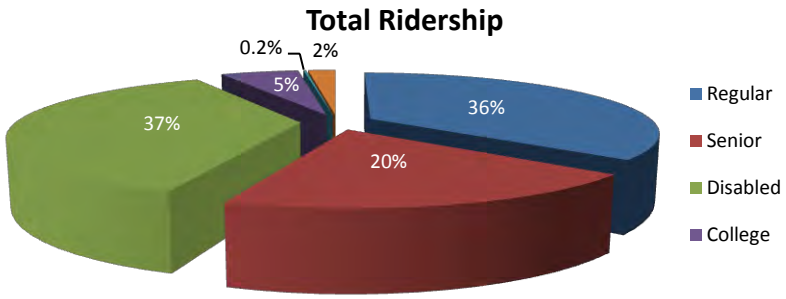


Figure 10.8 –YARTS Bus Service

Key Potential Users of Public Transportation

As illustrated in Figure 10.9 below, 57% of Tuolumne County Transit riders fall into the senior and disabled categories and 43% fall into the general public categories (Regular, College, Student, Children). Although the general public category increases for Fixed Route Services (58%), it is encouraging to note that a fair amount of seniors and disabled passengers (42%) use Fixed Route, which is a much more cost effective service to provide ($13.16 vs. $25.17). The majority of the weekday Dial-A-Ride (87%) and Saturday General Public DAR (88%) users fall into the disabled category.

Figure 10.9 –TCT Ridership



Disabled and Seniors

Tuolumne County's demographic is overwhelmingly trending towards residents aged 55 and over. This demographic is likely to lose either the ability or desire to drive as they continue to age. In many cases these individuals will face a situation that is new, uncomfortable, and isolating. This demographic is a primary focus for Tuolumne County Transit.

Students

Younger people are delaying the acquisition of driver's licenses. This trend is primarily seen in urban areas where transportation alternatives are more available, but also in rural communities like Tuolumne County. Students are less likely to rely solely on an automobile, either because they don't or can't (yet) drive. This makes the use of public transportation a good option to get them where they would like to go. Additionally, the low cost of public transit has been a reason often cited for use of the system. Car ownership costs are high, and many students are involved with their studies full time, which limits their earnings.

Regular - Tourists

Tuolumne County is a destination community. As a result of Yosemite National Park, two State Parks (Columbia and Railtown 1897), and Stanislaus National Forest (Dodge Ridge Ski Resort/Pinecrest) there are many destinations for local tourism. Tuolumne County Transit offers services to many of the most popular destinations, and believes it can be a component of the overall positive experience in Tuolumne County.

Regular - Choice (Conscientious, Environmental, other)

For some individuals, they find the use of public transportation rewarding. The myriad of reasons can never be fully articulated, but for many, the environmental benefits to the planet are cited. Another strong consideration for riders is the freedom involved in having someone else to do the driving, which allows them to read, work, rest, along with many other possible activities that one would prefer to driving.

Public Transportation Issues & Solutions

Issues	Solutions
Lack of bus stops signs at bus stop locations	New bus stop signs will be placed for every Tuolumne County Transit bus stop.
Concerns about public transit reliability	NextBus provide the public with the ability to track fixed route buses in real time and provides predictions of bus departure times.
Limited availability of out-of-county trips	Funding should be sought though State and Federal programs for out of county service to regional transportation hubs.
Lack of pedestrian infrastructure adjacent to bus stop locations and lack of marked pedestrian crossings.	Coordinate planning efforts and fund capital improvements to improve pedestrian infrastructure adjacent to bus stops.
Need for improved on-time performance.	NextBUS will provide the public the ability to track fixed routes buses in real time and NextBUS will provide a prediction.
Need for extended service hours, for evening and weekend service.	This is an unmet transit need that is not feasible to achieve at this time.
Need for more benches and shelters at bus stops.	About ten more bus stops are in the planning and design stages.
Need for a transit transfer hub facility.	Secure full funding for a transit hub facility.

Table 10.1 Public Transportation Issues and Solutions

Goal, Objectives, and Policies

The goals, policies and objectives in this document are intended to guide the development of the transportation system, and improve the quality of life in Tuolumne County. The following definitions help differentiate the planning focus of a goal, objective and policies.
A **goal** is the end toward which effort is directed; it is general and timeless.

An **objective** is a specific end, condition, or state toward attaining a goal. It is achievable, measurable, and time specific.

A **policy** is a direction statement that guides actions for use in determining present and future decisions. (Caltrans Comment)

Goal: Provide safe, reliable, and effective public transportation. *(TCTA Mission Statement)*

Objective 1: Increase public transportation trips in Tuolumne County by improving performance, reliability, safety, security, and bus stop facilities. *(Regional Blueprint Greenhouse Gas Study).*

Policy 1.1: Implement and periodically update the Transit Development Plan for Tuolumne County Transit, and be consistent with the RTP *(RTP Evaluation & Analysis Plan).*

Policy 1.2: Ensure the public transportation system gives special attention to the transit needs of seniors, the disabled, youth, and economically disadvantaged transit riders.

Policy 1.3: Convene the Social Service Transportation Advisory Council (SSTAC) at least quarterly and coordinate among public and social service transportation operations so as to ensure the highest level of efficiency and cost-effectiveness possible.

Policy 1.4: Actively pursue public input into the operation of the Public Transportation System. Conduct an annual unmet transit needs hearing and meet any unmet transit needs that are "reasonable to meet" according to the criteria established by the TCTC.

Policy 1.5: Pursue improved access to bus stops by improving the non-motorized transportation network for the community and those looking to access Tuolumne County Transit.

Policy 1.6: Pursue interregional transit funds for service that links regionally locations such as: Yosemite, Central Valley, Calaveras County, and the Bay Area.

Policy 1.7: Coordinate transit system development with community planning, development efforts, and the locally developed coordinated transit plan and emphasize transit oriented development near bus stops with high service levels *(RTP Evaluation & Analysis Plan).*

Policy 1.8: Continue to pursue a plan to provide fixed route services on the weekend through Tuolumne County Transit *(RTP Evaluation & Analysis Plan).*

Policy 1.9: Encourage extension of Dial-A-Ride services to more areas on Saturday and also provide a Sunday service when feasible *(RTP Evaluation & Analysis Plan).*

Policy 1.10: Connect park and ride facilities with transit services, where possible *(RTP Evaluation & Analysis Plan).*

Policy 1.11: Support a major transit route transfer facility at the County Law & Justice Center *(RTP Evaluation & Analysis Plan).*

Policy 1.12: Support bus stop improvements in Downtown Sonora consistent with the Vision Sonora Plan *(RTP Evaluation & Analysis Plan).*

Policy 1.13: Ensure that all TCT fixed route buses are equipped with bicycle racks *(RTP Evaluation & Analysis Plan).*

Policy 1.14: Coordinate with local agencies, organizations and businesses to improve and install transit amenities at all bus stops including bus signage, lightning, and shelters *(Regional Blueprint Greenhouse Gas Study).*

Objective 2: Raise awareness of Public Transportation in Tuolumne County and promote partnerships with other transit agencies to maintain and expand transit services.

Policy 2.1: Improve the public's knowledge of available transit services through effective marketing of all public transportation services in Tuolumne County *(Regional Blueprint Greenhouse Gas Study).*

Policy 2.2: Maintain the partnership between TCTA and Yosemite National Park for the delivery of Yosemite transit service between Sonora and Yosemite Valley.

Policy 2.3: Maintain the partnership between TCTA and Dodge Ridge for the delivery of SkiBUS services on a seasonal basis.

Policy 2.4: Support special event services at qualifying public events to be served by Tuolumne County Transit to help mitigate congestion, improve air quality and positively affect community.

Policy 2.5: Support cost effective bus stop improvements along the State Highway through a streamlined permitting system.

Future Capital Improvement Projects

Law and Justice Center Transit Facility



Figure 10.10 – Law & Justice Center Main Building

Tuolumne County Transit has been operating without a central hub for most of its existence. This is not an optimal way for a transit system to operate from an efficiency stand point. Tuolumne County Transit recognized there would be an opportunity to build a transit center as part of the development of the County's Law and Justice Center project. In January 2015, the Tuolumne County Transit Agency purchased property from the County on which to build its transit facility.

The Transit Center, as currently designed, consists of two structures. The Main building has two rooms, one that offers a climate controlled environment with seating, two restrooms, transit system information (on flat screen monitors), and a work station. Additionally, there is a similarly sized open air waiting area, which is protected from the elements and offers additional seating. This main building is constructed using window walls, so views of the foothills can be taken in by those in the building, while also allowing those outside to see what is offered inside.



Figure 10.11 – Law & Justice Center Shade Structure

There is a second structure on the site, designed to provide shade from the elements. This is a fully open, shed roofed waiting area with seating, bike racks and water fountain in close proximity. Both structures offer great access to Tuolumne County Transit vehicles and the rest of the Law and Justice Center campus. Some amenities include:

- Seating for 30+ people
- Indoor area offering protection from extreme weather
- Men's and Women's restrooms
- Bike Lockers
- Informational Kiosks

Northern Yosemite Regional Transit Access Center – The proposed Northern Yosemite Regional Access Center will be a transportation hub in the heart of Sonora's downtown, serving local and tourist needs providing mobility to employment centers, educational institutions, medical facilities, tourist destinations, and to recreation areas throughout the County. The Access Center will revitalize an underutilized building in Downtown Sonora and provide an economic boost to the region through a more accessible and centralized hub for the transportation needs of the County.

The Access Center will reap the benefits of the new wider sidewalks, pedestrian amenities, aesthetically pleasing landscaping, bus shelters and turn outs, and safety improvements for this critically acclaimed Vision Sonora Project. This facility will provide important connections for:

- Yosemite Area Regional Transit (YARTS);
- SkiBus;
- Daily fixed route services for Tuolumne County Transit;
- Future connections to Amtrak, Greyhound, and San Joaquin Valley cities;
- Regional tour buses.

Columbia Inter County Transfer

This new transfer point will enable Calaveras Transit and Tuolumne County Transit buses to transfer riders, and feature the following details:

- Bus Stop Shelter;
- Men's and Woman's restrooms;
- Bike Racks & Information Kiosks;
- Access for Calaveras Transit Bus route transfers.

New Bus Stop Shelters

The new bus stop improvements for TCT will include shelters and seating with informational kiosks and new signage. Bus stop benches and shelters will help improve the attractiveness of transit for existing and future riders. Many bus stop locations in Tuolumne County only have a bus stop sign. Many locations that riders have identified as needing bus shelters and other amenities require design review, environmental review, land acquisition, engineering design and bus turnouts. These improvements increase the cost for bus stops to approximately $30,000 to $50,000 each. See the Public Transportation Expenditure Plan page 213 for the list of future bus stop improvements.

Public Transportation Service Expansions

The future planned service expansion listed below is a part of the 2016 RTP constrained funding expenditure plan. Expanding transit service to areas that do not have transit service and where the minimum service standards can be met continues to be a priority. All of the service expansions listed below should be considered in future transit development plans.

Tier 1a – Future Planned Service Expansions

- **Increase Yosemite Area Regional Transit Service (YARTS) Service in Tuolumne County** – This would provide additional transit service runs to Yosemite National Park from Tuolumne County. This would help reduce environmental impacts associated with vehicle and parking congestion in Yosemite Valley and be consistent with the Merced River Plan. "Support additional regional transit service (YARTS)." Record of Decision – Merced Wild and Scenic Comprehensive Management Plan – Yosemite National Park.

- **Pinecrest Service -** A seasonal transit service is envisioned to function similarly to the SkiBus, only differing in its season of operation. The service would likely operate in the summer time, on the weekends and holidays. Pinecrest is a popular recreation destination in Tuolumne County and experiences high levels of congestion over the summer months. This service is anticipated to be popular with both locals and visitors, and will reduce greenhouse gas impacts through reduced automobile trips to the high country.

Tier 2 – Service Expansions

- **Foothill to Valley Service (Out of County Service)** – This transit service would focus on transporting Tuolumne County residents to and from Central Valley destinations. A couple of different options have been supported by public input including a possible YARTS service expansion, service connections: to Modesto Area Express (MAX), Bay Area Regional Express (BART), Amtrak, and Altamont Commuter Express (ACE).

Tier 3 – Unfunded Service Expansions

If there is more funding available in the future for transit service expansion, a list of potential service expansions are included below but are not limited to the following and not in any priority order:

- **Groveland/SR 120 Expansion –** This transit service would focus on Groveland residents who are seeking transportation options to the Sonora area.

- **Serve 'Night" classes at Columbia College –** This transit service would focus on targeting students/teachers who are attending late night classes at Columbia College.

- **Service to the Merced High Speed Rail Station** - The California High Speed Rail project is currently building the Bakersfield to Merced rail section in the Central Valley. The first trains are proposed to be operational from the Central Valley to the Bay Area by 2025.

Funding Sources

Transportation Development Act (TDA)

The TDA provides funding to be allocated to transit and non-transit related purposes which comply with regional transportation plans. The TDA provides two funding sources: Local Transportation Fund (LTF) and the State Transit Assistance (STA).

- **Local Transportation Fund (LTF)**

The LTF is derived from quarter cent of the general sales tax collected statewide. The sales tax collected in each county is returned to that county from where the tax was generated.

- **State Transit Assistance (STA)**

The STA is derived from the statewide sales tax on gasoline and diesel fuel. Statue requires that 50% of STA funds are allocated according to population and 50% are allocated according to operator revenues from the prior fiscal year.

AB 32 - Cap and Trade Program

Cap and Trade Program is a market based regulation that is designed to reduce greenhouse gases emissions (GHG) from multiple sources. Cap and Trade sets a firm limit or "cap" on GHG emissions and minimizes the compliance costs of achieving the AB 32 goals. The cap will decline by approximately 3 percent each year, beginning in 2013. Trading creates incentives to reduce GHGs below allowable levels through investments in cleaner technologies. With a carbon market, a price on carbon is established for GHG emissions. Market forces spur technological innovation and investments in cleaner energy.

- **Low Carbon Transit Operations Program**

  This funding program provides funding to transit operators for transit capital and operating expenses which enhance transit service and reduce GHG emissions. The program will offer funding for new or expanded bus or rail services, or expanded intermodal facilities, and equipment, fueling, and maintenance for those facilities.

Public Transportation Modernization, Improvement, and Service Enhancement Account Program (PTMISEA) – The Public Transportation Modernization, Improvement, and Service Enhancement Account Program (PTMISEA) was created by Proposition 1B, the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006. These funds have been used to construct new capital projects, such as transit shelters and transfer facilities.

Supporting Documents

Coordinated Public Transit-Human Services Transportation Plan - 2014

Required by the Federal Transit Administration, the Public Transit-Human Services Transportation Coordination Plan is intended to identify mobility needs and gaps in three demographic groups living in Tuolumne County: older persons, persons with disabilities and persons of low-income. Coordinated Plans must propose strategies by which those gaps can be addressed and craft prioritized responses for doing so.

Transit Enhancement Expenditure Plan - 2014

The Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 (Bond Act), approved by the voters as Proposition 1B on November 7, 2006, includes a program of funding in the amount of $4 billion to be deposited in the Public Transportation Modernization, Improvement, and Service Enhancement Account (PTMISEA). The Expenditure Plan discusses capital improvement projects that Tuolumne County Transit Agency will build with funding from the PTMISEA.

Transit Development Plan Update - 2011

The Plan updates the overall scope and intent of the 2010 Transit Development Plan by providing a coordinated planning link between past recommendations for service improvements and future transit needs. The Plan will be a five year guide for transit planning and will provide a comprehensive view of public transit operations in Tuolumne County.

TCTA Marketing Plan - 2014/2015

This Plan specifies a marketing strategy for effectively communicating Transit Services.

Yosemite Service Analysis - 2013

This is the full report for the Yosemite Service Analysis conducted for the Tuolumne County Transit Agency (TCTA). This chapter describes the origins of the Sonora to Yosemite Service, operated by YARTS, provides a map of the route and the schedule, and includes an overview of the first year's marketing efforts to promote the service.

Merced Wild and Scenic River Final Comprehensive Management Plan - Record of Decision - 2014

The National Park Service prepared the Record of Decision for the *Merced Wild and Scenic River Final Comprehensive Management Plan and Environmental Impact Statement*. This Plan includes a statement of the decision, a discussion of the basis for the decision, and a description of the measures that will be implemented to minimize or avoid environmental harm at Yosemite National Park.

Financially Constrained Expenditure Plan
Tuolumne County Transit Projects
Short-Range & Medium Range Capital Improvement Program - (0-15 years)

Project Name	Priority	Funding Source	Location	Description	Cost ($1,000)	Construction Year
Standard - Tuolumne Rd	Tier 1a	LTF	East Sonora	Construct a new Bus Stop Shelter.	50	2016
Law & Justice Center Bus Transfer Facility	Tier 1a	PTMISEA, CalOES, LCTOP	Sonora	Construct an extension of Justice Center Drive to the new Law & Justice Center Bus Transfer Facility. Construct sidewalks on the south side of the road. (Local Roads & Public Transportation Projects)	1,339	2017
Stockton - Washington Corridor - Transit & Accessibility Project	Tier 1a	RTIP, CMAQ, ATP, LTF, PTMISEA, SHOPP	Sonora	Construct pedestrian, bicycle, ADA, landscape, and transit improvements, along with associated amenities included bulb-outs lighting, gateway signage, bicycle racks, and security cameras. (Non-Motorized Transportation Project)	1,990	2020
SR-108/SR-49 - Stage 1 -Widen to Five Lanes - from South Main St to Fifth Ave - Complete Streets	Tier 1b	RTIP, ITIP, SHOPP, Local	Jamestown	Widen SR-49/SR-108 to 5-lanes in Jamestown from west of South Main Street to east of Fifth Ave. Construct Complete Streets improvements with sidewalks on both sides of the Highway and a bus shelter and turnout along the State Highway. (State Highways and Non-Motorized Transportation Projects)	13,037	2025
Mono Way/Restano Way/South Washington/	Tier 1b	LTF	Sonora	Construct a New Bus Stop Shelter.	50	TBD
Mono Village Center	Tier 1b	LTF	East Sonora	Replace the existing Bus Stop Shelter along Mono Way.	50	TBD
Sierra Village	Tier 1b	LTF	Sierra Village	Construct a New Bus Stop Shelter.	50	TBD
					Public Transportation - 229	

Financially Constrained Expenditure Plan

Tuolumne County Transit Projects

Long Range Capital Improvement Program (16-25 years)

Project Name	Priority	Funding Source	Location	Description	Cost ($1,000)	Construction Year
Dragoon Gulch/Racetrack Rd	Tier 1c	LTF	Sonora	Construct a New Bus Stop Shelter.	50	TBD
New Courthouse Park Bus Shelter and Complete Streets Improvements	Tier 1c	LTF	Sonora	Rehabilitate the existing bus stop shelter and rehabilitate Jackson Street into a Complete Streets corridor with ADA improvements. (Non-Motorized Project)	550	TBD
Transit Maintenance Facility Improvements	Tier 1c	LTF	East Sonora	Install a generator, fueling capability, and electric charging station(s) at the Transit Maintenance Facility.	100	TBD
MiWuk Village	Tier 1c	LTF	Miwuk Village	Construct a New Bus Stop Shelter.	50	TBD
Bus Stop Shelter Improvements	Tier 1c	LTF	Countywide	Construct New Bus Stop Shelters and make improvements to Existing Bus Stop Shelters such as: installing transit stop lighting, security cameras, and etc.	600	On-Going
					Public Transportation - 230	

Expenditure Plan

Tuolumne County Transit Projects

Tier 2 - Financial Alternative B (16-25 years)

Project Name	Priority	Funding Source	Location	Description	Cost ($1,000)	Construction Year
Columbia Inter-County Transfer Point	Tier 2	TBD	Columbia	New Bus Stop Shelter and bus transfer facility.	840	TBD
Northern Yosemite Regional Transit Access Center	Tier 2	PTMISEA, LTF, TBD	Sonora	Purchase and make improvements for a Regional Transit Access Center building.	3,250	TBD
Groveland Transit Stop Improvements	Tier 2	PTMISEA, LTF, TBD	Groveland	Construct bus stop improvements in Groveland.	1,500	TBD
					Public Transportation - 231	

Tier Projects Table Summary

Tier 1a - Programmed Projects with dedicated funding

Tier 1b – Plan to fund these projects by 2030

Tier 1c – Plan to fund these projects by 2040

Tier 2 - Alternative Funding Scenario - If new funds become available

Tier 3 - Unfunded Projects

Financially Constrained Expenditure Plan

Public Transportation Service Expansions

Tier 1, 2, 3 Program

Project Name	Priority	Funding Source	Location	Description	Annual Cost ($1,000)	Service Year
Service to Pinecrest	Tier 1a	LCTOP, Local	Pinecrest	A seasonal transit service similarly to the SkiBus, only differing in its season of operation. The service would likely operate during the summer time, on the weekends and holidays.	52	2017
YARTS - Increase Existing Service	Tier 1a	National Park Service	Tuolumne County	This would provide additional transit service runs to Yosemite National Park from Tuolumne County. This would help reduce environmental impacts associated with vehicle and parking congestion in Yosemite Valley and be consistent with the Merced River Plan.	50	2018
Foothill to Valley Service (Out of County Service)	Tier 2	5311(f), Cap & Trade	Out of County	This transit service would focus on transporting Tuolumne County residents to and from Central Valley destinations.	300	2025
Service to Groveland/SR 120 Expansion	Tier 3	TBD	Groveland	This transit service would focus on Groveland residents who are seeking transportation options to the Sonora area.	TBD	TBD
Serve night classes at Columbia College	Tier 3	TBD	Columbia	This transit service would focus on targeting students/teachers who are attending late night classes at Columbia College.	TBD	TBD
Service to Merced High Speed Rail Station	Tier 3	TBD	Out of County	The California High Speed Rail project is currently building the Bakersfield to Merced rail section in the Central Valley. The first trains are proposed to be operational from the Central Valley to the Bay Area by 2025.	TBD	TBD
					Public Transportation - 232	

Tuolumne County: Tier 1a - 1c Public Transportation Projects

Sierra Village
New Bus Stop Shelter

MiWuk Village
New Bus Stop Shelter

Sierra Village

Mi-Wuk

Cedar Ridge

New Courthouse Park Bus Shelter and Complete Streets Improvements

Dragoon Gulch/Racetrack Rd
New Bus Stop Shelter

Restano Way/South Washington/Mono Way
New Bus Stop Shelter

Existing Bus Stops
Improvements

Crystal Falls

Willow Springs

Tuttletown

Sonora

Stockton - Washington Corridor
Transit & Accessibility Project

Standard - Tuolumne Rd
New Bus Stop Shelter

Tuolumne

SR 108 /SR 49 Stage 1
Widen to Five Lanes - from South Main St to Fifth Ave
Complete Streets

Jamestown

Mono Village Center
New Bus Stop Shelter

Transit Maintenance Facility Improvements Phase 1 & 2

Law & Justice Center
Bus Transfer Facility

Chinese Camp

Twain Harte

Columbia

Pine Mountain Lake

Groveland

Big Oak Flat

Moccasin

Parrotts Ferry Rd
Yankee Hill Rd
Big Hill Rd
Springfield Rd
Sawmill Flat Rd
Shaws Flat Rd
Racetrack Rd
Jamestown Rd
South Washington St
Lyons Bald Mountain Rd
Cabezut
Sanguinetti Rd
Mono Way
Rawhide Rd
Lime Kiln Rd
Campo Seco Rd
Old Wards Ferry Rd
Seco Street
Stent Cut Off
Algerine Rd
Algerine Wards Ferry Rd
Yosemite Rd
O Byrnes Ferry Rd
Twist Rd
Wards Ferry Rd
Jacksonville Rd
Red Hills Rd
La Grange Rd
Old Priest Grade
Priest Coulterville Rd
Kewin Mill Rd
Middle Camp Rd
Middle Camp Sugar Pine Rd
South Fork Rd
Fuller Rd
Twain Harte Dr
Longeway Rd
Creekside Dr
Crestview Dr
Hunts Rd
Tuolumne Rd
Phoenix Lake Rd
Ridgewood Dr
Soulsbyville Rd
Standard Rd
Cherokee Rd
Tuolumne Rd
Woodhams Carne Rd
Bay Ave
Buchanan Road
Ferretti Rd

Legend

CIP:Tier 1a, 1b, 1c

- CIP:Tier 1a Short Range Points
- CIP:Tier 1b Mid Range Points
- CIP:Tier 1c Long Range Points
- CIP:Tier 1b Mid Range

N

0 0.5 1 2 3 4 Miles

This page is left intentional blank

Chapter Eleven - Financial Plan



Figure 11.1 New Melones Reservoir, Photo Courtesy of TCTC

Introduction

The Financial Element provides a summary of the anticipated funding sources and the revenues predicted for the next 25 years in the 2016 Regional Transportation Plan (RTP). This Element includes the estimated cost of the constrained list of transportation capital improvement projects, a discussion of the potential revenues available, and an analysis of potential funding alternatives needed to pay for the unfunded capital improvement project. The 2016 RTP funding strategy is presented in this chapter, along with three alternative financial scenarios. The Expenditure Plan discusses the complete list of constrained and unconstrained capital improvement projects.

The 2016 RTP has a funding shortfall of at least 688 million dollars for needed CIP's. This will go unfunded, unless new revenue sources become available. The financial alternatives can be viewed as a way to bridge the gap between the funding shortfall anticipated and the need for more revenue to pay for the unfunded capital improvement projects in the RTP, and also to expedite the delivery of projects sooner than currently anticipated.

Transportation Funds Available

Transportation projects in Tuolumne County are funded from a variety of local, State, and Federal funding sources. During the development of the RTP, it was necessary to make reasonable estimates of expected revenues during the 25 year life of the Plan. Table 11.1 provides a summary of the anticipated revenues from Federal, State, and local sources over the 25 year life cycle of this RTP. The following core revenue sources were assumed to be available for purposes of this plan:

Federal Sources

- Highway Bridge Program (HBP)
- FTA Section 5311 Non-urbanized Area Program (Transit)
- FTA Section 5310 Elderly & Persons with Disabilities Formula Program (Transit)
- California Aid to Airports Program (CAAP)
- Highway Safety Improvement Program (HSIP)
- Congestion Mitigation & Air Quality Program (CMAQ)
- Federal Lands Access Program (FLAP)

State Sources

- State Gas Tax - Regional Transportation Improvement Program (RTIP) (through the State Transportation Improvement Program - STIP)
- Interregional Transportation Improvement Program (ITIP) (Caltrans' funding in the STIP)

• State Highway Operation and Protection Program (SHOPP) – (Caltrans operated & managed program)
• Regional Surface Transportation Program (RSTP) Exchange Funds
• Active Transportation Program (ATP) (competitive)
• Cap and Trade Funds – Low Carbon Transit Operations Program (competitive and formula)

Local Sources
• Tuolumne County Traffic Impact Mitigation Fees (TIMF)
• Transportation Development Act (TDA) - Local Transportation Fund (LTF)
• Transportation Development Act (TDA) – State Transit Assistance Funds (STAF)
• Transportation Quarter-Cent Sales Tax

Discretionary Funds

Revenues available for transportation projects and programs identified in the Regional Transportation Plan are either dedicated to specific uses or are considered discretionary and available for a variety of transportation modes.

- Regional Transportation Improvement Program (RTIP)
- Regional Surface Transportation Program (RSTP) Exchange Funds
- Tuolumne County Traffic Impact Mitigation Fee (TIMF)
- Transportation Development Act (TDA) - Local Transportation Funds (LTF)

Funding Uncertainties

Financial projections in this Regional Transportation Plan reflect the best estimates that are currently available. These financial projections are meant to be used as a tool for TCTC to prioritize short and long term capital improvement projects. Forecasting the amount of funding that will be available is speculative. The actual revenues can vary from year to year, or cycle to cycle, and can be dependent upon a wide variety of factors.

Future Transportation Trends

The transportation industry has seen rapid changes, to meet the demands of consumers and meet new Federal and State laws. In 2012, the Federal government issued new rules requiring automakers to nearly double the average fuel economy of new cars and trucks by 2025. These standards will mandate an average fuel economy of 54.5 miles per gallon in vehicles by the 2025 model year. California also has an aggressive goal to have 1.5 million zero emission vehicles on the road by 2025. With California drivers paying fewer gas taxes, there will be growing revenue gaps impacting the funding and delivery of needed maintenance and capital improvement projects.

California Road Charge Technical Advisory Committee

With more fuel efficient vehicles anticipated on the road in the future and more zero emission vehicles in California, gas tax revenues are anticipated to continue to decrease. California is pursuing a new form of transportation revenue source that has the potential to replace gas taxes.

The California Road Charge Technical Advisory Committee was established in 2014 by Senate Bill 1077. SB 1077 created the California Road Usage Charge Pilot Program. The Program created a fifteen member Technical Advisory Committee (TAC) to study road usage charge alternatives to the gas tax, gather public comment, and make recommendations to the California Transportation Agency (CalSTA) regarding the design of a road usage charge pilot program. The TAC may also make recommendations on the criteria to be used to evaluate the pilot program. CalSTA is charged with implementing a pilot program by January 1, 2017 and reporting its findings on the pilot program to the TAC, the Commission, and the appropriate policy and fiscal committees of the Legislature by June 30, 2018. The Commission will include its recommendations regarding the pilot program in its annual report to the Legislature.

The California Road Charge Program has not been approved and no recommendations have been drafted by the Committee or by the California legislature. The 2016 RTP Financial Element does not account for this funding scenario and it will not be included as part of the Financial Plan.

Congestion Mitigation and Air Quality Improvement (CMAQ)

CMAQ funds were eliminated for Tuolumne County with the revoking of the 1997 Ozone Standard in 2015. However, the US EPA is proposing to lower the ozone standard. Tuolumne County could potentially qualify as non-attainment for the ozone standard once again. Until the US EPA releases more detailed information on their exact plans to lower the Ozone Standard, TCTC will continue to monitor this funding and see if this potential funding source becomes available to Tuolumne County again. Financial Alternative B anticipates CMAQ funding will become available in the 2018/2019 fiscal year and estimates what future CMAQ allocations might generate through 2040.

Transportation Funding Shortfall

A major challenge for transportation funding has been revenues generated at the gas pumps have not kept up with inflation and the Federal gas taxes and fees have not increased since 1993. Automobile drivers are generally spending less in fuel costs, because of increased vehicle fuel efficiency combined with the growing use and popularity of plug-in electric vehicles, which do use gasoline fuels, is resulting in a deep decline in gasoline tax revenues. The problem is compounded when gas prices are low, resulting in less gasoline tax revenues.

The California Transportation Commission (CTC) approved a reduction in the projected funds available by $754 million dollars over the next 5 years for the State Transportation Improvement Program (STIP). This means the CTC will have to remove 754 million dollars in programmed projects in the 2016 STIP. The Transportation Council adopted a revised 2016 Regional Transportation Improvement Program (RTIP) Plan in February 2016. According to the Final 2016 STIP, the Tuolumne County region will see a cut of $1.995 million dollars in RTIP funds and a delay in the construction of the Peaceful Oaks Interchange Project.

The transportation funding shortfall has impacted rural areas much more because of the recent changes to State laws such as the Active Transportation Program (ATP). The previous formula based Transportation Enhancement (TE) funds that Tuolumne County received for pedestrian and bicycle projects was combined into one new program as a result of new Federal legislation creating the Transportation Alternatives Program (TAP). As a result of the TAP, the State created a competitive based, Caltrans administered program called the Active Transportation Program (ATP). The ATP scoring criteria prioritizes non-motorized transportation projects that improve safety by reviewing project site accident data to support the justification. Tuolumne County and the City of Sonora have had a lack of success in the ATP program, because of the lack of accident data. Urbanized areas can make a stronger case for the safety need based upon having larger populations and more accident data. The ATP program is just one example, where the Tuolumne County region is losing transportation funds.

Financial Plan Summary

The 2016 RTP makes reasonable estimates of expected revenues during the next 25 years based upon previous funding amounts and projected funding availability. The RTP Financial Plan Summary is included in Table 11.1. This table lists some of the projected revenues available for the next 25 years.

Summary of RTP Projected Revenues for Capacity Increasing Projects

Revenue Category	*2016-2030*	*2031-2040*	*Total*
Tuolumne County Traffic Impact Mitigation Fee (TIMF)	$6,033	$5,141	$11,174
Regional Transportation Improvement Program (RTIP)	$12,078	$9,832	$21,910
Interregional Transportation Improvement Program (ITIP)	$2,607	None	$2,607
State Highway Operation and Protection Program (SHOPP)	$110,810	$73,873	$184,683
Total	$131,528	$88,846	$220,374

Table 11.1 Summary of some the RTP Projected Revenues (in thousands) - RTP Financial Summary - Appendix K

Table 11.1 is a summary of some of the RTP projected financial revenues generated and allocated from the year 2016 through 2040 for Tuolumne County. Please see Appendix K for a complete list of RTP projected revenues. Please note that some funding sources have unspent revenues from previous years and these unspent funds may not be accounted for in Table 11.1. These unspent funds from previous years or other related funding accounts will be captured as part of the 2016 RTP Expenditure Plan. The RTP Expenditure Plan is consistent with the Federal Transportation Improvement Program (FTIP).

The Tuolumne County Traffic Impact Mitigation Fee (TIMF) revenue collected is projected to increase by 2% per year over the next 25 years. This local funding source focuses on improving Level of Service deficiencies and traffic congestion in Tuolumne County.

The Regional Improvement Program (RIP) is Tuolumne County's local share of the State Transportation Improvement Program (STIP). With gas prices dropping significantly, there is a major shortfall of gas tax (RIP) revenues. The projections for the 2016 STIP cycle include no new RTIP shares and projects programmed in the 2014 Regional Transportation Improvement Program (RTIP) may need to be delayed. There is a short term gap in funding for RTIP projects and this highly volatile funding source is difficult to project in the future. The most recent 2016 STIP Fund Estimate projects an annual average increase of four to five percent (4% - 5%) in the five years of this cycle. For the long term projection, the RTP has projected a conservative two percent (2%) per two-year cycle increase.

The Interregional Transportation Improvement Program (ITIP) is Caltrans' portion of the STIP Program. Caltrans' Interregional Improvement Program (IIP) funding, programmed in their ITIP, has historically been available to match approximately 25% of the cost of an interregional transportation projects on the State Highway System. TCTC is anticipating one regional capital improvement project in the 2016 RTP will qualify and meet the ITIP criteria.

Local Transportation Funds (LTF) is projected to increase by 1.2% per year for the next 25 years. These funds are governed by the Transportation Development Act (TDA). The amount is based on sales tax collected within Tuolumne County.

The Regional Surface Transportation Exchange Program (RSTP) has regionally dispersed funds which can be allocated towards a wide range of transportation modes. These funds begin as Federal RSTP funds. The Streets and Highways Code permits rural agencies to exchange their annual apportionments for non-Federal State Highway Account funding, to simply project delivery.

The State Highway Operation and Protection Program (SHOPP) is a State administrated and controlled funding source that focuses on improving the operation and safety of the State Highway System. In the past 15 years, Tuolumne County has received an average of about $7 million per year in SHOPP funding for projects.

Through the Proposition 1B Bond Program, Tuolumne County received Public Transportation Modernization, Improvement and Service Enhancement Account (PTMISEA) funding. The funds received prior to Fiscal Year 2014/15 must be spent by 2019. The 2014/15 funds must be spent by 2020, when the program expires. These funds are dedicated towards transit capital improvement projects, such as bus shelters and transfer facilities. Tuolumne County Transit has a limited amount of Prop 1B funds available, to construct new public transit capital improvements.

The California Aid to Airports Program (CAAP) is a Federal Aviation Administration (FAA) program, awarding funds on a competitive basis.

The Highway Safety Improvement Program (HSIP) is a competitive, federally administered safety program. The HSIP funds included in this table are for projects that were successful in competing for grant funds, were awarded funds, and now have been programmed into Tuolumne County's capital improvement project list. No new funds have been projected into the future.

Summary of Projected Revenues for Road Maintenance

Revenue Category	*2016-2030*	*2031-2040*	*Total*
Local Transportation Fund (LTF) – City & County	$7,178	$5,550	$12,728
Regional Surface Transportation Exchange Program (RSTP)	$10,486	$6,990	$17,476
SHOPP	$83,107	$55,405	$138,512
County General Funds	$23,014	$15,342	$38,356
City General Funds	$23	$15	$39
Total	$123,785	$83,287	$207,072

Table 11.2 Summary of 25 Year Road Maintenance Anticipated Revenues (in thousands) – Appendix K

Table 11.2 provides a summary of the reasonably available State Highway and Local Road funds that will be available to operate and maintain the State Highway and local road system for the region. Local Transportation Funds (LTF) that are anticipated for road maintenance include both the City of Sonora and County of Tuolumne shares. LTF is projected to increase by 1.2% per year for the next 25 years. The LTF funds dedicated to road maintenance is approximately 28% of the overall LTF total funds by 2040.

RSTP Exchange funds are discretionary funds with flexibility to fund a variety of modes of transportation. The County of Tuolumne receives an apportionment of RSTP Exchange funds each year. The TCTC receives the balance of RSTP funds. The TCTC's portion is deposited into a reserve account and then allocated out based on project requests from agencies. The County's apportionment has mainly been used for road maintenance. The TCTC has dispersed over 66% of its share to the City and County for a variety of projects, including but not limited to, road maintenance. RSTP funds are not projected to increase or decrease over the next 25 years.

SHOPP maintenance projects constitute about 75% of the total SHOPP funds that are projected to be directed to Caltrans Highway maintenance in Tuolumne County.

Tuolumne County and the City of Sonora have historically used General Funds to fund road maintenance projects and these funds are projected to stay constant over the next 25 years.

Summary of Projected Revenues for Public Transit

Revenue Category	2016-2030	2031-2040	Total
Local Transportation Fund (LTF) Public Transit	$16,485	$12,748	$29,233
State Transit Assistance Funds (STAF)	$6,493	$7,868	$14,362
Low Carbon Transit Operations Program	$255	$170	$425
Transit Fares	$3,655	$3,042	$6,697
Non-Urbanized Area Program (5311)	$6,723	$8,147	$14,872
Elderly & Persons with Disabilities (5310)	$1,167	$1,161	$2,328
Total	$34,778	$33,136	$67,917

Table 11.3 Summary of 25 Year Public Transit Anticipated Revenues (in thousands) – Appendix K

Table 11.3 provides a summary of the reasonably available transit funds that will be available to operate and maintain the transit system for the region. (Caltrans Comment) Public transportation in Tuolumne County faces several obstacles to continue to maintain existing transit service to the public. Fuel cost increases, transit facility cost increases, and transit operations cost increases continue to rise and could disrupt service in future.

The Tuolumne County Transit Agency (TCTA), as the administrator of Tuolumne County Transit, charges transit fares to riders who use the bus system. Tuolumne County Transit provides both fixed route and demand response (dial-a-ride) services. The Transportation Development Act (TDA) requires a minimum ten percent (10%) farebox recovery ratio be maintained, which is the ratio of revenue collected vs. the cost of operations. The transit fares shown include historical averages. A 10% increase in transit revenues is projected into the future.

The TDA is a State funding source providing funding to transit through Local Transportation Funds (LTF) and State Transit Assistance Funds (STAF). TCTC dedicates about 65% of LTF to public transit. LTF is projected to increase by 1.2% per year over the next 25 years. STAF may only be allocated for public transit purposes. STAF funding is projected to increase by 5% over the next 25 years.

The Federal Transit Administration (FTA) apportions Non- Urbanized Area Formula Program 5311 and 5310 funding to rural areas. The 5311 Program apportionment is based upon population. The 5310 Program awards capital grants through a competitive statewide process. The 5311 and 5310 Programs are projected to increase by 5% every three years to 2040. The

5311 Program may be used for operations. The 5310 Program is for capital (bus) purchases for services provided to the elderly and disabled population.

The Low Carbon Transit Operations Program is a new transit funding source that comes from California's Cap and Trade funds which is formula based and distributed to transit agencies. This new Program may fund a new transit service expansion in Tuolumne County.

Summary of Projected Revenues & Needs for Bridge Maintenance & Replacement

Owner of Bridges	*2016-2030 - Costs*	*Bridge - Unfunded Needs*
City of Sonora	None	$6,000
Tuolumne County	$36,337	$12,000
Caltrans	$19,484	TBD
Total	$55,821	$18,000

Table 11.4 Summary of Bridge Maintenance Projected Revenues (in thousands)

The Highway Bridge Program (HBP) is a Federally funded program that funds local government maintained bridge replacements and rehabilitations. The Highway Bridge Program is a competitive program. Each individual bridge must meet specific criteria in order to be eligible for funding. Bridges must be either structurally deficient or functionally obsolete and have a sufficiency rating of 50 or less for replacement or 80 or less for rehabilitation. Sixteen Tuolumne County bridges have been accepted into the Federal Highway Bridge Program (HBP) for replacements in the next 6 years. Tuolumne County has four bridges that are eligible, or close to becoming eligible for a complete bridge replacement.

The City of Sonora does not have any bridges programmed into the Highway Bridge Program but there are City of Sonora maintained bridges that are eligible for full bridge replacements.

The Caltrans SHOPP Program allows for the rehabilitation and maintenance of Caltrans maintained bridges only. Funding for this program is used on an as needed and competitive basis. Caltrans has full discretion over which projects they choose to fund. Caltrans has begun bridge rehabilitation of the James E. Roberts Memorial Bridge along SR 49/120 in late 2016, to coincide with the non-peak tourist season. This bridge, located near Moccasin, is a vital bridge that crosses the Tuolumne River and Don Pedro Reservoir.

2016 RTP Expenditure Plan - Status Quo

The 2016 RTP Expenditure Plan lists the status quo funding estimates and plans capital improvement projects that will be funded with the limited constrained funds in the next 25 years. The cost estimates for implementing capital improvement projects in the Expenditure Plan reflect year of expenditure dollars to reflect inflation results. Table 11.5 breaks down the cost of the capital improvements by each mode of transportation in a Tier 1 project list. Table 11.6 includes total project costs for Tier 3 projects.

2016 RTP Tier 1 Breakdown Capital Improvement Projects Cost Summary

RTP Element	Tier 1a	Tier 1b	Tier 1c	Total
State Highways	$19,361**	$28,892	$14,150	**$62,403**
Local Roads	$47,916*	$10,269	$23,164	**$81,348**
Aviation	$2,481	None	None	**$2,481**
Non-Motorized Transportation	$34,905**	$26,705**	$23,764**	**$85,374**
Railroad	None	None	None	**None**
Public Transportation	$3,479**	$13,187**	450	**$4,079**
Total	$108,142	$79,053	$61,528	**$162,302**

Table 11.5 RTP Capital Improvement Projects Costs Summary (in thousands)

*Includes some large Federal funded road maintenance projects

**Some projects are multi-modal and have been included in one or more mode of transportation modes

Tier Projects Table Summary

- Tier 1a - Programmed Projects with dedicated funding – Also Funding Alternative A
- Tier 1b – Plan to fund these projects by 2030
- Tier 1c – Plan to fund these projects by 2040
- Tier 2 – Unfunded projects – But would be funded if Financial Alternative B and Alternative C revenue sources are realized– The capital improvement projects lists are included in each alternative.
- Tier 3 – Unfunded projects

2016 RTP Tier 2 & 3 – Unfunded Projects Cost Summary

RTP Element	Tier 2 & 3
State Highways	$232,800
Local Roads	$280,500
Aviation	$58,000
Non-Motorized Transportation	$107,000
Railroad	$1,200
Public Transportation	$8,600
Total 2016 RTP	**$688,100**

Table 11.6 RTP Tier 2 & 3 Unfunded Project Cost Summary (in thousands)

The tier capital improvement project lists for the 2016 RTP can also be found in each mode of transportation element. The capital improvement projects listed include planned cost estimates based on the best information available at the time. A more detailed engineer's cost estimate will be performed, once funding sources have been found to be available, and a project initiation document moves forward. Projects identified in the RTP are subject to change, based upon project scope changes. Please note, some capital improvement projects do not yet have cost estimates.

State Highways Tier Project List

The State Highways Tier project list includes programmed and planned projects that will be constructed in the next 25 years with constrained funding.

Local Roads and Streets Tier Project List

The Local Roads Tier project list includes programmed and planned projects that will be constructed in the next 25 years with constrained funding.

Aviation Tier Project List

Only programmed aviation projects are included in the Aviation Tier 1 project list.

Non-Motorized Transportation Tier Project List

The Non-Motorized Transportation tier list includes programmed and planned projects that will be constructed in the next 25 years with constrained funding. Although competitive grant applications were submitted, the current cycle of the State administered Active Transportation Program did not award any funding to the Tuolumne County or the City of Sonora.

Railroad Tier Project List

There are no planned Tier 1 capital improvement projects for Railroad projects. There are currently no dedicated formula funds for Railroad projects. The California Public Utilities Commission and Federal Railroad Administration have not funded any improvements on the Sierra R/R in the last decade.

Public Transportation Tier Project List

The Public Transportation Tier list includes programmed and planned projects that will be constructed in the next 25 years with constrained funding.

Tuolumne County: Tier 1a Capital Improvement Projects

Taxiway B & C Rehabilitation and Reconstruction

Airport Master Plan/PMMP/Area Specific Study

Parrotts Ferry Rd @ SR 49 Intersection Improvements

Construct Park-N-Ride Facility in Sonora

Phoenix Lake Rd Improvements (Ridgewood/ Paseo de Los Portales)

Steward Street- Public Restroom Sidewalks

Dragoon Gulch Trail Expansion

Improvements to Existing Bus Stops

Mono Way Operational & Safety Project

Stockton - Washington Corridor Transit & Accessibility Project

Peaceful Oak Road/SR 108 On/Off Ramps Project

Bus Stop - Standard - Tuolumne Rd

Rehab & Reconstruct Buchanan Road

Signalization - 5th Ave & SR 108/49

New Rawhide Bridge and Rawhide Rd Realignment

Standard Rd @Tuolumne Rd - Signalization

Greenley Rd & Mono Way Intersection Improvements

Tuolumne Rd Improvements Terrace Dr to Lambert Lake Rd

Transit Maintenance Facility Improvements Phase 1& 2

SR 108/120 - Safety Improvements Yosemite Junction Intersection

Law & Justice Center Drive and Bus Transfer Facility

Reconstruction of Evergreen Road

SR 120 - New Priest Grade - Turnouts

Columbia
Sonora
Tuttletown
Jamestown
Chinese Camp
Moccasin
Cedar Ridge
Sierra Village
Mi-Wuk
Twain Harte
Crystal Falls
Willow Springs
Tuolumne
Groveland
Big Oak Flat
Pine Mountain Lake

Parrotts Ferry Rd
Yankee Hill Rd
Big Hill Rd
Springfield Rd
Sawmill Flat Rd
Shaws Flat Rd
Lyons Bald Mountain Rd
Phoenix Lake Rd
Ridgewood Dr
Creekside Dr
Crestview Dr
Hunts Rd
Tuolumne Rd
Kewin Mill Rd
South Fork Rd
Middle Camp Sugar Pine Rd
Middle Camp Rd
Fuller Rd
Twain Harte Dr
Longeway Rd
Racetrack Rd
Jamestown Rd
South Washington St
Cabezut
Mono Way
Standard Rd
Rawhide Rd
Lime Kiln Rd
Old Wards Ferry Rd
Tuolumne Rd
Woodhams Carne Rd
Bay Ave
Buchanan Road
Seco Street
Campo Seco Rd
Stent Cut Off
Algerine Rd
Yosemite Rd
Algerine Wards Ferry Rd
O Byrnes Ferry Rd
Twist Rd
Wards Ferry Rd
Jacksonville Rd
Red Hills Rd
La Grange Rd
Bonds Flat Rd
Ferretti Rd
Old Priest Grade
Priest Coulterville Rd

49
108
120
132

Legend

CIP:Tier 1a Short Range

CIP:Tier 1a Short Range Points

State Highway

Local Road

N

0 0.5 1 2 3 4 Miles

Tuolumne County: Tier 1b Capital Improvement Projects

Signalization @ Parrotts Ferry Rd & Sawmill Flat Rd

Intersection Improvements at SR 49/Columbia Way
Complete Streets Improvements

State Highway 49
Left Turn Channalization-Shaws Flat Rd

Restano Way/South Washington/Mono Way
New Bus Stop Shelter

STATE HIGHWAY 49 - Tuttletown Curve

Intersection Improvements @ Sanguinetti Rd

Dragoon Gulch/Racetrack Rd
New Bus Stop Shelter

SR 49 ADA
Improvements in Sonora

SR 49-108 ADA Improvements in Jamestown

State Highway 108/49
Chicken Ranch to S. Main St
Continuous Left Turn Lane

SR-108/49 Widen to Five lanes
from South Main St to Fifth Ave

SR108/S.WashingtonSt/LimeKiln Rd
Operational Improvements

Extend Gardella Ranch Rd
to Justice Center Drive

Sierra Village
New Bus Stop Shelter

Construct a Park N- Ride Facility Tuolumne City

Safety Improvements @ Tuolumne Rd
& Soulsbyville Rd

Safety Improvements @ Tuolumne Rd & Woodham Carne
Black Oak Rd including Possible Realignment

Install Bicycle Signs along Various Roads

SR 120 ADA Improvements in Groveland

SR 120 & Old Priest Grade Top Grade
Left Turn Channelization

SR 108/120 Eastbound Realignment
of Rockhouse Curve

SR 120 & 49 near Moccasin
Left Turn Channelization

SR 120 Install Guardrails from west
of Old Priest Grade to Coulterville Rd

Columbia
Tuttletown
Sonora
Jamestown
Chinese Camp
Cedar Ridge
Sierra Village
Mi-Wuk
Long Barn
Twain Harte
Crystal Falls
Willow Springs
Tuolumne
Groveland
Big Oak Flat
Pine Mountain Lake
Moccasin

Parrotts Ferry Rd
Yankee Hill Rd
Big Hill Rd
Springfield Rd
Shaws Flat Rd
Sawmill Flat Rd
Racetrack Rd
Jamestown Rd
Rawhide Rd
S Washington St
Campo Seco Rd
Lime Kiln Rd
Old Wards Ferry Rd
Stent Cut Off
Algerine Rd
Algerine Wards Ferry Rd
Twist Rd
Wards Ferry Rd
Yosemite Rd
O Byrnes Ferry Rd
Red Hills Rd
Jacksonville Rd
La Grange Rd
Bonds Flat Rd
Kewin Mill Rd
South Fork Rd
Middle Camp Sugar Pine Rd
Middle Camp Rd
Fuller Rd
Twain Harte Dr
Longeway Rd
Lyons Bald Mountain Rd
Phoenix Lake Rd
Ridgewood Dr
Creekside Dr
Crestview Dr
Tuolumne Rd/N
Cabezut
Mono Way
Standard Rd
Draper Mine Rd
Soulsbyville Rd
Cherokee Rd
Bay Ave
Tuolumne Rd
Woodhams Carne Rd
Buchanan Road
Ferretti Rd
Old Priest Grade
Priest Coulterville Rd
SR 49
SR 132

Legend

CIP:Tier 1b Mid Range

- CIP:Tier 1b Mid Range Points
- Pedestrian/Bicycle /State Highway
- Local Road
- State Highway

N

0 0.5 1 2 3 4 Miles

Tuolumne County: Tier 1c Capital Improvement Projects

Courthouse Park Rehab Bus Stop Shelter & Complete Streets Improvements

North-South Connector - Phase I - Greenley Rd Extension - Complete Streets

Existing Bus Stops Improvements On-Going

Mi-Wuk Village
Construct a New Bus Stop Shelter

SR-108/49 & Chicken Ranch Rd Intersection Improvements

SR-108 & SR 49 Stockton Rd Intersection Improvements

Mono Village Center Bus Stop Shelter

SR 108 - SR 49 to SR 120 - Climbing Lanes

SR-108/49 from SR 49 to Chicken Ranch Rd Climbing Lanes

Install Bicycle Signs along State Highways

SR 120 - New Priest Grade
Widen Road, Install and Add Climbing Lanes

SR 108/120
La Grange Rd to O'Byrnes Ferry Rd - Climbing Lanes

Columbia
Tuttletown
Sonora
Jamestown
Chinese Camp
Cedar Ridge
Mi-Wuk
Sierra Village
Twain Harte
Long
Crystal Falls
Willow Springs
Tuolumne
Moccasin
Groveland
Big Oak Flat
Pine Mountain Lake

Parrotts Ferry Rd
Springfield Rd
Sawmill Flat Rd
Shaws Flat Rd
Racetrack Rd
Jamestown Rd
S Washington St
Yankee Hill Rd
Big Hill Rd
Lyons Bald Mountain Rd
Cabezut
Mono Way
Rawhide Rd
Campo Seco Rd
Old Wards Ferry Rd
Lime Kiln Rd
Jacksonville Rd
Algerine Rd
Algerine Wards Ferry Rd
Twist Rd
Wards Ferry Rd
Yosemite Rd
O Byrnes Ferry Rd
Red Hills Rd
La Grange Rd
Kewin Mill Rd
South Fork Rd
Middle Camp Rd
Longeway Rd
Creekside Dr
Crestview Dr
Tuolumne Rd N
Phoenix Lake Rd
Ridgewood Dr
Draper Mine Rd
Soulsbyville Rd
Cherokee Rd
Standard Rd
Tuolumne Rd
Woodhams Carne Rd
Bay Ave
Buchanan Road
Ferretti Rd
Old Priest Grade
Priest Coulterville Rd
Bonds Flat Rd
Merced Falls Rd

Legend

CIP:Tier 1c Long Range

CIP:Tier 1c Long Range Points

State Highway

Local Road

Document Path: S:_TCTC_\PL-020350 RTP (Regional Transportation Plan)\RTP update 2013\Expenditure Plan - CIP Maps\Tier 1\Map Files\CIPprojects_Tier1c_11x17_20160105.mxd

N

0 0.5 1 2 3 4 Miles

Financially Constrained Expenditure Plan

State Highway Projects

Tier 1a - Short-Range Capital Improvement Program (0-5 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
SR 120 - New Priest Grade - Turnouts	Tier 1a	Minor SHOPP	Caltrans	Groveland	Construct eastbound turnouts at 3 locations for slow moving vehicles and to allow other vehicles to pass to reduce queues and improve traffic flow.	945	2017	Safety, Operational
Signalization @ Fifth Avenue at State Route 108 & Shoulder Improvements to Fifth Ave	Tier 1a	TIMF	Tuolumne County	Jamestown	Construct a new signal at Fifth Avenue and Highway 108 in Jamestown. Construct additional right turn lanes on 5th Avenue in the northbound and southbound directions. Widen SR 108/49 for a right lane turn pocket. (Non Motorized Transportation Project)	2,800	2017	Capacity
Peaceful Oak Road/SR 108 Off Ramps Project	Tier 1a	RTIP, local	Caltrans	East Sonora	Construct two off ramps at the Peaceful Oak Rd/State Route 108 interchange that were eliminated from the original scope of the East Sonora Bypass Stage II project.	10,195	2018	Operational
Parrotts Ferry Rd @ SR 49 Intersection Improvements	Tier 1a	HSIP, local	Tuolumne County	Columbia	Construct geometric improvements at the intersection of SR 49 and Parrotts Ferry Road. Construct wider shoulders from SR 49 to Union Hill Rd. (Non Motorized Transportation Project)	1,111	2018	Safety
Mono Way Operational and Safety Project	Tier 1a	RTIP	Tuolumne County	East Sonora	A segment of SR 108 from Peaceful Oak Rd to Via Este will be relinquished to the County and become a County maintained road. Improvements to the roadway geometry will accommodate pedestrian traffic, improve drainage, realign the intersection and install left turn pockets. (Non Motorized Transportation Project)	1,860	2019	Operational & Safety
SR 108/120 - Safety Improvements at the Yosemite Junction Intersection	Tier 1a	SHOPP	Caltrans	Jamestown	Construct safety improvements at the intersection of SR 108 and SR 120 also called the Yosemite Junction. Implement Complete Streets improvements when reasonable feasible.	2,450	2020	Safety
								State Highways - 251

Financially Constrained Expenditure Plan

State Highway Projects

Tier 1b - Mid-Range Capital Improvement Program (6-15 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
SR 120 & Old Priest Grade Top Grade - Left Turn Channelization	Tier 1b	SHOPP	Caltrans	Groveland	Construct a left turn lane along SR 120 and Old Priest Grade Rd at the top of the grade. Implement Complete Streets improvements when reasonable feasible.	900	2021	Safety
SR 108/49 - Chicken Ranch Rd to South Main St - Continuous Left Turn Lane	Tier 1b	SHOPP	Caltrans	Jamestown	Construct an continuous left turn lane from the Chicken Ranch Rd to South Main St. Implement Complete Streets improvements when reasonable feasible.	1,300	2022	Safety
Intersection Improvements at SR 49/Columbia Way - Complete Streets Improvements	Tier 1b	RTIP, SHOPP, TIMF	Caltrans	Sonora	Construct intersection improvements at SR 49/North Washington St/Columbia Way/School St. The intersection improvements would include ADA crossings, pedestrian, and bicycle improvements. (Non Motorized Transportation Project)	3,000	2022	Operational Safety, ADA
SR 49 Left Turn Channelization Shaws Flat Road	Tier 1b	SHOPP	Caltrans	Columbia	Construct a continuous left turn lane from at the intersection of Sr 49 and Shaws Flat Rd. Implement Complete Streets improvements when reasonable feasible.	900	2022	Safety
SR-108/SR-49 - Stage 1 -Widen to Five Lanes - from South Main St to Fifth Ave	Tier 1b	RTIP, ITIP, local, SHOPP	Caltrans	Jamestown	Widen SR-49/SR-108 to 5-lanes in Jamestown from west of South Main Street to Fifth Ave. Construct Complete Streets improvements. (Non Motorized Transportation Project)	13,037	2025	Capacity
South Washington Rd/SR 108/Lime Kiln Road Intersection - Operational Improvements	Tier 1b	RTIP, TIMF, SHOPP	City of Sonora	Sonora	Construct a southbound right turn lane and construct a southbound 2nd left turn lane along South Washington Road at the intersection of SR 108/Lime Kiln Road. (Non Motorized Transportation Project)	1,168	2025	Operational, Safety, ADA
SR-120/SR-49 Moccasin - Left Turn Channelization	Tier 1b	SHOPP	Caltrans	Moccasin	Construct a left turn lane along SR 120 & SR 49 near Moccasin. Implement Complete Streets improvements when reasonable feasible.	900	2025	Safety
						State Highways - 252		

Financially Constrained Expenditure Plan

State Highway Projects

Tier 1b - Mid-Range Capital Improvement Program (6-15 years)

SR 49 Realignment of Curve from Jack Ass Hill Rd to Tim Horne Mine Rd	Tier 1b	SHOPP	Caltrans	Tuttletown	Construct curve realignments between Tim Horn Mine Rd and Jack Ass Hill Rd. Implement Complete Streets improvements when reasonable feasible.	3,287	2030	Safety
SR 108/120 Eastbound Realignment of Rockhouse Curve	Tier 1b	SHOPP	Caltrans	Western Tuolumne County	Construct curve realignments for SR 108/120 eastbound for the Rockhouse Curve which is 2.6 miles east of Tulloch Rd. Implement Complete Streets improvements when reasonable feasible.	3,500	2030	Safety
SR 120 Install Guardrails from Old Priest Grade to Coulterville Rd	Tier 1b	SHOPP	Caltrans	Groveland	Install guardrails along SR 120 from Old Priest Grade Rd to Coulterville Rd where appropriate. Implement Complete Streets improvements when reasonable feasible.	900	2030	Safety
								State Highways - 253

Tier Projects Table Summary

Tier 1a - Programmed Projects with dedicated funding

Tier 1b – Plan to fund these projects by 2030

Tier 1c – Plan to fund these projects by 2040

Tier 2 - Alternative Funding Scenario - If new funds become available

Tier 3 - Unfunded Projects

Financially Constrained Expenditure Plan

State Highway Projects
Tier 1c - Long-Range Capital Improvement Program (15-25 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
Install Bicycle Signs along State Highways	Tier 1c	SHOPP	Caltrans	Tuolumne County	Install new "Share the Road" Signs along designated Class II facilities. (Non Motorized Transportation Project)	50	TBD	Safety
SR-108/49 & Chicken Ranch Rd - Intersection Improvements	Tier 1c	SHOPP	Caltrans	Jamestown	Construct geometric improvements at the intersection of Chicken Ranch Rd & SR 108/49. Implement Complete Streets improvements when reasonable feasible.	1,500	TBD	Operational
SR-108 & SR 49 Stockton Rd Intersection Improvements	Tier 1c	SHOPP	Caltrans	Sonora	Construct geometric improvements at the intersection of SR 49 (Stockton Rd) & SR 108/49 & SR 108. Implement Complete Streets improvements when reasonable feasible.	2,500	TBD	Operational
SR 108 - Chicken Ranch Rd to SR 49 - Climbing, Acceleration, De-acceleration Lanes	Tier 1c	SHOPP	Caltrans	Jamestown	Construct an acceleration, deacceleration, and climbing lanes from Chicken Ranch Rd to the SR 49 exit Montezuma Junction. Implement Complete Streets improvements when reasonable feasible.	2,500	TBD	Safety & Operational
SR 108 - SR 49 to SR 120 - Climbing Lanes	Tier 1c	SHOPP	Caltrans	Jamestown	Construct eastbound climbing lanes from Montezuma Junction/SR 49 to Yosemite Junction/SR 120. Implement Complete Streets improvements when reasonable feasible.	2,000	2030	Safety & Operational
SR 108/120 - La Grange Rd to O'Byrnes Ferry Rd - Climbing Lanes	Tier 1c	SHOPP	Caltrans	Western Tuolumne County	Construct westbound and eastbound climbing and deacceleration lanes between west of La Grange Rd to SR O'Brynes Ferry Rd. Implement Complete Streets improvements when reasonable feasible.	3,500	2035	Safety & Operational
SR 120 - New Priest Grade - Widen Road, install and Add Climbing Lanes	Tier 1c	SHOPP	Caltrans	Groveland	Construct a turnout and climbing lanes on SR 120 @ New Priest Grade. Implement Complete Streets improvements when reasonable feasible.	2,100	2020	Safety & Operational
						State Highways - 254		

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Local Streets & Road Projects

Tier 1a - Short Range Capital Improvement Program

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
Signalization @ Standard Rd at Tuolumne Rd & Adding Geometric Improvements	Tier 1a	TIMF, Tribal Fees	Tuolumne County	East Sonora	Construct a new signal at Tuolumne Rd and Standard Rd. Constructing a new left and right turn lane on Standard Rd and construct a new left and right turn lane on Tuolumne.	1,246	2016	Operational & Capacity
Construct a Park N- Ride Facility - Sonora	Tier 1a	CMAQ, local	City of Sonora	Sonora	Construct a new park and ride facility project to serve users of public transit and commuters traveling outside the City.	220	2016	Reduce Congestion
Law & Justice Center Drive, Bus Transfer Facility, & Complete Streets	Tier 1a	RSTP, local	Tuolumne County	Sonora	Construct an extension of Justice Center Drive to the new Law & Justice Center Bus Transfer Facility. Construct sidewalks on the south side of the road. (Non Motorized Transportation & Public Transportation Projects)	198	2016	New road
Tuolumne Road Improvements from Terrace Dr to Lambert Lake Rd	Tier 1a	HSIP, Local	Tuolumne County	East Sonora	Widen and realign Tuolumne Road from Terrace Dr to Lambert Lake Rd. Construct a 6 foot wide shoulder will be constructed on both sides of Tuolumne Road. (Non Motorized Transportation Project)	1,609	2018	Safety
Phoenix Lake Rd from Ridgewood to Paseo de Los Portales Rd	Tier 1a	HSIP, local	Tuolumne County	Phoenix Lake	Widen and realign Phoenix Lake Road from Ridgewood Rd to Paseo de Los Portales Rd. Construct a five foot wide shoulder which will be constructed on both sides of Phoenix Lake Road. (Non-Motorized Transportation Project)	1,578	2018	Safety
New Rawhide Bridge and Rawhide Rd Realignment with SR 108/49	Tier 1a	HBP, TIMF	Tuolumne County	Jamestown	Construct a new concrete bridge with two through lanes and a left turn lane east of the existing single lane bridge. The new bridge will realign with Main Street and SR 108/49 in Jamestown. Construct pedestrian sidewalks on the new bridge and consider using the existing bridge for non-motorized use only. (Non-Motorized Transportation Project)	6,878	2018	Capacity
								Local Streets - 255

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Local Streets & Road Projects

Tier 1a - Short Range Capital Improvement Program

Rehab & Reconstruct Buchanan Road	Tier 1a	FLAP, local	FHWA	Tuolumne County	Rehabilitate and reconstruct 2.5 miles of Buchanan Road from Carter Road to the Buchanan Mine Road Bridge. Construct a new Buchanan Mine Road Bridge.	18,107	2018	Maintenance
Reconstruction of Evergreen Road	Tier 1a	FLAP, local	FHWA	Tuolumne County	Reconstruct 7 miles of Evergreen Road from State Highway 120 to Hetch Hetchy Road. The project will provide additional pedestrian signs, as well as other signs that will warn drivers of upcoming pedestrian facilities. (Local Roads Project)	14,643	2019	Maintenance
Greenley Rd & Mono Way Intersection Improvements	Tier 1a	TIMF, local	City of Sonora	Sonora	Construct capacity improvments at the intersection of Greenley Rd and Mono Way. Construct new sidewalk and bicycling improvements. (Non Motorized Transportation Project)	3,437	2020	Capacity
								Local Streets - 256

Tier 1a - Programmed Projects with dedicated funding

Tier 1b – Plan to fund these projects by 2030

Tier 1c – Plan to fund these projects by 2040

Tier 2 - Alternative Funding Scenario - If new funds become available

Tier 3 - Unfunded Projects

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Local Streets & Roads Projects

Tier 1b - Mid-Range - Capital Improvement Program (6-15 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
Safety Improvements @ Tuolumne Rd & Soulsbyville Rd	Tier 1b	Tribal, local	Tuolumne County	Tuolumne	Construct safety improvements at the intersection of Tuolumne Rd and Soulsbyville Rd. Implement Complete Streets improvements when reasonable feasible. (Non Motorized Transportation Project)	1,000	2021	Safety
Construct a Park N- Ride Facility - Tuolumne City	Tier 1b	CMAQ, Local	Tuolumne County	Tuolumne	Construct a 56 parking spot Park and Ride facility in Tuolumne. Implement Complete Streets improvements when reasonable feasible. (Non Motorized Transportation Project)	319	2025	Reduce Congestion
Extend Gardella Ranch Rd to Justice Center Drive	Tier 1b	Local	Tuolumne County	Sonora	Construct a new roadway connecting Gardella Ranch Rd with Justice Center Drive. Implement Complete Streets improvements when reasonable feasible. (Non Motorized Transportation Project)	2,500	2025	New road
Intersection Improvements @ Sanguinetti Rd	Tier 1b	EIR Fees, local	Tuolumne County	Sonora	Construct a new Roundabout on Sanguinetti Road & Sanguinetti Loop Rd. Implement Complete Streets improvements when reasonable feasible. (Non Motorized Transportation Project)	3,000	2025	Deficiency
Safety Improvements @ Tuolumne Rd & Woodham Carne/Black Oak Rd including Possible Realignment	Tier 1b	Tribal, local	Tuolumne County	Tuolumne	Construct safety improvements at Tuolumne Rd & Woodham Carne/Black Oak Rd. Include a realignment of Woodham Carne Rd. Implement Complete Streets improvements when reasonable feasible. (Non Motorized Transportation Project)	1,300	2025	Safety
Install Bicycle Signs along Various Roads	Tier 1b	Local	City of Sonora, Tuolumne County	Tuolumne County	Install new "Share the Road" Signs along designated Class III facilities. (Non Motorized Transportation Project)	50	TBD	Safety
Parrotts Ferry Road Signalization @ Sawmill Flat Road	Tier 1b	TIMF, Local	Tuolumne County	Columbia	Construct a new signalized intersection at the Parrotts Ferry Rd & Sawmill Flat Rd. Implement Complete Streets improvements when reasonable feasible. (Non Motorized Transportation Project)	2,100	2040	Safety
								Local Streets - 257

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Local Streets & Roads Projects

Tier 1c Long- Range - Capital Improvement Program (16-25 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
North-South Connector - Phase 1 - Greenley Extension to SR 49	Tier 1c	RTIP, TIMF	Tuolumne County & City of Sonora	Sonora	Construct a new collector road from the intersection of Greenley Rd/Lyons Bald Mountain Rd/Lyons St to SR 49 in between Jack Hage Rd/Old Sonora Columbia Rd & Pesce Way. Construct a new signal at the intersection of Greenley Rd & Lyons/Lyons Bald Mt Rd. Construct a new signal at the intersection of SR 49 & new Greenley Extension. Construct Complete Streets improvements for pedestrian and bicycle uers. (Non Motorized Transportation Project)	23,164	2040	Bypass
								Local Streets - 258

Tier Projects Table Summary
Tier 1a - Programmed Projects with dedicated funding
Tier 1b – Plan to fund these projects by 2030
Tier 1c – Plan to fund these projects by 2040
Tier 2 - Alternative Funding Scenario - If new funds become available
Tier 3 - Unfunded Projects

Expenditure Plan
County, City, and Caltrans Sponsored Bridge Projects
Short Range Capital Improvement Program Tier 1a (0-6 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construction Year
SR 49 -James E Roberts Memoral Bridge	Tier 1a	SHOPP	Caltrans	Tuolumne County	Roberts Memorial Bridge is located near Moccasin and is crossing the Tuolumne River. Replace the bridge deck and retrofit bridge.	19,484	2016
Bridge Preventive Maintenance Program 10 Bridges	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Bridge preventive maintence for various bridges in Tuolumne County. The program concentrates on preservation of bridges before rehabilitation or replacement are necessary.	1,145	On going
Algerine Road - Crossing Blanket Creek Bridge Replacement	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing bridge with a one span reinforced concrete slab.	2,303	2016
Hardin Flat Road - Crossing South Fork Tuolumne River Bridge	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the wood post and beam bridge with reinforced concrete slab bridge. The abutment and stringers of the existing bridge suffered burn damage during the RIM Fire in 2013.	2,238	2016
Draper Mine Road - Crossing Curtis Creek Bridge Replacement	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Removal of the existing bridge and construction of a new bridge. Draper Mine Road will be realigned so the "S" curve in the existing road will be eliminated.	3,430	2017
Jacksonville Road - Crossing Tuolumne River Bridge	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Rehabilitate or replace the existing concrete slab bridge.	1,025	2017
Big Creek Shaft Road - Crossing Big Creek Bridge Replacement	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing bridge and realign the roadway to eliminate the 90 degree turns on both sides of the bridge.	2,316	2017
Lime Kiln Road Crossing Curtis Creek Bridge Replacement	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing one lane bridge with a two lane concrete bridge and realign Lime Kiln Road.	3,463	2017
Italian Bar Road - Crossing Rose Creek Bridge Replacement	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing concrete two span bridge with a concrete single span bridge.	2,239	2018
Rawhide Road - Crossing Woods Creek Bridge	Tier 1a	HBP, local	Tuolumne County	Jamestown	Replace the existing one lane concrete slab bridge.	6,878	2018
							Bridges - 259

Expenditure Plan

County, City, and Community Sponsored Local Bridge Projects

Short Range Capital Improvement Program Tier 1a (0-6 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year
Old Wards Ferry Road - Crossing Curtis Creek Bridge	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing one lane concrete slab bridge.	1,621	2018
Red Hill Road - Crossing Six Bit Creek Ford	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing one lane concrete slab bridge.	914	2019
Wards Ferry Road - Crossing Deer Creek Bridge	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing one lane concrete slab bridge.	2,000	2019
Simms Road Bridge- Crossing Six Bit Creek Ford	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the existing one lane concrete ford with a two lane bridge	1,420	2019
Crystal Falls Drive - Crossing Sullivan Creek Bridge Replacement Project	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Rehabilitate or replace the existing concrete slab bridge.	962	2020
Algerine Road - Crossing Algerine Creek Bridge Replacement	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Rehabilitate the existing bridge by widening the bridge and constructing new railing that meets current standards.	944	2020
Lime Kiln Road Crossing Sullivan Creek Bridge Replacement	Tier 1a	HBP, lcoal	Tuolumne County	Tuolumne County	Replace the existing bridge abd realign Lime Kiln Road to elminiate the tight "U" curve in the road alignment.	2,895	2021
Rawhide Road Bridge - Crossing Peppermint Creek	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Rehabilitate or replace the existing concrete slab bridge.	1,399	2021
							Bridges - 260

Financially Constrained Expenditure Plan

Columbia Airport

Short Range Capital Improvement Projects (0-6 years)

Project Name	Priority	Funding Source	Description	Construction Year	Total Cost
Airport Master Plan/PMMP/Area Specific Study	Tier 1a	FAA/LOCAL	Update the 1997 Airport Master Plan, Area Specific Plan, Pavement Maintenance, Management Program and Airport Layout Plan sheets.	2016	386
Taxiway B & C Rehab/Recon Design	Tier 1a	FAA/LOCAL	Design of the reconstruct, rehab, and resealing of Taxiway B & C.	2016	195
Taxiway B & C Rehabilitation and Reconstruction	Tier 1a	FAA/CAAP/ LOCAL	Reconstruct, rehabilitation, and resealing of Taxiway B and Taxiway C.	2016	1,900
				Aviation - 261	

Tier Projects Table Summary

Tier 1a - Programmed Projects with dedicated funding

Tier 1b – Plan to fund these projects by 2030

Tier 1c – Plan to fund these projects by 2040

Tier 2 - Alternative Funding Scenario - If new funds become available

Tier 3 - Unfunded Projects

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 1a - Short-Range Capital Improvement Projects (0-6 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
Law & Justice Center Drive Extension, Bus Transfer Facility, & Complete Streets	Tier 1a	RSTP, local	Tuolumne County	Sonora	Construct an extension of Justice Center Drive to the new Law & Justice Center Bus Transfer Facility. Construct sidewalks on the south side of the road. (Local Roads & Public Transportation Projects)	198	2016	New road, Complete Streets
Hardin Flat Road - Crossing South Fork Tuolumne River Bridge	Tier 1a	HBP, local	Tuolumne County	Tuolumne County	Replace the wood post and beam bridge with reinforced concrete slab bridge. The abutment and stringers of the existing bridge suffered burn damage during the RIM Fire in 2013. Construct a pedestrian path on the bridge in order to provide connectivity to the Berkley Camp Paths. (Bridge Project)	2,238	2016	Bridge Safety, Complete Streets
Signalization @ Fifth Avenue at State Route 49/108	Tier 1a	TIMF, SHOPP	Tuolumne County	Jamestown	Construct a new signal at Fifth Avenue and Highway 49/108 in Jamestown. Construct 4 foot wide shoulders along 5th Ave from SR 49/108 to Jamestown Rd. (State Highway Project)	2,800	2017	Complete Streets, Operational, Safety
Stockton - Washington Corridor - Transit & Accessibility Project	Tier 1a	RTIP, CMAQ, ATP, PTMISEA	City of Sonora	Sonora	Construct pedestrian, bicycle, ADA, landscape, and transit improvements, along with assoicated amenities included bulb-outs lighting, gateway signage, bicycle racks, and security cameras. (Public Transportation Project)	1,990	2018	Complete Streets, Safety
Mono Way Operational and Safety Project - Complete Streets	Tier 1a	RTIP	Tuolumne County	East Sonora	Improvements to the roadway shoulders will accommodate pedestrians and bicyclists, improve drainage, realign the intersection and install left turn pockets. (State Highways Project)	1,860	2019	Complete Streets, Operational Safety
Tuolumne Road Improvements from Terrace Dr to Lambert Lake Rd	Tier 1a	HSIP, Local	Tuolumne County	East Sonora	Widen and realign Tuolumne Road from Terrace Dr to Lambert Lake Rd. Construct a 6 foot wide shoulder will be constructed on both sides of Tuolumne Road. (Local Roads Project)	1,609	2018	Safety, Complete Streets
						Non-Motorized -262		

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 1a - Short-Range Capital Improvement Projects (0-6 years)

Phoenix Lake Rd from Ridgewood to Paseo de Los Portales Rd	Tier 1a	HSIP, local	Tuolumne County	Phoenix Lake	Widen and realign Phoenix Lake Road from Ridgewood Rd to Paseo de Los Portales Rd. Construct a five foot wide shoulder will be constructed on both sides of Phoenix Lake Road. (Local Roads Project)	1,578	2018	Safety, Complete Streets
Parrotts Ferry Rd @ SR 49 Intersection Improvements	Tier 1a	HSIP, local	Tuolumne County	Columbia	Construct geometric improvements at the intersection of SR 49 and Parrotts Ferry Road. Construct wider shoulders from SR 49 to Union Hill Rd. Construct a four foot wide shoulder is being provided in order to leave room for future curb, gutter, and sidewalks. (State Highways Project)	1,111	2018	Safety, Complete Streets
Reconstruction of Evergreen Road	Tier 1a	FLAP, local	FHWA	Tuolumne County	Reconstruct 7 miles of Evergreen Road from State Highway 120 to Hetch Hetchy Road. The project will provide additional pedestrian signs, as well as other signs that will warn drivers of upcoming pedestrian facilities. (Local Roads Project)	14,643	2019	Maintenance Complete Streets
New Rawhide Bridge and Rawhide Rd Realignment with SR 108/49	Tier 1a	HBP, TIMF	Tuolumne County	Jamestown	Construct a new concrete bridge with two through lanes and a left turn lane east of the existing single lane bridge. The new bridge will realign with Main Street and SR 108/49 in Jamestown. Construct pedestrian sidewalks on the new bridge and consider using the existing bridge for non-motorized use only. (Local Roads & Bridge Projects)	6,878	2018	Bridge Capacity, Operational,Complete Streets
Greenley Rd & Mono Way Intersection Improvements	Tier 1a	TIMF, local	City of Sonora	Sonora	Construct capacity improvments at the intersection of Greenley Rd & Mono Way. Construct new sidewalk and bicycling improvements.	3,437	2019	Operational, Complete Streets
Dragoon Gulch Trail Expansion - Phase I	Tier 1a	LTF, local	City of Sonora	Sonora	Construct a new trail segment along the existing Dragoon Gulch trail system.	50	2017	Healthy Communities
Steward Street Public Restroom Sidewalk	Tier 1a	LTF	City of Sonora	Sonora	Construct sidewalk and ADA improvements along Steward Street between Theall St. and Mehan St.	51	2018	Safety
								Non-Motorized -263

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 1b - Medium Range Capital Improvement Projects (6-15 years)

Intersection Improvements at SR 49/Columbia Way - Complete Streets Improvements	Tier 1b	RTIP, SHOPP, TIMF	City of Sonora / Caltrans	Sonora	Construct intersection improvements at SR 49/North Washington St/Columbia Way/School St. The intersection improvements would include ADA crossings, pedestrian, and bicycle improvements. (State Highways Project)	3,000	2020	Operational, Safety, Complete Streets
SR 120 Complete Streets and ADA Improvements in Groveland	Tier 1b	SHOPP, LTF	Caltrans / Tuolumne County	Groveland	Construct Complete Streets and ADA compliant walkways in downtown Groveland that is consistent with the Groveland Circulation Plan.	2,000	2020	Complete Streets, Safety
SR 49 Complete Streets and ADA Improvements in Downtown Sonora	Tier 1b	SHOPP, ATP, LTF	Caltrans/ City of Sonora	Sonora	Construct Complete Steets and ADA compliant walkways in the Historic Downtown Core of Sonora that is consistent with the Vision Sonora Plan.	3,000	2025	Complete Streets, Safety
SR-108/SR-49 - Stage 1 -Widen to Five Lanes - from South Main St to Fifth Ave - Complete Streets	Tier 1b	RTIP, ITIP, local, SHOPP	Caltrans	Jamestown	Widen SR-49/SR-108 to 5-lanes in Jamestown from west of South Main Street to east of Fifth Ave. Construct Complete Streets improvements with sidewalks on both sides of the Highway and Bus shelter and turnout along the State Highway. (State Highways and Public Transportation Projects)	13,037	2025	Complete Streets, Operational, Safety
South Washington Rd/SR 108/Lime Kiln Road Intersection Improvements	Tier 1b	RTIP, TIMF, SHOPP	City of Sonora	Sonora	Construct a southbound right turn lane and construct a southbound 2nd left turn lane along South Washington Road at the intersection of SR 108/Lime Kiln Road. Construct Complete Streets improvements including pedestrian crossing with a push button, and shoulder improvements. (State Highways Project)	1,168	2025	Complete Streets, Operational, Safety
Extend Gardella Ranch Rd to Justice Center Drive - Complete Streets	Tier 1b	Local	Tuolumne County	Sonora	Construct a new roadway connecting Gardella Ranch Rd with Justice Center Drive. Construct Complete Streets Improvements including sidewalks. (Local Roads Project)	2,500	2025	Complete Streets, New road
Parrotts Ferry Road Signalization @ Sawmill Flat Road	Tier 1b	TIMF, Local	Tuolumne County	Columbia	Construct a new signalized intersection at the Parrotts Ferry Rd & Sawmill Flat Rd. Construct a four foot wide shoulder is being provided in order to leave room for future curb, gutter, & sidewalks. (Local Roads Project)	2,100	2040	Safety, Complete Streets
								Non-Motorized -264

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 1b - Medium Range Capital Improvement Projects (6-15 years)

Safety Improvements @ Tuolumne Rd & Soulsbyville Rd	Tier 1b	Tribal, local	Tuolumne County	Tuolumne	Construct safety improvements at the intersection of Tuolumne Rd and Soulsbyville Rd. Construct a five foot wide shoulder will be constructed on both sides of Phoenix Lake Road. (Local Roads Project)	1,000	2021	Safety, Complete Streets
Intersection Improvements @ Sanguinetti Rd	Tier 1b	EIR Fees, local	Tuolumne County	Sonora	Construct a new Roundabout on Sanguinetti Road & Sanguinetti Loop Rd. Construct a four foot wide shoulder is being provided in order to leave room for future curb, gutter, & sidewalks. (Local Roads Project)	3,000	2025	Operational, Safety, Complete Streets
Improvements @ Tuolumne Rd & Woodham Carne/Black Oak Rd including Possible Realignment	Tier 1b	Tribal, local	Tuolumne County	Tuolumne	Construct safety improvements at Tuolumne Rd & Woodham Carne/Black Oak Rd. Include a realignment of Woodham Carne Rd. Construct a five foot wide shoulder will be constructed on both sides of Phoenix Lake Road. (Local Roads Project)	1,300	2025	Operational, Safety, Complete Streets
SR 120 & Old Priest Grade Top Grade - Left Turn Channelization	Tier 1b	SHOPP	Caltrans	Groveland	Construct a left turn lane along SR 120 and Old Priest Grade Rd/Priest-Coulterville Rd at the top of the grade. Implement Complete Streets by widening the shoulders and other improvements.	900	2021	Safety, Complete Streets
SR 108/49 - Chicken Ranch Rd to South Main St Continuous Left Turn Lane	Tier 1b	SHOPP	Caltrans	Jamestown	Construct an continuous left turn lane from the Chicken Ranch Rd to South Main St. Implement Complete Streets by widening the shoulders and other improvements.	1,300	2022	Safety, Complete Streets
SR 49 Left Turn Channelization Shaws Flat Road	Tier 1b	SHOPP	Caltrans	Columbia	Construct a left turn lane along SR 49 at the intersection of Shaws Flat Rd/Jamestown Rd. Implement Complete Streets by widening the shoulders and other improvements.	900	2022	Safety, Complete Streets
						Non-Motorized -265		

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 1b - Medium Range Capital Improvement Projects (6-15 years)

SR 49 Realignment of Curve from Jack Ass Hill Rd to Tim Horne Mine Rd	Tier 1b	SHOPP	Caltrans	Tuttletown	Construct curve realignments between Tim Horn Mine Rd and Jack Ass Hill Rd. Review and implement Complete Streets improvements whenever possible.	3,287	2030	Safety, Complete Streets
SR 108/120 Eastbound Realignment of Rockhouse Curve	Tier 1b	SHOPP	Caltrans	Western Tuolumne County	Construct curve realignments for SR 108/120 eastbound for the Rockhouse Curve which is 2.6 miles east of Tulloch Rd. Review and implement Complete Streets improvements whenever possible.	3,500	2030	Safety, Complete Streets
SR 120 Install Guardrails from Old Priest Grade to Coulterville Rd	Tier 1b	Minor SHOPP	Caltrans	Groveland	Install guardrails along SR 120 from Old Priest Grade Rd to Coulterville Rd where appropriate. Review and implement Complete Streets improvements whenever possible.	900	2030	Safety, Complete Streets
SR-120/SR-49 Moccasin Left Turn Channelization	Tier 1b	SHOPP	Caltrans	Moccasin	Construct a left turn lane along SR 120 & SR 49 near Moccasin. Implement Complete Streets by widening the shoulders and other improvements.	900	2025	Safety, Complete Streets
								Non-Motorized -266

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 1c - Long Range Capital Improvement Projects (15-25 years)

New Courthouse Park Bus Shelter and Complete Streets Improvements	Tier 1c	LTF	City of Sonora	Sonora	Rehabilitate the existing bus stop shelter and rehabilitate Jackson Street to a Complete Streets corridor with ADA improvements. (Public Transportation Project)	550	TBD	Complete Streets, Safety
SR 49-108 Complete Streets and ADA Improvements in Jamestown	Tier 1c	SHOPP, LTF	Caltrans / Tuolumne County	Jamestown	Construct Complete Streets and ADA compliant walkways from 5th Ave to Stockton Rd. These improvements will support Caltrans Complete Streets policies.	2,000	TBD	Complete Streets, Safety
North-South Connector - Phase 1 - Greenley Extension to SR 49 - Complete Streets	Tier 1c	RTIP, TIMF	Tuolumne County & City of Sonora	Sonora	Construct a new collector road from the intersection of Greenley Rd/Lyons Bald Mountain Rd/Lyons St to SR 49 in between Jack Hage Rd/Old Sonora Columbia Rd & Pesce Way. Construct a new signal at the intersection of Greenley Rd & Lyons/Lyons Bald Mt Rd. Construct a new signal at the intersection of SR 49 & new Greenley Extension. Construct Complete Streets improvements for pedestrian and bicycle uers.	23,164	2040	Bypass, Complete Streets
Install Bicycle Signs along State Highways & Local Roads	Ongoing	SHOPP, local	Caltrans, Tuolumne County	Tuolumne County	Install new "Share the Road" Signs along designated Class II facilities. (State Highways & Local Roads Projects)	50	TBD	Safety, Complete Steets
SR-108/49 & Chicken Ranch Rd - Intersection Improvements	Tier 1c	SHOPP	Caltrans	Jamestown	Construct geometric improvements at the intersection of Chicken Ranch Rd & SR 108/49. Review and implement Complete Streets improvements whenever possible.	1,500	TBD	Operational, Complete Streets
SR-108 & SR 49 Stockton Rd Intersection Improvements	Tier 1c	SHOPP	Caltrans	Sonora	Construct geometric improvements at the intersection of SR 49 (Stockton Rd) & SR 108/49 & SR 108. Review and implement Complete Streets improvements whenever possible.	2,500	TBD	Operational, Complete Streets
								Non-Motorized -267

Financially Constrained Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 1c - Long Range Capital Improvement Projects (15-25 years)

SR 108 - Chicken Ranch Rd to SR 49 Climbing, Acceleration, De-acceleration Lanes	Tier 1c	SHOPP	Caltrans	Jamestown	Construct an acceleration, deacceleration, and climbing lanes from Chicken Ranch Rd to the SR 49 exit Montezuma Junction. Review and implement Complete Streets improvements whenever possible.	2,500	TBD	Safety, Operational, Complete Streets
SR 108 - SR 49 to SR 120 - Climbing Lanes	Tier 1c	SHOPP	Caltrans	Jamestown	Construct eastbound climbing lanes from Montezuma Junction/SR 49 to Yosemite Junction/SR 120. Review and implement Complete Streets improvements whenever possible.	2,000	2030	Safety, Operational, Complete Streets
SR 108/120 - La Grange Rd to O'Byrnes Ferry Rd - Climbing Lanes	Tier 1c	SHOPP	Caltrans	Western Tuolumne County	Construct westbound and eastbound climbing and deacceleration lanes between west of La Grange Rd to SR O'Brynes Ferry Rd. Review and implement Complete Streets improvements whenever possible.	3,500	2035	Safety, Operational, Complete Streets
SR 120 - New Priest Grade - Widen Road, install and Add Climbing Lanes	Tier 1c	SHOPP	Caltrans	Groveland	Construct a turnout and climbing lanes on SR 120 @ New Priest Grade. Review and implement Complete Streets improvements whenever possible.	2,100	2020	Safety, Operational, Complete Streets
								Non-Motorized -268

Financially Constrained Expenditure Plan
Tuolumne County Transit Projects
Short-Range & Medium Range Capital Improvement Program - (0-15 years)

Project Name	Priority	Funding Source	Location	Description	Cost ($1,000)	Construction Year
Standard - Tuolumne Rd	Tier 1a	LTF	East Sonora	Construct a new Bus Stop Shelter.	50	2016
Law & Justice Center Bus Transfer Facility	Tier 1a	PTMISEA, CalOES, LCTOP	Sonora	Construct an extension of Justice Center Drive to the new Law & Justice Center Bus Transfer Facility. Construct sidewalks on the south side of the road. (Local Roads & Public Transportation Projects)	1,339	2017
Stockton - Washington Corridor - Transit & Accessibility Project	Tier 1a	RTIP, CMAQ, ATP, LTF, PTMISEA, SHOPP	Sonora	Construct pedestrian, bicycle, ADA, landscape, and transit improvements, along with associated amenities included bulb-outs lighting, gateway signage, bicycle racks, and security cameras. (Non-Motorized Transportation Project)	1,990	2020
SR-108/SR-49 - Stage 1 -Widen to Five Lanes - from South Main St to Fifth Ave - Complete Streets	Tier 1b	RTIP, ITIP, SHOPP, Local	Jamestown	Widen SR-49/SR-108 to 5-lanes in Jamestown from west of South Main Street to east of Fifth Ave. Construct Complete Streets improvements with sidewalks on both sides of the Highway and a bus shelter and turnout along the State Highway. (State Highways and Non-Motorized Transportation Projects)	13,037	2025
Mono Way/Restano Way/South Washington/	Tier 1b	LTF	Sonora	Construct a New Bus Stop Shelter.	50	TBD
Mono Village Center	Tier 1b	LTF	East Sonora	Replace the existing Bus Stop Shelter along Mono Way.	50	TBD
Sierra Village	Tier 1b	LTF	Sierra Village	Construct a New Bus Stop Shelter.	50	TBD
					Public Transportation - 269	

Financially Constrained Expenditure Plan

Tuolumne County Transit Projects

Long Range Capital Improvement Program (16-25 years)

Project Name	Priority	Funding Source	Location	Description	Cost ($1,000)	Construction Year
Dragoon Gulch/Racetrack Rd	Tier 1c	LTF	Sonora	Construct a New Bus Stop Shelter.	50	TBD
New Courthouse Park Bus Shelter and Complete Streets Improvements	Tier 1c	LTF	Sonora	Rehabilitate the existing bus stop shelter and rehabilitate Jackson Street into a Complete Streets corridor with ADA improvements. (Non-Motorized Project)	550	TBD
Transit Maintenance Facility Improvements	Tier 1c	LTF	East Sonora	Install a generator, fueling capability, and electric charging station(s) at the Transit Maintenance Facility.	100	TBD
MiWuk Village	Tier 1c	LTF	Miwuk Village	Construct a New Bus Stop Shelter.	50	TBD
Bus Stop Shelter Improvements	Tier 1c	LTF	Countywide	Construct New Bus Stop Shelters and make improvements to Existing Bus Stop Shelters such as: installing transit stop lighting, security cameras, and etc.	600	On-Going
					Public Transportation - 270	

Financially Constrained Expenditure Plan

Public Transportation Service Expansions

Tier 1, 2, 3 Program

Project Name	Priority	Funding Source	Location	Description	Annual Cost ($1,000)	Service Year
Service to Pinecrest	Tier 1a	LCTOP, Local	Pinecrest	A seasonal transit service similarly to the SkiBus, only differing in its season of operation. The service would likely operate during the summer time, on the weekends and holidays.	52	2017
YARTS - Increase Existing Service	Tier 1a	National Park Service	Tuolumne County	This would provide additional transit service runs to Yosemite National Park from Tuolumne County. This would help reduce environmental impacts associated with vehicle and parking congestion in Yosemite Valley and be consistent with the Merced River Plan.	50	2018
Foothill to Valley Service (Out of County Service)	Tier 2	5311(f), Cap & Trade	Out of County	This transit service would focus on transporting Tuolumne County residents to and from Central Valley destinations.	300	2025
Service to Groveland/SR 120 Expansion	Tier 3	TBD	Groveland	This transit service would focus on Groveland residents who are seeking transportation options to the Sonora area.	TBD	TBD
Serve night classes at Columbia College	Tier 3	TBD	Columbia	This transit service would focus on targeting students/teachers who are attending late night classes at Columbia College.	TBD	TBD
Service to Merced High Speed Rail Station	Tier 3	TBD	Out of County	The California High Speed Rail project is currently building the Bakersfield to Merced rail section in the Central Valley. The first trains are proposed to be operational from the Central Valley to the Bay Area by 2025.	TBD	TBD
					Public Transportation - 271	

Financial Alternatives

This section discusses the three RTP financial alternatives in the 2016 RTP Expenditure Plan. Financial Alternatives B and C list potential new revenue sources that might become available in the future. Financial Alternatives B and C also include a list of future planned capital improvement projects that would be constructed with these new funds.

Alternative A: No New Projects

This alternative would not add any new capital improvement projects that are not already programmed with dedicated funding. Alternative A would only include Tier 1a capital improvement projects listed in the RTP Expenditure Plan.

Alternative B: Non-Motorized Transportation and Roads Maintenance Emphasis

This alterative anticipates three new revenue sources: CMAQ, ATP, and Cap and Trade Funds. In this alternative, all new funding is designated for specific transportation modes such as non-motorized transportation and road maintenance projects. This funding scenario anticipates that the TCTC will start to receive CMAQ funds again in 2018 and onward into 2040. This funding source assumes that Tuolumne County will not be in attainment for the new Ozone Standard. The CMAQ program only funds capital improvement projects which demonstrate improvements that result in reductions to air quality emissions.

This funding scenario also anticipates that the State administered and competitively funded ATP will be administered differently in the future, as a result of legislative changes. This funding scenario anticipates the ATP program will no longer be a Caltrans administered statewide competitive grant program, rather it, would be similar to the Regional Surface Transportation Program (RSTP) funds, in that the State would redistribute ATP funds, based upon a formula program, to Regional Transportation Planning Agencies (RTPA's) and Metropolitan Planning Organizations (MPO'S). RTPA's and MPO's would then distribute funding based, upon local and regional priorities.

This funding scenario anticipates that the State administered Cap and Trade Program would redistribute the funds differently. The new "fee" or increase in fuel costs that motorists already pay as a result of Cap and Trade Program would be redirected to improving all modes of transportation. These funds would go only towards transportation projects that reduce greenhouse gas emissions. Assuming a fair share distribution formula, for the next 25 years, this alternative is projected to generate approximately $85 million towards constructing non-motorized transportation and road maintenance projects (See Appendix K – Tuolumne County - Cap and Trade Letter and Staff Report).

This new funding scenario assumes approximately $39 million in new funding for road maintenance purposes for the next 25 years.

Alternative B - Financial Revenue Sources & Funding Dollars Available

	2016-2030	2031-2040	Total
Congestion Mitigation & Air Quality (CMAQ)	$5,700	$4,700	$10,400
Active Transportation Program (ATP)	$3,500	$2,000	$5,500
California Cap and Trade Funds	$47,500	$36,000	$83,500
Total	$56,700	$42,700	$100,400

Table 11.7 New Potential Sources of Revenue for Transportation (in thousands)

The RTP includes a Tier 2 project list representing new capital improvement projects that would be funded if these funding revenues become available. For the convenience of the readers of the RTP, only the Tier 2 projects for Alternative B have been listed in the next several pages.

Tuolumne County: Financial Alternative B - Non-Motorized Projects

Columbia Pedestrian Facility
Shaws Flat Road Sidewalk Improvements
Snell Road Sidewalk Improvements
Dragoon Gulch Connector Trail
Racetrack Pedestrian & Bicycle Project
Dragoon Gulch Trail - Expansion
Melones Water Line Trail Improvement Project
Sonora to Columbia Regional Trail
Washington Street Corridor Red Church Pedestrian Improvements
Linoberg Paseo
Greenley Trail Project
South Washington Street Complete Street Improvements
SR 49/Stockton Rd Complete Streets Project
Old Rawhide Bridge Trail
Sonora to Jamestown Regional Trail
Jamestown Sidewalk Project Phase 2
Sierra RR Trail - Sonora Section
Sierra Railroad Regional Trail - East Sonora Section
Standard Mill Bypass Trail
Sugarpine RR Trail - Twain Harte
Sugarpine Railroad Regional Trail
Westside Trail
Tuolumne Alleyways
Summerville Trail Project
Groveland Sidewalks Project
Hetch Hetchy Railroad Trail

Columbia
Cedar Ridge
Twain Harte
Crystal Falls
Willow Springs
Tuttletown
Sonora
Jamestown
Tuolumne
Chinese Camp
Big Oak Flat
Groveland
Moccasin
Pine Mountain Lake

Legend

- Tier 2 Non-Motorized Projects
- Dragoon GulchTrail expansion area
- Existing Trails / Sidewalks

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

N

0 0.375 0.75 1.5 2.25 3
Miles

Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 2 - Financial Alternative B (0-15 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	ConstructYear	Purpose & Need
Columbia Pedestrian Facility	Tier 2	ATP local	Tuolumne County	Columbia	Construct a Safe Routes to School project by adding new sidewalks along Parrotts Ferry Rd.	1,870	TBD	Safe Routes to School
Dragoon Gulch Trail - Expansion - Phase II	Tier 2	ATP, local	City of Sonora	Sonora	Construct a new pedestrian and bicycle path that will connect the West Sonora neighborhood to Sonora and to the existing Dragoon Gulch trail system.	992	TBD	Healthy Communities
Melones Water Line Trail Improvement Project	Tier 2	ATP, local	Tuolumne County	Columbia	Construct a ten foot wide two direction Class I bicycle and pedestrian facility along the existing Melones Waterline from Sawmill Flat Road to Columbia College.	540	TBD	Regional Trail
Old Rawhide Bridge Trail	Tier 2	TIMF	Tuolumne County	Jamestown	Reuse the soon to be abandoned bridge and use the right of way for part of the Angels Spur Trail.	500	TBD	Healthy Communities
Racetrack Pedestrian & Bicycle Project	Tier 2	ATP, TIMF, local	Tuolumne County	Sonora	Construct sidewalk improvements along Racetrack Road in West Sonora from Jamestown Road to future entrance of Dragoon Gulch Trail.	1,553	TBD	Safe Routes to School
Summerville Trail Project	Tier 2	ATP, local	Tuolumne County	Tuolumne	Construct a Safe Routes to School Project that includes a pedestrian and bicycle path improvements along Tuolumne Road from Summerville Rd to North Tuolumne Rd/Cherry Valley Rd.	1,445	TBD	Safe Routes to School
Sugarpine RR Trail - Twain Harte	Tier 2	ATP, local	Tuolumne County	Twain Harte	Construct a Class I trail from SR 108/Lava Rd to East Ave.	1,044	TBD	Regional Trail
Tuolumne Alleyways	Tier 2	CMAQ, local	Tuolumne County	Tuolumne	Construct a paved pedestrian alleyway project.	700	TBD	Safety
Washington Street Corridor Red Church Pedestrian Improvements	Tier 2	ATP, local	City of Sonora	Sonora	Construct a new landscaped pedestrian bulb outs and replace sidewalk and curb ramps along North Washington St/Highway 49 at the intersection of Snell St & Elkin St.	615	TBD	Safe Routes to School
								Non-Motorized - 276

Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 2 - Financial Alternative B - (16-25 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construction Year	Purpose & Need
Columbia to Sonora Regional Trail	Tier 2	ATP, local	City of Sonora	Sonora, Columbia	Construct a bicycle and pedestrian path and a Class II bicycle lane from Sonora High to Columbia College.	5,044	TBD	Safety, Regional Trail
Dragoon Gulch Connector Trail	Tier 2	ATP, local	City of Sonora	Sonora	Construct a new pedestrian and bicycle path that connects Dragoon Gulch Trail with Sonora High, Downtown Sonora, and the Fairgrounds. This trail would follow Woods Creek/Bonanza Road/Snell Steet, and School Street.	1,250	TBD	Regional Trail, Safe Routes to School
Jamestown to Sonora Regional Trail	Tier 2	ATP, local	Tuolumne County	Sonora, Jamestown	Construct a bicycle and a pedestrian path and a Class II bicycle path from the Fairgrounds to Jamestown.	6,165	TBD	Safety, Regional Trail
Greenley Trail Project	Tier 2	RTP, local	Tuolumne County	Sonora	Construct a pedestrian and bicycle trail at the Tuolumne County Main Library and Senior Center off of Greenley Rd.	450	TBD	Healthy Communities
Groveland Sidewalks Project	Tier 2	ATP, SHOPP, local	Caltrans, Tuolumne County	Groveland	Construct a Safe Routes to School project by adding new sidewalk and improving existing pedestrian walkways along SR 120 in Groveland.	2,880	TBD	Safe Routes to School
Sierra RR Trail - Sonora Section	Tier 2	ATP, local	City of Sonora	Sonora	Construct a regional pedestrian and bicycle path from South Washington St. to Sanguinetti Rd in Sonora.	2,165	TBD	Regional Trail
SR 49 - Stockton Rd Complete Streets Project	Tier 2	ATP, SHOPP, local	City of Sonora	Jamestown	Construct new sidewalks and add pedestrian and bicycle path improvements that help connect Downtown Sonora with the Motherlode Fairgrounds.	3,570	TBD	Regional Trail
Snell Road Sidewalk Improvements	Tier 2	Cap & Trade, local	City of Sonora	Sonora	Construct sidewalk improvements along the Snell Rd from Racetrack Road to east of School Street.	1,200	TBD	Safety
								Non-Motorized - 277

Expenditure Plan

County, City, and Community Sponsored Bicycle and Pedestrian Projects

Tier 2 - Financial Alternative B - (16-25 years)

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construction Year	Purpose & Need
Jamestown Sidewalk Project Phase 2	Tier 2	ATP, local	Tuolumne County	Jamestown	Construct new sidewalk improvements along Fifth Ave in Jamestown to from Willow St to SR 108/49.	2,200	TBD	Safe Routes to School
Hetch Hetchy Railroad Trail	Tier 2	Cap & Trade , local	Tuolumne County	Groveland	Construct a regional trail on the former railroad ROW from Big Oak Flat to east of Groveland.	5,150	TBD	Regional Trail
Linoberg Paseo	Tier 2	Cap & Trade, local	City of Sonora	Sonora	Construct new pedestrian and bicycle access only Improvements on Linoberg Street between North Washington (SR 49) & Steward St.	850	TBD	Safety
Sierra Railroad Regional Trail - East Sonora Section	Tier 2	ATP, local	Sierra Railroad, Tuolumne County	East Sonora	Construct a regional pedestrian and bicycle trail along the Sierra RR (Rails with Trails) from Sanguinetti Rd to Hess Ave.	3,140	TBD	Regional Trail
South Washington Street Improvements	Tier 2	ATP, local	Tuolumne County	Sonora	Construct a new pedestrian and bicycle improvement along South Washington St from Church St to Restano Way.	1,590	TBD	Safety
Standard Mill Bypass Trail	Tier 2	Cap & Trade, local	Tuolumne County	East Sonora	This proposed trail would bypass the Sierra Pacific Industries mill site and create a new non-motorized trail connecting standard township with East Sonora.	5,690	TBD	Regional Trail
Sugarpine Railroad Regional Trail	Tier 2	ATP, local	Tuolumne County	Twain Harte	Construct a regional pedestrian and bicycle trail on the former railroad ROW from Twain Harte to Tuolumne Road.	3,450	TBD	Regional Trail
Westside Trail	Tier 2	Cap & Trade, local	Tuolumne County	Tuolumne	Construct a bicycle and pedestrian path along the Westside RR right of way from Mira Monte Road to the intersection of Tuolumne Rd & Cherry Valley Blvd.	1,150	TBD	Regional Trail
Shaws Flat Road Sidewalk Improvements	Tier 2	Cap & Trade, local	City of Sonora	Sonora	Construct sidewalk improvements along Shaws Flat Rd from Sonora High School to Roble Road.	1,200	TBD	Safety
						Non-Motorized - 278		

Alternative C: Improving Road Network Deficiencies on the State Highways and Local Roads, Transit Improvements, and Road Maintenance Emphasis

This alternative anticipates three new revenue sources: a half cent sales tax, redirecting some of the existing Cap and Trade funds, and an increase in the Regional Traffic Mitigation Fee Program's (TIMF) fees. The half-cent sales tax would require local voter initiative approval by a two-thirds majority. The redirection of Cap and Trade funds would require the approval of the California State Legislature. The TIMF fee increase would only require approval from the Board of Supervisors, City Council, and TCTC.

This alternative anticipates new revenues from a new half-cent sales tax initiative if passed by voters in Tuolumne County. This would represent a major benefit of about $2.5 million annually to fund more transportation projects. This new funding source would be dedicated towards approximately 40% of funds to local road maintenance, 5% to expansion of transit service and new transit capital improvement projects, and 55% to construction of new local and state highways capital improvement projects.

This alternative anticipates that the new revenues from a new sales tax and Cap and Trade funds could be used towards improving LOS deficiencies in the road network system. In order to fund all of the capital improvement projects dedicated to improving LOS deficiencies in the roadway network, the costs have been spread over ten capital improvement projects.

The leftover cost balance from these nine capital improvement projects would be covered by an increase in the Regional Traffic Impact Mitigation Fee (TIMF) Program. The new anticipated TIMF fee increases could be used towards paying the remaining balance on the ten capital improvement projects in the TIMF program. As part of the future TIMF Program Update, it is anticipated that there would be two types of fees in the Traffic Impact Fee Program: a regional impact fee and a sub-area fee.

With the addition of local funds, other State and Federal funds could potentially be used as matching funds. A good example would be interregional projects on the state highway, where ITIP funds have been used in the past, as supplemental funding for these types of projects.

Alternative C - Financial Revenue Sources & Funding Dollars Available

	2016-2030	2031-2040	Total
New Sales Tax	$36,823	$26,826	$65,299
California Cap and Trade Funds	$47,500	$36,000	$83,500
Traffic Impact Mitigation Fees (TIMF)	$15,201	$14,880	$30,081
Interregional Transportation Improvement Program (ITIP) (Matching funds)	$8,600	$11,600	$20,200
Total	$108,124	$89,306	$199,080

Table 11.8 New Potential Sources of Revenue for Transportation (In thousands of dollars)

The RTP includes a Tier 2 projects list of new capital improvement projects that would be funded if these new revenues become available. For the convenience of the readers of the RTP, only the Tier 2 projects for Alternative C have been listed in the next several pages.

Tuolumne County: Financial Alternative C - State Highway and Local Road Projects

Parrotts Ferry Rd Capacity Improvements from SR 49 to Sawmill Flat Rd

SR-49 Widen to Five Lanes from Parrotts Ferry Rd to the New Greenley Rd Intersection

North-South Connector - Phase 1 Greenley Extension to SR 49

North South Connector- Phase 2 Fir Drive Extension - from Mono Way/SR 108 to Cabezut Rd

East Sonora Bypass Stage III

SR-108/SR-49 - Stage3 Widen to Five Lanes from Fifth Ave to Stockton Street

SR-108/SR-49 - Stage2 Widen to Five Lanes from Chicken Ranch Rd to South Main Street

Tuolumne Road Capacity Improvements from Mono Way to Hess Ave

Tuolumne Road Capacity Improvements from Hess Ave to Standard Rd

Cedar Ridge
Columbia
Crystal Falls
Willow S
Tuttletown
Sonora
Jamestown
Chinese Camp
Big Oak Flat
Moccasin

Parrotts Ferry Rd
Yankee Hill Rd
Kewin Mill Rd
Big Hill Rd
Middle Camp
Longeway Rd
Springfield Rd
Sawmill Flat Rd
Shaws Flat Rd
Creekside Dr
Crestview Dr
Hunts Rd
Ridgewood Dr
Phoenix Lake Rd
Lyons Bald Mountain Rd
Cabezut
Jamestown Rd
Racetrack Rd
South Washington St
Sanguinetti Rd
Mono Way
Standard Rd
Soulsbyville Rd
Cherokee Rd
Rawhide Rd
Lime Kiln Rd
Old Wards Ferry Rd
Tuolumne Rd
Woodhams Carne Rd
Seco Street
Campo Seco Rd
Stent Cut Off
Algerine Rd
Yosemite Rd
Algerine Wards Ferry Rd
O Byrnes Ferry Rd
Twist Rd
Wards Ferry Rd
Jacksonville Rd
Red Hills Rd
La Grange Rd
Old Priest Grade

49
108
120

Legend

- State Hwys
- Tier 2 Traffic Lights
- Local Rds

Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

N

0 0.375 0.75 1.5 2.25 3 Miles

Expenditure Plan
State Highways Projects
Tier 2 - Financial Alternative C

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
SR-108/SR-49 - Stage 2 Widen to Five Lanes from Chicken Ranch Rd to South Main Street	Tier 2	Local, ITIP, Cap & Trade, TIMF	Caltrans	Jamestown	Widen SR-49 to 5-lanes from Chicken Ranch Rd to South Main Street. Construct Complete Streets improvements.	9,750	TBD	Capacity
SR-108/SR-49 - Stage 3 Widen to Five Lanes from Fifth Ave to Stockton Street	Tier 2	Local, ITIP, Cap & Trade, TIMF	Caltrans	Jamestown, Sonora	Widen SR-49/SR-108 to 5-lanes from Fifth Ave to SR-49 junction south of Sonora (Stockton St). Construct Complete Streets improvements.	22,735	TBD	Capacity
East Sonora Bypass Stage III	Tier 2	Local, ITIP, Cap & Trade, TIMF	Caltrans	East Sonora	Construct a new 2 lane expressway from Mono Way/Argyle Rd to N. Sunshine Rd/Mono Vista Rd.	44,000	TBD	Capacity
SR-49 Widen to Five Lanes from Parrotts Ferry Rd to the New Greenley Rd Intersection	Tier 2	Local, ITIP, Cap & Trade, TIMF	Caltrans	Sonora, Columbia	Widen SR-49 to 5-lanes from Parrotts Ferry Rd to the Greenley Rd intersection. Construct Complete Streets improvements.	9,316	TBD	Capacity
								State Highways - 282

Expenditure Plan

County, City, and Community Sponsored Local Streets & Roads Projects

Tier 2 - Financial Alternative C

Project Name	Priority	Funding Source	Agency	Location	Description	Cost ($1,000)	Construct Year	Purpose & Need
North-South Connector - Phase 1 - Greenley Extension to SR 49	Tier 1c to Tier 1b	Local, Cap & Trade, TIMF	Tuolumne County & City of Sonora	Sonora	Construct a new collector road from the intersection of Greenley Rd/Lyons Bald Mountain Rd/Lyons St to SR 49 in between Jack Hage Rd/Old Sonora Columbia Rd & Pesce Way. Construct a new signal at the intersection of Greenley Rd & Lyons/Lyons Bald Mt Rd. Construct a new signal at the intersection of SR 49 & new Greenley Extension.	17,253	2025	Bypass
North South Connector - Phase 2 - Fir Drive Extension - from Mono Way/SR 108 to Cabezut Rd	Tier 2	Local, Cap & Trade, TIMF	Tuolumne County	Sonora	Construct a new collector road by extending Fir Drive from the intersection of Mono Way & SR 108 to Cabezut Road.	20,045	TBD	Capacity
Parrotts Ferry Rd Capacity Improvements from SR 49 to Sawmill Flat Rd	Tier 2	Local, Cap & Trade, TIMF	Tuolumne County	Columbia	Construct road capacity improvements include Complete Streets improvements along Parrotts Ferry Road from SR 49 to Sawmill Flat Road.	3,500	TBD	Capacity
Tuolumne Road Capacity Improvements from Mono Way to Hess Ave	Tier 2	Local, Cap & Trade, TIMF	Tuolumne County	East Sonora	Construct road capacity improvements from Mono Way to Hess Ave. Construct Complete Streets improvements.	5,158	TBD	Capacity
Tuolumne Road Capacity Improvements from Hess Ave to Standard Rd	Tier 2	Local, Cap & Trade, TIMF	Tuolumne County	East Sonora	Construct road capacity improvements from Hess Ave to Standard Road. Construct Complete Streets improvements.	7,500	TBD	Capacity
								Local Streets - 283

Expenditure Plan

Tuolumne County Transit Projects

Tier 2 - Financial Alternative B (16-25 years)

Project Name	Priority	Funding Source	Location	Description	Cost ($1,000)	Construction Year
Columbia Inter-County Transfer Point	Tier 2	TBD	Columbia	New Bus Stop Shelter and bus transfer facility.	840	TBD
Northern Yosemite Regional Transit Access Center	Tier 2	PTMISEA, LTF, TBD	Sonora	Purchase and make improvements for a Regional Transit Access Center building.	3,250	TBD
Groveland Transit Stop Improvements	Tier 2	PTMISEA, LTF, TBD	Groveland	Construct bus stop improvements in Groveland.	1,500	TBD
					Public Transportation - 284	

Tier Projects Table Summary

Tier 1a - Programmed Projects with dedicated funding

Tier 1b – Plan to fund these projects by 2030

Tier 1c – Plan to fund these projects by 2040

Tier 2 - Alternative Funding Scenario - If new funds become available

Tier 3 - Unfunded Projects

Financial Recommendation

The current STIP/RTIP revenue projections for the next 25 years are not adequate to cover the cost of existing and future transportation needs in Tuolumne County. TCTC is at an important milestone concerning the appropriate actions needed to achieve RTP transportation goals and policies. TCTC can continue to rely on questionable STIP funding and modest levels of TIMF revenues to improve the transportation system, or TCTC can consider more aggressive steps to pursue additional local and state funding sources. What is clear from the financial summary is that continuing the "status quo" approach will not meet the existing or future transportation needs in Tuolumne County. In developing a system-wide financial strategy based on Alternatives B and C, the TCTC should consider the following actions and/or concepts:

- Continue to aggressively pursue additional local and state funding sources, especially for maintenance needs.
- Pursue a Regional TIMF Program Update and ensure new developments pay for their fair share of additional impacts to the system.
- Pursue changes in State Legislature to redirect existing revenue streams such as Cap and trade, ATP, and CMAQ on a formula basis to implement projects consistent with Rural Sustainable Strategies.
- Work with legislative representatives to stabilize funding and restore gas taxes to historic levels.
- Pursue legislative changes to streamline project delivery.

TUOLUMNE COUNTY
TRANSPORTATION COUNCIL



Final Draft Appendices - February 2017

Tuolumne County
Transportation Council
2 Green Street (mailing)
48 W. Yaney Ave (physical)
Sonora, CA 95370

Table of Contents

Appendix A: Regional Transportation Plan Checklist.....

Appendix B: Public Participation Plan.....

Appendix C: Population Projections.....

Appendix D: Traffic Study Report - Addendum.....

Appendix E: List of Roadway Classifications.....

Appendix F: Rural Sustainable Strategies - Project Level Performance Assessment

Appendix G: Large Residential Areas - Emergency Access Improvements.....

Appendix H: Blueprint Performance Measures.....

Appendix J: Results of RTP Public Participation.....

Appendix K: Financial Projections & Historic Revenues.....

This page is left intentionally blank.

Regional Transportation Plan Checklist

(Revised February 2010)

(To be completed electronically in Microsoft Word format by the MPO/RTPA and submitted along with the draft RTP to Caltrans)

Name of MPO/RTPA: Tuolumne County Transportation Council

Date Draft RTP Completed: July 25th 2016

RTP Adoption Date: February 8th, 2017

What is the Certification Date of the Environmental Document (ED)? February 8th 2017

Is the ED located in the RTP or is it a separate document? Separate Document

By completing this checklist, the MPO/RTPA verifies the RTP addresses all of the following required information within the RTP.

Regional Transportation Plan Contents

General

		Yes/ No	Page #
1.	Does the RTP address no less than a 20-year planning horizon? (23 CFR 450.322(a))	Yes	Pg. 2-6
2.	Does the RTP include both long-range and short-range strategies/actions? (23 CFR part 450.322(b))	Yes	Pg. 18-285
3.	Does the RTP address issues specified in the policy, action and financial elements identified in California Government Code Section 65080?	Yes	Pg. 18-285
4.	Does the RTP address the 10 issues specified in the Sustainable Communities Strategy (SCS) component as identified in Government Code Sections 65080(b)(2)(B) and 65584.04(i)(1)? **(MPOs only)**		
	a. Identify the general location of uses, residential densities, and building intensities within the region? **(MPOs only)**	N/A	
	b. Identify areas within the region sufficient to house all the population of the region, including all economic segments of the population over the course of the planning period of the regional transportation plan taking into account net migration into the region, population growth, household formation and employment growth? **(MPOs only)**	N/A	

	Yes/ No	Page #
c. Identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region pursuant to Government Code Section 65584? **(MPOs only)**	N/A	
d. Identify a transportation network to service the transportation needs of the region? **(MPOs only)**	N/A	
e. Gather and consider the best practically available scientific information regarding resource areas and farmland in the region as defined in subdivisions (a) and (b) of Government Code Section 65080.01? **(MPOs only)**	N/A	
f. Consider the state housing goals specified in Sections 65580 and 65581? **(MPOs only)**	N/A	
g. Utilize the most recent planning assumptions, considering local general plans and other factors? **(MPOs only)**	N/A	
h. Set forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction targets approved by the ARB? **(MPOs only)**	N/A	
i. Provide consistency between the development pattern and allocation of housing units within the region (Government Code 65584.04(i)(1)? **(MPOs only)**	N/A	
j. Allow the regional transportation plan to comply with Section 176 of the federal Clean Air Act (42 U.S.C. Section 7506)? **(MPOs only)**	N/A	
4. Does the RTP include Project Intent i.e. Plan Level Purpose and Need Statements?	Yes	Pg. 2-16
5. Does the RTP specify how travel demand modeling methodology, results and key assumptions were developed as part of the RTP process? (Government Code 14522.2) **(MPOs only)**	N/A	

Consultation/Cooperation

1.	Does the RTP contain a public involvement program that meets the requirements of Title 23, CFR part 450.316(a)?	Yes	Appendix B, I, & J
2.	Did the MPO/RTPA consult with the appropriate State and local representatives including representatives from environmental and economic communities; airport; transit; freight during the preparation of the RTP? (23CFR450.316(3)(b))	Yes	Appendix B, I, & J
3.	Did the MPO/RTPA who has federal lands within its jurisdictional boundary involve the federal land management agencies during the preparation of the RTP?	Yes	Appendix B I, & J
4.	Where does the RTP specify that the appropriate State and local agencies responsible for land use, natural resources, environmental protection, conservation and historic preservation consulted? (23 CFR part 450.322(g))	Yes	Appendix B, I, J
5.	Did the RTP include a comparison with the California State Wildlife Action Plan and (if available) inventories of natural and historic resources? (23 CFR part 450.322(g))	Yes	Pg. 50
6.	Did the MPO/RTPA who has a federally recognized Native American Tribal Government(s) and/or historical and sacred sites or subsistence resources of these Tribal Governments within its jurisdictional boundary address tribal concerns in the RTP and develop the RTP in consultation with the Tribal Government(s)? (Title 23 CFR part 450.316(c))	Yes	Appendix B I, & J
7.	Does the RTP address how the public and various specified groups were given a reasonable opportunity to comment on the plan using the participation plan developed under 23 CFR part 450.316(a)? (23 CFR 450.316(i))	Yes	Appendix B
8.	Does the RTP contain a discussion describing the private sector involvement efforts that were used during the development of the plan? (23 CFR part 450.316 (a))	Yes	Appendix B & I
9.	Does the RTP contain a discussion describing the coordination efforts with regional air quality planning authorities? (23 CFR 450.316(a)(2)) **(MPO nonattainment and maintenance areas only)**	N/A	
10.	Is the RTP coordinated and consistent with the Public Transit-Human Services Transportation Plan?	Yes	Pg. 227
11.	Were the draft and adopted RTP posted on the Internet? (23 CFR part 450.322(j))	Yes	
12.	Did the RTP explain how consultation occurred with locally elected officials? (Government Code 65080(D)) **(MPOs only)**	N/A	
13.	Did the RTP outline the public participation process for the sustainable communities' strategy? (Government Code 65080(E) **(MPOs only)**	N/A	

Modal Discussion

1.	Does the RTP discuss intermodal and connectivity issues?	Yes	Pg. 18-32
2.	Does the RTP include a discussion of highways?	Yes	Pg. 60-86
3.	Does the RTP include a discussion of mass transportation?	Yes	Pg. 211-232
4.	Does the RTP include a discussion of the regional airport system?	Yes	Pg. 131-146
5.	Does the RTP include a discussion of regional pedestrian needs?	Yes	Pg. 149-192
6.	Does the RTP include a discussion of regional bicycle needs?	Yes	Pg. 149-192
7.	Does the RTP address the California Coastal Trail? (Government Code 65080.1) **(For MPOs and RTPAs located along the coast only)**	N/A	
8.	Does the RTP include a discussion of rail transportation?	Yes	Pg. 196-209
9.	Does the RTP include a discussion of maritime transportation (if appropriate)?	N/A	
10.	Does the RTP include a discussion of goods movement?	Yes	Pg. 18-26

Programming/Operations

1.	Is a congestion management process discussed in the RTP? (23 CFR part 450.450.320(b)) **(MPOs designated as TMAs only)**	N/A	
2.	Is the RTP consistent (to the maximum extent practicable) with the development of the regional ITS architecture?	Yes	Pg. 18-31
3.	Does the RTP identify the objective criteria used for measuring the performance of the transportation system?	Yes	Pg. 18-31
4.	Does the RTP contain a list of un-constrained projects?	Yes	Pg.82-84, 119-123, 126, 144-146, 184-192, 209, 231-232

Financial

1.	Does the RTP include a financial plan that meets the requirements identified in 23 CFR part 450.322(f)(10)?	Yes	Pg. 235-285
2.	Does the RTP contain a consistency statement between the first 4 years of the fund estimate and the 4-year STIP fund estimate? (2006 STIP Guidelines, Section 19)	Yes	Pg. 235-285
3.	Do the projected revenues in the RTP reflect Fiscal Constraint? (23 CFR part 450.322(f)(10)(ii))	Yes	Pg. 235-285
4.	Does the RTP contain a list of financially constrained projects? Any regionally significant projects should be identified. (Government Code 65080(4)(A))	Yes	Pg. 235-245
5.	Do the cost estimates for implementing the projects identified in the RTP reflect "year of expenditure dollars" to reflect inflation rates? (23 CFR part 450.322(f)(10)(iv))	Yes	Pg. 235-245
6.	After 12/11/07, does the RTP contain estimates of costs and revenue sources that are reasonably expected to be available to operate and maintain the freeways, highway and transit within the region? (23 CFR 450.322(f)(10)(i))	Yes	Pg. 235-285
7.	Does the RTP contain a statement regarding consistency between the projects in the RTP and the ITIP? (2006 STIP Guidelines section 33)	Yes	Pg. 235-240
8.	Does the RTP contain a statement regarding consistency between the projects in the RTP and the FTIP? (2006 STIP Guidelines section 19)	Yes	Pg. 235-240
9.	Does the RTP address the specific financial strategies required to ensure the identified TCMs from the SIP can be implemented? (23 CFR part 450.322(f)(10)(vi) (**nonattainment and maintenance MPOs only**)	N/A	

Environmental

1. Did the MPO/RTPA prepare an EIR or a program EIR for the RTP in accordance with CEQA guidelines?	Yes	See DEIR
2. Does the RTP contain a list of projects specifically identified as TCMs, if applicable?	N/A	
3. Does the RTP contain a discussion of SIP conformity, if applicable? **(MPOs only)**	N/A	
4. Does the RTP specify mitigation activities? (23 CFR part 450.322(f)(7))	Yes	See DEIR
5. Where does the EIR address mitigation activities?	Yes	See DEIR
6. Did the MPO/RTPA prepare a Negative Declaration or a Mitigated Negative Declaration for the RTP in accordance with CEQA guidelines?	N/A	
7. Does the RTP specify the TCMs to be implemented in the region? **(federal nonattainment and maintenance areas only)**	N/A	

I have reviewed the above information and certify that it is correct and complete.

(Must be signed by MPO/RTPA Executive Director or designated representative)

7/25/16
Date

Darin Grossi
Print Name

Executive Director
Title

This page is left intentional blank

2013 Public Participation Plan



Regional Transportation Plan Update

December 11, 2013

Tuolumne County Transportation Council
2 South Green Street (mailing)
48 W. Yaney Ave (physical)
Sonora, CA 95370

Tuolumne County Transportation Council Public Participation Plan
© 2013 Tuolumne County Transportation Council
All rights reserved.

Many individuals assisted in the preparation of the 2013 Public Participation Plan.
The Cooperation and involvement of members of the TAC and CAC Committees .

Photo Credits
Photo 1 - Cover Photo -Tuolumne County Transit Bus - Credit TCTC
Photo 2 - Yosemite Chapel - Credit Terri Metz
Photo 3 - El Capitan - Credit Lynn Upthagrove

Table of Contents

Chapter **Page Number**

I. Introduction....4
- A. Background
- B. Purpose of the Public Participation Plan
- C. Update of the Regional Transportation Plan
- D. Federal and State Requirements

II. Public Engagement....6
- A. Community Workshops
- B. TCTC Council Meetings and Public Hearings
- C. TCTC Standing Committees
- D. Focus Group Meetings
- E. Outreach Materials and Visualization Techniques
- F. Tribal Consultation
- G. RTP Website and Survey
- H. Interagency Coordination

III. Transportation Polling....10



Photo 2 - Yosemite Chapel

I. Introduction

A. Background

As a Regional Transportation Planning Agency, the Tuolumne County Transportation Council (TCTC) addresses transportation issues in Tuolumne County and the City of Sonora. TCTC represents its member jurisdictions in developing an efficient and effective inter-modal transportation system that provides for the mobility needs of people, goods, and services while protecting the environment. TCTC is responsible for determining policy, adopting plans, and awarding funds to implement these plans. TCTC acts as the lead planning, programming, monitoring and administrative agency for transportation projects and programs in the Tuolumne County Region. TCTC takes action as necessary to qualify local transportation projects and programs for funding.

B. Purpose of the Public Participation Plan

The Public Participation Plan (PPP) is intended to give TCTC elected officials and staff guidance in providing public involvement and interagency consultation in the regional planning process. The PPP contains procedures and strategies to initiate, seek and foster greater public involvement regarding transportation matters. The PPP will be the groundwork for transportation planning decisions for the Regional Transportation Plan. The PPP will take into consideration the transportation system, the impacts on the regions economic, environmental, and social equity issues. The PPP will be developed in consultation with all interested parties and provide reasonable time period for comments on the Regional Transportation Plan. The planning process intends to:

- Provide adequate public notice of participation activities and document these efforts.
- Provide adequate time for public review and comment at key time periods.
- Hold public meetings at convenient and accessible locations and times.
- Employ visualization techniques to describe the RTP.
- Consult with Native American Tribal Governments.
- Seek out and consider the needs of low-income and minority households who may face challenges accessing employment and other services.
- Periodically review the effectiveness of the procedures and strategies contained in this PPP to ensure a full and open participation process.

C. Update of the RTP

The Public Participation Plan is part of the comprehensive update of the long-range regional transportation plan which is updated every five years as required by State and Federal law. The RTP updates include extensive public consultation and participation involving public agency officials and stakeholder groups. The community plays key roles in providing feedback on the policy and investment strategies contained in the plan. Local and Tribal governments, transit operators and other federal, state and regional agencies should actively participate in the development of the RTP update.

D. Federal and State Requirements

The government has enacted several pieces of legislation regarding the involvement of public participation and the inclusion of all members of the population in the planning process.

Executive Order 12898: Environmental Justice

In February 1994, President Bill Clinton signed Executive Order 12898, "Federal Actions to Address Environmental Justice for Minority Populations and Low-Income Populations," which mandates that federal agencies make achieving environmental justice part of their missions. This particular order requires that disproportionately high and adverse human health or environmental effects on minority and low-income populations be identified and addressed in order to achieve environmental justice.

Title VI

Title VI is a statue of the Civil Rights Act of 1964. Under this statute, each agency receiving federal dollars is required to ensure that no person is excluded from participation in, denied the benefit of, or subject to discrimination under any program or activity receiving federal financial assistance on the basis of race, color, national origin, age, sex, disability, or religion. TCTC is committed to a policy of nondiscrimination in the conduct of its business, including its Title VI responsibilities.

Americans with Disabilities Act

The Americans with Disabilities Act of 1990 (ADA) stipulates involving the community, particularly those with disabilities, in the development and improvement of services. All events held for programs or projects with Federal aid and open to the general public must be made accessible to everyone, including the disabled. TCTC is in compliance with the ADA by having accessible formats and public hearings, consulting with individuals from the disabled community, and conducting outreach by maintaining an extensive mailing and email lists, developing contacts, and other means of notification to participate in the planning process.

Executive Order 13166

Improving Access to Services for Persons with Limited English Proficiency Executive Order 13166 states that people who speak limited English should have meaningful access to federally-conducted and federally-funded programs and activities. It requires that all federal and federally-funded agencies identify any need for services to those with limited English proficiency and develop and implement a system to provide services so all persons can have meaningful access to services.

Other Requirements

A number of other federal and state laws involve and notifying the public in its decisions. TCTC complies with all other public notification requirements of the state's Ralph M. Brown Act, the California Public Records Act, the California Environmental Quality Act, as well those contained in the state's Katz-Kopp-Baker-Campbell Transportation Blueprint for the Twenty-First Century (Government Code Section 65080), and other applicable state and federal laws.

II. Public Engagement

The list below summarizes the various public engagement strategies that TCTC will employ. These outreach strategies will target specific groups and incorporate input from the residents of Tuolumne County and the City of Sonora.

A. Community Workshops

The community workshops will focus on listening and receiving input from the public in a formal interactive presentation which will have active dialog about transportation concerns and issues. The community workshops will target specific areas of the County and will identify the needs of the community and the where the highest priorities are in terms of transportation projects. TCTC will seek out the traditionally underserved populations in Tuolumne County and the City of Sonora. The community workshops will be held at several venues across Tuolumne County which may include the following locations:

- Sonora
- Jamestown
- Columbia
- Tuolumne
- Twain Harte
- Groveland

Listening Sessions

The community workshop meetings will provide ample opportunities to recieve input from low income and minority populations in Tuolumne County with an added emphasis on the senior citizen population.

B. TCTC Council Meetings and Public Hearings

There will be several scheduled public hearings that will gather public input and support for the regional transportation plan. These meetings will be advertised through the website, press releases, and public notices. The TCTC Board membership consists of:

- City of Sonora Council Member
- City of Sonora Council Member
- Tuolumne County Board of Supervisor Member
- Tuolumne County Board of Supervisor Member
- At Large Public Member

C. TCTC Standing Committees

These committee meetings are open to the public and provide another avenue for the public to comment on the regional transportation plan.

- Technical Advisory Committee (TAC)
- Citizens Advisory Committee (CAC)
- Social Services Transportation Advisory Committee (SSTAC)

 Technical Advisory Committee (TAC) is an advisory to the TCTC on all matters related to the regional transportation and transit planning. Members are City and County staff and representatives from the State and tribal groups.

- City Administrator
- City Engineer
- City Planner
- Commander of California Highway Patrol
- Representative from the Me-Wuk Tribal Council
- Community Development Director – Tuolumne County
- Tuolumne County Administrator
- Representative from Caltrans 10

 Citizens Advisory Committee (CAC) reviews staff work, recommends action to the TCTC Council, and provides staff input on transportation planning issues.

- City of Sonora – Two Appointed Members
- Tuolumne County – Six Appointed Members

 Social Services Transportation Advisory Committee (SSTAC) is an advisory committee to the TCTC on matters pertaining to the transportation needs of transit dependent and transportation disadvantaged persons. The SSTAC is composed of the following:

- Social Service provider for Seniors that also provides transportation
- Social Service provider for Seniors
- Social Service provider for persons with Disabilities
- Social Service provider for persons with disabilities that also provides transportation
- Representing transit users who are 60 years of age or older
- Representing transit users who have a disability
- Social Service provider for persons of limited means
- Social Service provider for persons of limited means
- Local Consolidated Transportation Service Agency (Storer Transportation)
- Local Consolidated Transportation Service Agency (TCT Driver)
- At-Large member

D. Focus Group Meetings

These focus group meetings will focus on getting private sector input and involvement into the RTP process. TCTC will attend meetings of several organizations and promote more awareness and gather input.

- chambers of commerce
- Sierra Pacific Industries
- trucking industry
- Dodge Ridge Ski Resort
- private transportation groups
- Building Industry Association of Tuolumne County

E. Outreach Materials and Visualization Techniques
A coordinated and planned outreach and media coordination effort will enable the widest reach to entice the public to attend public participation workshops and public hearings. The following is a list of outreach materials:

 Flyers – TCTC will create flyers to advertise key community meetings including focus group and workshops.

 Press Releases - TCTC will inform the public through media outlets such as paper or radio announcements.

 Email List - TCTC will maintain an email list so the community can be updated on future happenings to the regional transportation plan.

A coordinated effort will be made to present materials that are visually based. This will help aid community members in visualizing future transportation improvements and planning efforts. TCTC will include maps, posters, tables, and graphs for public presentations.

 Limited English Proficient (LEP) persons - TCTC will provide LEP materials on a as requested basis. The LEP populations in Tuolumne County are small but do constitute a growing segment of the population.

F. Tribal Consultation
Formal consultation with federally recognized tribes will involve early consultation and participation as mandated by State and Federal regulations and statues. There are two federally recognized tribes in Tuolumne County.

Tuolumne Band of Me-Wuk Indians
PO Box 699 19595 Me-Wu Street Tuolumne, CA 95379

Chicken Ranch Rancheria of Me-Wuk Indians
16929 Chicken Ranch Road Jamestown, CA 95327

G. RTP Website and Survey
The RTP update will be on the TCTC website www.tuolumnecountytransportationcouncil.org The RTP website will include regular updates to the RTP public hearing dates, workshop meetings, and other news related to the RTP.

The website will include a survey for the general public to respond and give feedback on the RTP and what projects they consider a priority. The survey will be included in the community workshops and focus groups.

The website will incorporate several maps showing the locations of RTP project locations. The community will have the option to email comments and feedback regarding the RTP. This should help engage community members who are not able to attend the community workshops or public hearings but would still like to be part of the regional planning process.

H. Interagency Coordination

TCTC will maintain contact with a range of Federal, State, local governments, and special districts. This list includes but is not limited to:

- Federal agencies including: Federal Highways Administration (FHWA), Environmental Protection Agency (EPA), and Federal Transit Administration (FTA), US Forest Service (USFS), Bureau of Reclamation (USBR)
- State agencies including: California Department of Housing and Community Development (HCD) California Air Resources Board (ARB) California Department of Transportation
- Special Districts including Modesto Irrigation District,(MID) Turlock Irrigation District, (TID) Tuolumne Utilities District (TUD)
- California Highway Patrol (CHP)
- Appropriate Resource Agencies
- Adjacent MPOs and RTPAs which shares a significant amount of interregional travel

III.Transportation Polling

There may be a need to poll the community on transportation issues. This will help answer questions regarding what the community considers a top priority in terms of transportation projects. Additionally, a well-designed poll could identify support for various alternative funding programs. If apporpriate, polling will be used to gather input for the Final Draft RTP.



Photo 3 - El Capitan

This page is left intentional blank

Approval of an Update to the UPlan Model Assumptions for the Update to the Regional Transportation Plan

At the last Council Meeting in February, the Council directed TCTC staff to bring an agenda item discussion about the assumptions in the UPlan Model.

TCTC staff is currently updating the Regional Transportation Plan and this update will include the most current land use designations in the City of Sonora's and Tuolumne County's General Plans. Tuolumne County's General Plan is currently being updated based upon the Distinctive Communities Land Use Scenario from the *Tuolumne Tomorrow: Tuolumne County Regional Blueprint.* The Tuolumne County General Plan Land Use Element went before the Planning Committee on January 9th & 30th, 2014 and they made land use recommendations to the Board of Supervisors. These recent changes will be reflected in the next UPlan Model run.

In 2007, the Tuolumne County Transportation Council partnered with Tuolumne County and the City of Sonora to develop a long-range vision for growth and development called *Tuolumne Tomorrow: Tuolumne County Regional Blueprint.* The Tuolumne County Transportation Council served as the Lead Agency and secured grant funding from 2007 to 2012 from the California Regional Blueprint Planning Program to implement the project.

The Regional Blueprint used a land use model called UPLAN which is a computer-based Geographic Information System (GIS) tool developed by UC Davis Information Center for the Environment (ICE). UPLAN enabled users to modify assumptions based on population projections, persons per household and etc. UC Davis ICE was a partner in the Regional Blueprint by supplying data, modeling tools, and technical support for evaluation of alternative growth scenarios. Blueprint staff consulted with the Blueprint Technically Advisory Committee (TAC) and Policy Advisory Committee (PAC) on UPLAN assumptions and parameters to provide the most locally relevant inputs for the model. UPLAN allowed users to modify land use patterns and densities to create future growth scenarios. By inserting these inputs the model produces a mostly likely land use based upon these assumptions.

UPlan Model Assumptions	
Tuolumne Tomorrow: Regional Blueprint	**Recommended Changes for the Regional Transportation Plan**
Baseline Population: **57,223 (2007)**	**Baseline Population 54,360 (2013)**
Population Projections	**See Table 1.3**
Population Growth Per Year: **690**	**Population Growth Per Year: 329**
Persons per Household: **2.331**	No Change Recommended
Average Vacancy Rate: **25.84%**	No Change Recommended
Average Gross Lot Sizes: See Table 1.4	No Change Recommended See Table 1.4
New Land Use Distribution: See Table 1.4	No Change Recommended See Table 1.5

Table 1.1 UPlan Assumptions

The UPlan Assumptions in listed in Table 1.1 do not include all of the assumptions in the model. This effort has been meticulously vetted in the four year Blueprint process. See Attachment 1: *List of Participants on the Blueprint Technical Advisory Committee and the Blueprint Advisory Committee (2008-2011).*

Historical Tuolumne County Populations											
9,271	10,887	12,584	14,404	22,169	33,928	48,456	54,501	55,365	55,048	54,524	54,360
1930	1940	1950	1960	1970	1980	1990	2000	2010	2011	2012	2013

Table 1.2 Historical Tuolumne County Populations

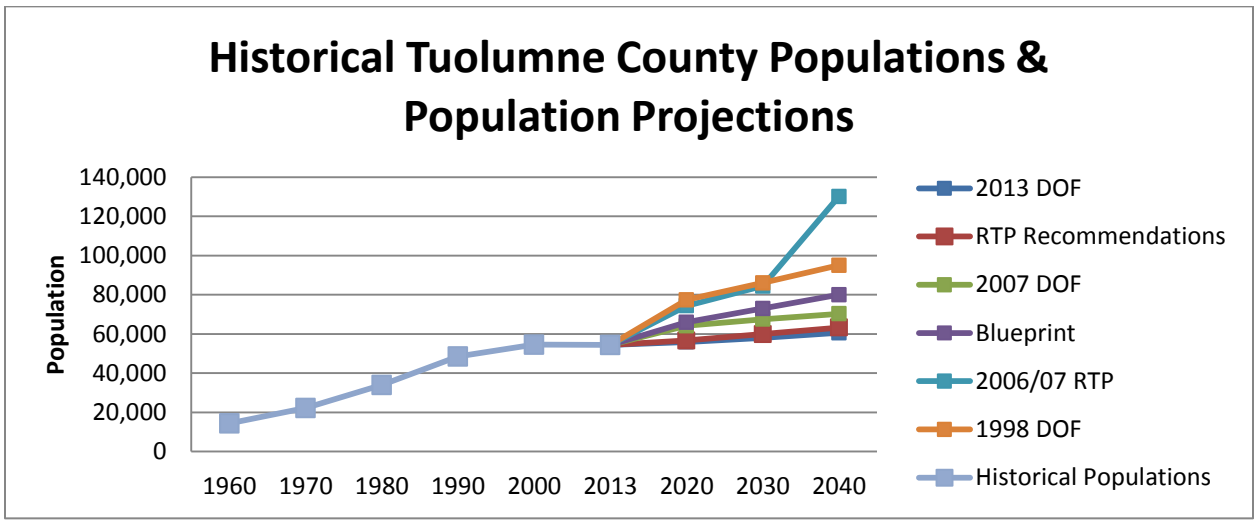


Figure 1.1 Tuolumne County Historical Population & Population Projections

See Attachment #4 for a closer look at this Chart.

2040 Population Projections			
Year	2020	2030	2040
2013 DOF Projections	55,938	57,938	60,593
2014 RTP Recommendations	56,663	59,953	63,243
2007 DOF Projections	64,161	67,510	70,325
2008 Blueprint Projections	66,000	73,000	80,000
2006/2007 RTP Projections	74,380	84,380	130,100
1998 DOF Projections	77,350	86,024	95,023

Table 1.3 Population Projections for 2040

As Table 1.3 illustrates, the recent 2013 Department of Finance (DOF) population projections could be perceived as being too low, while 1998 DOF population projections could be perceived as being too high. TCTC staff is recommending adopting population projections for the project that are based on an average ten year permit issuance growth rate for Tuolumne County. This is identical to how the Blueprint reached their population projections (See Attachments 2 and 3). The population growth will be calculated based upon the average number of annual building permits for the City of Sonora and Tuolumne County combined, to arrive at mid-point population benchmark that more realistically represents a localized historical population growth rate. The DOF vacancy percentage of 25.84% for the County was subtracted out of the total number of annual permits issued to account for seasonal and secondary homes.

Average Gross Lot Size Values for UPlan Land Use Types			
UPlan Land Use Type	**Applicable Tuolumne County General Plan Designations**	**Applicable Sonora General Plan Designations**	**Average Density (Acres per Dwelling Unit)**
Very High Density Residential	HDR (High Density Residential) MU (Mixed Use)	HDR MU	0.09 ac/DU
High Density Residential	MDR (Medium Density Residential)	MDR	0.15 ac/DU
Medium Density Residential	LDR (Low Density Residential)	SFR (Single Family Residential)	0.47 ac/DU
Medium Low Density Residential	ER (Estate Residential) and HR (Homestead Residential)	ER	3.26 ac/DU
Low Density Residential	RR (Rural Residential)	SP-RES	9.14 ac/DU
Very Low Density Residential	LR (Large Lot Residential)	N/A	12.15 ac/DU
Extremely Low Density Residential	AG (Agricultural)	N/A	50.39 ac/DU

Table 1.4 Average Gross Lot Size Values for UPlan Land Use Types

The UPlan Model needs to know how much land each new dwelling unit will require for each different type of residential land use. The City of Sonora and Tuolumne County have worked together to determine the commonality of each jurisdictions' General Plan land use designations and average density for each UPlan land use type. TCTC staff recommends using the Blueprint values that were used for Regional Blueprint.

Distinctive Communities Growth Scenario - Land Use Distribution Parameters

UPlan Land Use Type	**Percentage**
Residential Very High (RVH: 5)	**10%**
Residential High (RH: 6)	**6%**
Residential Medium (RM: 7)	**66%**
Residential Medium Low (RML: 8)	**8%**
Residential Low (RL: 9)	**5%**
Residential Very Low (RVL: 10)	**3%**
Residential Very Low (REL: 11)	**2%**

Table 1.5 Residential Land Use Distribution Parameters

UPlan will allocate residential development based on the proportion of households in each of the seven land use types used by the model, as determined by the user according to recent trends. The recommended proportions are in the following table as Percentage, and are based on an analysis of residential development that occurred. TCTC staff recommends using the Blueprint values that were used for Regional Blueprint.

Attachment:

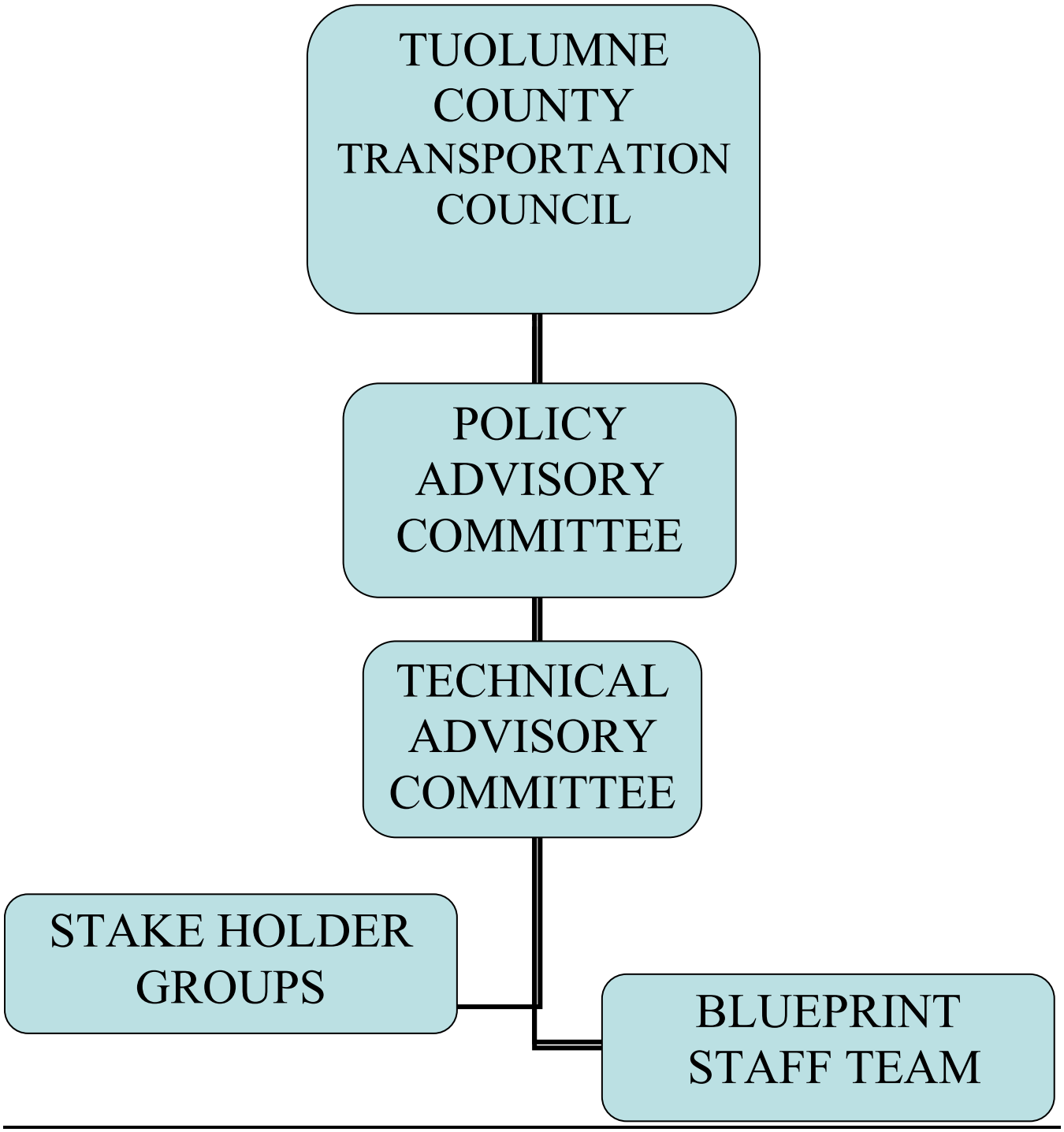
Attachment #1: List of Participants on the Blueprint Technical Advisory Committee and the Blueprint Advisory Committee (2008-2011).
Attachment #2: Standard Equations Used to Determine UPlan Actual Population Projections.
Attachment #3: 2004-2013 City of Sonora & Tuolumne County Building Permits
Attachment #4: Historical Tuolumne County Populations & Population Projections Chart

Recommended Action:

Approve Staff Recommendations to the Uplan Model Assumptions for the RTP Update.

Attachment 1

Approved Blueprint Committee Structure



Approved Blueprint Committee Structure

Policy Advisory Committee:

The Policy Advisory Committee is intended to be a multi-jurisdictional advisory committee to the Tuolumne County Transportation Council (TCTC). The Policy Advisory Committee will provide oversight of the Regional Blueprint Development. The Policy Advisory Committee will consider recommendations from the Technical Committee on various aspects of the Regional Blueprint and give direction on its overall development. The Policy Advisory Committee will make recommendations to the TCTC on funding and the Blueprint adoption into the Regional Transportation Plan.

Two members of the Board of Supervisors approved by the Board of Supervisors:

Supervisor, Paolo Maffei
Supervisor, Dick Pland

Two City Council Members appointed by the City Council:

Mayor, Hank Russell
Ron Stearn

One Citizen Member to be appointed by City and County Representatives:

(Vacant)

Technical Advisory Committee

The Technical Advisory Committee is the review body for all items that go before the Policy Advisory Committee. The Technical Committee is advisory to the Policy Committee on all matters relating to the Regional Blueprint development. The Technical Committee will meet as needed at a place and time designated by the Blueprint Project coordinator, the Technical Committee will operate under the Brown Act and all stakeholders will be notified of Technical Committee meetings.

State of California Department of Transportation Headquarters:
Marilee Mortenson – Regional Blueprint Project Manager **

Caltrans District 10
Maria Rodriguez – Caltrans District 10 **
Dan Brewer – Caltrans District 10**

Tuolumne County Transportation Council:
Peter Rei – Executive Director of Public Works

Tuolumne County Community Development Department:
Bev Shane – Executive Director of Community Development

Tuolumne County Superintendent of Schools:
Joseph Silva – Superintendent of Schools **

Community Service Districts:
Bob Kent – General Manager Lake Don Pedro **
Jim Goodrich – Director Groveland CSD **
Yvonne Hilton – Interim General Manager Twain Harte CSD **
Peter J. Kampa - Tuolumne Utilities District **

Tuolumne City Sanitary District:
Michelle Brick – Operator/Secretary

Tuolumne County Tribal Council:
Jon Otterson – Tuolumne Mi-Wuk Tribal Council **

Sierra Housing Planning Alliance:
George Segarini – CEO Tuolumne County Chamber of Commerce **

Tuolumne County Administrator's Office:
Craig Pedro – County of Tuolumne Administrator

Tuolumne County Airport:
Jim Thomas – Airport Director

City of Sonora Administration:
Greg Applegate – City of Sonora Administrator

City of Sonora Community Development Department:
Ed Wylie – City of Sonora Community Development Director

California Highway Patrol:
Mike Ayala – Commander **

Tuolumne County Sheriff's Department:
Jim Mele – Sherriff **

Tuolumne County Agricultural Commission:
Gary Caseri – Agricultural Commissioner/Air Pollution Control District

Tuolumne County Building Industry Association
Mark Banks - President

Tuolumne County Realtors Association:
Ann Ritchie – Executive Director

Central Sierra Environmental Resource:
John Buckley

TuCare:
Melinda Fleming – Executive Director**
Jeff Sargo

**** Current contact – agency may appoint alternate representatives.**

Stakeholder Groups

Stakeholders are representatives of groups having a vested interest in the regions' growth. Each stakeholder has expertise in specific functional areas. Input from these experts is essential to developing a preferred growth management plan. Stakeholders will be invited to participate in all aspects of the Regional Blueprint development. Input from specific stakeholders will be sought when appropriate for expert advice in their respective area of authority by Blueprint staff.

Tribal Representatives:
Chicken Ranch Band of Me-Wuk Indians
Lloyd Mathiesen - Chairperson

Tuolumne Band of Me-Wuk Indians
Jon Otterson

Tuolumne County Air Pollution Control District:
Bill Sandman

Tuolumne County Environmental Health Department:
Steve Boyack – Interim Director of Environmental Health Services

Tuolumne County Pubic Works Department:
Duke York

Agricultural:
Scott Oneto – Director, Farm Advisor
Stan Kellogg – President, Farm Bureau

Tuolumne County Recreation Department:
Mike Russell – Recreational Director

Tuolumne County Trails Council
Chuck Knowles

Tuolumne County Historical Preservation Review Commission:
All Commission Members -

Sierra Planning and Housing Alliance:
Margaret Barbour – Board President
Paula Authier

Amador Tuolumne Community Action Agency:
Shelly Hance – Executive Director

Sierra Pacific Industries representative
Ryan Land – Standard Operations General Manager

Central Sierra Planning Council Representative
Larry Busby – Executive Director

Stanislaus National Forest Service representative
Kathy Hardy – Acting Sonora Branch Supervisor

California Department of Forestry representative
Tom Francis – Sonora Branch

Tuolumne County Fire Prevention representative
Steve Gregory – Fire Protection

California Department of Fish & Game representative
Dan Applebee – Environmental Scientist

City of Sonora Planning Commission - *All Members*

City of Sonora Local Agency Formation Commission
Hank Russell – City of Sonora Mayor
Gary Anderson – City of Sonora

Tuolumne County Local Agency Formation
Larry Houseberg – Planning

Tuolumne County Resource Conservation District:
Kirk Ford – Chairman

Tuolumne County Planning Commission - All Commission Members

Airport Land Use Commission – All Commission Members

Columbia Area Planning Commission – All Commission Members

Jamestown Area Planning Commission – All Commission Members

Sierra Business Council
Steve Frisch – President

Southern Tuolumne County Planning Commission – All Commission Members

Board of Supervisors Planning Committee – All Committee Members

Tuolumne City Planning Advisory/Design Review Committee – All Committee Members

Twain Harte Planning Advisory/Design Review Committee – All Committee Members

Phoenix Lake Country Club Estates Design Review Committee – All Committee Members

Muller Subdivision Design Review Committee – All Committee Members

Bureau of Land Management representative:

William Haigh – Field Manager (Folsom District)

U.S. Department of Interior – Bureau of Reclamation representatives:
Peggy Brooks – Resource Manager (New Melones Lake)
Dan Holsapple – Natural Resource Specialist (New Melones Lake)

Columbia College representative
Connie Mical – Chief Operations Officer

Columbia State Historic Park representative
Linda Dick-Bissonnette

Yosemite National Park representative
Jennifer T. Nersesian - Assistant to the Superintendent
Bret Meldrum – Visitor Use Social Sciences

Railtown 1897 State Historic Park representative
Virginia Stamm

Northern Sierra Railway representative
David Magaw – President

City and County of San Francisco (Hetch Hetchy)representative
Margaret Hannaford – General Manager

Mariposa County Board of Supervisors
Brad Aborn, District 1
Lyle Turpin, District 2
Janet Bibby, District 3
Dianne Fritz, District 4
Bob Pickard, District 5

Mariposa County Public Works Department:
Dana Hertfelder – Executive Director of Public Works
Barbara Carrier – Administrative Analyst

Calaveras Council of Governments:
Tim McSorley – Executive Director
Tyler Summersett – Transportation Planner

Calaveras County Community Development Agency:
Dave Pastizzo

Calaveras County GIS Division:
Doug Polzoni – GIS Coordinator

Amador County Transportation Commission:
Charles Field – Director
Nancy Champlin

Amador County GIS Division:
Keith Johnson
Kimberly Grissom

Alpine County Planning Department:
Brian Peters – Director

Alpine County Public Works Department:
Julie Ola – Transportation Coordinator

Fehr & Peers Associates representative:
Chris Breiland – Transportation Engineer

Stanislaus Council of Governments:
Vince Harris – Executive Director
Lark Downs – Senior Regional Planner

Merced Council Association of Governments:
Michael Nelson - Chairman
Marjorie Kirn – Regional Planner

Mendocino Council of Governments:
Loretta Ellard – Assistant Executive Director
Terri Persons – Associate Transportation Planner

Twain Harte Community Services District representative:
David Campbell

Land Surveyors Association representative

Sierra Club – Tuolumne Group:
Blaine Rogers

Western Mining Council representative

State Highway 120 Association representative:
Harold Wesley

Columbia Chamber of Commerce

Twain Harte Chamber of Commerce

Yosemite Chamber of Commerce
Robin Patterson – President

Tuolumne County Visitors Bureau representative:
Nancy Sikes - Director
Sandy Gordon – Marketing Manager

Sierra Conservation Center representative

Central Sierra Audubon Society representative
Darca Morgan – Board Member

Interested Parties:

Dwight Mueller – Lake Don Pedro Owner's Association
Claude Giles – Claude Giles Real Estate (Columbia)

Dale Keyser – Biological and Environmental Consulting
Arthur Dambacher – Standard resident
Kim Daters – Columbia resident
Harold Basey – Groveland resident
Glenn Gottschall – Sonora resident
Peter Jelito – Tuolumne resident
Ann K. Schafer – All Seasons Groveland Inn
Ron Kopf – Mountain Springs Development
Marilyn Lidyoff – Mariposa County Business Development Coordinator
Candy O'donnel-Brown – Mariposa County YARTS

Blueprint Staff Team

Tuolumne County Transportation Council:
Darin Grossi – Deputy Director of Transportation Services
Erin Gold – Transportation Planner
Dorothea Knigge – GIS Technician II

Tuolumne County Community Development Department:
Bev Shane – Director of Community Development
Larry Beil – GIS Coordinator (Project Coordinator)
Bret Hamilton – GIS Analyst
Mae Frantz – GIS Technician I

Nate Roth - UC Davis GIS Programmer

Attachment #2- Standard Equations to Determine Uplan Actual Population Projections

2013 Population Estimate **54,360**

Source DOF E-4 Population Estimates for Cities, Counties and State

Average Annual Building Permits 2004-2013 **190 Annual Average Residenital Permits**

Source Tuolumne County CRA Annual Report; City of Sonora Annual Report

2007 Vacancy Rates **25.84%**

Source DOF E-5 City/County Population & Housing Estimates

2007 Population per Household **2.33**

Source DOF E-5 City/County Population & Housing Estimates

Equations Used

[(# of Annual Average Building Permits) - (Vacany Rate)] X (Population per Household) = Population Growth Per Year

[Current Population Estimate + ((Population Growth per Year) X (# of Growth Years))] = Uplan Actual Population Projections

Population Growth Per Year from the 2013 Estimate

(190 X .258) =	**49**	**Vacant or Secondary homes**
190-49 =	**141**	**Occupied Homes**
(141 X 2.33) =	**329**	**Population per Year**

Target Population for 2020

54,360 + ((329 people per year) x (7 years)	**56,663**	**Uplan Actual 2020 Population**

Target Population for 2030

54,360 + ((329 people per year) x (17 years)	**59,953**	**UPlan Actual 2030 Population**

Target Population for 2040

54,360 + ((329 people per year) x (27 years)	**63,243**	**UPlan Actual 2040 Population**

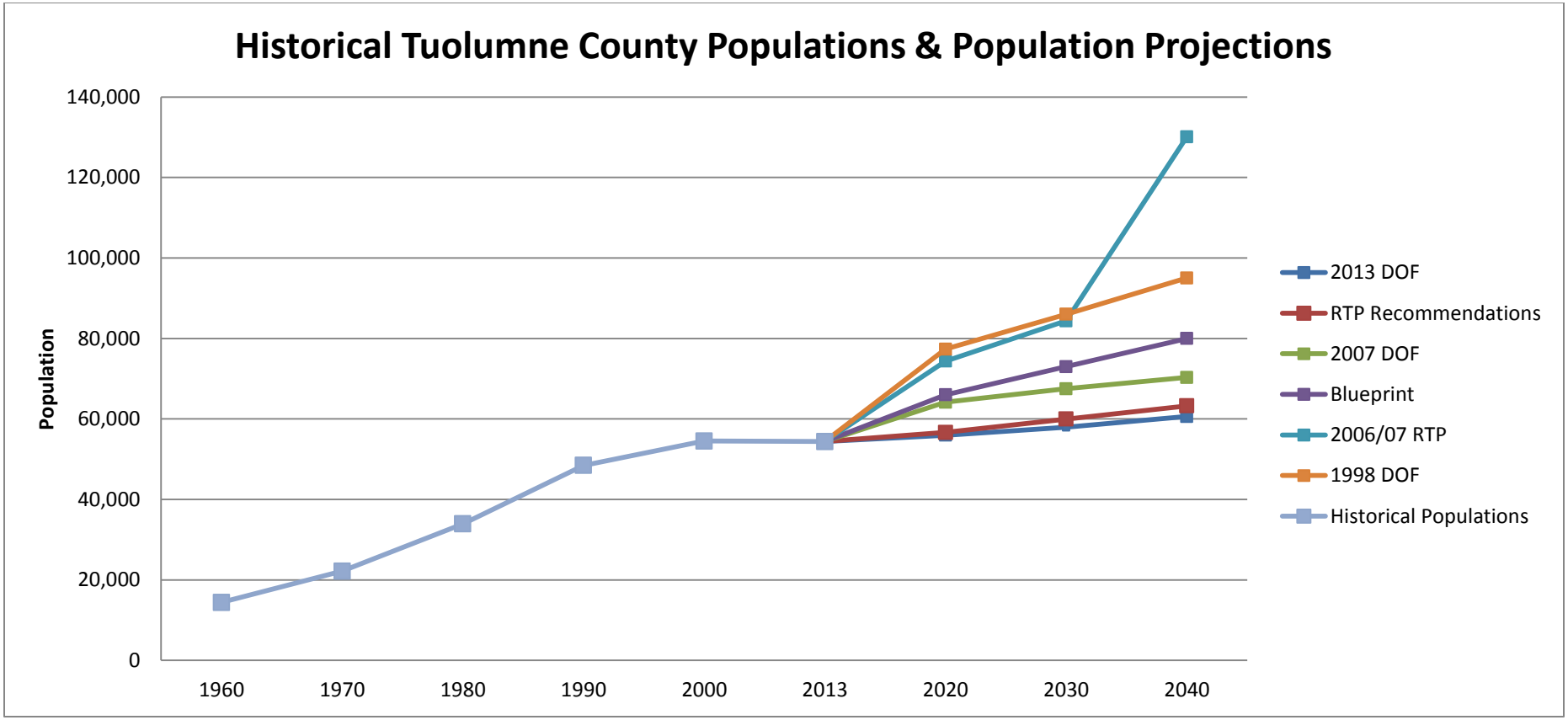
Attachment 3

City of Sonora and Tuolumne County Building Permits 2004-2013

	Single Family County	Single Family City	Multi-Family City	Multi-Family County	Mobile Homes City	Mobile Homes County	Total
2004	403	49	0	28	2	27	509
2005	415	24	6	0	1	30	476
2006	231	34	0	5	2	19	291
2007	179	3	0	3	2	1	188
2008	122	4	0	0	0	1	127
2009	49	3	0	0	0	24	76
2010	52	1	0	2	0	6	61
2011	44	1	0	0	0	16	61
2012	34	5	0	0	0	14	53
2013	33	1	0	0	0	19	53
							1895

1895	**Total Building Permits 2004-2013**
190	**Average Annual Residential Building Permits**

Attachment #4



This page is left intentional blank

Memorandum

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS

To:	*Tuolumne County Transportation Council (TCTC)* – Darin Grossi, Alex Padilla *Rincon Consultants, Inc.* – Matthew Maddox
Cc:	*Wood Rodgers, Inc.* – Mark Rayback, PE
From:	*Wood Rodgers, Inc.* – Nawid Nessar, PE, TE, Mario Tambellini, PE
Date:	08/16/2016
File:	J:\Jobs\8341_Tuolumne_County\008_TCTM_2014_Update\Traffic\Memos\8341-008-TC-EIR_Traffic_Study_Addendum-Memo-20160816.docx
Job No.:	8341.008
RE:	**Tuolumne County GP and RTP Update – EIR Traffic Study Addendum**

INTRODUCTION AND BACKGROUND

Tuolumne County Transportation Council (TCTC) recently completed a comprehensive update of the Tuolumne County Regional Travel Demand Model (TDM), documented in the *Tuolumne County Regional Travel Demand Model Update – Model Development Report* (Wood Rodgers, August 2015), as well as *General Plan and Regional Transportation Plan Update EIR Traffic Study* (Wood Rodgers, August 2015). As part of the TDM update and EIR traffic study, a recalibrated base-year (2014/15) model and future year milestone models for years 2030 and 2040 were developed under four proposed land use growth scenarios.

The TDM and EIR traffic study included short-, mid- (under year 2030) and long-range (under year 2040) Capital Improvement Program (CIP) projects based on the most up to date CIP list at that time. Since then, the CIP project list has been updated to include, modify and/or change the status of certain projects. As part of the ongoing Tuolumne County 2015/16 General Plan (GP) and Regional Transportation Plan (RTP) Update, TCTC desires to establish updated projected Future Year (Years 2030 and 2040) operational performance of critical intersections and roadways throughout the County under the most current Financially Constrained Expenditure Plan Capital Improvement Program (FCEP-CIP) included in the *2016 Draft Regional Transportation Plan* (dated July 2016). This operational performance information will be used in support of the RTP, GP Update, and the associated EIR documents. To that end, this technical memorandum was prepared, that will serve as an addendum to the August 2015 EIR traffic study, to present the following items assuming the most current FCEP-CIP:

- Future year (Years 2030 and 2040) conditions TDM model runs for all four land use growth scenarios.
- Future year (Years 2030 and 2040) conditions Vehicle Miles Traveled (VMT) calculations for all four land use growth scenarios.
- Level of Service (LOS) evaluation of study intersections and roadway segments under the preferred Distinctive Communities (Proposed) land use growth scenario.
- Qualitative analysis of intersections and roadway segments with the FCEP-CIP Tier 2 and Tier 3 projects in place under the preferred Distinctive Communities (Proposed) land use growth scenario.
- Updated Average Daily Traffic (ADT) Level of Service (LOS) brackets for "2-Lane Expressway" as well as including Rolling and Mountainous "2-Lane Minor Arterial with Climbing Lane" LOS brackets

FUTURE YEAR TDM RUNS

Future year 2030 and 2040 land use growth scenarios land use assumptions included in the August 2015 TDM report were retained as part of future year TDM model runs for all four land use growth scenarios including Distinctive Communities (Proposed), Public Services (Proposed), Recent Trends (Existing) and Recent Trends (Proposed). For detailed definitions, land use assumptions and land use forecasts of the growth scenarios, please refer to the August 2015 TDM report.

Years 2030 and 2040 TDM roadway networks were updated based on the current FCEP-CIP list. The short-, mid-, and long-range FCEP-CIPs (as included in the July 2016 study) as well as alternative funding scenario and unfunded projects are shown in **Appendix Exhibit A**. FCEP-CIP projects are categorized in the following Tiers:

- Tier 1a – Programmed projects with dedicated funding (short-range)
- Tier 1b – Plan to fund these projects by Year 2030 (mid-range)
- Tier 1c – Plan to fund these projects by Year 2040 (long-range)
- Tier 2 – Alternative Funding Scenario – If new funds become available
- Tier 3 – Unfunded Projects

Year 2030 TDM roadway network was updated to assume Tier 1a and Tier 1b projects in place and Year 2040 TDM roadway network was updated to assume Tier 1c projects place. These models were used to extract updated VMT estimates and traffic volumes.

VEHICLE MILES TRAVELED

Future year countywide VMT was estimated for each proposed land use growth scenarios using the updated TDMs that assume the current FCEP-CIP. The estimated future year VMTs are shown in **Table 1**, along with estimated Base Year (2015) VMT for comparison purposes.

Table 1. Vehicle Miles Traveled by Alternative Growth Scenario

Year	Base Year (2015)	Alternative Growth Scenarios			
		Distinctive Communities (Proposed)	Public Services (Proposed)	Recent Trends (Existing)	Recent Trends (Proposed)
Year 2015 VMT	1,829,654	-	-	-	-
Year 2030 VMT	-	2,033,692	2,037,605	2,046,484	2,042,255
Year 2040 VMT	-	2,152,846	2,167,632	2,168,520	2,167,134
Note: VMT values estimated with Tuolumne County TDM					

As shown in **Table 1**, the Distinctive Communities (Proposed) scenario is projected to produce the least countywide VMT under both year 2030 and year 2040 conditions. The Recent Trends (Existing) scenario is projected to produce slightly higher VMT under year 2030 and year 2040 conditions, approximately 0.6% and 0.7%, respectively, than the Distinctive Communities (Proposed) scenario. The Public Services (Proposed) scenario is projected to produce slightly higher VMT under year 2040 conditions, approximately 0.7%, than the Distinctive Communities (Proposed) scenario.

All future year alternative growth scenario VMT estimates shown above, which assume the current FCEP-CIP, are approximately 0.6%-1.2% lower than the VMT values estimated in the August 2015 EIR traffic study. The estimated future year VMT decreased because East Sonora Bypass project and roadway widening projects (including SR 49, SR 108, SR 120, Tuolumne Road, Mono way widenings) that were assumed to be funded in the August 2015 EIR traffic study are no longer

assumed funded under the current FCEP-CIP. Without those proposed bypass and widenings, projected future year roadway capacity in Tuolumne County decreased, leading to a decrease in estimated countywide VMT under the alternative growth scenarios.

INTERSECTION AND ROADWAY OPERATIONS

Distinctive Communities (Proposed) year 2030 and year 2040 study intersection and roadway segment Level of Service (LOS) operations were updated using the TDMs that assume the current FCEP-CIP and are summarized in this section.

INTERSECTION OPERATIONS

Similar to future year TDM roadway network updates, *Synchro* intersection operations models were updated to assume FCEP-CIP Tier 1a and Tier 1b projects in place by Year 2030 and Tier 1c projects in place by Year 2040 under the Distinctive Communities (Proposed) land use growth scenario. Study intersection locations are illustrated in **Appendix Figure 1**. Year 2030 and Year 2040 intersection lane geometrics and control are illustrated in **Appendix Figures 2** and **3**, respectively.

The updated TDMs that assume the current FCEP-CIP were utilized to update the Year 2030 and Year 2040 forecasted intersection turning movement traffic volumes. Year 2030 and Year 2040 intersection AM and PM peak hour turning movement volumes are illustrated in **Appendix Figures 4** and **5**, respectively.

Distinctive Communities (Proposed) land use growth scenario intersection Level of Service (LOS) operations quantified under the updated Year 2030 and Year 2040 intersection traffic volumes, and are illustrated in **Appendix Table 1** and **Table 2**, respectively.

Table 2 illustrates intersections that are projected to operate below the minimum LOS standard criteria under Year 2030 and/or 2040 AM and/or PM peak hour conditions.

Table 2. Distinctive Communities (Proposed) Intersections with Unacceptable LOS

#	Intersection	Control Type[1]	LOS Std.	Year 2030				Year 2040			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Delay (Sec/Veh)[2]	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
11	SR 49-SR 108/SR 108 & SR 49 (Stockton Rd)	TWSC	D	43.3	E[3]	93.5	F[3]	-	-	-	-
23	S Washington St/SR 49 (S Washington St) & SR 49 (Stockton Rd)	Signal	D	68.6	E	62.5	E	55.6	E	58.1	E
24	S Washington St & Church St	TWSC	D	-	-	54.7	F[3]	-	-	36.1	E[3]
Total Intersection Below LOS Standard:				**3**				**2**			

Notes:
1. TWSC = Two-Way-Stop Control
2. For TWSC intersection, worst-case movement delays (in seconds/vehicle) is indicated. "Average" control delays (in seconds/vehicle) are indicated for signal-controlled intersections. Delays reported in above table are from Synchro 8 software.
3. California MUTCD based Peak Hour Volume Warrant #3 (70% factor) is met

As shown in **Table 2**, the following three intersections are projected to operate below LOS standards under Distinctive Communities (Proposed) Year 2030 AM and/or PM peak hour conditions:

Intx – 11. SR 49-SR 108/SR 108 & SR 49 (Stockton Road)
Intx – 23. South Washington Street/SR 49 (South Washington Street) & SR 49 (Stockton Road)
Intx – 24. South Washington Street & Church Street

As shown in **Table 2**, the following three intersections are projected to operate below LOS standards under Distinctive Communities (Proposed) Year 2040 AM and/or PM peak hour conditions:

Intx – 23. South Washington Street/SR 49 (South Washington Street) & SR 49 (Stockton Road)
Intx – 24. South Washington Street & Church Street).

California MUTCD based peak hour volume warrant number 3 is projected to be met at the following intersections under AM and/or PM peak hour conditions and listed year(s):

Intx – 11. SR 49-SR 108/SR 108 & SR 49 (Stockton Road) – under Year 2030 conditions
Intx – 24. South Washington Street & Church Street – under Year 2030 and Year 2040 conditions

All other study intersections are projected to operate at acceptable Year 2030 and Year 2040 AM and PM peak hour or better conditions. The following signalized study intersection turning movements are projected to operate below acceptable LOS, although the intersections operate at acceptable overall LOS, under listed conditions:

Intx – 25. Bulwer Street / Restano Way – Southbound left-turn under year 2030 AM peak hour conditions
Intx – 29. Greenly Road & Morning Star Drive / Cabezut Road – Northbound left- and southbound left-turn under year 2040 PM peak hour conditions

Some study intersections may potentially experience a change or improvement in LOS as a result of the FCEP-CIP improvements. A list of intersections that may be affected by FCEP-CIP under year 2030 and year 2040 conditions are as follows:

YEAR 2030 CONDITIONS INTERSECTION IMPROVEMENTS:

Intx – 2. SR 120 & SR 108-SR 120/SR 108 (assumed High-T)
Intx – 7. Humbug Street/Rawhide Road & SR 49-SR 108 (as part of Rawhide Road realignment)
Intx – 8. Main Street/Jamestown Road & SR 49-SR 108 (as part of Rawhide Road realignment)
Intx – 9. Signalization of Fifth Avenue & SR 49-SR 108
Intx – 13. Parrotts Ferry Road & Sawmill Flat Road (assumed Signal)
Intx – 14. SR 49 & Parrotts Ferry Road
Intx – 19 & 20. SR 49 (North Washington Street) intersections with Shaws Flat Road/Columbia Way and School Street (assumed Signal, as part of Complete Streets Improvements)
Intx – 27. Lime Kiln Road/South Washington Street & SR 108
Intx – 30. Greenley Road & Mono Way
Intx – 38. Woodham Carne Road/Black Oak Road & Tuolumne Road (assumed Signal)
Intx – 39. Tuolumne Road & Soulsbyville Road (assumed Signal)

YEAR 2040 CONDITIONS FACILITY IMPROVEMENTS

Intx – 5. SR 49-SR 108 & Chicken Ranch Road
Intx – 11. SR 49-SR 108/SR 108 & SR 49 (Stockton Road) (assumed High-T)

As part of North-South Connector – Phase 1 – Greenley Extension to SR 49, the following intersections would be improved (study intersections indirectly affected):
Intx – 28. – 30. Greenly Road intersections with Lyons Bald Mountain Road, Morning Star Drive/Cabezut Road, and Mono Way
Intx – 15. – 27. SR 49 intersections through downtown Sonora, Restano Way intersections with Bulwer Street and Mono Way/South Stewart Street, and Lime Kiln Road/South Washington Street intersection with SR 108

ROADWAY OPERATIONS

Roadway classifications were updated to assume FCEP-CIP Tier 1a and Tier 1b projects in place by

Year 2030 and Tier 1c projects in place by Year 2040 under the Distinctive Communities (Proposed) land use growth scenario.

The County's roadway LOS lookup table was expanded to include Rolling and Mountainous "2-Lane Minor Arterial with Climbing Lane" roadway type LOS brackets and the current "2-Lane Expressway" roadway type LOS brackets were updated. **Appendix Table 3** illustrates the updated ADT-based LOS thresholds.

The updated TDMs that assume the current FCEP-CIP were utilized to update the Year 2030 and Year 2040 roadway ADT traffic volumes. Year 2030 and Year 2040 roadway ADT traffic volumes and LOS are illustrated in **Appendix Figures 6** and **7**, respectively, as well as **Appendix Table 4**.

Table 3 illustrates roadways that are projected to operate below the minimum LOS criteria under Year 2030 and 2040 ADT conditions.

Table 3. Distinctive Communities (Proposed) Roadways with Unacceptable LOS

#	Roadway Segment	2030 Type #	2040 Type #	LOS Std.	Year 2030		Year 2040	
					AADT	LOS	AADT	LOS
3	**SR 108** - b/w O'Byrnes Ferry Rd & SR 120 (Yosemite Junction)	4	12	D	20,764	E	22,306	E
4	**SR 108** - b/w SR 120 (Yosemite Junction) and SR 49 (Montezuma Junction)	4	12	D	19,863	E	21,166	E
5	**SR 108** - b/w SR 49 (Stockton Rd) and S Washington St/Lime Kiln Rd	4	12	D	21,736	E	22,966	E
23	**SR 49** - b/w SR 49 (Montezuma Jct) & Bell Mooney Rd	4	12	D	21,104	E	23,275	E
24	**SR 49** - b/w Bell Mooney Rd and South Jct Main St	210	210	D	21,800	E	24,086	E
27	**SR 49** - b/w Fifth Ave and Stockton Rd/SR108	210	210	D	25,196	E	29,879	E
31	**SR 49** - b/w Stockton Rd and Dodge St	211	211	D	17,414	E	17,924	E
32	**SR 49** - n/o Dodge St	211	211	D	20,283	E	-	-
33	**SR 49** - s/o N Washington St / Columbia Way	211	211	D	17,110	E	-	-
34	**SR 49** - n/o N Washington St / Columbia Way	211	211	D	16,133	E	-	-
35	**SR 49** - e/o Parrotts Ferry Rd (Columbia WYE)	211	211	D	-	-	17,021	E
52	**Mono Wy** - w/o Sanguinetti Rd	210	210	D	22,167	E	22,058	E
69	**Greenly Rd** - b/w Cabezut Rd/ Morning Star Rd & Delnero Dr	212	212	D	-	-	15,939	E
77	**Tuolumne Rd** - b/w Mono Way & Lambert lake Rd	212	212	D	-	-	16,235	E
116	**S Washington St** - b/w Restano Way & Church St	212	212	D	17,700	E	17,706	E
			Total Segments Below LOS Standard:		**12**		**12**	

Notes: AADT = Annual Average Daily Traffic, LOS = Level of Service

As shown in **Table 3**, twelve (12) roadway segments are projected to operate below LOS standard under Year 2030 and twelve (12) roadway segments are projected to operate below LOS standard under Year 2040 Distinctive Communities (Proposed) conditions.

Some study roadway segments may potentially experience a change or improvement in LOS as a result of FCEP-CIP improvements. A list of roadway segments that may be affected by FCEP-CIP under year 2030 and year 2040 conditions are as follows:

YEAR 2030 CONDITIONS ROADWAY SEGMENT IMPROVEMENTS:

Rdwy – 24 – 26. SR 49/SR 108, between Bell Mooney Road & Fifth Avenue
Rdwy – 77. Tuolumne Road, between Mono Way & Lambert Lake Road
Rdwy – 93. Rawhide Road, north of SR 49/SR 108
Rdwy – 97. Phoenix Lake Road, east of Ridgewood Drive

YEAR 2040 CONDITIONS ROADWAY SEGMENT IMPROVEMENTS:

Rdwy – 2. SR 108/SR 120, between O'Byrnes Ferry Road & La Grange Road
Rdwy – 3. SR 108/SR 120, between La Grange Road & SR 120 (Yosemite Junction)
Rdwy – 4. SR 108, between SR 120 (Yosemite Junction) and SR 49 (Montezuma Junction)
Rdwy – 23. SR 49/SR 108, between SR 49 (Montezuma Junction) & Bell Mooney Road

As part of North-south connector – Phase 1 – Greenley Extension to SR 49, the following roadway segments would be improved:
Rdwy – 28. – 34. SR 49 from SR 108 to north of North Washington Street/Columbia Way (segments of SR 49 through downtown Sonora indirectly affected by the Greenley Road extension)
Rdwy – 52. Mono Way west of Sanguinetti Road
Rdwy – 53. Mono Way b/w Sanguinetti Road & Greenley Road
Rdwy – 68. Greenley Road, b/w Lyons Bald Mountain Road/Lyons Road & Cabezut Road
Rdwy – 115. South Washington Street north of SR 108
Rdwy – 116. South Washington Street between Restano Way & Church Street
Rdwy – 139. Lyons Bald Mountain Road, east of Greenley Road
Rdwy – 140. Lyons Street, west of Greenley Road

All improvements and mitigation measures are discussed in the following section.

IMPACTS AND MITIGATIONS

This section summarizes future year traffic impacts under the Distinctive Communities (Proposed) land use growth scenario, their significance on critical study area transportation facilities, and appropriate improvements and mitigation measures to alleviate those impacts to acceptable levels. A discussion of planned roadway improvements that are assumed constructed by future year conditions is presented in **Appendix Exhibit A**. It should be noted that all improvement/mitigation recommendations contained herein are conceptual planning/program level recommendations only.

YEAR 2030 CONDITIONS

This memorandum is a planning level analysis that quantifies future traffic conditions with proposed improvements. The forecasted LOS traffic impacts and associated improvements should be reevaluated with a thorough operational analysis before any improvements are constructed.

INTERSECTIONS

***Intx – 11. SR 49-SR 108/SR 108 & SR 49 (Stockton Road)*:**

Impact: The SR 49-SR 108/SR 108 & SR 49 (Stockton Road) intersection is projected to operate at unacceptable year 2030 AM and PM peak hour LOS "E" or worse conditions for the worst-case movement. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is projected to be met at this intersection under year 2030 AM and PM peak hour conditions.

Mitigation: Intersection improvements are listed in FCEP-CIP Tier 1c long-range capital improvement projects. In this study, the long-range capital improvement projects are not assumed to be complete until year 2040. In order to achieve acceptable LOS under year 2030 conditions, it is recommended that this intersection be improved by year 2030. A feasible improvement measure is to improve this intersection to a High-T type intersection or signalize this intersection. With the recommended improvements in place, this intersection is projected to operate at acceptable year 2030 AM and PM peak hour LOS "C" or better conditions.

***Intx – 23. South Washington Street/SR 49 (South Washington Street) and SR 49 (Stockton Road)*:**

Impact: The South Washington Street/SR 49 (South Washington Street) and SR 49 (Stockton Road) intersection is projected to operate at unacceptable year 2030 AM and PM peak hour LOS "E" conditions with most of the movements operating below LOS "D" conditions.

Mitigation: A feasible improvement measure for this intersection is to construct a southbound right turn pocket. With the recommended improvements in place, the South Washington Street/SR 49 (South Washington Street) and SR 49 (Stockton Road) intersection is projected to operate at acceptable year 2030 AM and PM peak hour average intersection LOS "D" conditions with some movements operating at LOS F. The south leg of this intersection appear to have been constructed to their ultimate configuration with buildings, sidewalk, etc. on both east and west sides of the leg. Addition of the recommended turn lanes may not be implementable due to right-of-way and existing buildings. This intersection may continue to operate at unacceptable LOS until other feasible mitigations have been investigated and implemented.

North-South Connector – Phase 1 – Greenley extension to SR 49 is listed in FCEP-CIP Tier 1c long-range capital improvement projects. In this study, the long-range capital improvement projects are not assumed to be complete until year 2040. A feasible improvement measure to achieve acceptable LOS under year 2030 conditions is for the North-South Connector to be in place by year 2030.

Another feasible improvement measure would be to improve alternative modes of transportation along this roadway segment, such as transit service, bicycle and pedestrian infrastructure.

***Intx – 24. South Washington Street and Church Street*:**

Impact: The South Washington Street and Church Street intersection is projected to operate at unacceptable year 2030 PM peak hour LOS "F" conditions. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is projected to be met at this intersection under year 2030 PM peak hour conditions.

Mitigation: A feasible improvement measure for this intersection is to install a traffic signal. However, due to the close proximity to another signalized intersection, installation of a traffic signal may not be possible. With the recommended signal improvement in place, the South Washington Street and Church Street intersection is projected to operate at acceptable year 2030 AM and PM peak hour LOS "A" conditions.

Another feasible improvement measure is to restrict the westbound approach to right-turn-only during peak hours. The eastbound approach is currently restricted to right-turn-only during peak hours. Changing the westbound approach to right-turn-only would be possible due to the very low westbound left-turn and through movement volumes. With the westbound right-turn-only improvements in place, the South Washington Street and Church Street intersection is projected to operate at acceptable year 2030 AM and PM peak hour LOS "C" conditions under all alternative growth scenarios for the worst case movement.

Individual Turning Movements:

The following study intersection is projected to operate at acceptable LOS "D" or better under Year 2030 conditions, but contain at least one individual movement operating at an unacceptable LOS. The following list summarizes each intersection operating acceptably under Year 2030 conditions, that intersection's failing movement(s) for AM and/or PM peak hours, and the recommended improvements that may alleviate that movement's unacceptable LOS.

- **Intx – 25. Bulwer Street / Restano Way:**
    - Movement(s) Operating Unacceptably: Southbound Left-Turn.
    - Recommended Improvements / Mitigation: Implement the Greenly Road Extension under Year 2030 which would reduce traffic demands at this intersection.

ROADWAY SEGMENTS

***Rdwy – 3 & 4. SR 108 between O'Byrnes Ferry Road and SR 49 (Montezuma Junction)*:**

Impact: The segment of SR 108/SR 120 between O'Byrnes Ferry Road and SR 120, and the segment of SR 108 between SR 120 (Yosemite Junction) and SR 49 (Montezuma Junction) are projected to operate at unacceptable year 2030 ADT-based LOS "E" conditions.

Mitigation: These segments of SR 108 are planned to be improved with climbing lanes and deceleration lanes as part of FCEP-CIP tier 1c by year 2040. Even with the FCEP-CIP tier 1c improvements in place by year 2030, these segments of SR 108 are not projected to provide acceptable LOS. A feasible improvement measure for this roadway segment is to widen the segment to a four lane expressway, consistent with FCEP-CIP Tier 3 project. With the recommended improvements in place, the segments of SR 108 between O'Byrnes Ferry Road and SR 49 (Montezuma Junction) are projected to operate at acceptable year 2030 ADT-based LOS "A" conditions.

***Rdwy – 5. SR 108 between SR 49 (Stockton Road) and South Washington Street/Lime Kiln Road*:**

Impact: The segment of SR 108 between SR 49 (Stockton Road) and South Washington Street/Lime Kiln Road is projected to operate at unacceptable year 2030 ADT-based LOS "E" conditions.

Mitigation: A feasible improvement measure is to widen this segment of SR 108 to a four lane expressway, consistent with FCEP-CIP Tier 3 project. With the recommended improvements in place, the segment of SR 108 between SR 49 (Stockton Road) and South Washington Street/Lime Kiln Road is projected to operate at acceptable year 2030 ADT-based LOS "A" conditions.

***Rdwy – 23, 24, & 27. SR 49 between SR 49 (Montezuma Junction) and South Main Street, and SR 49 between Fifth Avenue and Stockton Road/SR 108*:**

Impact: The segments of SR 49/SR 108 between SR 49 (Montezuma Junction) and Bell Mooney Road, between Bell Moony Road and South Main Junction, and between Fifth Avenue and Stockton Road/SR 108 are projected to operate at unacceptable year 2030 ADT-based LOS "E" conditions.

Mitigation: The segment of SR 49/SR 108 between SR 49 (Montezuma Junction) and Bell Mooney Road is planned to be improved with climbing lanes and deceleration lanes as part of FCEP-CIP tier 1c by year 2040. Even with the FCEP-CIP tier 1c improvements in place by year 2030, this segment of SR 49/SR 108 is not projected to provide acceptable LOS. A feasible improvement measure is to widen this segment to four lane expressway, consistent with FCEP-CIP Tier 3 project. With the recommended improvements in place, the segment of SR 49/SR 108 between SR 49 (Montezuma Junction) and Bell Mooney Road is projected to operate at acceptable year 2030 ADT-based LOS "A" conditions.

The segment of SR 49/SR 108 between Chicken Ranch Road and South Main Street is planned to be improved with continuous two-way-left-turn median lane as part of FCEP-CIP Tier 1b. Although this improvement will provide additional capacity, the added capacity will not be enough and this segment of SR 49/SR 108 is projected to continue to operate at unacceptable LOS.

A feasible improvement for the segments of SR 49/SR 120 between Bell Mooney Road and South Main Street, and between Fifth Street and Stockton Road/SR 108 is to widen these segments to five-lanes, consistent with FCEP-CIP Tier 2 projects. With the recommended improvements, these segments of SR 49/SR 108 are projected to operate at acceptable 2030 ADT-based LOS "C" or better conditions.

***Rdwy – 31, 32, 33, & 34. SR 49 between Stockton Road and north of North Washington Street / Columbia Way*:**

Impact: The segments of SR 49 between Stockton Road and Dodge Street, north of Dodge Street,

south of North Washington Street/Columbia Way, and north of North Washington Street/Columbia Way are projected to operate at unacceptable year 2030 ADT-based LOS "E" conditions.

Mitigation: A feasible improvement for these segments of SR 49 is to construct the North-South Connector – Phase 1 – Greenley Road Extension to SR 49, consistent with FCEP-CIP Tier 1c, by year 2030. With this improvement, a significant amount of traffic would be diverted from these segments of SR 49 to the new Greenley Road Extension.

Construction of the North-South Connector Phase 2 (Fir Drive Extension), consistent with FCEP-CIP Tier 2, that would extend Fir Drive from Mono Way to the Greenley Road Extension, intersecting with Cabezut Road and Lyons Bald Mountain Road in between, may reduce traffic on this segment of SR 49 by up to 5%.

Another feasible improvement measure for this roadway segment is to construct the Western Bypass that would extend from SR 108/49 (south of Jamestown) to Rawhide Road. The Western Bypass is projected to further divert and reduce traffic on this segment of SR 49.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service, bicycle and pedestrian infrastructure.

***Rdwy – 52. Mono Way west of Sanguinetti Road*:**

Impact: The segment of Mono Way west of Sanguinetti Road is projected to operate at unacceptable year 2030 ADT-based LOS "E" conditions.

Mitigation: Traffic volumes on the segment of Mono Way west of Sanguinetti Road are projected to decrease with the construction of the proposed FCEP-CIP Tier 1c, Greenley Road Bypass; however, the projected decrease is not substantial enough for the segment of Mono Way west of Sanguinetti Road to operate at acceptable ADT-based peak hour LOS conditions.

A feasible improvement measure for this roadway segment is to construct the North-South Connector Phase 2, consistent with FCEP-CIP Tier 2, that would extend Fir Drive from Mono Way to the Greenley Road Extension, which may reduce traffic on this segment of Mono Way.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service, bicycle and pedestrian infrastructure.

***Rdwy – 116. South Washington Street between Restano Way and Church Street*:**

Impact: The segment of South Washington Street between Restano Way and Church Street is projected to operate at unacceptable year 2030 ADT-based LOS "E" conditions.

Mitigation: Traffic volumes on this segment of South Washington Street are projected to decrease with the construction of the proposed FCEP-CIP Tier 1c, Greenley Road Bypass; however, the projected decrease is not substantial enough for this segment of South Washington Street to operate at acceptable Year 2030 AM and PM peak hour LOS conditions.

A feasible improvement measure for this roadway segment is to construct the North-South Connector Phase 2, consistent with FCEP-CIP Tier 2, that would extend Fir Drive from Mono Way to the Greenly Road Extension, which may reduce traffic on this segment of Mono Way.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

YEAR 2040 CONDITIONS

This memorandum is a planning level analysis that quantifies future traffic conditions with proposed improvements. The forecasted LOS traffic impacts and associated improvements should be reevaluated with a thorough operational analysis before any improvements are constructed.

INTERSECTIONS

***Intx – 22. SR 49 (North Washington Street) & Bradford Street*:**

Impact: The SR 49 (North Washington Street) & Bradford Street intersection is projected to operate at unacceptable year 2040 PM peak hour LOS "E" conditions. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is not projected to be met at this intersection under year 2040 AM or PM peak hour conditions.

Mitigation: A feasible improvement measure for this intersection is to install a traffic signal. However, since California MUTCD based traffic signal warrant is not projected to be met at this location, installation of a traffic signal is not recommended. With the signal improvement in place, the South Washington Street and Bradford Street intersection is projected to operate at acceptable year 2040 AM and PM peak hour LOS "A" conditions.

Another feasible improvement measure is to restrict the eastbound and westbound approach to right-turn-only during peak hours. Changing the eastbound and westbound approach to right-turn-only would be possible due to the very low left-turn and through movements. With the right-turn-only improvements in place, the SR 49 (North Washington Street) & Bradford Street intersection is projected to operate at acceptable year 2040 AM and PM peak hour LOS "C" conditions for the worst case movement.

***Intx – 23. South Washington Street/SR 49 (South Washington Street) and SR 49 (Stockton Road)*:**

Impact: The South Washington Street/SR 49 (South Washington Street) and SR 49 (Stockton Road) intersection is projected to operate at unacceptable year 2040 AM and PM peak hour LOS "E" conditions with most of the movements operating below LOS "D" conditions.

Mitigation: A feasible improvement measure for this intersection is to construct a southbound right turn pocket. With the recommended improvements in place, the South Washington Street/SR 49 (South Washington Street) and SR 49 (Stockton Road) intersection is projected to operate at acceptable year 2040 AM and PM peak hour LOS "D" conditions with some movements operating at LOS F. The north and leg of this intersection appear to have been constructed to their ultimate configuration with buildings, sidewalk, etc. on both east and west sides of the legs. Addition of the recommended turn lane may not be implementable due to right-of-way and existing buildings. This intersection may continue to operate at unacceptable LOS until other feasible mitigations have been investigated and implemented.

Construction of the North-South Connector Phase 2 (Fir Drive Extension), consistent with FCEP-CIP Tier 2, that would extend Fir Drive from Mono Way to the Greenley Road Extension, intersecting with Cabezut Road and Lyons Bald Mountain Road in between, may reduce traffic on this segment of SR 49 by up to 5%.

Another feasible improvement measure for this roadway segment is to construct the Western Bypass that would extend from SR 108/49 (south of Jamestown) to Rawhide Road, consistent with FCEP-CIP Tier 3 project. The Western Bypass is projected to divert traffic away from downtown Sonora and may reduce traffic on at this intersection.

Another feasible improvement measure would is to improve alternative modes of transportation along this roadway segment, such as transit service, bicycle and pedestrian infrastructure.

***Intx – 24. South Washington Street and Church Street*:**

Impact: The South Washington Street and Church Street intersection is projected to operate at unacceptable year 2040 AM and PM peak hour LOS "F" conditions. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is projected to be met at this intersection under year 2040 PM peak hour conditions.

Mitigation: A feasible improvement measure for this intersection is to install a traffic signal. However, due to the close proximity to another signalized intersection, installation of a traffic signal may not be possible. With the signal improvement in place, the South Washington Street and Church Street intersection is projected to operate at acceptable year 2040 AM and PM peak hour LOS "A" conditions.

Another feasible improvement measure is to restrict the westbound approach to right-turn-only during peak hours. The eastbound approach is currently restricted to right-turn-only during peak hours. Changing the westbound approach to right-turn-only would be possible due to the very low westbound left-turn and through movements. With the westbound right-turn-only improvements in place, the South Washington Street and Church Street intersection is projected to operate at acceptable year 2040 AM and PM peak hour LOS "C" conditions for the worst case movement.

Individual Turning Movements:

The following study intersection is projected to operate at acceptable LOS "D" or better under Year 2040 conditions, but contain at least one individual movement operating at an unacceptable LOS. The following list summarizes each intersection operating acceptably under Year 2040 conditions, that intersection's failing movement(s) for AM and/or PM peak hours, and the recommended improvements that may alleviate that movement's unacceptable LOS.

- **Intx – 29. Greenley Road and Morning Star Drive / Cabezut Road:**
    - Movement(s) Operating Unacceptably: Northbound Left and Southbound Left.
    - Recommended Improvements / Mitigation: Add northbound right-turn lane, overlap northbound right-turn and southbound right-turn.

ROADWAY SEGMENTS

***Rdwy – 3 & 4. SR 108 between O'Byrnes Ferry Road and SR 49(Montezuma Junction)*:**

Impact: The segment of SR 108/SR 120 between O'Byrnes Ferry Road and SR 120, and the segment of SR 108 between SR 120 and SR 49 (Montezuma Junction) are projected to operate at unacceptable year 2040 ADT-based LOS "E" conditions.

Mitigation: These segments of SR 108 are planned to be improved with climbing lanes and deceleration lanes as part of FCEP-CIP tier 1c by year 2040. Even with the FCEP-CIP tier 1c improvements, these segments of SR 108 are not projected to provide acceptable LOS. A feasible improvement measure for this roadway segment is to widen these segments to a four lane expressway, consistent with FCEP-CIP Tier 3 project. With the recommended improvements in place, the segments of SR 108 between O'Byrnes Ferry Road and West Junction SR 49 are projected to operate at acceptable year 2040 ADT-based LOS "A" conditions.

***Rdwy – 5. SR 108 between SR 49 (Stockton Road) and South Washington Street/Lime Kiln Road*:**

Impact: The segment of SR 108 between SR 49 (Stockton Road) and South Washington Street/Lime Kiln Road is projected to operate at unacceptable year 2040 ADT-based LOS "E" conditions.

Mitigation: A feasible improvement measure for this roadway segment is to widen the segment to a four lane expressway, consistent with FCEP-CIP Tier 3 project. With the recommended improvements in place, the segment of SR 108 between SR 49 (Stockton Road) and South Washington Street/Lime Kiln Road is projected to operate at acceptable year 2040 ADT-based LOS "A" conditions.

***Rdwy – 23, 24, & 27. SR 49 between SR 49 (Montezuma Junction) and South Main Street, and SR 49 between Fifth Avenue and Stockton Road/SR 108*:**

Impact: The segments of SR 49/SR 108 between SR 49 (Montezuma Junction) and Bell Mooney

Road, between Bell Mooney Road and South Main Junction, and the between Fifth Avenue and Stockton Road/SR 108 are projected to operate at unacceptable year 2040 ADT-based LOS "E" conditions.

Mitigation: The segment of SR 49/SR 108 between SR 49 (Montezuma Junction) and Bell Moony Road is planned to be improved with climbing lanes and deceleration lanes as part of FCEP-CIP tier 1c by year 2040. Even with the FCEP-CIP tier 1c improvements, this segment of SR 49/SR 108 is not projected to provide acceptable LOS. A feasible improvement is to widen the segment to a four lane expressway, consistent with FCEP-CIP Tier 3 project. With the recommended improvements in place, the segment of SR 49/SR 108 between SR 49 (Montezuma Junction) and Bell Mooney Road is projected to operate at acceptable year 2040 ADT-based LOS "A" conditions.

The segment of SR 49/SR 108 between Chicken Ranch Road and South Main Street is planned to be improved with continuous two-way-left-turn median lane as part of FCEP-CIP tier 1b. Although this improvement will provide additional capacity, the added capacity will not be enough and this segment of SR 49/SR 108 is projected to continue to operate at unacceptable LOS.

A feasible improvement for the segments of SR 49/SR 120 between Bell Mooney Road and South Main Street and between Fifth Street and Stockton Road/SR 108 is to widen these segments to five-lanes, consistent with FCEP-CIP Tier 2 projects. With the recommended improvements, these segments of SR 49/SR 108 are projected to operate at acceptable 2040 ADT-based LOS "C" or better conditions.

***Rdwy – 31. SR 49 between Stockton Road and Dodge Street*:**

Impact: The segment of SR 49 between Stockton Road and Dodge Street is projected to operate at unacceptable year 2040 ADT-based LOS "E" conditions.

Mitigation: Construction of the North-South Connector Phase 2 (Fir Drive Extension), consistent with FCEP-CIP Tier 2, that would extend Fir Drive from Mono Way to the Greenley Road Extension, intersecting with Cabezut Road and Lyons Bald Mountain Road in between, may reduce traffic on this segment of SR 49 by up to 5%.

Another feasible improvement measure for this roadway segment is to construct the Western Bypass that would extend from SR 108/49 (south of Jamestown) to Rawhide Road, consistent with FCEP-CIP Tier 3 project, and may reduce traffic on this segment of SR 49.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service, bicycle and pedestrian infrastructure.

***Rdwy – 35. SR 49 east of Parrotts Ferry Road (Columbia WYE)*:**

Impact: The segment of SR 49 east of Parrotts Ferry Road (Columbia WYE) is projected to operate at unacceptable year 2040 ADT-based LOS "E" conditions.

Mitigation: A feasible improvement measure for this roadway segment is to construct a continuous two-way-left-turn median lane. With the recommended improvements in place, the segment of SR 49 east of Parrotts Ferry Road (Columbia WYE) is projected to operate at acceptable year 2040 ADT-based LOS "D" conditions.

Another feasible improvement measure for this roadway segment is to widen the segment to five lanes, consistent with FCEP-CIP Tier 2 project. With the recommended improvements in place, the segment of SR 49 east of Parrotts Ferry Road (Columbia WYE) is projected to operate at acceptable year 2040 ADT-based LOS "A" conditions.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

***Rdwy – 52. Mono Way west of Sanguinetti Road*:**

Impact: The segment of Mono Way west of Sanguinetti Road is projected to operate at unacceptable year 2040 ADT-based LOS "E" conditions.

Mitigation: Traffic volumes on the segment of Mono Way west of Sanguinetti Road are projected to decrease with the construction of the proposed FCEP-CIP Tier 1c Greenley Road Bypass; however, the projected decrease is not substantial enough for the segment of Mono Way west of Sanguinetti Road to operate at acceptable Year 2040 ADT-based LOS conditions.

A feasible improvement measure for this roadway segment is to construct the North-South Connector Phase 2, consistent with FCEP-CIP Tier 2, that would extend Fir Drive from Mono Way to the Greenley Road Extension, which may reduce traffic on this segment of Mono Way.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

***Rdwy – 69. Greenley Road between Cabezut Road/Morning Star Road and Delnero Drive*:**

Impact: The segment of Greenley Road between Cabezut Road/Morning Star Road and Delnero Drive is projected to operate at unacceptable year 2040 ADT-based LOS "E" conditions.

Mitigation: One feasible improvement measure for this roadway segment is to construct the North-South Connector Phase 2 (Fir Drive Extension), consistent with FCEP-CIP Tier 2, that would extend Fir Drive from Mono Way to the Greenley Road Extension, intersecting with Cabezut Road and Lyons Bald Mountain Road in between. With the construction of the North-South Connector Phase 2, traffic volumes on this segment of Greenley Road are projected to decrease by approximately 20%, and this segment of Greenley Road is projected to operate at acceptable year 2040 ADT-based LOS "D" or better conditions.

Another feasible improvement measure is to construct the Cabezut Road Extension from the Fir Drive Road Extension to Phoenix Lake Road, which may reduce volumes on this segment of Greenley Road.

***Rdwy – 77. Tuolumne Road between Mono Way and Lambert Lake Road*:**

Impact: The segment of Tuolumne Road between Mono Way and Lambert Lake Road is projected to operate at unacceptable year 2040 ADT-based LOS "E" conditions.

Mitigation: A feasible improvement measure is to widen Tuolumne Road to five lanes from Mono Way to Lambert Lake Road With the recommended improvements in place, the segment of Tuolumne Road between Mono Way and Lambert Lake Road is projected to operate at acceptable year 2040 ADT-based LOS "D" conditions.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

***Rdwy – 116. South Washington Street between Restano Way and Church Street*:**

Impact: The segment of South Washington Street between Restano Way and Church Street is projected to operate at unacceptable year 2040 ADT-based LOS "E" conditions.

Mitigation: A feasible improvement measure for this roadway segment is to construct the North-South Connector Phase 2, consistent with FCEP-CIP Tier 2, that would extend Fir Drive from Mono Way to the Greenly Road Extension, which may reduce traffic on this segment of Mono Way.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

TIER 2 AND TIER 3 PROJECTS

Qualitative analysis of intersections and roadway segments with the FCEP-CIP Tier 2 and Tier 3 (Local Streets and State Highways) projects in place under the preferred Distinctive Communities (Proposed) land use growth scenario is included in **Appendix Exhibit A**. **Appendix Exhibit A** have been updated to include an additional column that summarizes study intersection and/or roadway operation improvements associated with Tier 2 and Tier 3 projects on local streets roads and state highways. Some of the Tier 2 and Tier 3 projects were recommended to be moved to Tier 1a, 1b, and/or 1c in prior a section of this memorandum.

OTHER LAND USE GROWTH SCENARIOS

Based on the August 2015 EIR traffic study and the analysis included in this memorandum, traffic volumes between the four land use growth scenarios vary slightly at some locations. These traffic volumes are not projected to vary significantly or to a level where additional or fewer impacts are triggered than those that have been identified under the Distinctive Communities (Proposed) land use growth scenario analyzed in this memorandum. Thus, it can be concluded that intersection and roadway improvements and mitigation measures identified under the Distinctive Communities (Proposed) land use growth scenario in this memorandum could be considered representative of improvements and mitigation measures that would be identified under the other land use growth scenarios, including Recent Trends (Existing), Recent Trends (Proposed), and Public Service (Proposed).

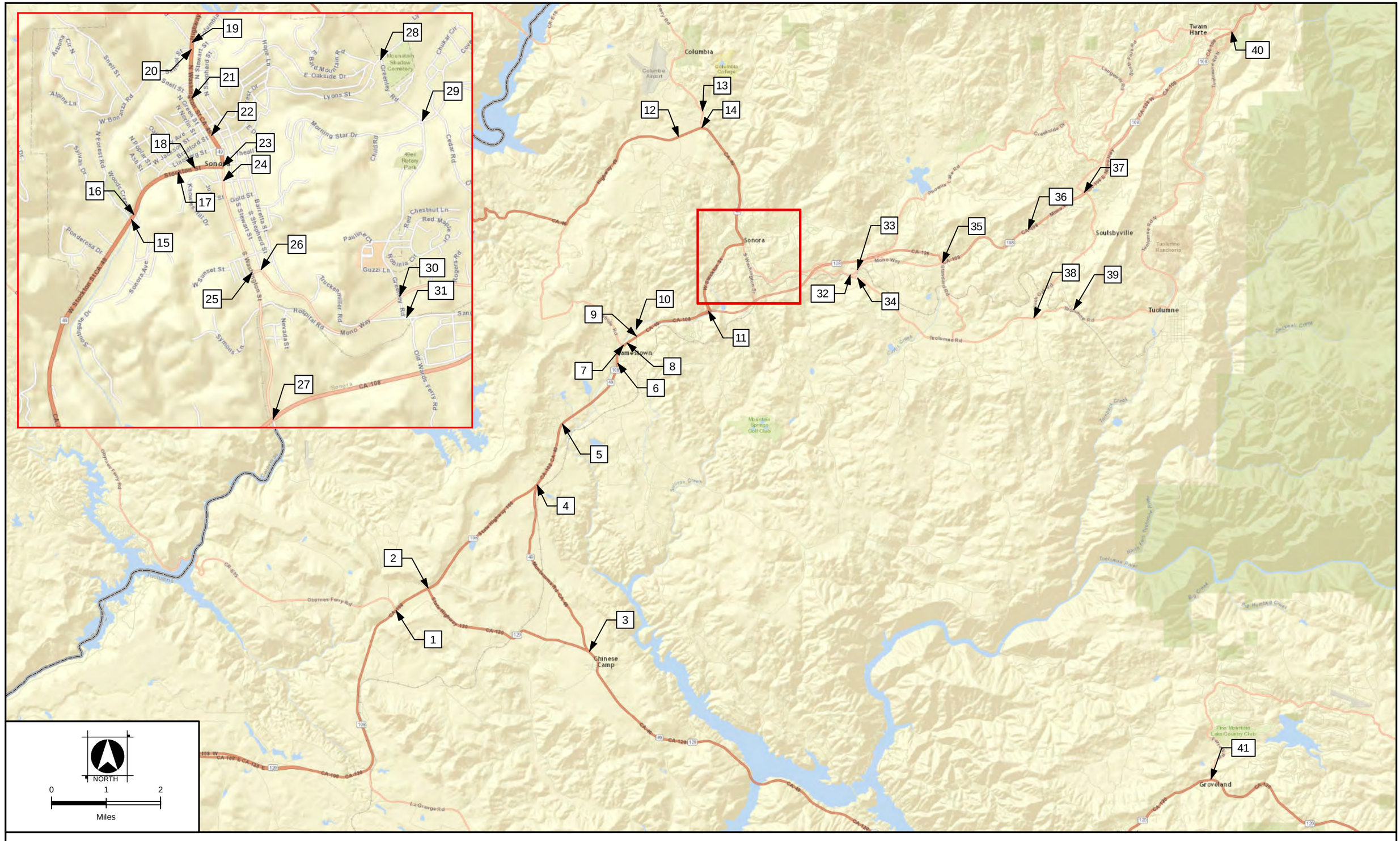
Appendix Table 2 – Tuolumne County – LOS Look up Table

FHWA FC#	Roadway Type	Type #	Area Type	Maximum Two-way Average Daily Traffic (ADT) Volume-carrying Capacity for each LOS Designation				
				LOS "A"	LOS "B"	LOS "C"	LOS "D"	LOS "E"
4	Rural Arterial (4-lane) Divided	1	ROLLING	6,240	12,480	18,720	26,520	31,200
4	Rural Arterial (4-lane) Undivided	2		4,820	9,640	14,460	20,485	24,100
4	Rural Minor Arterial (4-lane)	3		6,080	12,160	18,240	25,840	30,400
4	Rural Minor Arterial (with left-turn Lane)	4		4,600	9,200	13,800	19,550	23,000
4	Rural Minor Arterial (2-lane)	5		3,120	6,240	9,360	13,260	15,600
5	Major Collector (34 ft. - 36 ft.)	6		3,420	6,840	10,260	14,535	17,100
5	Major/Minor Collector (23 ft.- 32 ft.)	7		2,900	5,800	8,700	12,325	14,500
5	Major/Minor Collector (20 ft.- 23 ft.)	8		2,590	5,180	7,770	11,008	12,950
5	Major/Minor Collector (18 ft.- 20 ft.)	9		2,300	4,600	6,900	9,775	11,500
5	Major/Minor Collector (Less than 18 ft.)	10		1,920	3,840	5,760	8,160	9,600
6	Local Road	11		1,920	3,840	5,760	8,160	9,600
4	Rural Minor Arterial (with Climbing Lane)	12		2,900	7,400	13,800	19,700	28,800
4	Rural Arterial (4-lane) Divided	101	MOUNTANEOUS	5,810	11,610	17,410	24,670	29,020
4	Rural Arterial (4-lane) Undivided	102		4,490	8,970	13,450	19,060	22,420
4	Rural Minor Arterial (4-lane)	103		5,660	11,310	16,970	24,040	28,280
4	Rural Minor Arterial (with left-turn Lane)	104		4,280	8,560	12,840	18,190	21,390
4	Rural Minor Arterial (2-lane)	105		2,910	5,810	8,710	12,340	14,510
5	Major Collector (34 ft. - 36 ft.)	106		3,190	6,370	9,550	13,520	15,910
5	Major/Minor Collector (23 ft.- 32 ft.)	107		2,700	5,400	8,100	11,470	13,490
5	Major/Minor Collector (20 ft.- 23 ft.)	108		2,410	4,820	7,230	10,240	12,050
5	Major/Minor Collector (18 ft.- 20 ft.)	109		2,140	4,280	6,420	9,100	10,700
5	Major/Minor Collector (Less than 18 ft.)	110		1,790	3,580	5,360	7,590	8,930
6	Local Road	111		1,790	3,580	5,360	7,590	8,930
4	Rural Minor Arterial (with Climbing Lane)	112		2,700	6,890	12,840	18,330	26,790
2	4-Lane Freeway	201	URBAN	28,000	43,200	61,600	74,400	80,000
2	3-Lane Freeway	202		10,100	20,200	30,300	42,925	50,500
2	2-Lane Freeway + Auxiliary Lanes	203		8,392	16,784	25,176	35,666	41,960
2	2-Lane Freeway	204		6,680	13,360	20,040	28,390	33,400
2	4-Lane Expressway	205		24,000	28,000	32,000	36,000	40,000
2	2-Lane Expressway	206		5,700	11,300	17,000	24,100	28,400
3	6-Lane Divided Arterial (with left-turn lane)	207		32,000	38,000	43,000	49,000	54,000
3	4-Lane Divided Arterial (with left-turn lane)	208		22,000	25,000	29,000	32,500	36,000
3	4-Lane Undivided Arterial (no left-turn lane)	209		18,000	21,000	24,000	27,000	30,000
4	2-Lane Principal/Minor Arterial (with left-turn lane)	210		2,900	7,700	14,300	20,100	31,300
4	2-Lane Principal/Minor Arterial (no left-turn lane)	211		2,900	7,200	11,900	16,100	24,200
5	2-Lane Major/Minor Collector (with left-turn lane)	212		3,400	6,900	11,600	15,800	29,400
5	2-Lane Major/Minor Collector (no left-turn lane)	213		2,700	5,600	9,200	12,800	23,500
6	2-Lane Local Street	214		2,300	4,900	8,400	11,400	21,200

Notes:
1. Values shown corresponding to LOS A through E are roadway ADT traffic volumes
2. Collector width is measured from the edge of pavement to the edge of pavement
3. Roadways with continuous grade steeper than 6% or above 4,000 ft. elevation should use mountainous train LOS thresholds
4. Site Specific LOS maybe necessary
5. Peak Hour LOS threshold is assumed to be 10% of the daily traffic volume unless site specific analysis shows a different peak hour to daily traffic ratio
6. Examples LOS A (0.20 of capacity), LOS B (0.21 to 0.40 of capacity), LOS C (0.41 to 0.60 of capacity), LOS D (0.61 to 0.85 of capacity), LOS E (0.86 to 0.92 of capacity)

All volumes thresholds are approximate and assumes average roadway characteristics. Actual threshold volume for each Level of Service listed above may vary depending on variety of factors including (but not limited to) roadway curvature and grade, intersection or interchange spacing, driveway spacing, percentage of trucks, RVs, and other heavy vehicles, travel lane widths, speed limits, signal timing characteristics, on-street parking, volume of cross traffic and pedestrians, etc.

APPENDIX EXHIBIT A



Study Intersection Locations

Tuolumne County TDM and RTP Update - EIR Traffic Study Addendum

APPENDIX FIGURE 1

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS

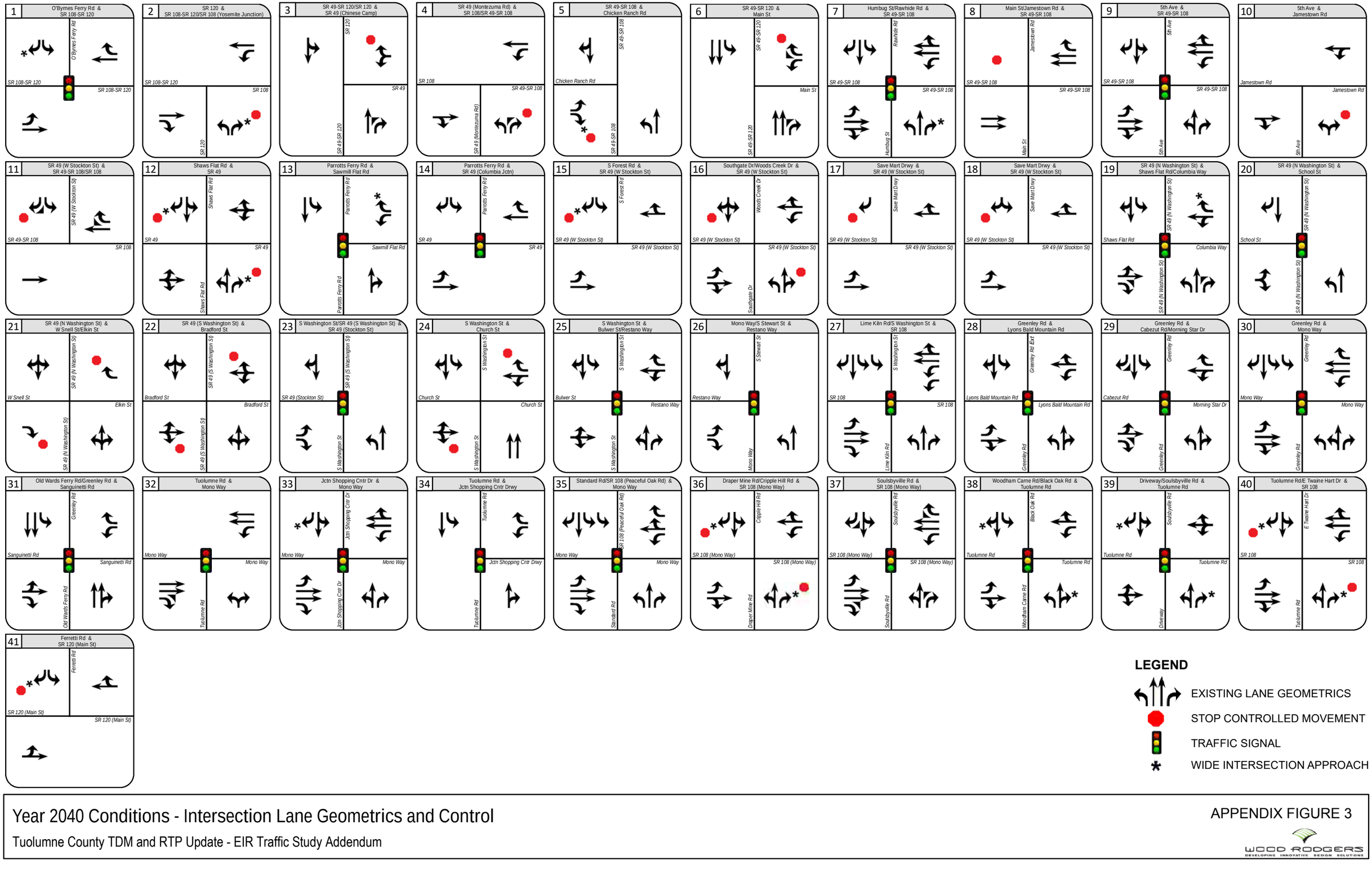
L:\Jobs\8341_Tuolumne_County\008_TCTM_2014_Update\GIS\Tasks\Roadway_Intersection_Locations_20141219_V1.mxd 12/22/2014 1:50:08 PM eford

Year 2030 Conditions - Intersection Lane Geometrics and Control

Tuolumne County TDM and RTP Update - EIR Traffic Study Addendum

APPENDIX FIGURE 2

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS



Year 2040 Conditions - Intersection Lane Geometrics and Control

Tuolumne County TDM and RTP Update - EIR Traffic Study Addendum

APPENDIX FIGURE 3

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS

Legend

XXX (XXX) = AM (PM)
Peak Hour Volumes

Year 2030 Intersection Turning Movement Volumes - Distinctive Communities (Proposed)

Tuolomne County TDM and RTP Update - EIR Traffic Study Addendum

APPENDIX FIGURE 4

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS

Legend

XXX (XXX) = AM (PM)
Peak Hour Volumes

Year 2040 Intersection Turning Movement Volumes - Distinctive Communities (Proposed)

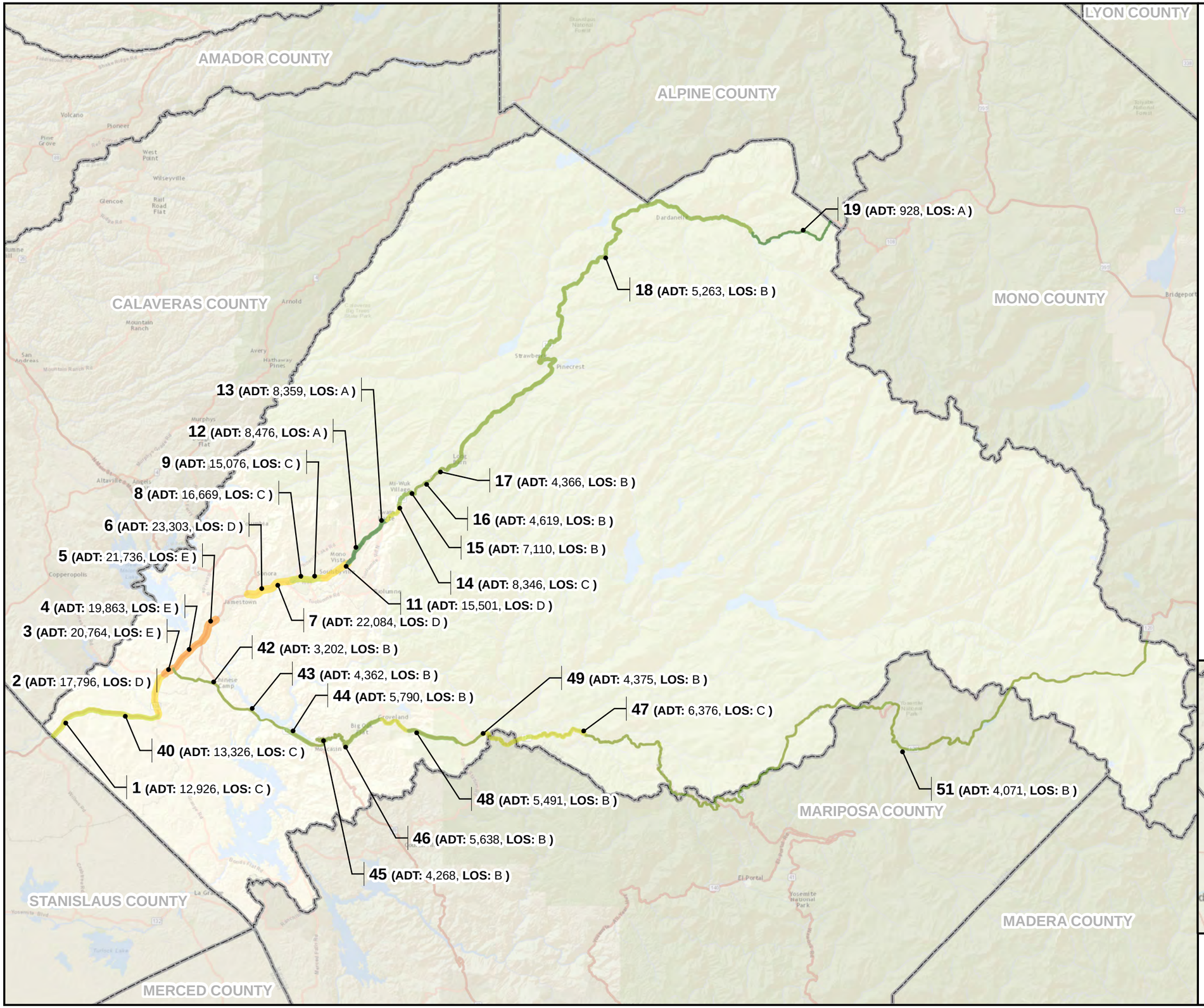
Tuolomne County TDM and RTP Update - EIR Traffic Study Addendum

APPENDIX FIGURE 5

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS

APPENDIX FIGURE 6-A: YEAR 2030 DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED SR 108 AND SR 120

TUOLUMNE COUNTY TDM AND RTP UPDATE - EIR TRAFFIC STUDY ADDENDUM
TUOLUMNE COUNTY, CA
AUGUST 2016



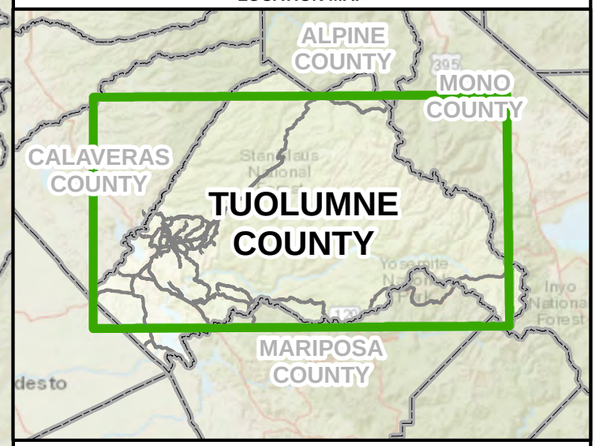
NORTH

0 17,500 35,000
Feet

Level of Service - Color Range
- A
- B
- C
- D
- E
- F

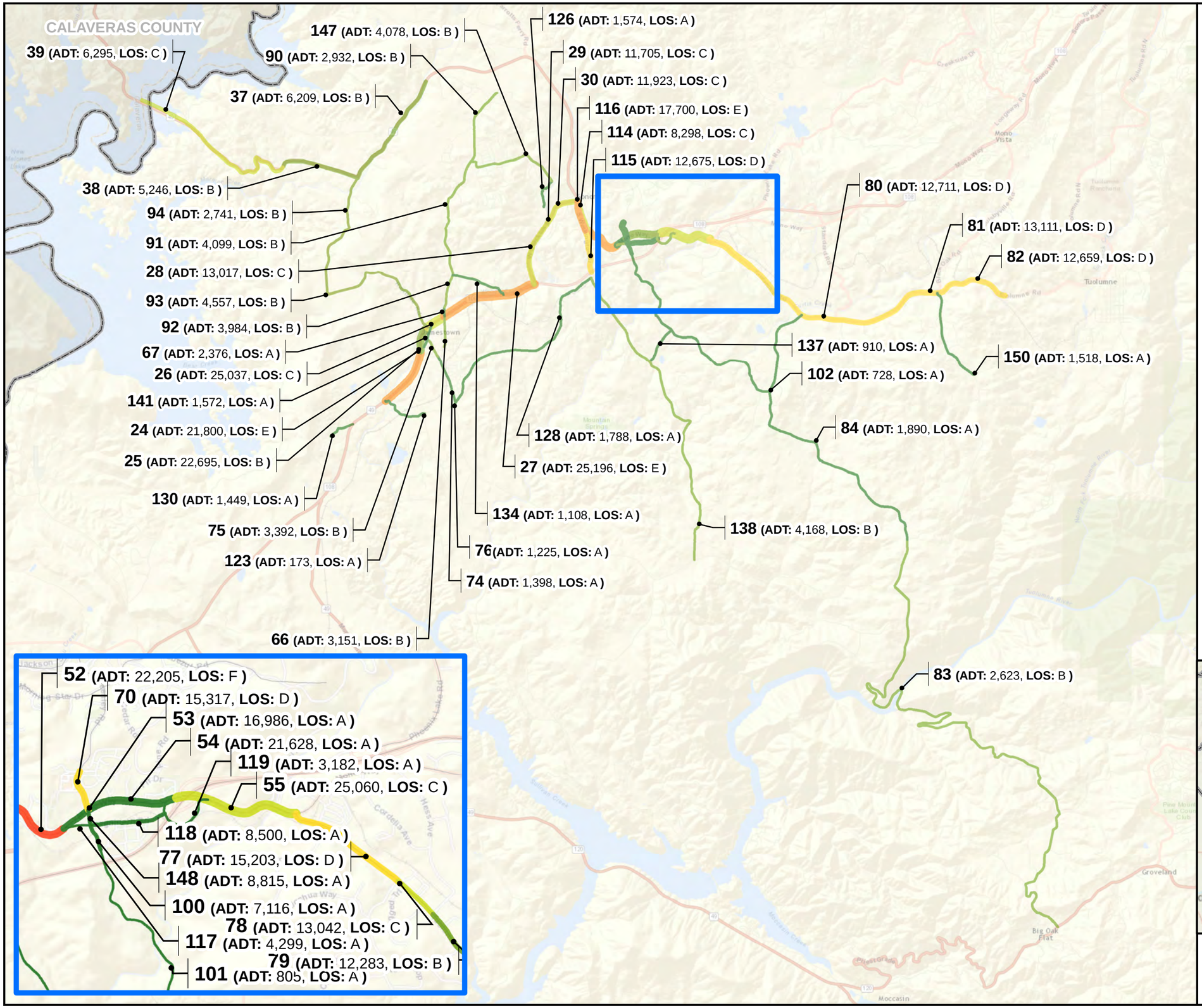
ADT Values - Proportional
- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS

J:\Jobs\8341_Tuolumne_County\008_TCTM_2014_Update\GIS\Tasks\ADT_Figures\20160815\Fig_12-ADT_Values.mxd 8/16/2016 2:08:45 PM kmorgan



APPENDIX FIGURE 6-B: YEAR 2030 DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED SOUTHERN SONORA AREA

TUOLUMNE COUNTY TDM AND RTP UPDATE - EIR TRAFFIC STUDY ADDENDUM
TUOLUMNE COUNTY, CA
AUGUST 2016

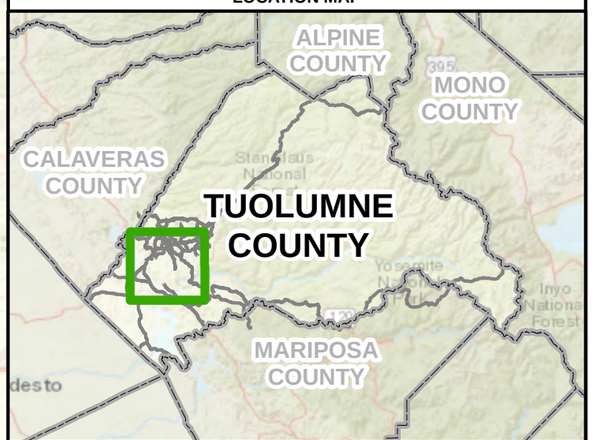
NORTH

0 3,750 7,500
Feet

Level of Service - Color Range
- A
- B
- C
- D
- E
- F

ADT Values - Proportional
- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

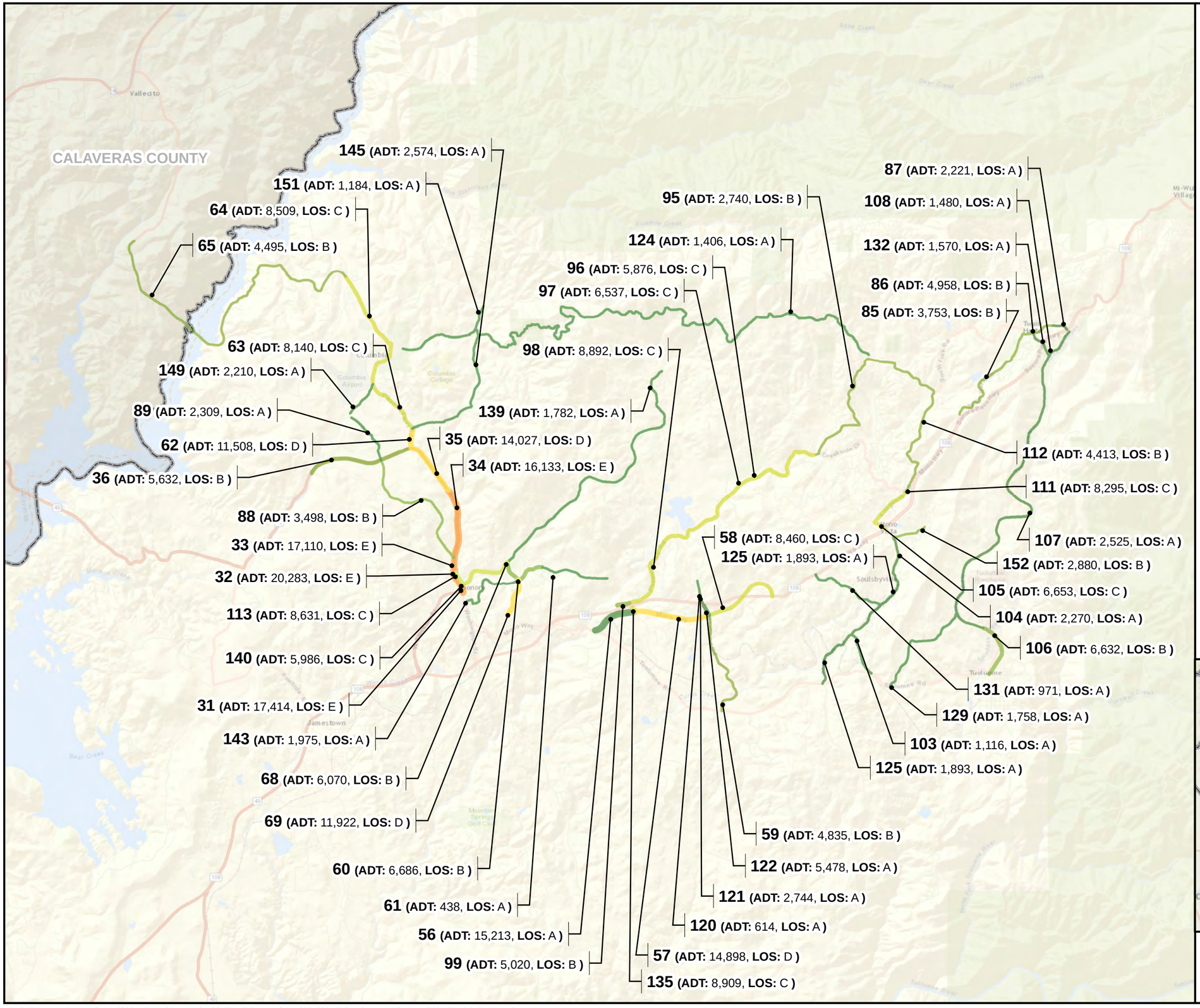
LOCATION MAP



WOOD RODGERS

J:\Jobs\8341_Tuolumne_County\008_TCTM_2014_Update\GIS\Tasks\ADT_Figures\20160815\Fig_12-ADT_Values.mxd 8/16/2016 2:09:20 PM kmorgan

APPENDIX FIGURE 6-C: YEAR 2030 DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED NORTHERN SONORA AREA
TUOLUMNE COUNTY TDM AND RTP UPDATE - EIR TRAFFIC STUDY ADDENDUM
TUOLUMNE COUNTY, CA
AUGUST 2016



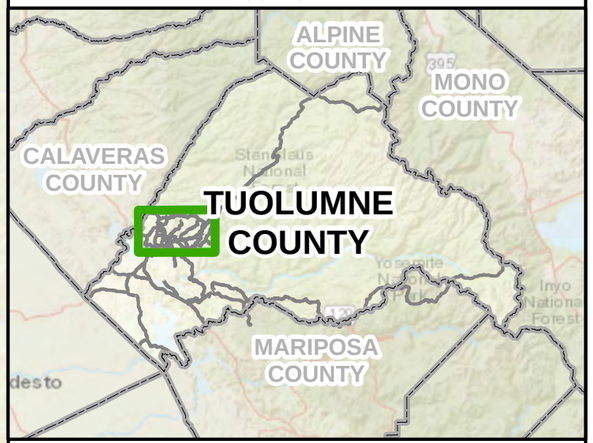
NORTH

0 3,750 7,500
Feet

Level of Service - Color Range
- A
- B
- C
- D
- E
- F

ADT Values - Proportional
- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP

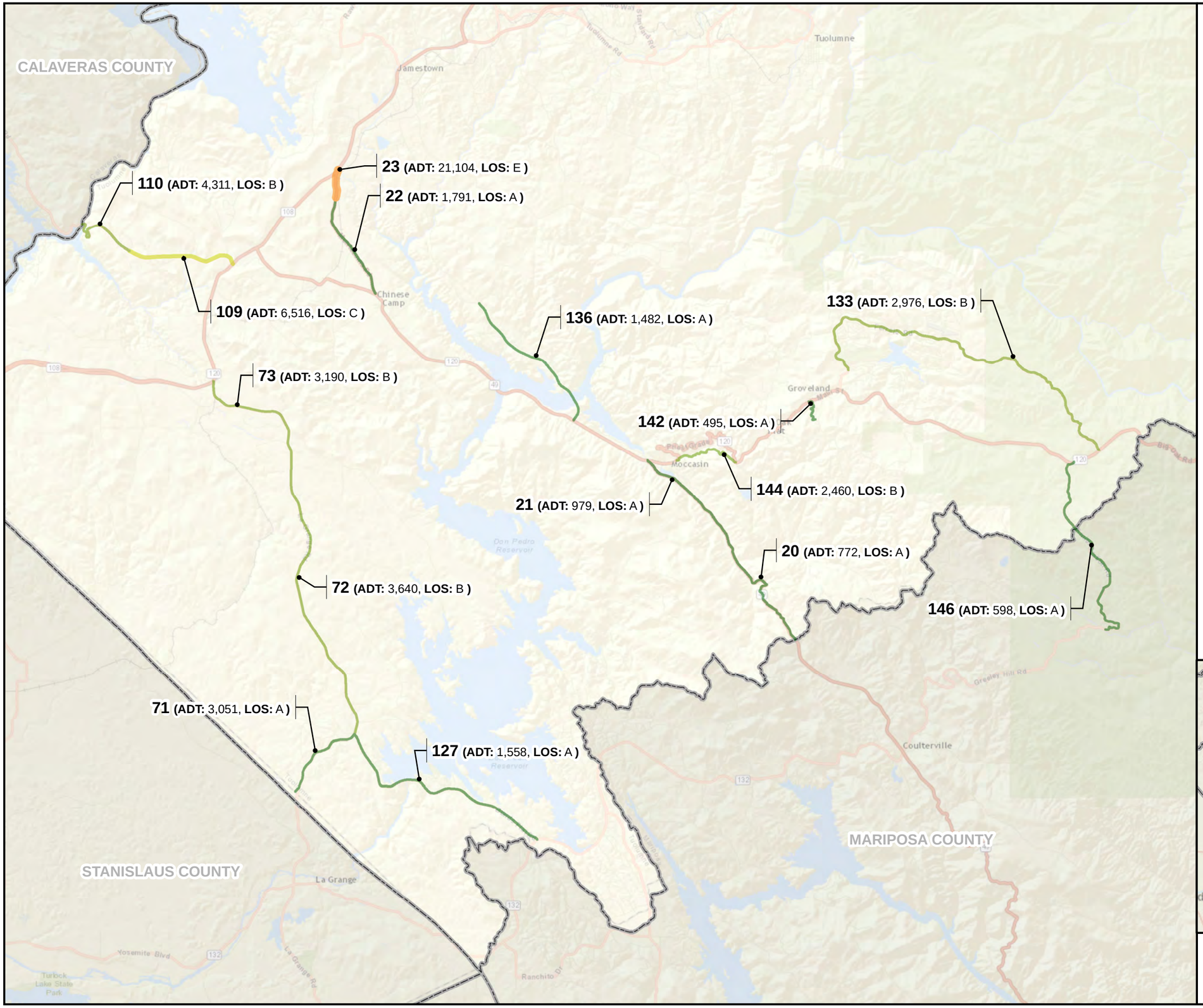


WOOD RODGERS

J:\Jobs\8341_Tuolumne_County\008_TCTM_2014_Update\GIS\Tasks\ADT_Figures\20160815\Fig_12-ADT_Values.mxd 8/16/2016 2:09:08 PM kmorgan

APPENDIX FIGURE 6-D: YEAR 2030 DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED GROVELAND AREA

TUOLUMNE COUNTY TDM AND RTP UPDATE - EIR TRAFFIC STUDY ADDENDUM
TUOLUMNE COUNTY, CA
AUGUST 2016



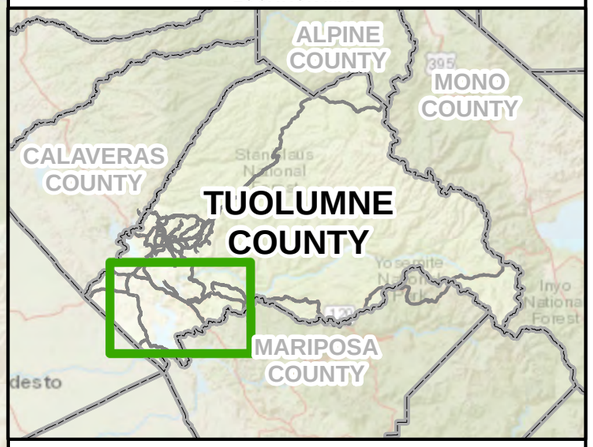
NORTH

0 6,250 12,500
Feet

Level of Service - Color Range
- A
- B
- C
- D
- E
- F

ADT Values - Proportional
- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP

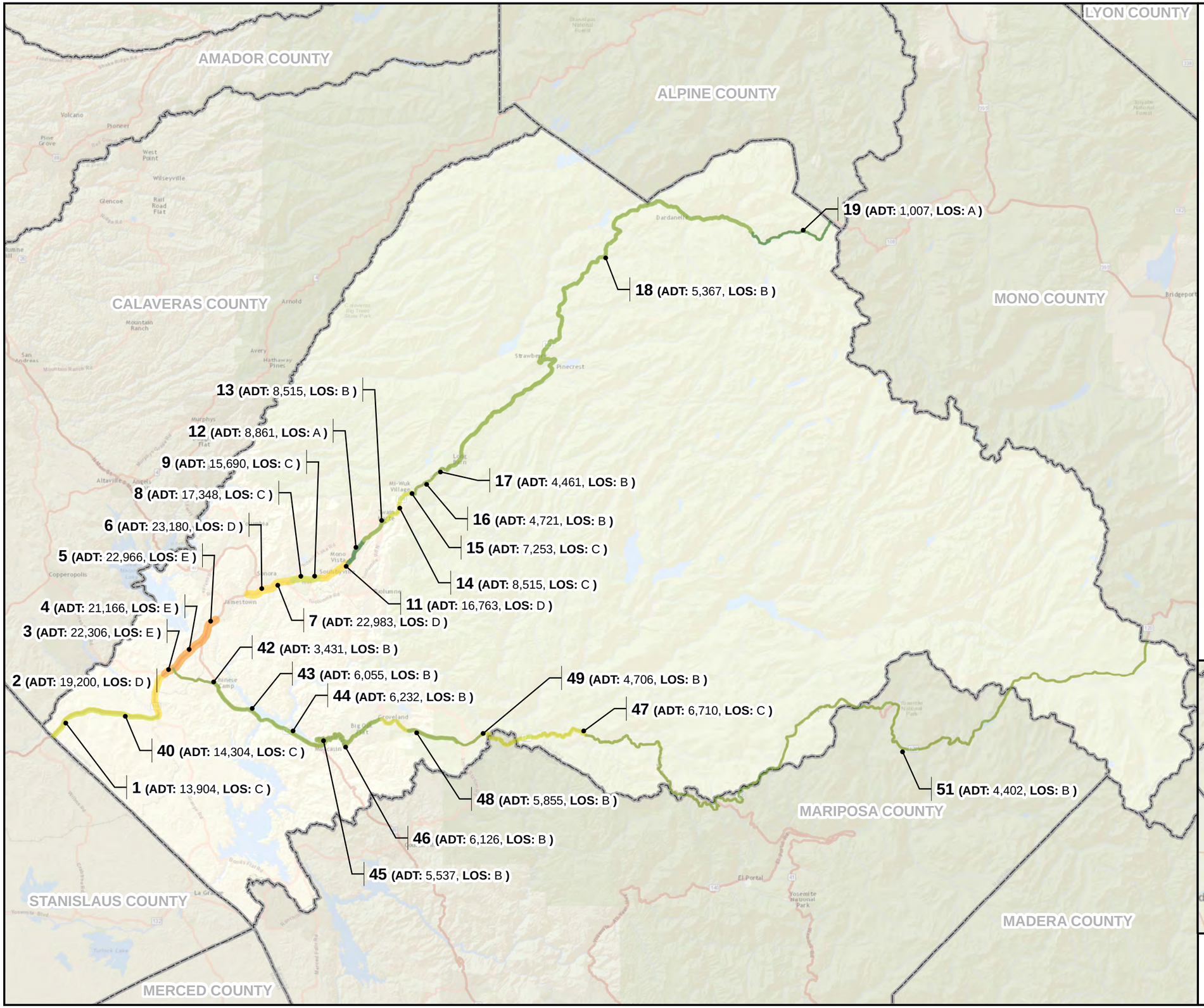


WOOD RODGERS

J:\Jobs\8341_Tuolumne_County\008_TCTM_2014_Update\GIS\Tasks\ADT_Figures\20160815\Fig_12-ADT_Values.mxd 8/16/2016 2:08:57 PM kmorgan

APPENDIX FIGURE 7-A: YEAR 2040 DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED SR 108 AND SR 120

TUOLUMNE COUNTY TDM AND RTP UPDATE - EIR TRAFFIC STUDY ADDENDUM
TUOLUMNE COUNTY, CA
AUGUST 2016



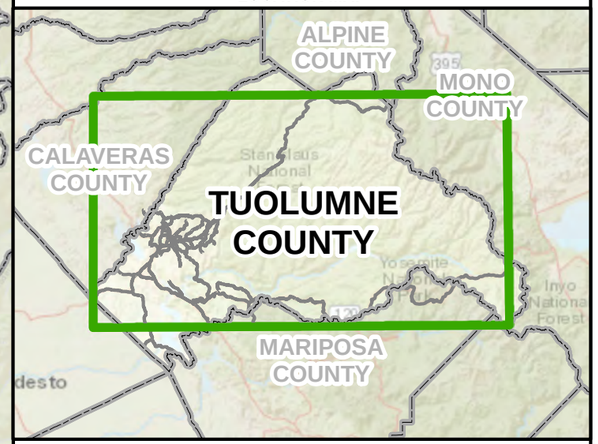
NORTH

0 17,500 35,000
Feet

Level of Service - Color Range
- A
- B
- C
- D
- E
- F

ADT Values - Proportional
- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP

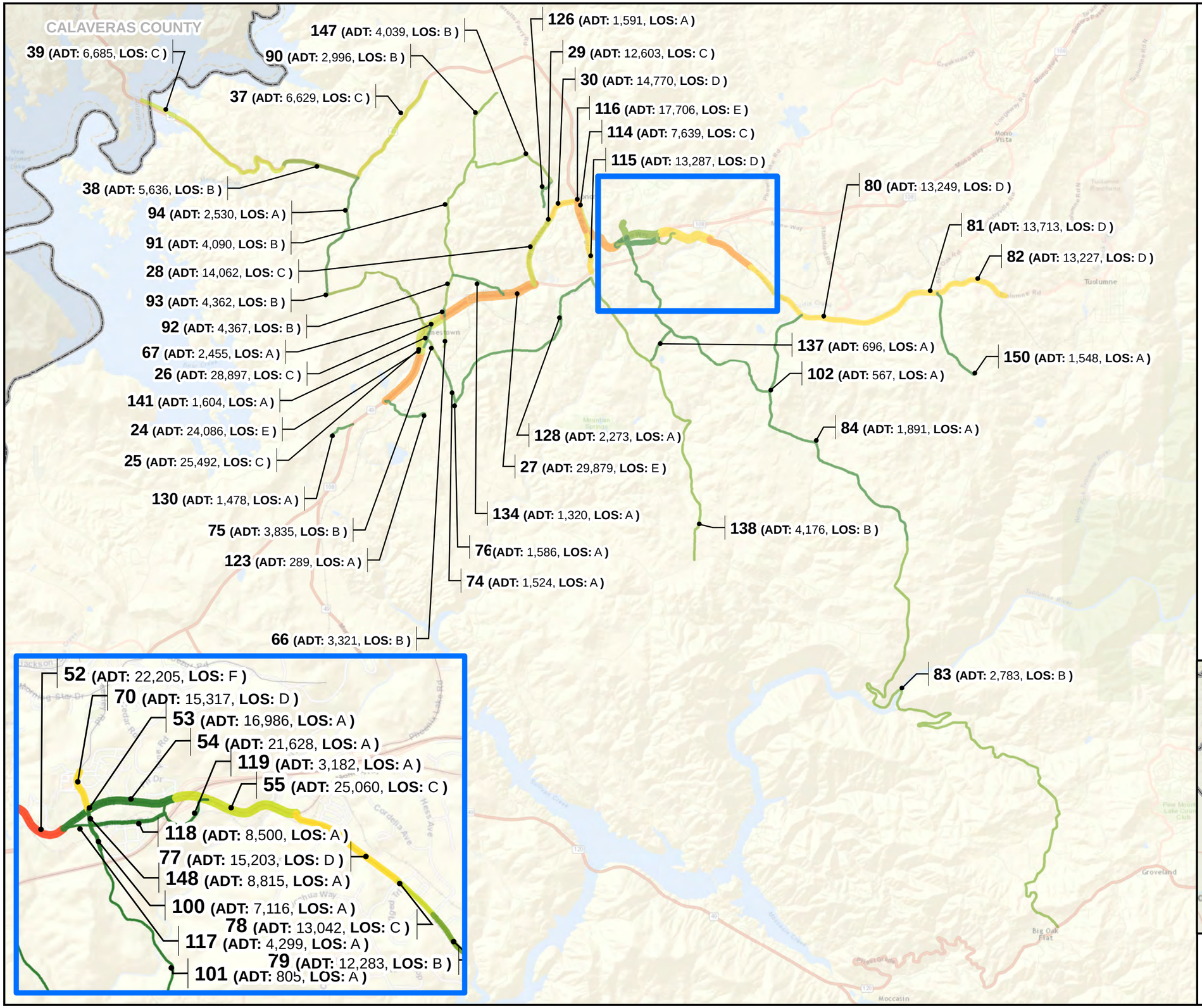


WOOD RODGERS

J:\Jobs\8341_Tuolumne_County\008_TCTM_2014_Update\GIS\Tasks\ADT_Figures\20160815\Fig_16-ADT_Values.mxd 8/16/2016 2:10:47 PM kmorgan

APPENDIX FIGURE 7-B: YEAR 2040 DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED SOUTHERN SONORA AREA

TUOLUMNE COUNTY TDM AND RTP UPDATE - EIR TRAFFIC STUDY ADDENDUM
TUOLUMNE COUNTY, CA
AUGUST 2016



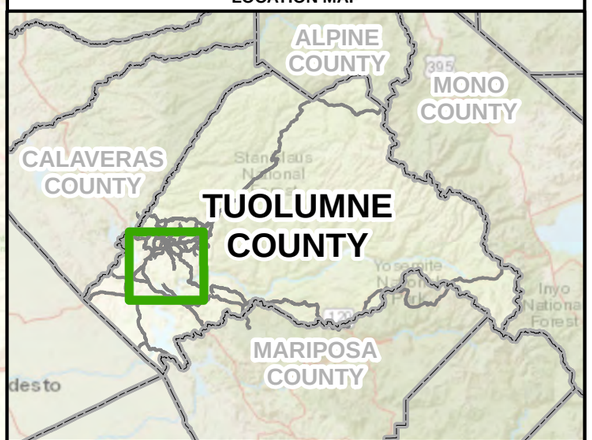
NORTH

0 3,750 7,500
Feet

Level of Service - Color Range
- A
- B
- C
- D
- E
- F

ADT Values - Proportional
- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

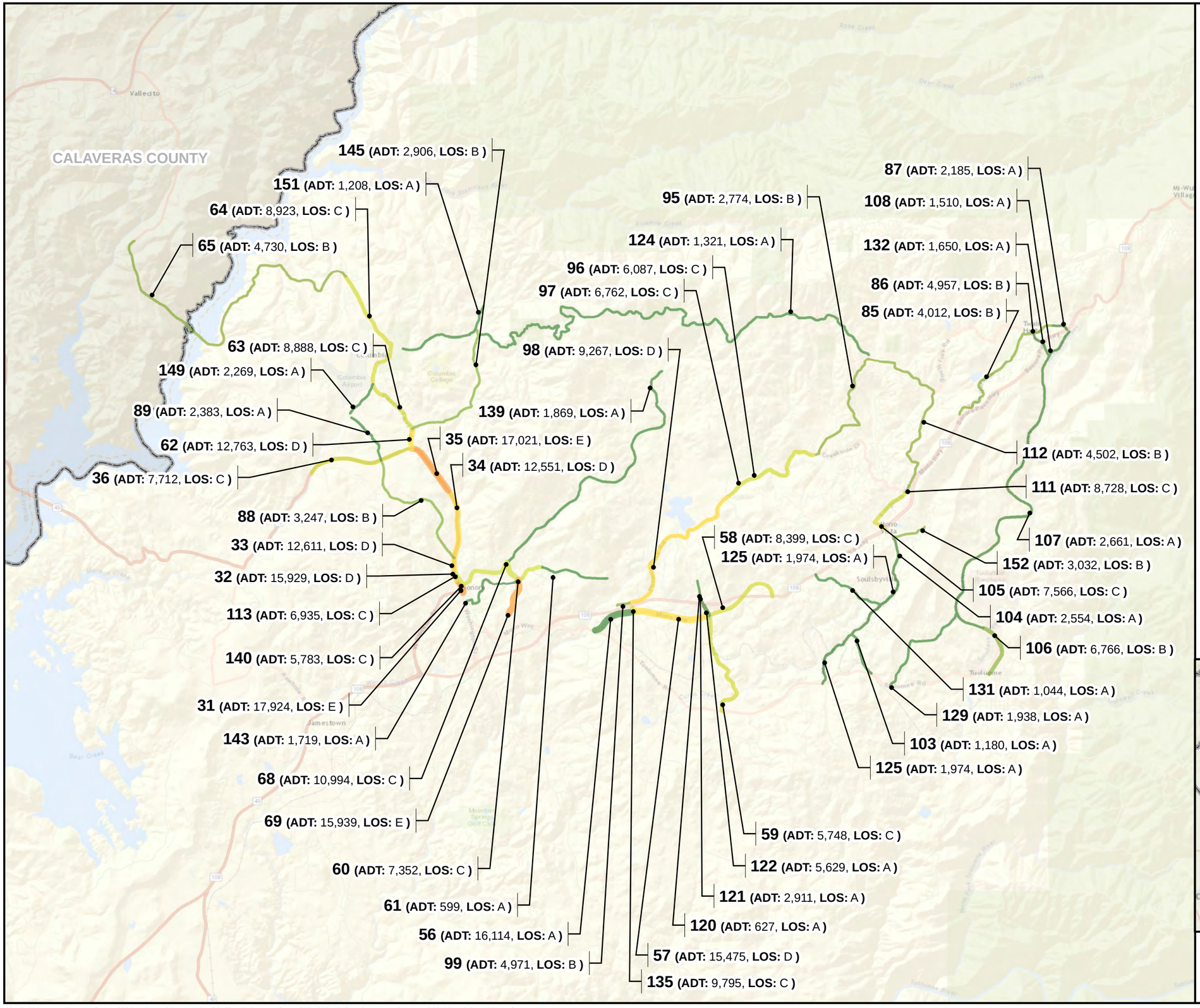
LOCATION MAP



WOOD RODGERS

J:\Jobs\8341_Tuolumne_County\008_TCTM_2014_Update\GIS\Tasks\ADT_Figures\20160815\Fig_16-ADT_Values.mxd 8/16/2016 2:11:21 PM kmorgan

APPENDIX FIGURE 7-C: YEAR 2040 DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED NORTHERN SONORA AREA
TUOLUMNE COUNTY TDM AND RTP UPDATE - EIR TRAFFIC STUDY ADDENDUM
TUOLUMNE COUNTY, CA
AUGUST 2016



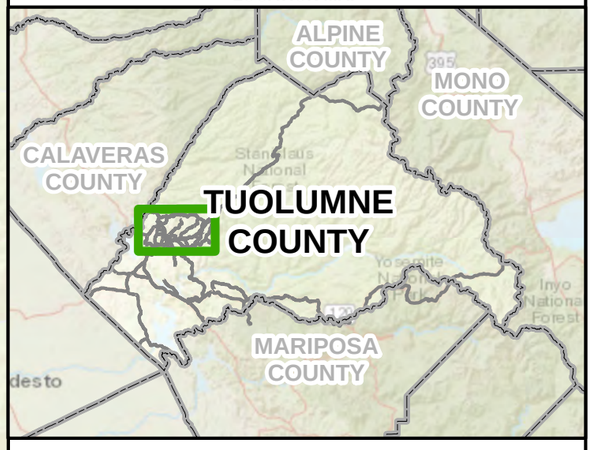
Level of Service - Color Range
- A
- B
- C
- D
- E
- F

ADT Values - Proportional
- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

NORTH

0 3,750 7,500
Feet

LOCATION MAP

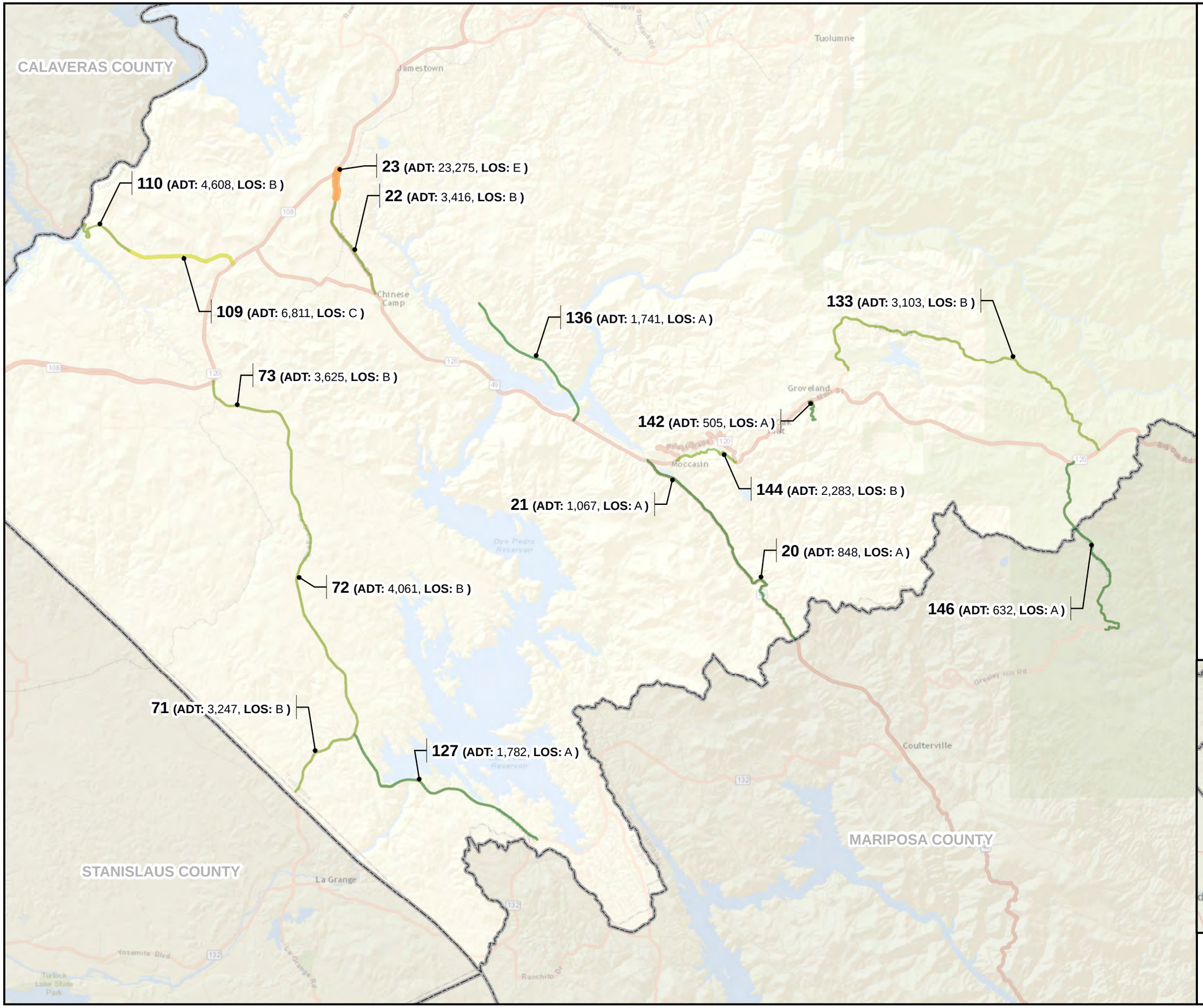


WOOD RODGERS

J:\Jobs\8341_Tuolumne_County\008_TCTM_2014_Update\GIS\Tasks\ADT_Figures\20160815\Fig_16-ADT_Values.mxd 8/16/2016 2:11:09 PM kmorgan

APPENDIX FIGURE 7-D: YEAR 2040 DEFICIENCIES DISTINCTIVE COMMUNITIES PROPOSED GROVELAND AREA

TUOLUMNE COUNTY TDM AND RTP UPDATE - EIR TRAFFIC STUDY ADDENDUM
TUOLUMNE COUNTY, CA
AUGUST 2016



NORTH

0 6,250 12,500
Feet

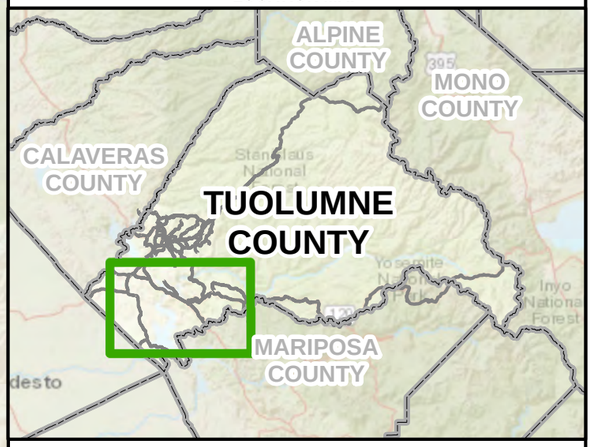
Level of Service - Color Range

- A
- B
- C
- D
- E
- F

ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS

J:\Jobs\8341_Tuolumne_County\008_TCTM_2014_Update\GIS\Tasks\ADT_Figures\20160815\Fig_16-ADT_Values.mxd 8/16/2016 2:10:58 PM kmorgan

Appendix Table 1 - Year 2030 DCP (Proposed) Intersection LOS

No.	Intersection Name	Control	Urban / Rural	Min. LOS	AM Peak Hour		PM Peak Hour	
					Delay	LOS	Delay	LOS
1	SR 108-SR 120 & O'Byrnes Ferry Rd	Signal	Rural	D	10.6	B	10.1	B
2	SR 120 & SR 108-SR 120/SR 108	TWSC	Rural	D	13.2	B	15.9	C
3	SR 49-SR 120/SR 120 & SR 49	TWSC	Rural	D	9.5	A	10.0	B
4	SR 49 (Montezuna Rd) & SR 120/SR 49-SR 120	TWSC	Rural	D	23.6	C	29.5	D
5	SR 49-SR 108 & Chicken Ranch Rd	TWSC	Urban	D	17.7	C	25.0	D
6	SR 49-SR 108 & Main St	TWSC	Urban	D	17.2	C	21.3	C
7	Main St/Rawhide Rd & SR 49-SR 108	Signal	Urban	D	18.6	B	19.0	B
8	Does Not Exist	-	Urban	D				
9	5th Ave & SR 49-SR 108	Signal	Urban	D	13.1	B	13.7	B
10	5th Ave & Jamestown Rd	TWSC	Urban	D	10.6	B	10.9	B
11	SR 49-SR 108/SR 108 & SR 49 (W Stockton St)	TWSC	Urban	D	43.3	E	93.5	F
12	Shaws Flat Rd & SR 49	TWSC	Urban	D	17.7	C	23.7	C
13	Parrotts Ferry Rd & Sawmill Flat Rd	Signal	Urban	D	8.5	A	17.8	B
14	SR 49 & Parrotts Ferry Rd (Columbia Jctn)	Signal	Urban	D	21.3	C	16.2	B
15	SR 49 (West Stockton St) & S Forest Rd	TWSC	Urban	D	13.2	B	13.7	B
16	Southgate Dr/Woods Creek Dr & SR 49 (West Stockton St)	TWSC	Urban	D	12.7	B	12.5	B
17	SR 49 (West Stockton St) & W. Savemart Drwy	TWSC	Urban	D	9.7	A	10.4	B
18	SR 49 (West Stockton St) & E. Savemart Drwy	TWSC	Urban	D	11.8	B	16.3	C
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	Signal	Urban	D	11.5	B	20.1	C
20	SR 49 (N Washington St) & School St	Signal	Urban	D	24.6	C	35.2	D
21	SR 49 (N Washington St) & W Snell St/Elkin St	TWSC	Urban	D	24.9	C	27.2	D
22	SR 49 (N Washington St) & Bradford St	TWSC	Urban	D	31.8	D	34.8	D
23	S Washington St/SR 49 (S Washington St) & SR 49 (West Stockton St)	Signal	Urban	D	68.6	E	62.5	E
24	S Washington St & Church St	TWSC	Urban	D	34.8	D	54.7	F
25	Bulwer St/Restano Way	Signal	Urban	D	34.4*	C	17.2	B
26	Mono Way/S Stewart St & Restano Way	Signal	Urban	D	12.7	B	14.9	B
27	Lime Kiln Rd/S Washington St & SR 108	Signal	Urban	D	35.4	D	27.7	C
28	Greenly Rd & Lyons Bald Mountain Rd	AWSC	Urban	D	22.5	C	22.5	C
29	Greenly Rd & Morning Star Dr/Cabezut Rd	Signal	Urban	D	25.0	C	26.1	C
30	Greenly Rd & Mono Way	Signal	Urban	D	26.6	C	28.0	C
31	Old Wards Ferry Rd/Greenly Rd & Sanguinetti Rd	Signal	Urban	D	19.8	B	23.9	C
32	Tuolumne Rd & Mono Way	Signal	Urban	D	12.2	B	10.5	B
33	Jctn Shopping Cntr Dr & Mono Way	Signal	Urban	D	13.6	B	18.4	B
34	Tuolumne Rd & Jctn Shopping Cntr	Signal	Urban	D	9.3	A	17.0	B
35	Standard Rd/Peaceful Oak Rd & Mono Way	Signal	Urban	D	25.0	C	17.0	B
36	Draper Mine Rd/Cripple Hill Rd & SR 108 (Mono Way)	TWSC	Urban	D	29.0	D	21.3	C
37	Soulsbyville Rd & SR 108 (Mono Way)	Signal	Urban	D	14.2	B	10.5	B
38	Woodham Carne Rd/Black Oak Rd & Tuolumne Rd	Signal	Rural	C	27.2	C	28.1	C
39	Tuolumne Rd & Soulsbyville Rd	Signal	Rural	C	18.2	B	18.1	B
40	Tuolumne Rd/E Twaine Hart Dr & SR 108	TWSC	Urban	D	14.8	B	14.8	B
41	SR 120 (Main St) & Ferretti Rd	TWSC	Rural	C	12.8	B	18.3	C
					Number of intersections operating under minimum acceptale LOS:			3

Notes: 1. For TWSC (Two-Way-Stop-Control) intersections, worst-case movement delay (in seconds/vehicle) are indicated. "Average" control delays (in seconds/vehicle) are indicated for AWSC (All -Way -Stop-Control) and Signal-Control intersections.

Appendix Table 2 - Year 2040 DCP (Proposed) Intersection LOS

No.	Intersection Name	Control	Urban / Rural	Min. LOS	AM Peak Hour		PM Peak Hour	
					Delay	LOS	Delay	LOS
1	SR 108-SR 120 & O'Byrnes Ferry Rd	Signal	Rural	D	11.0	B	10.4	B
2	SR 120 & SR 108-SR 120/SR 108	TWSC	Rural	D	13.7	B	17.2	C
3	SR 49-SR 120/SR 120 & SR 49	TWSC	Rural	D	9.5	A	10.0	B
4	SR 49 (Montezuna Rd) & SR 120/SR 49-SR 120	TWSC	Rural	D	25.0	D	32.3	D
5	SR 49-SR 108 & Chicken Ranch Rd	TWSC	Urban	D	18.3	C	26.8	D
6	SR 49-SR 108 & Main St	TWSC	Urban	D	17.5	C	21.8	C
7	Main St/Rawhide Rd & SR 49-SR 108	Signal	Urban	D	18.6	B	19.7	B
8	Does Not Exist	-	Urban	D				
9	5th Ave & SR 49-SR 108	Signal	Urban	D	16.3	B	12.7	B
10	5th Ave & Jamestown Rd	TWSC	Urban	D	10.7	B	11.1	B
11	SR 49-SR 108/SR 108 & SR 49 (W Stockton St)	TWSC	Urban	D	14.7	B	18.5	C
12	Shaws Flat Rd & SR 49	TWSC	Urban	D	20.0	C	28.8	D
13	Parrotts Ferry Rd & Sawmill Flat Rd	Signal	Urban	D	8.8	A	17.6	B
14	SR 49 & Parrotts Ferry Rd (Columbia Jctn)	Signal	Urban	D	21.0	C	16.1	B
15	SR 49 (West Stockton St) & S Forest Rd	TWSC	Urban	D	13.3	B	13.9	B
16	Southgate Dr/Woods Creek Dr & SR 49 (West Stockton St)	TWSC	Urban	D	13.2	B	14.2	B
17	SR 49 (West Stockton St) & W. Savemart Drwy	TWSC	Urban	D	9.8	A	10.5	B
18	SR 49 (West Stockton St) & E. Savemart Drwy	TWSC	Urban	D	12.2	B	17.5	C
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	Signal	Urban	D	6.5	A	6.7	A
20	SR 49 (N Washington St) & School St	Signal	Urban	D	7.2	A	8.2	A
21	SR 49 (N Washington St) & W Snell St/Elkin St	TWSC	Urban	D	17.7	C	18.6	C
22	SR 49 (N Washington St) & Bradford St	TWSC	Urban	D	28.9	D	29.9	D
23	S Washington St/SR 49 (S Washington St) & SR 49 (West Stockton St)	Signal	Urban	D	55.6	E	58.1	E
24	S Washington St & Church St	TWSC	Urban	D	26.3	D	36.1	E
25	Bulwer St/Restano Way	Signal	Urban	D	7.7	A	11.8	B
26	Mono Way/S Stewart St & Restano Way	Signal	Urban	D	12.3	B	12.2	B
27	Lime Kiln Rd/S Washington St & SR 108	Signal	Urban	D	31.4	C	26.6	C
28	Greenly Rd/Sonora Bypass & Lyons Bald Mountain Rd	Signal	Urban	D	22.3	C	27.2	C
29	Greenly Rd & Morning Star Dr/Cabezut Rd	Signal	Urban	D	37.6	D	44.0*	D
30	Greenly Rd & Mono Way	Signal	Urban	D	31.4	C	29.4	C
31	Old Wards Ferry Rd/Greenly Rd & Sanguinetti Rd	Signal	Urban	D	20.2	C	26.1	C
32	Tuolumne Rd & Mono Way	Signal	Urban	D	12.1	B	11.1	B
33	Jctn Shopping Cntr Dr & Mono Way	Signal	Urban	D	13.9	B	19.7	B
34	Tuolumne Rd & Jctn Shopping Cntr	Signal	Urban	D	14.4	B	25.3	C
35	Standard Rd/Peaceful Oak Rd & Mono Way	Signal	Urban	D	25.5	C	17.2	B
36	Draper Mine Rd/Cripple Hill Rd & SR 108 (Mono Way)	TWSC	Urban	D	31.5	D	21.9	C
37	Soulsbyville Rd & SR 108 (Mono Way)	Signal	Urban	D	15.9	B	10.8	B
38	Woodham Carne Rd/Black Oak Rd & Tuolumne Rd	Signal	Rural	C	31.9	C	30.0	C
39	Tuolumne Rd & Soulsbyville Rd	Signal	Rural	C	14.0	B	16.3	B
40	Tuolumne Rd/E Twaine Hart Dr & SR 108	TWSC	Urban	D	15.3	C	15.1	C
41	SR 120 (Main St) & Ferretti Rd	TWSC	Rural	C	13.4	B	20.1	C
				Number of intersections operating under minimum acceptale LOS:				2

Notes: 1. For TWSC (Two-Way-Stop-Control) intersections, worst-case movement delay (in seconds/vehicle) are indicated. "Average" control delays (in seconds/vehicle) are indicated for AWSC (All -Way -Stop-Control) and Signal-Control intersections.

Appendix Table 3 - Future Year Roadway Level of Service (LOS)

#		Roadway/Highway Segment	2015 Type #	2030 Type #	2040 Type #	Minimum LOS Standard*	Existing (2015) Volumes	Existing (2015) LOS	Year 2030 - Distinctive Communities Proposed Volumes	Year 2030 - Distinctive Communities Proposed LOS	Year 2040 - Distinctive Communities Proposed Volumes	Year 2040 - Distinctive Communities Proposed LOS
1		w/o Tulloch rd	1	1	1	D	11,200	B	12,926	C	13,904	C
2		b/w O'Byrnes Ferry Rd & La Grange Rd	4	4	12	D	15,300	D	17,796	D	19,200	D
3		b/w La Grange Rd & SR 120 (Yosemite Junction)	4	4	12	D	18,000	D	20,764	E	22,306	E
4		b/w SR 120 (Yosemite Junction) and SR 49 (Montezuma Junction)	4	4	12	D	17,600	D	19,863	E	21,166	E
5		b/w SR 49 (Stockton Rd) and S Washington St/Lime Kiln Rd	210	210	210	D	19,900	D	21,736	E	22,966	E
6		w/o Mono Way	204	204	204	D	20,500	D	23,303	D	23,180	D
7		b/w Mono Way and Hess Ave	204	204	204	D	20,800	D	22,084	D	22,983	D
8		b/w Hess Ave and Peaceful Oak Rd	204	204	204	D	15,700	C	16,669	C	17,348	C
9		b/w Peaceful Oak Rd and Mono Way	204	204	204	D	14,200	C	15,076	C	15,690	C
11	**SR 108 Corridor**	b/w Mono Way and Soulsbyville Rd	210	210	210	D	14,600	D	15,501	D	16,763	D
12		b/w Soulsbyville Rd and W Conn. Twain Harte Dr	208	208	208	D	8,100	A	8,476	A	8,861	A
13		b/w W & E Conn Twain Harte Dr	203	203	203	D	8,000	A	8,359	A	8,515	B
14		e/o East Conn. Twain Hart Rd	211	211	211	D	8,100	C	8,346	C	8,515	C
15		w/o Chief Fuller Rd	211	211	211	D	6,900	B	7,110	B	7,253	C
16		e/o Chief Fuller Rd	211	211	211	D	4,450	B	4,619	B	4,721	B
17		w/o West Long Barn Conn.	5	5	5	D	4,200	B	4,366	B	4,461	B
18		b/w West Long Barn Conn. and East Long Barn Conn.	5	5	5	D	5,100	B	5,263	B	5,367	B
19		b/w Kennedy Meadows Rd and Tuolumne/Mono Countyline	5	5	5	D	790	A	928	A	1,007	A
20		n/o Tuolumne/Mariposa County Line	5	5	5	D	630	A	772	A	848	A
21		s/o South Jct SR 120	5	5	5	D	820	A	979	A	1,067	A
22		n/o North SR 120 Jct	5	5	5	D	1,550	A	1,791	A	3,416	B
23		b/w SR 49 (Montezuma Jct) & Bell Mooney Rd	4	4	12	D	18,600	D	21,104	E	23,275	E
24		b/w Bell Mooney Rd and South Jct Main St	211	210	210	D	19,300	E	21,800	E	24,086	E
25		b/w South Jct Main St and Rawhide Rd	210	208	208	D	19,300	D	22,695	B	25,492	C
26		b/w Rawhide Rd and Fifth Ave	210	208	208	D	19,700	D	25,037	C	28,897	C
27		b/w Fifth Ave and Stockton Rd/SR 108	210	210	210	D	23,500	E	25,196	E	29,879	E
28		btn SR 108 and Fairview Lane (Ponderosa)	210	210	210	D	11,900	C	13,017	C	14,062	C
29		b/w Fairview Lane and Southgate Dr	210	210	210	D	10,700	C	11,705	C	12,603	C
30	**SR 49 Corridor**	b/w Southgate Dr and Washington St	210	210	210	D	10,900	C	11,923	C	14,770	D
31		b/w Stockton Rd and Dodge St	211	211	211	D	18,500	E	17,414	E	17,924	E
32		n/o Dodge St	211	211	211	D	19,400	E	20,283	E	15,929	D
33		s/o N Washington St / Columbia Way	211	211	211	D	16,100	E	17,110	E	12,611	D
34		n/o N Washington St / Columbia Way	211	211	211	D	15,400	D	16,133	E	12,551	D
35		e/o Parrotts Ferry Rd (Columbia WYE)	211	211	211	D	13,300	D	14,027	D	17,021	E
36		w/o Parrotts Ferry Rd (Columbia WYE)	211	211	211	D	5,050	B	5,632	B	7,712	C
37		e/o Rawhide Rd	5	5	5	D	5,500	B	6,209	B	6,629	C
38		b/w Rawhide Rd and Turttletown	5	5	5	D	4,550	B	5,246	B	5,636	B
39		b/w Tuttletown and Tuolumne / Calveras County Line	5	5	5	D	5,600	B	6,295	C	6,685	C
40		b/w Tulloch Rd and La Grange Rd	1	1	1	D	11,600	B	13,326	C	14,304	C
42		b/w East Jct 108 and North Jct SR 49	5	5	5	D	2,700	A	3,202	B	3,431	B
43		b/w North Jct SR 49 and Jacksonville Rd	5	5	5	D	3,750	B	4,362	B	6,055	B
44		b/w Jacksonville Rd and South Jct SR 49	5	5	5	D	5,000	B	5,790	B	6,232	B
45		b/w South Jct SR 49 and Priest-Coulterville Rd	5	5	5	D	3,900	B	4,268	B	5,537	B
46	**SR 120 Corridor**	w/o Ferretti Rd (Groveland Townsite)	5	5	5	D	4,800	B	5,638	B	6,126	B
47		e/o Ferretti Rd (Groveland Townsite)	5	5	5	D	5,800	B	6,376	C	6,710	C
48		w/o Hells Hollow Rd	5	5	5	D	4,850	B	5,491	B	5,855	B
49		e/o Smiths Station Rd	5	5	5	D	3,800	B	4,375	B	4,706	B
50		w/o Cherry Valley/Lake Rd	5	5	5	D	3,600	B	4,176	B	4,510	B
51		w/oYosemite Park West Boundary	5	5	5	D	3,500	B	4,071	B	4,402	B
52		w/o Sanguinetti Rd	210	210	210	D	22,205	E	22,167	E	22,058	E
53		b/W Sanguinetti Rd & Greenley Rd	208	208	208	D	16,986	A	17,673	A	17,601	A
54		b/w Greenley Rd & Fir Dr	208	208	208	D	21,628	A	22,864	B	24,928	B
55	**Mono Way**	b/w Fir Dr & Tuolumne Rd	208	208	208	D	25,060	C	28,558	C	30,070	D
56		b/w Tuolumne Rd & Hess Ave	208	208	208	D	12,327	A	15,213	A	16,114	A
57		b/w Hess Ave & Standard Rd / Peaceful Oak Dr	210	210	210	D	12,076	C	14,898	D	15,475	D
58		b/w Standard Rd/Peaceful Oak Dr & SR 108	211	211	211	D	7,435	C	8,460	C	8,399	C

Appendix Table 3 - Future Year Roadway Level of Service (LOS)

#	Roadway/Highway Segment		2015 Type #	2030 Type #	2040 Type #	Minimum LOS Standard*	Existing (2015) Volumes	Existing (2015) LOS	Year 2030 - Distinctive Communities Proposed Volumes	Year 2030 - Distinctive Communities Proposed LOS	Year 2040 - Distinctive Communities Proposed Volumes	Year 2040 - Distinctive Communities Proposed LOS
59	**Standard Road**	b/w Tuolumne Rd & Mono Way	213	213	213	D	3,391	B	4,835	B	5,748	C
60	**Cabezut Road**	b/w Greenly Rd and Shannon Dr	212	212	212	D	5,775	B	6,686	B	7,352	C
61		e/o Shannon Dr	213	213	213	D	260	A	438	A	599	A
62	**Parrotts Ferry Road**	b/w SR 49 & Sawmill Flat Rd	213	213	213	D	11,100	D	11,508	D	12,763	D
63		b/w Sawmill Flat Rd & Springfield Dr	213	213	213	D	7,900	C	8,140	C	8,888	C
64		n/o Springfield Dr	213	213	213	D	8,066	C	8,509	C	8,923	C
65		s/o Calaveras County Line	5	5	5	D	4,071	B	4,495	B	4,730	B
66	**Fifth Avenue**	s/o SR 108 / 49	213	213	213	D	2,640	A	3,151	B	3,321	B
67		n/o SR 108 / 49	213	213	213	D	792	A	2,376	A	2,455	A
68	**Greenley Road**	b/wLyons Bald Mt Rd/Lyons Rd & Cabezut Rd	212	212	212	D	5,868	B	6,070	B	10,994	C
69		b/w Cabezut Rd/ Morning Star Rd & Delnero Dr	212	212	212	D	11,332	C	11,922	D	15,939	E
70		b/w Delnero Dr & Mono Way	209	209	209	D	15,317	A	15,985	A	19,903	B
71	**La Grange Road**	b/w County Line & Bonds Flat Rd	5	5	5	D	2,703	A	3,051	A	3,247	B
72		b/w Bonds Flat Rd & Red Hills Rd	5	5	5	D	2,868	A	3,640	B	4,061	B
73		b/wRed Hills Rd & SR 108-SR 120	5	5	5	D	2,399	A	3,190	B	3,625	B
74	**Seco Street**	b/w Camp Seco Rd & 3rd Ave	213	213	213	D	1,050	A	1,398	A	1,524	A
75		b/w 3rd Ave & Main St	213	213	213	D	2,902	B	3,392	B	3,835	B
76		s/o Campo Seco Rd	213	213	213	D	1,036	A	1,225	A	1,586	A
77	**Tuolumne Road**	b/w Mono Way & Lambert lake Rd	212	212	212	D	15,203	D	15,689	D	16,235	E
78		b/w Lambert Lake Rd & Hess Ave	212	212	212	D	13,042	D	13,775	D	14,528	D
79		b/w Hess Ave & Wards Ferry Rd	212	212	212	D	12,283	D	13,003	D	13,669	D
80		b/w Wards Ferry Rd & Standard Rd	212	212	212	D	11,745	D	12,711	D	13,249	D
81		b/w Standard Rd & Woodhams Carne	6	6	6	D	11,955	D	13,111	D	13,713	D
82		b/w Woodhams Carne & Cherokee Rd	6	6	6	D	11,848	D	12,659	D	13,227	D
83	**Wards Ferry Road**	s/o Yosemite Rd	9	9	9	D	2,399	B	2,623	B	2,783	B
84		s/o Tuolumne Rd	213	213	213	D	1,799	A	1,890	A	1,891	A
85	**Twain Harte Drive**	n/o Hunts Rd	213	213	213	D	3,642	B	3,753	B	4,012	B
86		w/o East Ave	213	213	213	D	4,466	B	4,958	B	4,957	B
87		e/o Tiffeni Dr (eastern Most)	213	213	213	D	1,914	A	2,221	A	2,185	A
88	**Shaws Flat Road**	s/o SR 49	213	213	213	D	3,057	B	3,498	B	3,247	B
89		n/o SR 49	213	213	213	D	1,989	A	2,309	A	2,383	A
90	**Jamestown Road**	s/o Shaws Flat Rd	213	213	213	D	2,486	A	2,932	B	2,996	B
91		s/o Racetrack Rd	213	213	213	D	3,134	B	4,099	B	4,090	B
92		b/w Golf links & Fifth Ave	213	213	213	D	2,798	B	3,984	B	4,367	B
93	**Rawhide Road**	n/o SR 49 & 108 (by the Bridge)	213	213	213	D	4,149	B	4,557	B	4,362	B
94		s/o SR 49 (near Tuttletown)	8	8	8	D	2,407	A	2,741	B	2,530	A
95	**Phoenix Lake Road**	e/o Creekside Dr	213	213	213	D	2,095	A	2,740	B	2,774	B
96		e/o Paseo de Los Portales	213	213	213	D	4,796	B	5,876	C	6,087	C
97		e/o Ridgewood	213	213	213	D	5,495	B	6,537	C	6,762	C
98		e/o Hess Ave	213	213	213	D	7,746	C	8,892	C	9,267	D
99		w/o Hess Ave	213	213	213	D	4,729	B	5,020	B	4,971	B
100	**Old Wards Ferry Road**	s/o Sanguinetti Rd (n/o of Walmart & Lowes Driveway)	209	209	209	D	7,116	A	7,392	A	7,763	A
101		1/4 mile s/o Sanguinetti Rd (over Highway 108)	213	213	213	D	805	A	927	A	916	A
102		s/o Jacobs Rd	8	8	8	D	502	A	728	A	567	A
103	**Soulsbyville Road**	s/o Black Oak Dr	7	7	7	D	1,033	A	1,116	A	1,180	A
104		s/o Willow Springs Dr	213	213	213	D	1,817	A	2,270	A	2,554	A
105		n/o of SR 108	213	213	213	D	6,457	C	6,653	C	7,566	C
106	**Tuolumne Rd North**	b/w Tuolumne Rd & Black Oak Casino Entrance St	6	6	6	D	6,436	B	6,632	B	6,766	B
107		n/o Mi Wu St	7	7	7	D	2,391	A	2,525	A	2,661	A
108		n/o East Ave	213	213	213	D	1,436	A	1,480	A	1,510	A
109	**O'Byrnes Ferry Rd**	n/o SR 108	7	7	7	D	5,998	C	6,516	C	6,811	C
110		n/o Prison/Calaveras County Line	7	7	7	D	3,796	B	4,311	B	4,608	B
111	**Longeway Rd**	e/o Soulsbyville Rd	213	213	213	D	8,050	C	8,295	C	8,728	C
112		e/o Crystal Falls Dr	213	213	213	D	4,283	B	4,413	B	4,502	B
113	**Stewart St**	b/w Lyons St & Elkin St	213	213	213	D	6,597	C	8,631	C	6,935	C
114		b/w Mono wWay/Restano Way & Church St	213	213	213	D	5,905	C	8,298	C	7,639	C

Appendix Table 3 - Future Year Roadway Level of Service (LOS)

#		Roadway/Highway Segment	2015 Type #	2030 Type #	2040 Type #	Minimum LOS Standard*	Existing (2015) Volumes	Existing (2015) LOS	Year 2030 - Distinctive Communities Proposed Volumes	Year 2030 - Distinctive Communities Proposed LOS	Year 2040 - Distinctive Communities Proposed Volumes	Year 2040 - Distinctive Communities Proposed LOS
115	**S Washington St**	n/o SR 108	212	212	212	D	10,859	C	12,675	D	13,287	D
116		b/w Restano Way & Church St	212	212	212	D	18,595	E	17,700	E	17,706	E
117	**Sanguinetti Rd**	b/w Mono Way & S Greenley Rd (eb one-way)	213	213	213	D	4,299	B	4,430	B	4,519	B
118		b/w S Greenley Rd & Fir Dr	209	209	209	D	8,500	A	10,988	A	11,627	A
119		b/w Fir Dr & Mono Way	213	213	213	D	3,182	B	3,792	B	4,302	B
120	**Peaceful Oak Dr**	n/o SR 108 Bypass	213	213	213	D	596	A	614	A	627	A
121		b/w SR 108 Ramps	212	212	212	D	2,663	A	2,744	A	2,911	A
122		b/w Mono Way and SR 108	208	208	208	D	5,316	A	5,478	A	5,629	A
123	**Other Roads**	Bell Mooney Rd, w/o Jacksonville Rd	213	213	213	D	148	A	173	A	289	A
124		Big Hill Rd, b/w Sawmill Flat Rd & N Bald Mountain Rd	107	107	107	D	1,169	A	1,406	A	1,321	A
125		Black Oak Rd, n/o Tuolumne Rd	9	9	9	D	1,586	A	1,893	A	1,974	A
126		Bonanza Rd, w/o Snell Rd	213	213	213	D	1,330	A	1,574	A	1,591	A
127		Bonds Flat Rd, e/o La Grange Rd	6	6	6	D	1,113	A	1,558	A	1,782	A
128		Campo Seco Rd, e/o Seco Rd	213	213	213	D	1,454	A	1,788	A	2,273	A
129		Cherokee Rd, w/o Tuolumne Rd North	8	8	8	D	1,656	A	1,758	A	1,938	A
130		Chicken Ranch Rd, w/o SR 108	11	11	11	C	1,406	A	1,449	A	1,478	A
131		Draper Mine Rd, e/o SR 108 & SR 49	213	213	213	D	942	A	971	A	1,044	A
132		East Ave, s/o Twain Harte Dr	213	213	213	D	1,392	A	1,570	A	1,650	A
133		Ferretti Road, s/o Pine Mt Dr	7	7	7	D	2,870	A	2,976	B	3,103	B
134		Golf Links Rd, n/o SR 108	213	213	213	D	1,032	A	1,108	A	1,320	A
135		Hess Ave, b/w SR 108 & Mono Way	212	212	212	D	8,137	C	8,909	C	9,795	C
136		Jacksonville Rd, s/o Twist Ave	6	6	6	D	1,301	A	1,482	A	1,741	A
137		Jacobs Rd, w/o Old Wards Ferry Rd	8	8	8	D	596	A	910	A	696	A
138		Lime Kiln Rd, s/o Campo Seco Rd & SR 108	213	213	213	D	3,973	B	4,168	B	4,176	B
139		Lyons Bald Mt.Rd, e/o Greenley Rd	213	213	213	D	1,709	A	1,782	A	1,869	A
140		Lyons St, w/o Greenley Rd	213	213	213	D	5,501	B	5,986	C	5,783	C
141		Main St (Jamestown), n/o Donovan St	213	213	213	D	1,526	A	1,572	A	1,604	A
142		Merrell Rd, s/o SR 120	9	9	9	D	480	A	495	A	505	A
143		Moringstar Dr, w/o Greenley Rd	213	213	213	D	1,517	A	1,975	A	1,719	A
144		Old Priest Grade, 1/2 Mile e/o SR 120	109	109	109	D	2,172	B	2,460	B	2,283	B
145		Sawmill Flat Rd, e/o Parrots Ferry Rd	213	213	213	D	2,300	A	2,574	A	2,906	B
146		Smith Station Rd, s/o SR 120	6	6	6	D	537	A	598	A	632	A
147		Snell Rd-Racetrack Rd, n/o Bonanza Rd	213	213	213	D	3,586	B	4,078	B	4,039	B
148		South Greenley Rd, b/w Mono Way & Sanguinetti Rd	208	208	208	D	8,815	A	12,410	A	13,608	A
149		Springfield Rd, n/o Horseshoe Bend Rd	213	213	213	D	1,892	A	2,210	A	2,269	A
150		Woodhams Carne Rd, s/o Tuolumne Rd	9	9	9	D	1,473	A	1,518	A	1,548	A
151		Yankee Hill Rd, e/o Bigler St	213	213	213	D	1,149	A	1,184	A	1,208	A
152		Willow Springs Dr, e/o Bonnie St	11	11	11	C	2,707	B	2,880	B	3,032	B
		Total Segments Below LOS Standard:						**7**		**12**		**12**

**Minimum acceptable LOS for Tuolumne County facilities (other than Local Roads) is LOS "D"(as defined by Tuolumne County Transportation Council). Minimum acceptable LOS for all Local Roads is LOS "C".*
Minimum acceptable LOS for Caltrans facilities is LOS "D" (as defined by Caltrans and TCTC).

E = *Operating Below LOS Standard.*
= *Improved under 2030 conditions.*
= *Improved under 2040 conditions.*

This page is left intentional blank

Appendix E - Roadway Classifications

Other Principal Arterial

State Highway 120
State Highway 108 (Mono Way to Stanislaus County Line)
State Highway 49

Minor Arterial

Mono Way (Restano Way/Steward Street to SR 108/)
La Grange Rd (J-59) (Stanislaus County Line To State Highway 120)
State Highway 132
State Highway 108

Major Collector

Algerine Road (Stent Cutoff to Jacksonville Road)
Bonds Flat Road
Ferretti Road
Greenley Road
Fifth Avenue North (State Highway 49 to Jamestown Road)
Fir Drive (Mono Way to Sanguinetti Road)
Hess Avenue (Mono Way to Phoenix Lake Road)
Jacksonville Road (State Highway 120 to Stent Cutoff)
Jamestown Road
Lime Kiln Road (Campo Seco Road to State Highway 108)
Merced Falls Road
Mono Vista Road South
Longeway Road (Soulsbyville Road to South Fork Road)
O'Byrnes Ferry Road
Parrotts Ferry Road
Peaceful Oak Road (State Highway 108 to Mono Way)
Phoenix Lake Road
Rawhide Road
Sanguinetti Road
Shaws Flat Road (Jamestown Road to Hwy. 49)
Smith Station Road
Soulsbyville Road
Standard Road
Stent Cutoff
Tuolumne Road
Tuolumne Road North
Twain Harte Drive
South Fork Road (Longeway Road to Middle Camp Road)
South Washington Street

Minor Collector

Algerine Road (Stent Cutoff to Lime Kiln Road)
Algerine/Wards Ferry Road
Bay Avenue (Cherry Valley Blvd to Main Street, Tuolumne)

Minor Collector

Bear River Drive (Crestview Drive to Crystal Falls Drive)
Bell Mooney Road
Big Hill Road
Black Oak Road (Tuolumne Road to Soulsbyville Road)
Buchanan Road (Carter Street to Stanislaus National Forest Boundary)
Cabezut Road (Greenley Road to Cabezut Court)
Campo Seco Road
Carter Street
Cherokee Road (Tuolumne Road to Tuolumne Road North)
Cherry Valley Blvd (Tuolumne Road to Bay Avenue)
Creekside Drive (Phoenix Lake Road to Crestview Drive)
Crestview Drive (Bear River Drive to Creekside Drive)
Crestview Drive (Ridgewood Drive to North Sunshine Road)
Crystal Falls Drive (Longeway Road to Bear River Drive)
Dodge Ridge Road
Draper Mine Road
East Avenue
Fifth Avenue (Jamestown - State Highway 49 to Sierra Avenue)
Fuller Road (Little Fuller Road to Joaquin Gully Road)
Hess Avenue (Mono Way to Tuolumne Road)
Hunts Road (Longeway Road to Twain Harte Drive)
Jackson Street (Bigler Street to Parrotts Ferry Road)
Jacksonville Road (Bell Mooney to Algerine Road)
Jacobs Road
Joaquin Gully Road
Kewin Mill Road
Lambert Lake Road (Tuolumne Road to Florence Road)
Lime Kiln Road (Campo Seco Road to Algerine Road)
Little Fuller Road (South Fork Road to Fuller Road)
Longeway Road (South Fork Road to Kewin Mill Road)
Lyons Bald Mountain Road
Main Street, Jamestown
Main Street, Tuolumne (Bay Avenue to Maple Avenue)
Middle Camp/Sugar Pine Road
North Sunshine Road (South Sunshine Road to Longeway Road)
Old Priest Grade
Old Wards Ferry Road (State Highway 108 overpass to Jacobs Road)
Pinecrest Lake Road (State Highway 108 to Pinecrest Lake)
Priest Coulterville Road
Racetrack Road (Jamestown Road to East Bay Meadow Drive)
Red Hill Road
Ridgewood Drive Road
Sawmill Flat Road
Seco Street
Shaws Flat Road (Springfield Road to State Highway 49)
Shaws Flat Road (Jamestown Road to East Keeley Drive)

Minor Collector

Sierra Avenue
Sims Road (State Highway 49 to State Highway 120)
Springfield Road (Parrotts Ferry Road to Shaws Flat Road)
Twist Road (Jacksonville Road to Algerine Road)
Wards Ferry Road (Algerine/Wards Ferry Road to Tuolumne Road)
Woodhams Carne Road (Yosemite Road to Tuolumne Road)
Yankee Hill Road (Sawmill Flat Road to Bigler Street)
Yosemite Road
Sanguinetti Road (Mono Way to Bypass Loop Road)
Lyons Bald Mountain Road
Morningstar Rd

Local roads

Local roads are all roads not classified under the Arterial or Collector categories

This page is left intentional blank

Appendix F - Draft Rural Sustainable Strategies - Project Level Performance Assessment

		Increase Local Economic Base								Reduce Environmental Impacts								Improve Livability or Quality of Life							
CIP	Total Points	Regional Accessibility	Tourism	Beautification	Economic Development	Goods Movement	Cost Benefit Analysis	Leveraging of Local funds	Adjacent to Commercial Buinesses	Reduce GHG's	Reduce VMT's	Bicycle Network	Context Sensitive Solution	Reduces Congestion	Pedestrian Network	Defined Communities	Potential for Increasing Walking or Bicycling	Adjacent to Housing	Safe Routes to School	Infrastructure Gap Closures	Safety	Access to Transit	Health Communities	Disadvantaged Communities	In a Planned Document and/or Public Participation
Points Scale	----------	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	2	2	2	2	2	2	1	2	2

This page is left intentional blank

Appendix G - Large Residential Areas That Warrant Emergency Access Improvements - 5-22-15

1. Lyons Bald Mountain Road Area
    a. Connection to P.L.C.C.E via Vilas Lane and Yerba Santa Drive

2. Cedar Ridge Subdivision Area
    a. Via Old Oak Ranch, or
    b. Via Mt. Elizabeth Drive, and Mt. Elizabeth Road

3. Phoenix Lake County Club Estates Subdivision Area
    a. El Lobo Center / Montgomery Road, or
    b. County Club Lane / Montgomery Road, or
    c. Allenby Drive / Fortuna Mine Road

4. Scenic Brook Subdivision and Scenic View Subdivision
    a. Via Apple Valley Estates

5. Ponderosa Hills Subdivision
    a. Mt. Provo Road / USFS 2N09

6. Blue Bell Valley Subdivision and Emerald Ranch Farms
    a. Via Buttercup Lane

7. Willow Springs Subdivision
    a. Via Oman Drive or Kings Court
    b. Oak View Estates Subdivision may also resolve access concerns

8. Cabezut Basin
    a. Via Kelly Drive to Fir Drive, or
    b. Cabezut extension to Phoenix Lake Road

9. French Flat Area serving Melones Sunset Lakes Estates and Heavenly Hills

10. Shell Road Area (Rawhide mobile home park)
    a. Via Old Peoria Flat Road

11. Mill Villa Manor / Mill Villa Mobile Home Park
    a. Via Justin Court / Golden Oaks Drive

12. Cuesta Serena Subdivision / Cambells Flat Road
    a. Via Railway Lane or Dusty Trail

13. Sommette Drive / Peaceful Oak Road

14. Cedar Springs Road, reconnect with Tuolumne Road North

15. Knox Drive
    a. Improved to create through road

16. Yosemite Highlands Subdivision area
    a. Via Alice Lane

17. Long Barn-Sugar Pine Road
    a. Benefits Mi-Wuk Village, Odd Fellows and Long Barn

18. Peppermint Falls Drive
    a. Benefits Peppermint Creek Mobile Home Park

19. Mono Village Subdivisions (Hillsdale Road)
    a. Via Susan Way / Industrial Drive

20. Curtis Creek Ranch Subdivision
    a. Via Curtis Court to Whitto Mine Road, or
    b. Curtis Circle to Serrano Road

21. South Shore Tulloch Lake area

22. Apple Colony Road / Mt. Eaton Road

23. Tuolumne Rancheria

24. Buckhorn Estates
    a. Prairie Dog Drive to Hershey Road

25. Monte Grande Heights Subdivision

26. Marshall Tract Subdivision

27. Rough and Ready Trail area

28. Pulpit Rock Road / Railbed Road Area

Project B: Non County Maintained Road Improvements

Emergency Access: roads that warrant improvement to provide emergency ingress/egress

	Location/Road	Limits Begin	Limits End	Length (miles)		Total Project Cost ††
	Yosemite Acres Subdivision					
1	Alice Lane-Private			0.50	$	1,200,000
2	Morgan Drive†-CSA#13			1.30	$	195,000
3	White Gulch Road†-CSA#13			1.21	$	181,500
	South County Roads Looped Access Improvements					
4	Hells Hollow Road			0.90	$	1,374,000
5	Merrell Road			1.21	$	2,028,000
6	Yosemite Springs Road			1.96	$	1,389,000
7	Vernal (Locked Gate)			0.83	$	2,016,000
8	Second Garrotte Ridge Road			3.01	$	2,163,000
9	Vernal (Locked Gate)			0.88	$	1,461,000
10	South Ponderosa Way			2.97	$	1,308,000
11	Wagner Ridge Road			3.46	$	1,365,000
12	Dantes Pass			1.12	$	1,356,000
13	Forest Route 2S34			0.61	$	1,344,000
14	Forest Route 1S38			0.80	$	1,125,000
15	Forest Route 1S37			0.77	$	7,803,000
16	Jackass Creek Road			0.73	$	1,125,000
			Total Road Miles:	22.26	$	27,433,500

††Construction Cost + 25% PE + 15% CE + 10% Contingency

Total Cost for Project B: $ 27,440,000

Project C: Hetch Hetchy Right of Way

The County proposes to acquire and develop the former Hetch Hetchy Railroad right-of-way, which is located immediately north of Groveland, in order to construct a bypass road that is parallel to the main downtown corridor. The bypass road would serve emergency vehicles and residents alike in the event of an emergency. The Groveland Community Services District is also proposing to construct water lines along the right-of-way; this road project would complement those improvements. Local fire agencies would be able to utilize the 100-foot wide right-of-way as a potential fire break that would protect the Groveland from wildland fires that approach the community from the north.

Smith Station Road provides vital access to the southernmost region of the County, south of SR120 and east of Groveland. Smith Station Road provides access for emergency vehicles and an alternate evacuation route to the south.



Figure 10-Smith Station Road

Project A: County Maintained Roads Improvements

Ingress and Egress: roads that provide primary access for fire equipment, emergency services and evacuation

	Location/Road	Limits Begin	Limits End	Length (miles)		Total Project Cost ††
1	Ferretti Road†	SR120 (Groveland)	Clements Road	5.25	$	787,500
2	Ferretti Road (priority segment)†	Clements Road	SR120 (Smith Station)	5.09	$	1,101,000
3	Merrell Road/Harper Road/Black Road loop	SR120 (West)	SR120 (East)	2.63	$	2,840,400
4	Boitano Road North	Ferretti Road	End	1.54	$	6,930,000
5	Clinton Road†	Ferretti Road	Mile 0.49	0.49	$	1,176,000
6	Clinton Road†	Mile 0.49	End	0.98	$	4,410,000
7	Clements Road†	Ferretti Road	Mile 0.89	0.89	$	267,000
8	Clements Road†	Mile 0.89	End	0.24	$	1,080,000
9	Hardin Flat Road	SR120 (West)	SR120 (East)	6.16	$	11,788,800
10	Evergreen Road	SR120	Mather Road	7.41	$	12,364,880
11	Smith Station Road	SR120	County Line	2.02	$	515,100
12	Mueller Drive	Ferretti Road	Mile 0.23	0.23	$	69,000
13	Deer Flat Road/Wards Ferry Road Loop	SR120	SR120	3.36	$	856,800
			Total Road Miles:	36.29	$	44,186,480
			Total Cost for Project A:		**$**	**44,190,000**

††Construction Cost + 25% PE + 15% CE + 10% Contingency

Project P: County Maintained Roads that Provide Primary Access

Ingress and Egress: Roads that provide primary access for fire equipment, emergency services and evacuation

	Location/Road	Limits Begin	Limits End	Length (miles)		Total Project Cost ††
1	Tuolumne Road North (priority segment)	Ponderosa Hills	SR108	3.45	$	1,552,500
2	Tuolumne Road North	Me-Wu Road	Ponderosa Hills	3.05	$	457,500
3	Yosemite Road			5.72	$	6,177,600
4	Soulsbyville Road	Tuolumne Road	SR108	2.84	$	426,000
5	Fish Hatchery Road	Buchanan Road	Cottonwood Road	1.98	$	594,000
6	Cedar springs Road	Tuolumne Road North	Confidence Road	0.42	$	1,008,000
7	Confidence Road	Cedar Springs Road	SR108	3.02	$	3,261,600
8	Black Oak Road			0.98	$	147,000
9	Cherokee Road			1.68	$	252,000
10	Draper Mine Road			1.16	$	522,000
11	Middle Camp - Sugar Pine Road	Joaquin Gully Road	SR108	2.00	$	2,160,000
12	East Avenue			0.35	$	52,500
13	Twain Harte Drive	SR108 (West)	SR108 (East)	2.57	$	385,500
14	Joaquin Gully Road	Twain Harte Drive	Middlecamp Road	1.03	$	1,112,400
15	Fuller Road	Joaquin Gully Road	Little Fuller Road	0.60	$	90,000
16	Little Fuller Road	Fuller Road	South Fork Road	0.75	$	112,500
17	South Fork Road	Little Fuller Road	Longeway Road	1.07	$	160,500
18	Longeway Road	South Fork Road	Soulsbyville Road	2.47	$	741,000
19	Standard Road	Tuolumne Road	SR108	1.71	$	1,846,800
20	Tuolumne Road	Tuolumne Road North	Standard Road	4.36	$	1,765,800
21	Intersection Tuolumne/Soulsbyville Roads			1.00	$	1,800,000
			Total Road Miles:	41.21	$	24,625,200
				Total Cost for Project P:	**$**	**24,625,200**

††Construction Cost + 25% PE + 15% CE + 10% Contingency

ESTIMATED COSTS: $24,625,200

Project Q: County Maintained Roads that Provide Secondary Access

There are numerous small communities and subdivisions located on the eastern side of SR108 that are situated on the rim of the N. Fork Tuolumne River canyon and are particularly vulnerable to wildland fire. Many of these subdivisions were built in the 1950-1970s, before the County and State adopted more stringent rules regarding road construction and ingress/egress. These "high-risk" subdivisions have narrow roads and limited ingress/egress, and pose a danger to residents in the case of a disaster.

The Ponderosa Hills Subdivision is situated on the rim of the N. Fork Tuolumne River canyon, and with 4.85 miles of interior roads, has only one primary ingress/egress off of Tuolumne Road North. In support of TUDs project to upgrade the water system in Ponderosa Hills, the County proposes to reconstruct the interior roads to increase accessibility for emergency vehicles and residential evacuation. The County also proposes to construct a secondary emergency access, discussed in Project S below.

The Muller Subdivision is located northeast of the community of Tuolumne, situated on the rim of the N. Fork Tuolumne River canyon. There are approximately 0.47 miles of interior roads that would be reconstructed, providing increased accessibility for emergency vehicles and residential evacuation.

The Tuolumne Rancheria is located immediately north of the community of Tuolumne. There are 1.93 miles of county maintained interior roads, and only one primary ingress/egress off of Tuolumne Road North. The Rancheria is situated immediately west of the N. Fork Tuolumne River canyon ridge line, and is particularly vulnerable to wildland fire. The County proposes to reconstruct the interior roads to increase accessibility for emergency vehicles and residential evacuation. The County also proposes to construct a secondary emergency access, discussed in Project S below.

Project Q: County Maintained Roads that Provide Secondary Access

Ingress and Egress: Roads that provide secondary access for fire equipment, emergency services and evacuation

	Location/Road	Limits Begin	Limits End	Length (miles)		Total Project Cost ††
1	Ponderosa Hills Subdivision			4.85	$	5,238,000
2	Sherwood Forest Subdivision			1.15	$	1,242,000
3	Muller Subdivision			0.47	$	507,600
4	Willow Springs Subdivision			5.92	$	6,393,600
5	Tuolumne Rancheria			1.93	$	492,150
6	Cedar Springs Road	Confidence Road	End	0.68	$	1,632,000
7	Pine Lake Drive/Yellow Pine/Hekeke Road			1.43	$	1,544,400
8	Coffil Road			0.36	$	864,000
9	Chamise Drive/Forest Vista Road			1.77	$	1,911,600

††Construction Cost + 25% PE + 15% CE + 10% Contingency

Total Road Miles:	18.56	$	17,913,750
Total Cost for Project Q:		**$**	**17,913,750**

ESTIMATED COSTS: $17,913,750

Project R: Twain Harte Community Services District

Ingress and Egress: Roads that provide secondary access for fire equipment, emergency services and evacuation

	Location/Road	Limits Begin	Limits End	Length (miles)		Total Project Cost ††
1	Tuolumne Road North	Robin Hood Dr.	North of Robin Hood Dr.		$	-
2	Little John Road	Robin Hood Dr.	Robin Hood Dr.	0.33	$	795,455
3	Robin Hood Drive	Tuolumne Road North	Tuolumne Road North	0.78	$	839,455
4	King Arthur Way	Robin Hood Dr.	NE End	0.09	$	215,909
5	Cherokee Drive	Joaquin Gully Road	Strauch Drive	0.20	$	479,545
6	Tuolumne Drive	Cherokee Dr.	Wildwood Dr.	0.10	$	239,545
7	Strauch Drive	Joaquin Gully Road	Cherokee Dr.	0.38	$	212,855
8	Mother Lode Drive	Joaquin Gully Road	Tuolumne Dr.	0.14	$	78,835
9	Lookout Drive	Cresta Dr.	E End	0.10	$	46,449
10	Fuller Road	Joaquin Gully Road	Golf Club Drive	0.15	$	68,267
11	Mark Twain Drive	Sierra Dr.	1000 N. of Sierra Dr.	0.19	$	28,409
12	Little Fuller Road	Red Wing Trail	Big Pine (?)	0.09	$	12,784
13	Fuller Road	Golf Club Drive	Little Fueller Road	0.41	$	61,676
14	Golf Club Drive	Lakeview Drive	W End	0.25	$	590,909
15	Mono Drive	Twin Harte Dr.	end	0.70	$	1,796,591
16	Ponderosa Drive	Hillcrest Rd.	Twain Harte Dr.	0.38	$	975,568
17	Hillcrest Road	Ponderosa Dr.	Scenic Dr.	0.05	$	140,057
18	East Avenue	Twain Harte Dr.	450' South of Twain Hart	0.44	$	66,648
	Not County Maintained					
19	Broken Bough Lane					
20	Fallen Leaf Lane					
21	Manzanita Court	Manzanita Dr.	end			
22	Fireside Drive	Golf Club Dr.	end			

††Construction Cost + 25% PE + 15% CE + 10% Contingency

Total Road Miles:	4.80	$	6,648,957
Total Cost for Project R:		**$**	**6,648,957**

ESTIMATED COSTS: $6,648,957

Project S: County Maintained Roads that Provide Secondary Access

Emergency Access: Roads that warrant improvement to provide emergency ingress/egress

	Location/Road	Limits Begin	Limits End	Length (miles)		Total Project Cost ††
1	Ponderosa Hills - Mt. Provo Road			1	$	1,800,000
2	Ponderosa Hills - USFS #2N09			1.22	$	2,196,000
3	Knox Drive Improvements			1.37	$	2,466,000
4	Apple Colony Road/Mt. Eaton Road			0.16	$	3,600,000
5	Monte Grande Heights			1.52	$	363,000
6	Buckhorn Estates (via Hershey Loop)			0.13	$	2,925,000
7	Tuolumne Rancheria (via Haydens Road)			0.37	$	1,665,000
8	Marshall Tract			0.16	$	3,600,000
9	Cedar Springs Road	Cedar Springs (cul-de-sac)	Tuolumne Road North	0.77	$	3,465,000
	††Construction Cost + 25% PE + 15% CE + 10% Contingency					
			Total Road Miles:	5.93	$	18,615,000
				Total Cost for Project S:	**$**	**18,615,000**

ESTIMATED COSTS: $18,615,000

This page is left intentional blank

Appendix H - Blueprint Performance Measures Summary

Comparing Recent Trends (2), Public Services, and Distinctive Communities Alternative Growth Scenarios.

Last updated March 17, 2016

PM ID	Performance Measure	Description	Existing General Plan Recent Trends Results	Proposed General Plan Recent Trends Results	Proposed General Plan Public Services Results	Proposed General Plan Distinctive Communities Results
1	Proximity of growth to Infrastructure	Number of acres & dwelling units of Very High, High and Medium Density Residential types; and number of acres of Commercial, Industrial and Business Park allocated for growth in proximity (300 ft.) to public water or sewer lines.	**1,009 acres 2,291 Dwelling Units 137 acres Commercial, Industrial & Business Park**	**950 acres 2,133 Dwelling Units 136 acres Commercial, Industrial & Business Park**	**1,231 acres 3,104 Dwelling Units 147 acres Commercial, Industrial & Business Park**	**1,155 acres 3,050 Dwelling Units 138 acres Commercial, Industrial & Business Park**
2	Growth within Defined Communities	Number of acres & dwelling units of Very High, High and Medium Density Residential, Mixed-Use, Commercial, allocated for growth within defined communities and the City of Sonora.	**1,261 acres 2,802 Dwelling Units 107 acres Commercial**	**1,272 acres 2,822 Dwelling Units 108 acres Commercial**	**1,667 acres 4,050 Dwelling Units 115 acres Commercial**	**1,674 acres 4,184 Dwelling Units 108 acres Commercial**
3	Growth within existing urban areas	Number of acres & dwelling units of Very High, High and Medium Density Residential allocated for growth within urban development boundaries of defined communities and the City of Sonora to meet population projections.	**1,101 acres 2,462 Dwelling Units**	**1,120 acres 2,491 Dwelling Units**	**1,434 acres 3,476 Dwelling Units**	**1,437 acres 3,608 Dwelling Units**
4	Growth affecting surrounding lands	Number of acres & dwelling units of Very High, High and Medium Density Residential and Mixed-Use allocated for growth within 1,000 feet of Agricultural, Industrial and Timberland (TPZ).	**414 acres 921 Dwelling Units**	**469 acres 1,040 Dwelling Units**	**615 acres 1,521 Dwelling Units**	**575 acres 1,479 Dwelling Units**
5	Dense Residential Growth in Proximity to Amenities	Number of acres & dwelling units of Very High and High Density Residential allocated for growth within the area defined by at least 4 of the 7 location criteria used to determine proximity to amenities and services for low income housing project grants and tax credits.[1]	**19 acres 159 Dwelling Units**	**18 acres 155 Dwelling Units**	**75 acres 636 Dwelling Units**	**94 acres 793 Dwelling Units**

[1] The housing location criteria used include proximity to a pharmacy, hospital or clinic, elementary school, transit stop, convenience or grocery store, library, or park. For purposes of this exercise, being in proximity to any 4 of the 7 is considered to be a better location.

PM ID	Performance Measure	Description	Existing General Plan Recent Trends Results	Proposed General Plan Recent Trends Results	Proposed General Plan Public Services Results	Proposed General Plan Distinctive Communities Results
6	Proximity to workplaces and shopping	Number of dwelling units of Very High, High and Medium Density Residential allocated for growth within 1/4 and 1/2 mile from Commercial and Mixed-Use, and highways and collector roads.	**1,514 Dwelling Units w/in 1/4 mile** **2,137 Dwelling Units w/in 1/2 mile**	**1,468 Dwelling Units w/in 1/4 mile** **2,036 Dwelling Units w/in 1/2 mile**	**2,318 Dwelling Units w/in 1/4 mile** **3,100 Dwelling Units w/in 1/2 mile**	**2,413 Dwelling Units w/in 1/4 mile** **3,266 Dwelling Units w/in 1/2 mile**
7	Growth near Transportation Alternatives	Number of dwelling units, new residents and new employees allocated within transit service areas and within 1/4 mile of fixed route, rail, bicycle or pedestrian walkways.	**1,710 Dwelling Units** **2,909 New Residents** **2,989 New Employees**	**1,546 Dwelling Units** **2,630 New Residents** **2,958 New Employees**	**2,390 Dwelling Units** **4,066 New Residents** **3,164 New Employees**	**2,520 Dwelling Units** **4,287 New Residents** **2,970 New Employees**
8	Miles driven	Vehicle Miles Traveled (VMT) Countywide	**2,188,733 VMT**	**2,184,566 VMT**	**2,193,926 VMT**	**2,170,502 VMT**
9	Growth impacts to wildlife habitat	Number of acres of moderate and high value wildlife habitat impacted by residential development.	**Impacts to Moderate Value Habitat – 930 acres** **Impacts to High Value Habitat – 257 acres**	**Impacts to Moderate Value Habitat – 879 acres** **Impacts to High Value Habitat – 271 acres**	**Impacts to Moderate Value Habitat – 842 acres** **Impacts to High Value Habitat – 189 acres**	**Impacts to Moderate Value Habitat – 774 acres** **Impacts to High Value Habitat – 174 acres**

In order for Uplan to produce a result for typical performance measures, it reports on the number of cells, or acreage equivalent, allocated for each land use type within the areas of the layer being used for the performance measure. For example, the wildlife habitat layer has two types of wildlife habitat being measured (moderate value and high value) located where they are found in the County. However, these gross results have to be further processed to be more reasonable, because just because some development happens in areas of wildlife habitat does not mean all of the wildlife habitat values are lost. In the case of Extremely Low Density Residential (or Agricultural) the model allocates for 50.39 acres of cells for each new dwelling unit. In practice, the County uses an assumption that for most larger acreage residential development that only 1 acre of such a development is directly impacted, and for the remainder of the 49+/- acres not all of the wildlife habitat values are typically lost. So for this forecasting exercise, we assume that although UPlan may report a gross number of habitat acres impacted by that land use type, we will assume that 2% the gross number will be impacted. Those average impact percentages for all the residential land use types are shown in the table below:

Comparing UPlan Land Use Types and Typical Wildlife Habitat Impacts for Allocation

UPlan Land Use Type	Applicable TC General Plan Designations	Applicable Sonora General Plan Designations	Typical Wildlife Habitat Impact per DU	Average Density (Acres per Dwelling Unit)	Average Impact to Wildlife Habitat (as percent of allocated cells)
Very High Density Residential	HDR (High Density Residential) MU (Mixed Use)	HDR Mixed Use	All affected acreage	0.1 ac/DU	100%
High Density Residential	MDR (Medium Density Residential)	MDR	All affected acreage	0.15 ac/DU	100%
Medium Density Residential	LDR (Low Density Residential)	SFR (Single Family Residential)	All affected acreage	0.47 ac/DU	100%
Medium Low Density Residential	ER (Estate Residential) and HR (Homestead Residential)	ER	1 acre per Dwelling Unit	3.26 ac/DU	30%
Low Density Residential	RR (Rural Residential)	RR w/ RE-5 zoning SP-RES	1 acre per Dwelling Unit	9.14 ac/DU	10%
Very Low Density Residential	LR (Large Lot Residential)	RR w/ RE-10 zoning	1 acre per Dwelling Unit	12.15 ac/DU	8%
Extremely Low Density Residential	AG (Agricultural)	(None in Sonora)	1 acre per Dwelling Unit	50.39 ac/DU	2%

This page is left intentional blank

This page is left intentional blank

Appendix J: Results of the Public Participation for the 2016 Draft Regional Transportation Plan

The 2016 Draft RTP follows State and Federal laws, regulations, and guidelines on the public participation process. The Public Participation Plan (PPP) is a local adopted participation plan that provides an outline for public involvement and interagency consultation in the regional planning process for the 2016 RTP. The 2016 Draft RTP comment period started on July 27th and ended on October 3rd 2016.

Six Community Workshops

The community workshops focused on listening and receiving input from the public in a formal presentation which provided active dialog about regional transportation. The community workshops helped identify the needs of the community and the where the highest priorities are in terms of transportation projects. This Appendix will include a summary of the comments received during the Draft RTP comments period and will be included in the Final RTP. The TCTC hosted six community workshops.

Jamestown Workshop – 8.16.16

- Nine public members present - 2 written comments
- Recommends a new stoplight at SR 49/Columbia Way/North Washington St to slow speeds and improve safety for Sonora High School.
- Recommends evaluating SR 49 (Washington Street) and Stewart Street into one way streets to improve congestion and as an alternative to Greenley Road Extension/Bypass.

Groveland Workshop – 8.18.16

- 15 public members present - 20 written comments
- Need to unify 120
- Need improved signage at the top and bottom of old Priest Grade
- Need to double check bus stop improvements in Groveland
- Flashing lights on weight signs
- Hetch Hetchy RR Trail a high priority
- Emergency exit maps
- Need public transit between Groveland- Sonora-Modesto
- Need walking trail though Mary Laveroni Park
- Add a concrete barrier at the Yosemite Junction Intersection
- Reconstruction of Evergreen Road is a great project
- Identify emergency access routes from neighborhoods
- Seniors need safe level places to walk
- How do electric car forecasts impact revenue for sales tax?
- There is a need for an intersection improvement at SR 120 and Big Creek Shaft Road - left turn channelization.
- Ferretti Road Mountain Bike Trail System/Multi-use trail system on US Forest Property

- The Groveland Trail Heads non-profit needs help with their local projects
- Add the Red Hills Connector Trail Project which connects Red Hill to Don Pedro Trail System
- Include connector road (Hetch Hetchy RR RW) between SR 120-Deer Flat Road and Ferretti Road in long term plan
- Keep 35 mph speed limit on Ferretti Road

Twain Harte Workshop – 8.23.16

No comments received at workshop.

Tuolumne Workshop – 8.25.16

No comments received at workshop.

Sonora Workshop – 8.30.16

- 6 public members present – 6 written comments
- Recommending studying the Western Bypass as an alternative to the Greenley Road Extension/Bypass.
- Complete Streets and ADA improvements along S49 in Downtown Sonora are a priority.
- Complete Streets Improvement along SR 49 from north of Pesce Way to SR 108.
- Stockton Road Complete Streets Improvements and Trail project is a priority.

Columbia Workshop – 8.31.16

- 1 public member present – 6 written comments – Priority Projects
- Equestrian Pathways along Parrotts Ferry Road
- Southbound right turn lane on Parrotts Ferry Road @ SR 49
- Airport Road/Springfield Road/Parrotts Ferry Road Improvements
- 2nd Entrance into Columbia College
- Columbia Bypass Project
- Preserve Railroad Right of ways

Technical Advisory Committee (TAC) & Citizens Advisory Committee (CAC) Meetings

- Draft RTP Presentation - 8.3.16 – No comments received at meeting
- Review and Comment on Draft RTP - 9.7.16 – No comments received at meeting

TCTC Meetings

- Draft RTP Presentation - 8.10.16 – No Comments
- Draft RTP Public Hearing - 9.14.16 – One public member comment, One TCTC Council Member *comment- Stated there should be more sidewalks and pedestrian access in Downtown Sonora.*
  Response: We have updated the three ADA projects in Jamestown, Sonora, and Groveland to include Complete Streets improvements.

Tuolumne County Board of Supervisor (BOS) Meetings

- Draft RTP Presentation - 9.15.16 – Transportation Committee Meeting
- Draft RTP Presentation - 9.20.16 – BOS Meeting

City of Sonora Council Meeting

- Draft RTP Presentation - 9.19.16

Draft RTP Written Comments – Comment Period ended on October 3rd

The TCTC received seven written comments received by mail or email. Caltrans submitted 95 comments, Jerry Fuccillo, Doreen Schmitt, Rebecca Stone, Bob Asquith, and Pat Atkins each submitted at least one comment each. And comments from City of Sonora were discussed and were included in the Final RTP. Comments were also received from Technical Advisory Committee (TAC & CAC) Meeting and TCTC Council Meeting. Some of comments included grammar and minor changes to the Draft RTP those comments have not been included in this discussion below.

Public Member Comments

Comment 1 - What is your criteria in deciding what projects to fund?

Response – As stated in the Regional Transportation Chapter, the regional goals are intended to guide the development of the transportation system. The goals reflect a general and regional approach to guide transportation decisions.

• **Regional Goal 1**: Enhance the quality of life of Tuolumne County residents by providing transportation access to jobs, housing, recreation, and community services.
• **Regional Goal 2**: Preserve the multimodal system by maintaining, managing, and efficiently utilizing the existing transportation system.
• **Regional Goal 3**: Improve the multimodal system by expanding and enhancing transportation choices, and connections to meet the future transportation needs.
• **Regional Goal 4**: Promote strategic and cost-effective transportation investments that create sustainable economic growth and improve transportation services and facilities.
• **Regional Goal 5**: Practice environmental stewardship by protecting our air quality, natural resources, historical and cultural assets.
• **Regional Goal 6:** Integrate land use and transportation decisions by prioritizing infrastructure investments within the Defined Community Boundaries that strikes a balance between development, available infrastructure, conserves natural resources, and provides for a high quality of life.
• **Regional Goal 7:** Consider transportation safety, and security in all transportation funding decisions.
• **Regional Goal 8:** Support a vibrant economy by enhancing the movement of goods and people to spur economic development, growth, and job creation.
• **Regional Goal 9:** Encourage and promote public involvement and social equity in all transportation decisions.
• **Regional Goal 10:** Continue the inter-organizational commitments of cooperative, mutually dependent action that is required to provide efficient multimodal transportation system.

The 2016 Regional Transportation Plan (RTP) uses the previously adopted 2008 RTP as a benchmark for updating the capital improvement project list. Most of the funded projects in the 2016 RTP have been listed in the 2008 RTP. The projects that have not been listed in the 2008 RTP have come from other TCTC, Tuolumne County, and City of Sonora planning documents. New projects have been included based upon new priorities using the Rural Sustainable Strategies, Level of Service (LOS) standards, safety criteria, active transportation goals, Complete Streets needs, operational needs, and other needs of the community.

Comment 2 - If there was an urgent road project I felt the County needed to address, how would I go about getting the County to consider it?

Response: Urgent, but non-emergency needs, can always be brought to attention of the Board of Supervisors during public comment period at regularly scheduled meetings.

Comment 3 - As a private citizen, what can I do to have a say in this process of deciding road work projects beyond attending this community workshop?

Engage with City of Sonora and Tuolumne County staff on roadway needs and give input on adoption of each agencies capital improvement program.

Comment 4 - Did not spot any trails entry in the DRTP for connecting trails at Lake Don Pedro with the Red Hill Area of Concern. They still be interested.

Response: We have added this project as Tier 3 non-motorized transportation project.

Comment 5 - I would love to be able to ride my bike from Tuolumne to the (Black Oak) Casino and the Westside trail!!

Response – We have included these non-motorized transportation projects as Tier 2 projects. If more funding becomes available in the future, the County could construct these projects.

Comment 6: I'd like to emphasize that in Groveland, we really need improved driving lanes, but more importantly we need both walking and biking paths. It is crazy to walk in town when so many out of town cars come through and lose their patience with the slow traffic. I've seen cars pass on the shoulder more than once not even double checking to see if a pedestrian was there!

Response: The 2016 RTP includes the Groveland Sidewalks Project which would construct new sidewalks in Downtown Groveland.

Doreen Comments

Comment 8 – TCT should consider purchasing smaller vehicles for the DAR service that can navigate the terrain.

Response – TCT has a van available for DAR service if the need arises for use in difficult to navigate locations. However, upon review more universally adopted 12-15 passenger buses provide greater flexibility in service.

Comment 9 – Present a clear picture of the Tuolumne Trip Program giving a concise description of how the program started, why the TRIP program was implemented, the clients who are benefiting from the TRIP program and the organizations involved in the planning stages and advisory capacity.
Response: The Trip Program description has been updated using language from the commenter.

Comment 10 – TCT works in collaboration with other likeminded community organizations. That should be stated in the plan in some form.
Response: TCT description about collaboration with other community organizations as been added into the RTP.

Comment 11 – In the interest of cost saving measure, the night service to Columbia and Groveland was discontinued by a lack of riders. There should be a clear set of criteria and data to support the decisions to start those routes up again.
Response: TCTC reviews the availability of new transit service each year pursuant to the criteria established in the Unmet Transit Needs criteria Resolution 515-15.

Caltrans Comments

Comment 1 - The RTP makes assumptions about funding projects through the SHOPP that are not consistent with current Caltrans planning for the SHOPP. Tier 1b and Tier 1c SHOPP projects are not currently planned for funding by Caltrans. Caltrans does not program projects more than four years in advance.
Response: We have noted in the 2016 RTP that all Tier 1b and Tier 1c Caltrans SHOPP projects are only candidate projects. TCTC has submitted its SHOPP Candidate Projects List in December 2015 for the 2016 SHOPP. The 2016 RTP SHOPP reflection that SHOPP Candidate list. We are hopeful that Caltrans will include TCTC's updated priorities in the 2017 SHOPP Ten Year Project List.

Comment 2 - Caltrans is implementing interim guidance for incorporating Complete Streets elements into SHOPP Projects and is anticipating a shift to an asset management approach to delivering the SHOPP projects.
Response: Caltrans is unsure of how shifting to an asset management approach and effect the incorporating Complete Streets elements into the project design and approval phase. From what we do know, in the future every SHOPP project will at least be given a review of potential Complete Streets improvements and if these improvements are feasible in the Project Initiation Document phase (PID). TCTC has incorporated this language into every SHOPP project.

Comment 3 - The discussion of how active transportation can be funded and the general lack of funding support for active transportation projects in the RTP indicates that the TCTC may continue to focus transportation investments on road improvements and maintenance projects for automobiles.
Response: The 2016 Final Draft RTP will include more detailed information on road projects that will incorporate Complete Streets improvements. The limited availability of Federal and State transportation funding makes funding Active Transportation projects very challenging.

Comment 4 – District 10 understands and shares TCTC's concerns about the lack of success of our rural partners in competing for Active Transportation Program (ATP) funding. We encourage the TCTC to advocate for changes in transportation funding that will benefit Tuolumne and other rural counties.
Response: We appreciate Caltrans District sympathy and concerns for the lack of social equity in the fair distribution of ATP funds.

Comment 5 – The TCTC is also advocating for a formula distribution of State and Cap and Trade Program funds for projects that reduce greenhouse gas emissions. However, financial Alterative C proposes contributing such funding to capacity increasing projects that would not normally be expected to reduce VMT or greenhouse gas emissions.
Response: Thank you for the comment.

Comment 6 - Tuolumne County would benefit from a compressive update of its bike and pedestrian plans as supported by RTP Policy 2.9.
Response: TCTC is looking into potentially funding a Complete Streets Plan and/or Active Transportation Plan as part of the 2017-2018 or 2018-2019 OWP.

Comment 7 - The RTP should identify other means of funding active transportation projects. The RTSP and LTF can fund active transportation capital improvement projects and the RPA, funds are available for active transportation. The lack of funding for dedicated active transportation projects in the RTP should be understood not only in terms of lack of success in competing for ATP Funding but also in terms of the priorities set for utilizing these other funding sources.
Response: The 2016 Final Draft RTP will include more detailed information on road projects that will incorporate Complete Streets improvements. The limited availability of Federal and State transportation funding makes funding Active Transportation projects very challenging.

Comment 8 - Instead of constructing capacity increasing and operational improvements to mitigate LOS impacts, proposed projects will need to consider constructing active transportation and transit improvement to address VMT impacts as part of SB 743 which will be take effect Statewide in three years.
Response: Thank you for the comment.

Comment 9 - A policy to implement a multimodal fee program would be consistent with the Rural Sustainable Strategies and Tuolumne Tomorrow goals to reduce VMT by funding multimodal capital improvement projects within the defined communities.
Response: We will include consider a multimodal fee program as part of the Traffic Impact Mitigation Fee Program Update. TCTC staff does not believe that adding a policy would be helpful.

Additional Caltrans Comments
Caltrans has included several pages of comments addressing various minor changes to the organization, grammar and labeling of the 2016 Draft RTP. TCTC staff has done its best to include these changes in the Final Draft RTP when appropriate.

Jerry Fuccillo Comments

Comment 1: A better way to address GHG reduction in this County and in rural areas is to give priority to those projects that reduce traffic congestion, provide alternate routing, and improve local road conditions.

Response: The 2016 RTP includes priority Tier 1 capital improvement projects for reducing traffic congestion, provide alternate routing, and improve local road conditions.

Comment 2: The Greenley Extension Project is still the most viable project which will reduce traffic congestion in downtown Sonora, although additional funding, in addition to current Traffic Impact Mitigation Fund, will need to be secured.

Response: The Tuolumne County Traffic Demand Model has demonstrated that Greenley Road Project will reduce traffic on Washington Street but not enough to reduce the LOS below an acceptable service. Transit improvements a more walkable community design, increased parking, and improved guidance signage can additionally contribute congestion relief.

Comment 3: In the current Draft 2016 RTP, it is included in Financial Alternative B as a Tier 1c project for 2040 construction. Under Financial Alternative C, which assumes additional funding from Cap and Trade funds and a local funding, the project is moved to Tier 1b project 2025 construction.

Response: We would like to clarify, comments in the 2016 Final Draft RTP. The Greenley Road Extension Project is listed as Tier 1c project as in financial constrained Expenditure Plan. This project is not included in Financial Alternative B but included as a Tier 2 Project in Alternative C and would be moved to a Tier 1b project.

Comment 4: Considering the current traffic congestion level on Washington St, I believe that there is enough urgency here to move the Greenley Road Extension project up to Tier 1a for project construction by 2020.

Response: Moving the North South Connector Phase I - Greenley Road Extension to a Tier 1a project is not feasible based upon the current projected funding levels. The RTP is a financially constrained plan and we cannot plan capital improvement projects unless there is enough projected funding available to construct the project. In Alternative C, this project is included as a Tier 2 project and would be constructed by 2025 if new funds become available in the future.

Comment 4: In addition to seeking Cap and Trade funding, and other road funding allocation changes, we should perhaps use the GHG funding programs for this project. Reducing traffic congestion may be a better way for Tuolumne County to address the mandates for Greenhouse Gas reduction, as well as benefit the residents and visitors.

Response: Currently there is no Cap and Trade funding available that is dedicated to road widening and bypass projects. The State with the passage of SB 743 is moving away from LOS, road widening, and building new roads. However, the TCTC would support changes in the Cap in Trade program that would allow locally generated Cap and Trade proceeds to be used on locally supported projects to reduce greenhouse gas emissions.

Comment 5: Caltrans should also have a share in this project, as it improves traffic conditions on a State Highway, and may also improve both vehicle and pedestrian safety.

Response: State funding for interregional improvement funds generally require projects to be on the State Highway. This project would be local lead project and would the County to include it their capital improvement program.

Comment 6: We should be starting the project development process of the Greenley Extension to have a set of plans on the shelf for funding under various future programs or changes in funding allocation. The longer this necessary project is delayed, the more expensive it will be, and downtown Sonora will continue to be inundated with through traffic congestion.

Response: Tuolumne County would be the lead agency for this project and would be responsible moving forward with the first portion of the project, the design and environmental review process. As of the writing, the project has not been included in the County adapted capital improvement Program.

This page is left intentional blank

Appendix K - Long-Range Financial Summary Table

	REVENUE SOURCES	Eligible Uses	FY 2006-10 Revenue	FY 2011-15 Revenue	Revenue Fiscal Years 2006-15	FY 2016-20 Estimate	FY 2021-25 Estimate	FY 2026-30 Estimate	FY 2031-35 Estimate	FY 2036-40 Estimate	Total Future Estimates (2016-40)
LOCAL	**LOCAL TOTAL**		**27,186,719**	**41,556,070**	**68,742,789**	**39,502,729**	**40,112,655**	**40,951,139**	**41,853,712**	**42,825,587**	***205,245,822***
	Sales Tax - Local Transportation Funds	*Allocation Priorities:*	*8,170,605*	*7,536,120*	*15,706,725*	*7,910,623*	*8,396,789*	*8,912,834*	*9,460,593*	*10,042,016*	***44,722,855***
	-- TCTC (TDA - Administration)	Administration	262,490	373,465	635,955	*320,296*	*339,980*	*360,875*	*383,053*	*406,595*	*1,810,799*
	-- City & County (TDA - Public Transit)	Public Transit	4,142,947	6,123,832	10,266,779	*5,170,818*	*5,488,603*	*5,825,918*	*6,183,964*	*6,564,014*	*29,233,317*
	-- City (TDA - Streets/Road Maintenance)	Road Maintenance/Projects	291,565	70,805	362,370	*182,506*	*193,722*	*205,628*	*218,265*	*231,679*	*1,031,801*
	-- County (TDA - Road Maintenance)	Streets/Road Maintenance	3,304,319	803,326	4,107,645	*2,068,797*	*2,195,940*	*2,330,897*	*2,474,148*	*2,626,202*	*11,695,984*
						2,251,303	*2,389,663*	*2,536,525*	*2,692,413*	*2,857,882*	*5,549,826*
	-- Bic/Ped Reserves (TDA - future projects)	Bicycle/Pedestrian Facilities	169,284	164,692	333,976	*168,206*	*178,543*	*189,516*	*201,163*	*213,526*	*950,953*
	Developer Fees (Traffic Impact Mitigation Fee Program)	TIMF -Total	**2,602,012**	**2,378,491**	**4,980,503**	**1,815,406**	**2,004,355**	**2,212,970**	**2,443,297**	**2,697,598**	**11,173,626**
	-- TIMF Regional - City collected	TIMF- City Fund	132,775	1,274,181	1,406,956	535,261	590,972	652,481	720,391	795,370	**3,294,475**
	-- TIMF Regional - County collected	TIMF - County -6144 Fund	2,469,237	1,104,310	3,573,547	1,280,145	1,413,383	1,560,489	1,722,906	1,902,228	**7,879,151**
	-- TIMF Regional, Current Program, Fund 6144 (unobligated balance)	**Unspent - 6144 - Including Loans**	NA	4,805,759	**3,159,955**						-
	-- TIMF Regional, pre-1999 Prog, Fund 6141 (unobligated balance)	TIMF - 6141	NA	19,191	19,191						-
	-- TIMF Sub-Area, pre-1999 Prog, Fund 6140 (unobligated balance)	TIMF - Sub Area - 6140	NA	1,922,785	1,922,785						-
	Gas Tax (Highway Users Tax)	Road Maintenance/Improvements	**10,451,170**	**17,046,750**	**27,497,920**	**16,432,067**	**16,317,500**	**16,317,500**	**16,317,500**	**16,317,500**	**81,702,067**
	-- Gas Tax (Subventions to Cities)		U	333,955	333,955	260,167	260,167	260,167	260,167	260,167	**1,300,835**
	-- Gas Tax (Subventions to Counties)		10,451,170	16,712,795	27,163,965	16,171,900	16,057,333	16,057,333	16,057,333	16,057,333	**80,401,232**
	Other Local Funds		**4,347,861**	**13,129,177**	**17,477,038**	**11,483,794**	**11,429,099**	**11,429,099**	**11,429,099**	**11,429,099**	**57,200,190**
	-- City (Sales and Use Tax Revenue)	Discretionary	U	7,841,285	7,841,285	7,671,428	7,671,428	7,671,428	7,671,428	7,671,428	**38,357,140**
	-- City General Funds (Motor Vehicle License Fees)	"	U	29,153	29,153	7,671	7,671	7,671	7,671	7,671	**38,355**
	-- County General Funds (Road Maintenance)	"	3,212,255	4,096,688	7,308,943	3,804,695	3,750,000	3,750,000	3,750,000	3,750,000	**18,804,695**
	-- Other Maint Funds (permits, storm damage, reimb, serv, fees, etc.)	"	1,135,606	1,162,051	2,297,657						-
	-- Tribal Funds	Projects on Tuolumne Road	792,715	400,000	1,192,715	**750,000**	**750,000**	**750,000**	**750,000**	**750,000**	**3,750,000**
	Transit		**822,356**	**1,065,532**	**1,887,888**	**1,110,839**	**1,214,912**	**1,328,736**	**1,453,223**	**1,589,374**	**6,697,084**
	-- Transit Fares	Transit Operations/Capital	822,356	1,065,532	1,887,888	1,110,839	1,214,912	1,328,736	1,453,223	1,589,374	**6,697,084**
	Other				-						-
REGIONAL	**REGIONAL TOTAL**		-	-	-	**25,870,520**	**26,580,369**	**27,333,844**	**28,133,626**	**28,982,560**	**136,900,919**
	Regional Sales Tax (if 1/2 cent sales tax is implemented)	**Financial Alternative C**			-	11,550,270	12,260,119	13,013,594	13,813,376	14,662,310	**65,299,669**
	Toll Roads (if $1 toll is charged for exiting County e/b SR108)				-	10,585,000	10,585,000	10,585,000	10,585,000	10,585,000	**52,925,000**
	Vehicle Registration Fee (if $10 Transportation Fee is added)				-	3,735,250	3,735,250	3,735,250	3,735,250	3,735,250	**18,676,250**
	TIMF Fee Increase	**Financial Alternative C**			-						**30,081,000**
STATE	**STATE TOTAL**		**79,574,724**	**97,243,733**	**176,818,457**	**60,678,555**	**60,385,566**	**63,238,459**	**61,843,811**	**65,113,636**	**311,260,029**
	State Highway Operations and Protection Program (SHOPP)	State Hwy System operations/protection	33,198,000	71,073,000	104,271,000	36,936,667	36,936,667	36,936,667	36,936,667	36,936,667	**184,683,335**
	State Transportation Improvement Program (STIP)		**41,479,000**	**20,093,000**	**61,572,000**	**15,460,357**	**15,601,637**	**17,698,237**	**15,980,314**	**18,295,130**	**83,035,677**
	-- Regional - Planning, Programming & Monitoring (PPM)	Planning, Programming, Monitoring	495,000	493,000	988,000	322,851	181,915	286,745	200,849	316,590	**1,308,950**
	-- Regional Improvement Program (RIP)	Regional Transportation Projects	9,984,000	5,070,000	15,054,000	3,174,173	3,456,389	5,448,159	3,816,132	6,015,207	**21,910,060**
	-- Interregional Transportation Improvement Program (ITIP)	**2016 RTP & Financial Alternative C**	31,000,000	-	31,000,000	11,963,333	11,963,333	11,963,333	11,963,333	11,963,333	**59,816,667**
	-- Proposition 1B - Corridor Mobility Improvement Account (CMIA)	East Sonora Bypass Stage II		14,530,000	14,530,000	-	-	-			-
	California Cap & Trade Funds	**Financial Alternative B & C**			-	11,500,000	18,000,000	18,000,000	18,000,000	18,000,000	**83,500,000**
	-- Proposition 1B - County	(minimum 5-year life)		1,256,481	1,256,481						-
	-- Proposition 1B - Transit Agency	Bus Stop Improvements		493,144	493,144	2,365,756	-				**2,365,756**
	-- Proposition 1B - Transit Agency	Transit Security Projects		190,774	190,774	94,603	-				**94,603**
	Regional Surface Transportation (RSTP) Exchange Program		**3,124,732**	**3,597,133**	**6,721,865**	**5,452,450**	**4,473,805**	**4,473,805**	**4,473,805**	**4,473,805**	**23,347,670**
	-- TCTC	Transportation Projects	1,586,862	2,059,263	3,646,125	1,957,290	1,957,290	1,957,290	1,957,290	1,957,290	**9,786,450**
						978,645					
	-- County	Projects, Maintenance	1,537,870	1,537,870	3,075,740	2,516,515	2,516,515	2,516,515	2,516,515	2,516,515	**12,582,575**
	State Transit Assistance Funds (STAF)	Public Transit	1,006,392	1,436,003	2,442,395	1,662,708	2,122,084	2,708,377	3,456,652	4,411,661	**14,361,482**
	Low Carbon Transit Operations Program			17,000	17,000	170,000	255,000	425,000			**850,000**
	State Match Funds - County	to match Federally-funded projects	500,000	500,000	1,000,000	500,000	500,000	500,000	500,000	500,000	**2,500,000**
	Caltrans Planning Grants		266,600	527,597	794,197	496,373	496,373	496,373	496,373	496,373	**2,481,865**
FEDERAL TRANSIT	**FEDERAL TRANSIT TOTAL**		**1,273,208**	**1,807,748**	**3,080,956**	**3,099,581**	**9,375,889**	**11,453,612**	**5,293,334**	**5,177,470**	**34,399,886**
	Federal Transit Formula										-
	Nonurbanized Area Formula Program (5311)	Transit Op/Capital, Bike facilties, Planning	1,156,214	1,495,326	2,651,540	1,721,798	2,197,499	2,804,627	3,579,494	4,568,442	14,871,860
	Elderly & Persons with Disabilities Formula Program (5310)	Transit Capital for elderly/disabled serv	116,994	202,422	319,416	211,134	454,466	501,049	552,406	609,028	2,328,083
	Other				-	1,166,649	6,723,924	8,147,936	1,161,434		**17,199,943**
	Subtotal		1,273,208	1,697,748	2,970,956	3,099,581	9,375,889	11,453,612	5,293,334	5,177,470	**34,399,886**
	Federal Transit Non-Formula										-
	New and Small Starts (Capital Investment Grants) (5309b)				-						-
	Bus and Bus Related Grants (5309c)				-						-
	Job Access and Reverse Commute Program (5316)	Improve mobility for low-income (rural)			-						-
	Subtotal		-	-	-	-	-	-	-	-	-
	National Park Service (Yosemite Area Regional Transit Service, YARTS)	marketing for Yosemite Transit Service		110,000	110,000						-
FEDERAL HIGHWAY	**FEDERAL HIGHWAY TOTAL**		**9,206,643**	**12,763,238**	**21,969,881**	**10,014,731**	**10,119,389**	**10,119,389**	**10,119,389**	**10,119,389**	**50,492,287**
	Federal Highway Non-Discretionary										-
	Congestion Mitigation and Air Quality (CMAQ)	**Financial Alternative B**	1,550,795	2,428,030	**3,978,825**	972,690	2,381,725	2,381,725	2,381,725	2,381,725	**10,499,590**
	Highway Safety Improvement Program (HSIP), (formerly HES)	Capital Safety Projects	48,976	1,235,406	1,284,382	642,191	642,191	642,191	642,191	642,191	**3,210,955**
	Highway Bridge Program (HBP)	Capital Bridge Projects	2,196,475	5,157,470	7,353,945	3,676,973	3,676,973	3,676,973	3,676,973	3,676,973	**18,384,865**
	Safe Routes to School (replaced with Active Transportation Program)	sidewalk/walkway improv to schools		738,729	738,729						-
	Rail/Highway Grade Crossing Protection (USC Section 130)				-						-
	Federal Lands Highway				-						-
	Forest Reserve	Road Improvements	5,288,305	3,058,293	8,346,598	2,422,877	2,368,500	2,368,500	2,368,500	2,368,500	**11,896,877**
	Subtotal		9,084,551	12,617,928	**21,702,479**	7,714,731	9,069,389	9,069,389	9,069,389	9,069,389	**43,992,287**
	Federal Highway Discretionary Programs										-
	California Aid to Airports (used for admin)				-	50,000	50,000	50,000	50,000	50,000	**250,000**
	FAA AIP Fund					750,000					
	Corridor Infrastructure Improvement Program (SAFETEA-LU Sec. 1302)				-						-
	Emergency Relief Program		122,092	145,310	267,402						-
	National Scenic Byways Program				-						-
	Projects of National/Regional Significance (SAFETEA-LU Sec. 1301)				-						-
	Public Lands Highway Discretionary				-						-
	Recreational Trails / Active Transportation Program	**Financial Alternative B**			-	1,500,000	1,000,000	1,000,000	1,000,000	1,000,000	**5,500,000**
	Forest Highways				-						-
	Transportation and Community and System Preservation Program				-						-
	Transportation Improvement Projects (SAFETEA-LU Sec. 1934)				-						-
	Other				-						-
	Subtotal		122,092	145,310	267,402	2,300,000	1,050,000	1,050,000	1,050,000	1,050,000	**6,500,000**
	FEDERAL TOTAL		**10,479,851**	**14,570,986**	**25,050,837**	**13,114,312**	**19,495,278**	**21,573,001**	**15,412,723**	**15,296,859**	**84,892,173**
INNOVATIVE FINANCE	TIFIA (Transportation Infrastructure Finance and Innovation Act)				-						-
	State Infrastructure Bank				-						-
	Section 129 Loans				-						-
	Rail Rehab & Improvement Financing				-						-
	Private Activity Bonds				-						-
	Private Concession Fees				-						-
	Private Donations				-						-
	Program Income (from a federal project)				-						-
	Other				-						-
	Innovative Financing Total		-	-	-	-	-	-	-	-	-
REVENUE TOTAL			**117,241,294**	**153,370,789**	**270,612,083**	**139,166,116**	**146,573,868**	**153,096,443**	**147,243,872**	**152,218,642**	**738,298,943**
	Capital Improvements	*Totals =*	*46,478,498*	*28,537,137*	*71,036,810*	*57,188,313*	*66,278,362*	*69,232,222*	*68,630,304*	*71,932,614*	*333,261,817*
		Percent of Total =	*40%*	*19%*	*26%*	*41%*	*45%*	*45%*	*47%*	*47%*	***45%***
	Road Maintenance	*Totals =*	*26,930,044*	*29,980,356*	*56,910,400*	*30,363,392*	*29,299,468*	*29,446,330*	*29,602,218*	*29,767,687*	***148,479,095***
		Percent of Total =	*23%*	*20%*	*21%*	*22%*	*20%*	*19%*	*20%*	*20%*	***20%***
	Bridge Improvements	*Totals =*	*2,196,475*	*5,157,470*	*7,353,945*	*3,676,973*	*3,676,973*	*3,676,973*	*3,676,973*	*3,676,973*	***18,384,865***
		Percent of Total =	*1.9%*	*3.4%*	*2.7%*	*2.6%*	*2.5%*	*2.4%*	*2.5%*	*2.4%*	***2.5%***
	Public Transit	*Totals =*	*7,244,903*	*11,134,033*	*18,378,936*	*13,674,305*	*18,456,488*	*21,741,643*	*16,387,173*	*17,742,519*	***88,002,128***
		Percent of Total =	*6%*	*7%*	*7%*	*10%*	*13%*	*14%*	*11%*	*12%*	***12%***
	Non-Motorized Facilities & Trails	*Totals =*	*169,284*	*164,692*	*333,976*	*1,668,206*	*1,178,543*	*1,189,516*	*1,201,163*	*1,213,526*	***6,450,953***
		Percent of Total =	*0.1%*	*0.1%*	*0.1%*	*1.2%*	*0.8%*	*0.8%*	*0.8%*	*0.8%*	***0.9%***
	Funding for Rail Improvements	*Totals =*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	***0***
		Percent of Total =	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	***0%***

KEY: **U** = Data is unavailable.
NA = Not applicable (not a projected revenue source at the development time of RTP)

Tuolumne County
Administration Center
2 South Green Street
Sonora, California 95370

Alicia L. Jamar, *Chief Deputy*
Clerk of the Board of Supervisors

Telephone: (209) 533-5521
Facsimile: (209) 533-6549
www.tuolumnecounty.ca.gov

BOARD OF SUPERVISORS
COUNTY OF TUOLUMNE

Sherri Brennan, *First District*
John L. Gray, *Fourth District*

Randy Hanvelt, *Second District*

Evan Royce, *Third District*
Karl Rodefer, *Fifth District*

October 7, 2014

Matthew Rodriquez
Secretary for Environmental Protection
CalEPA
P.O. Box 2815
Sacramento, CA 95812-2815

Michael Cohen, Director
Department of Finance
State Capitol, Room 1145
Sacramento, CA 95814

Richard Corey
Executive Officer
Air Resources Board
P.O. Box 2815
Sacramento, CA 95812-2815

Re: Establishment of a Rural Sustainability Fund

Dear Gentlemen:

The Tuolumne County Board of Supervisors (Board) is sending this letter to voice our concerns with the current distribution of Cap and Trade Auction Proceeds and to request the State establish a fund dedicated to rural sustainability projects. Our concerns will be amplified with the introduction of transportation fuels into the State's Cap and Trade Program. Our Board believes that when fuels are added to the Cap and Trade Program, costs will be passed on to Tuolumne County consumers and not internalized by fuel providers. As gasoline, diesel, and propane are then sold at higher prices in Tuolumne County and other rural areas, this revenue must be dedicated to rural counties to pursue projects that will result in black carbon and greenhouse gas reductions. The Board believes that without a mechanism to provide funding from the Greenhouse Gas Reduction Fund (GGRF) back to rural counties of California, these areas will never receive economic, employment, or sustainability benefits that will offset the financial burden on our residents from adding fuels into the Cap and Trade Program. A fund dedicated to rural sustainability projects created from revenues collected as part of the introduction of fuels into the State's Cap and Trade program needs to be established to ensure allocation of money to rural counties.

According to the Legislative Analyst Office's letter of August 4, 2014 to Assemblymember Henry Perea, the introduction of fuels into the Cap and Trade Program will likely result in gasoline price increases of $.13 to $.20 per gallon by 2020, and the price increase could exceed $.50 per gallon. In Tuolumne County approximately 18 million gallons of gasoline were sold to consumers in 2013. A $.13 per gallon increase would result in over $2.3 million in annual additional costs for those consumers. At $.20 to $.50 per gallon increases, the additional annual costs would reach $3.6 and $9.0 million respectively. Unfortunately, with the current distribution of Cap and Trade Auction Proceeds, Tuolumne County is unlikely to see any meaningful benefits from the financial burden placed on its consumers.

The current distribution of Cap and Trade Auction Proceeds does little to help rural areas. Many of the current appropriations are designed to be applicable specifically for urbanized areas of California subject to sustainable community strategies under SB375, or are distributed based on variations of population weighted criteria in which Tuolumne County could never be competitive. In addition, the use of CalEnviroScreen to allocate funds from the GGRF to disadvantaged communities disqualifies many rural communities, including Tuolumne County, due to having no areas so designated.

California could assist rural counties, such as Tuolumne, by automatically allocating funds collected from fuels in the Cap and Trade Program back to rural counties similar to current processes on gas tax collections, registered vehicles, and the amount of maintained road miles. Subject to spending guidelines, approved policies and procedures, or locally approved Climate Action Plans, these funds could be used locally to create jobs and measurably reduce greenhouse gases and black carbon.

There is no lack of projects in rural areas that would address black carbon and greenhouse gas emissions. These projects promote alternative energy generation, increase residential and commercial energy efficiency, support alternatives to current transportation patterns, promote good forest management, and assist local agriculture in water and energy efficiency projects. In rural counties wildfires and open burning are two major sources that contribute to poor air quality. For Tuolumne County, funding for biomass energy projects and forest management are high priorities. Projects that promote biomass energy generation and good forest management to prevent future catastrophic wildfires could significantly reduce greenhouse gases and black carbon. The 2013 Tuolumne County Rim Fire burned 257,000 acres, 40% of which was at high intensity. Estimates are that the Rim Fire produced the same amount of Greenhouse Gas emissions that 2.3 Million vehicles produced in a year.

Furthermore, in the aftermath of the Rim Fire of 2013, thousands of slash piles will remain as a result of timber salvage operations. It is estimated that a total of 2.2 million bone dry tons of biomass will be generated. Compared to open burning, diverting the material to Biomass Energy Generating facilities yields a 98% reduction in particulate matter, 54% reduction in Nitrogen Oxides, 97% reduction in Carbon Monoxide, 99% reduction in Volatile Organic Compounds, and a 17% reduction in Greenhouse Gases.

We ask that you consider the long term economic impacts on rural areas due to the inclusion of fuels into the Cap and Trade Program and the benefits that could be achieved through a funding program targeting rural areas like we have suggested. Thank you for your consideration.

Sincerely,

Evan Royce

Evan Royce
Chairman

cc. Edmund G. Brown, Jr., Governor
Assemblyman Frank Bigelow
Assemblywoman Kristin Olsen
Senator Tom Berryhill
Rural County Representatives of California (RCRC)
California State Association of Counties (CSAC)
Chamber of Commerce

I hereby certify that according to the provisions of Government Code Section 25103, delivery of this document has been made.

PATRICIA L. [illegible]
Clerk of the Board

By: [signature]

AGENDA REQUEST AND SUMMARY

For: October 7, 2014 (Date of Board Meeting)

_____ (Time, if appointment scheduled with the Clerk)

Consent Calendar: Yes ____ No _X___
Public Hearing: Yes ____ No _X___

1. WORDING FOR AGENDA (Including precise wording for required action, authorizing, etc. as it will appear on the Board Agenda, generally not to exceed 20 words).

   Approving Correspondence on the Distribution of Cap and Trade Auction Proceeds to Rural Counties.

2. FINANCING – ESTIMATED COUNTY COST: (Enter "none" if no cost) _none_

3. FUNDS BUDGETED: Yes ___ Acct. # or Fund _____ No ___
   Requested from _____ Fund

4. REVIEW WITH:
   COUNTY ADMINISTRATIVE OFFICER – YES ___ NO ___
   COUNTY COUNSEL – YES ___ NO ___
   ADMINISTRATIVE ANALYST – YES _X___ NO ___
   OTHER DEPARTMENTS (LIST) _____

5. FOLLOWING OUTSIDE AGENCIES OR INDIVIDUALS TO BE NOTIFIED OF BOARD ACTION: (**Minute Excerpt** – Include complete mailing address and indicate number of copies to whom)

   A. _____
   B. _____
   C. _____
   D. _____

6. NUMBER OF COPIES REQUIRED BY REQUESTING DEPARTMENT:

   1 Copy Minute Excerpt

7. COMMENTS (i.e. has this item come before the Board previously and when?) _____

Requesting Department: Air Pollution Control
Approved by: Vicki Helmar
(Department Head Signature

Submitted by: Vicki Helmar
Date: 9/24/2014

Special Instructions:

Original Agenda Request and 1 copy of Backup stapled for the Clerk
Agenda Request and Backup: 7 copies paper clipped and three hole punched
Backup 1 copies stapled

Revised: 8\03

County of Tuolumne

Vicki Helmar

Agricultural Commissioner • Weights & Measures
Animal Control • Air Pollution Control

Agricultural Commissioner
Director of Weights & Measures
Director of Animal Control
Air Pollution Control Officer

Agricultural Commissioner
Weights & Measures
Air Pollution Control
Located at:
22365 S Airport Rd.
Sonora, CA 95370
Phone: (209) 533-5691
Fax: (209) 533-5520
Email:
AgCommissioner@tuolumnecounty.ca.gov

Animal Control
Located at:
10040 Victoria Place
Jamestown, CA 95327
Phone: (209) 984-1338

All Mailing:
2 S. Green St.
Sonora, CA 95370

September 24, 2014

MEMORANDUM

TO: Honorable Tuolumne County Board of Supervisors

FROM: Vicki Helmar, Agricultural Commissioner/Air Pollution Control Officer

SUBJECT: Approving Correspondence on the Distribution of Cap and Trade Auction Proceeds to Rural Counties

Background

In January 2015, transportation fuels will be added to the State's AB 32 Cap and Trade Program. Undoubtedly, when the fuels are added to the Program, costs will be passed on to Tuolumne County consumers and not internalized by fuel providers. As a result, the Legislative Analyst Office estimates that the price of gasoline could increase $.13 to $.50 per gallon by 2020. In Tuolumne County approximately 18 million gallons of gasoline were sold to consumers in 2013. At these volumes, $2.3 to $9.0 million in annual additional costs will be incurred by our consumers.

Without a mechanism to provide funding from the Greenhouse Gas Reduction Fund (GGRF) back to rural counties of California, these areas will never receive economic, employment, or sustainability benefits that will offset the financial burden on our residents from adding fuels into the Cap and Trade Program. In essence, the current distribution of Cap and Trade Auction Proceeds does little to help rural areas. Many of the current appropriations are designed to be applicable specifically for urbanized areas of California subject to sustainable community strategies under SB375, or are distributed based on variations of population weighted criteria in which Tuolumne County could never be competitive. In addition, the use of CalEnviroScreen to allocate funds from the GGRF to disadvantaged communities disqualifies many rural communities, including Tuolumne County, due to having no areas so designated.

A fund dedicated to rural sustainability projects created from revenues collected as part of the introduction of fuels into the State's Cap and Trade program needs to be established to ensure allocation of money to rural counties to pursue projects that will result in black carbon and greenhouse reductions. In rural counties wildfires and open burning are two major sources of poor air quality. For Tuolumne County, funding for biomass energy and forest management projects are high priorities. Funding for projects that enable the diversion of residual biomass instead of piling and burning and that decrease the risk of future catastrophic wildfire will significantly reduce black carbon and greenhouse gas emissions.

The attached letter provides comments regarding the need to provide funding to rural counties through the Greenhouse Gas Reduction Fund and the possible black carbon and greenhouse gas emissions reduction projects that rural counties would pursue.

Recommendation
It is recommended that your Board approve the correspondence on the Distribution of Cap and Trade Auction Proceeds to Rural Counties.

October 7, 2014

Matthew Rodriquez
Secretary for Environmental Protection
CalEPA
P.O. Box 2815
Sacramento, CA 95812-2815

Michael Cohen, Director
Department of Finance
State Capitol, Room 1145
Sacramento, CA 95814

Richard Corey
Executive Officer
Air Resources Board
P.O. Box 2815
Sacramento, CA 95812-2815

The Tuolumne County Board of Supervisors (Board) is sending this letter to voice our concerns with the current distribution of Cap and Trade Auction Proceeds. Our concerns will be amplified with the introduction of transportation fuels into the State's Cap and Trade Program. Our Board believes that when fuels are added to the Cap and Trade Program, costs will be passed on to Tuolumne County consumers and not internalized by fuel providers. As gasoline, diesel, and propane are then sold at higher prices in Tuolumne County and other rural areas, this revenue must be dedicated to rural counties to pursue projects that will result in black carbon and greenhouse gas reductions. The Board believes that without a mechanism to provide funding from the Greenhouse Gas Reduction Fund (GGRF) back to rural counties of California, these areas will never receive economic, employment, or sustainability benefits that will offset the financial burden on our residents from adding fuels into the Cap and Trade Program. A fund dedicated to rural sustainability projects created from revenues collected as part of the introduction of fuels into the State's Cap and Trade program needs to be established to ensure allocation of money to rural counties.

According to the Legislative Analyst Office's letter of August 4, 2014 to Assemblymember Henry Perea, the introduction of fuels into the Cap and Trade Program will likely result in gasoline price increases of $.13 to $.20 per gallon by 2020, and the price increase could exceed $.50 per gallon. In Tuolumne County approximately 18 million gallons of gasoline were sold to consumers in 2013. A $.13 per gallon increase would result in over $2.3 million in annual additional costs for those consumers. At $.20 to $.50 per gallon increases, the additional annual costs would reach $3.6 and $9.0 million respectively. Unfortunately, with the current distribution of Cap and Trade Auction Proceeds, Tuolumne County is unlikely to see any meaningful benefits from the financial burden placed on its consumers.

The current distribution of Cap and Trade Auction Proceeds does little to help rural areas. Many of the current appropriations are designed to be applicable specifically for urbanized areas of California subject to sustainable community strategies under SB375, or are distributed based on variations of population weighted criteria in which Tuolumne County could never be competitive. In addition, the use of CalEnviroScreen to allocate funds from the GGRF to disadvantaged communities disqualifies many rural communities, including Tuolumne County, due to having no areas so designated.

California could assist rural counties, such as Tuolumne, by automatically allocating funds collected from fuels in the Cap and Trade Program back to rural counties similar to current processes on gas tax collections, registered vehicles, and the amount of maintained road miles. Subject to spending guidelines, approved policies and procedures, or locally approved Climate Action Plans, these funds could be used locally to create jobs and measurably reduce greenhouse gases and black carbon.

There is no lack of projects in rural areas that would address black carbon and greenhouse gas emissions. These projects promote alternative energy generation, increase residential and commercial energy efficiency, support alternatives to current transportation patterns, promote good forest management, and assist local agriculture in water and energy efficiency projects. In rural counties wildfires and open burning are two major sources that contribute to poor air quality. For Tuolumne County, funding for biomass energy projects and forest management are high priorities. Projects that promote biomass energy generation and good forest management to prevent future catastrophic wildfires could significantly reduce greenhouse gases and black carbon. In the aftermath of the Rim Fire of 2013, thousands of slash piles will remain as a result of timber salvage operations. It is estimated that a total of 2.2 million bone dry tons of biomass will be generated. Compared to open burning, diverting the material to Biomass Energy Generating facilities yields a 98% reduction in particulate matter, 54% reduction in Nitrogen Oxides, 97% reduction in Carbon Monoxide, 99% reduction in Volatile Organic Compounds, and a 17% reduction in Greenhouse Gases.

We ask that you consider the long term economic impacts on rural areas due to the inclusion of fuels into the Cap and Trade Program and the benefits that could be achieved through a funding program targeting rural areas like we have suggested. Thank you for your consideration.

Sincerely,

Evan Royce
Chairman, Tuolumne County Board of Supervisors

cc. Assemblyman Frank Bigelow
Senator Tom Berryhill
Regional Council of Rural Counties (RCRC)
California State Association of Counties (CSAC)

This page is left intentional blank