# FINAL DRAFT
# 2010 Regional Transportation Plan For Shasta County


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This document is being disseminated and funded through grants from the Federal Highway Administration, Federal Transit Administration, U.S. Department of Transportation, and Transportation Development Act funds in the interest of information exchange. The views and opinions of the agency expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation. The agencies represented in this document assume no liability for its contents or use thereof.

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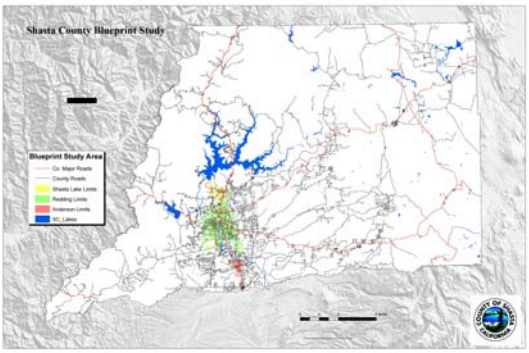
# GUIDE TO ACRONYMS

| ACRONYM | MEANING |
|---|---|
| AB | Assembly Bill |
| AIP | Airport Improvement Program |
| ARB | California Air Resources Board |
| ADA | Americans with Disabilities Act |
| ADT | Average Daily Traffic |
| AQMD | Shasta County Air Quality Management District |
| BTA | Bicycle Transportation Account |
| CAAP | California Aid to Airports Program |
| CALCOG | California Association of Councils of Governments |
| Caltrans | California Department of Transportation |
| CCAA | California Clean Air Act |
| CCR | California Code of Regulations |
| CEQA | California Environmental Quality Act |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| COATS | California-Oregon Advanced Transportation System |
| CTC | California Transportation Commission |
| CTSA | Consolidated Transportation Services Agency |
| DOT | US Department of Transportation |
| EIR | Environmental Impact Report |
| EPA | Environmental Protection Agency |
| FAA | Federal Aviation Administration |
| FFY | Federal Fiscal Year |
| FHWA | Federal Highway Administration |
| FTA | Federal Transit Administration |
| FY | Fiscal Year |
| FTIP | Federal Transportation Improvement Program |
| GIS | Geographic Information Systems |
| GPS | Global Positioning System |
| HBP | Highway Bridge Program |
| HCP | Habitat Conservation Plan |
| HSP | Highway Safety Program |
| IIP | Interregional Improvement Program |
| IRR | Indian Reservation Roads |
| ITIP | Interregional Transportation Improvement Program |
| ITS | Intelligent Transportation Systems |
| LOS | Level of Service |
| LTF | Local Transportation Fund |
| MPO | Metropolitan Planning Organization |
| MTP | Metropolitan Transportation Plan |

| | |
|---|---|
| NEPA | National Environmental Policy Act |
| NHS | National Highway System |
| OWP | Overall Work Program |
| PA & ED | Project Approval and Environmental Document |
| PDT | Project Development Team |
| PS&E | Plans, Specifications and Estimate |
| PSR | Project Study Report |
| RABA | Redding Area Bus Authority |
| RFP | Request for Proposal |
| RTP | Regional Transportation Plan |
| RIP | Regional Improvement Program |
| RTIP | Regional Transportation Improvement Program |
| RTPA | Shasta County Regional Transportation Planning Agency |
| SAFETEA-LU | Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users |
| SB | Senate Bill |
| SCR | South Central Region (of Shasta County) |
| SHA | State Highway Account |
| SHOPP | State Highway Operations and Protection Program |
| SIP | State Implementation Plan (Air Quality) |
| SSTAC | Social Services Transportation Advisory Council |
| STA | State Transit Assistance Fund |
| STIP | State Transportation Improvement Program |
| STP | Surface Transportation Program |
| TAC | Technical Advisory Committee |
| TDA | Transportation Development Act |
| VMT | Vehicle Miles Traveled |
| WE | Work Element |
| YTD | Year-to-date |




This Regional Transportation Plan (RTP) has been prepared in compliance with state (California Government Code Section 65080 et seq.) and federal (U.S. Code Title 23, Section 134 et seq.) regulations governing regional and metropolitan transportation planning. It has a 20-year planning horizon. Updated every five years, the plan is intended to provide clear, concise policy guidance to local and state decision makers. It contains a discussion of regional transportation issues, problems, and possible solutions; goals, objectives, and policies for each transportation mode and area of concern; actions to be taken to implement plan goals, objectives, and policies; and funding estimated to be available.

The overall goal of this RTP is to provide a safe, balanced, coordinated, and cost-effective transportation system that conserves energy and preserves air quality, serves the needs of the local metropolitan area and region, and is consistent with, and helps implement, local agencies' general plans.

Consistent revenue streams are needed for infrastructure improvements

A checklist approach has been used to ensure all planning requirements have been addressed. The checklist in Appendix C demonstrates compliance with all regulations. The checklist can be used as a roadmap to the RTP response for each component of the plan.

Throughout the RTP, tables are provided to inform readers of specific projects identified by agencies as needed to enhance and maintain the transportation network.

## Summary of Issues and Needs

The transportation system in Shasta County, while under some stress, still functions quite well. The area in and around Redding experiences congestion at predictable locations around major commute times and at lunchtime. However, given the pattern of development and growth, these periods of congestion are predicted to increase in intensity and duration. Clearly, a plan to improve the infrastructure with consistent revenue streams is needed, in combination with travel demand management.

The future needs of the region include new roads, lanes, and signals; bridge rehabilitation and replacement; and funds to maintain the existing road network. Other needs examined include public transit and transit services specifically oriented toward senior citizens.

Future needs include specialized transit oriented towards the needs of senior citizens

Due to state and federal budget deficits, it is unlikely that local agencies and Caltrans will be able to keep up with the demand for increased transportation facilities in Shasta County based on traditional funding sources. RTPA staff has worked with local partners and Caltrans to identify various road maintenance costs and facilities needs. Costs identified in the base year were escalated by 2.5 percent per year for future years.

The following table provides a summary of regional capacity increasing transportation needs (not including operations, safety, or non-motorized projects). It shows a need for projects totaling approximately $1.3 billion through 2030. Total resources available during this period are projected to be approximately $340 million. This results in unfunded needs of about $1 billion. Clearly, unless substantial additional funding is identified, transportation needs will far exceed available funding.

**TABLE 1-1**
**Summary of Regional Capacity Increasing Transportation Needs by Agency**

| NUMBER OF PROJECTS | JURISDICTION | TOTAL ESTIMATED COST OF PROJECTS |
|---|---|---|
| 29 | Anderson | $ 70,329,244 |
| 107 | Redding | $ 425,849,089 |
| 10 | Shasta Lake | $ 44,250,000 |
| 52 | Shasta County | $ 131,414,600 |
| 11 | Caltrans | $ 674,268,000 |
| **209** | **Total** | **$1,346,110,932** |

The following is a brief summary of the content of the RTP:

Chapter 2, the **Introduction**, provides a brief history of transportation planning in Shasta County, discussion of the legal requirements for the RTP, the purpose of the RTP, participants, the regional transportation planning process, transportation improvement programs, and regional performance measures. It also provides definitions for terms used later in the RTP (including goals, objectives, policies, short-range, and long-range).

Chapter 3, **The Region**, discusses how Shasta County is at the geographic center and transportation crossroads of northern California. It includes demographic information and travel characteristics. The population of Shasta County has grown 12 percent since 2000, with a 2009 estimated population of over 183,000 people. Eighty-five percent live in the south central region (SCR) of the county. According to the 2000 Census, 79 percent of commuters travel alone. Economic information is also provided. The population is projected to grow to 260,000 by 2030, a 42 percent increase over 2009.

**Public transportation** is discussed in Chapter 4. The Redding Area Bus Authority (RABA) is the primary public transportation provider in Shasta County, providing fixed-route and demand-response services in the SCR. RABA

also provides an express route service to Burney. The Shasta Senior Nutrition Programs is the primary transportation provider for older-adults. A variety of entities provide intercity bus service to Redding. The RTPA evaluates transit demand and provides transit planning for the region. This chapter also discusses transit funding sources. The goal is to prioritize transportation services with an emphasis on the transportation needs of the transit-dependent.

**Streets and highways** are discussed in Chapter 5. This chapter discusses background on road use, condition, and level of service in Shasta County. It also discusses bridge rehabilitation needs, new roads, transportation system management, intelligent transportation system techniques, transportation programs, and special studies. The chapter contains lists of several types of projects that will be needed within the 20-year planning horizon, including interchange improvements, transportation enhancement, Indian reservation roads, highway safety and operations, bridge replacements, redevelopment projects, capacity projects, safety projects, and new roads. The goal is to maintain a safe and efficient road system within the limits of funding constraints.

Chapter 6 discusses **goods movement**. Trucks move most of the freight in Shasta County, although airfreight and rail are available. The goal is to maintain an efficient goods movement industry with the least impact on the transportation system.

**Aviation** is discussed in Chapter 7. This chapter describes the airports in the county. The Redding Municipal Airport is the largest civilian airport in California, north of Sacramento. The City of Redding also operates Benton Airfield in west Redding. Shasta County operates one airport in Fall River Mills. The goal is to maintain efficient, accessible air service in a safe and convenient manner.

Chapter 8 discusses **rail** transportation. Rail service is limited to a north-south rail line through the county that generally parallels the Sacramento River. Amtrak provides limited passenger rail service, but also operates state-supported feeder busses to connect to rail services in Sacramento and Stockton. The goal of the RTP is to make rail service convenient to local citizens when economically feasible.

**Non-motorized transportation** is discussed in Chapter 9. The goal of the RTP is to create a transportation environment that encourages walking and bicycling. This chapter contains lists of existing and proposed trails and bikeways.

Chapter 10 discussed **land use**. There is a direct link between land use and transportation. Land development can affect existing transportation facilities as well as create the need for new facilities. The goal of the RTP is to support the land use plans of the cities and county, and focus transportation investments along major corridors to encourage infill development within the urbanized area.

**Air quality** is discussed in Chapter 11. Shasta County currently exceeds state standards for ozone and small particulate matter. The county could exceed the federal standard for ozone in the future. In addition, California has taken a series of actions to reduce greenhouse gas emissions to reduce climate change. In accordance with SB 375, a sustainable communities strategy will be prepared for the 2014 update of the RTP. The goal of the RTP is to reduce harmful air emissions and meet all state and federal health standards.

Chapter 12 discusses **environmental resources**. Transportation projects can affect sensitive environmental resources. All projects are subject to state and/or federal environmental review requirements. Resource agencies are consulted and permits incorporate measures to protect environmental resources. An environmental impact report as been prepared for this updated RTP under separate cover. The goal is to minimize the negative environmental effects of transportation projects.

**Financial** information is discussed in Chapter 13. This chapter identifies current and anticipated funding sources and revenues available to fund transportation projects and maintenance expenses in the region. Anticipated revenues are projected to fall far short of funding transportation needs. The end of the chapter contains lists of projects that can reasonably be expected to be funded, and projects that are needed, but not funded, within the 20-year planning horizon. The goal is to provide the best multimodal transportation system possible with available funds.

Chapter 14 discusses four **alternatives** to the proposed RTP: No action, emphasize roads and highways, emphasize public transit, or emphasize multimodal improvements. "Emphasize multimodal improvements" is identified as the preferred alternative. In addition, three funding scenarios are considered. "Funding at present level" is recommended due to the current budget crisis, and lack of other available sources of funds.

## History

The 1980 Census pushed Shasta County over a significant threshold. The population of the metropolitan area passed 50,000, which established the Redding area as an "urbanized area," qualifying Shasta County for specialized federal assistance. As a condition of this assistance, Shasta County was required to carry out more complex and comprehensive transportation planning. This planning is accomplished by the Shasta County Regional Transportation Planning Agency (RTPA). The RTPA is the federally-designated metropolitan planning organization (MPO) and state-designated regional transportation planning agency for Shasta County.

A more tangible change for Shasta County is that the urban area is no longer a small rural town, but a growing metropolitan area containing three incorporated cities: Redding, Anderson, and Shasta Lake. With this change has come both the problems and the opportunities of a growing area. As the population increases, the complexities and problems of transportation also increase, as does the need for more comprehensive transportation planning.

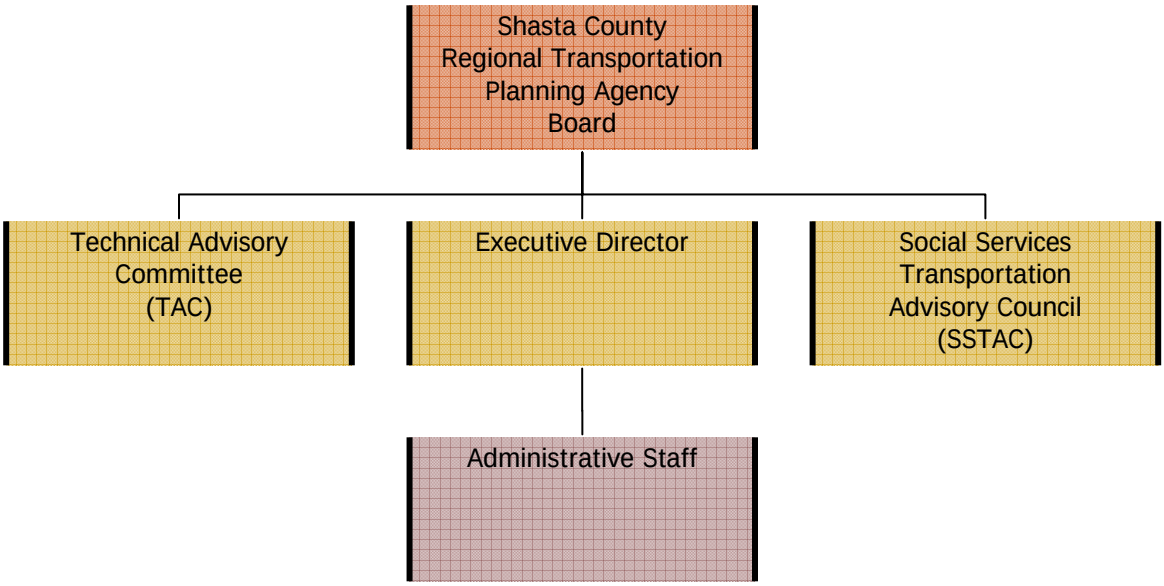
Transportation planning was once simple. It meant more money for more roads, especially freeways. Building roads was also simpler. Land was more plentiful, funding was better, there were fewer environmental constraints, and people clearly wanted more and better roads for their cars.

Today, the situation and the regulatory climate are much more complex. There is a crisis in transportation, but the only consensus on solutions may be that there is no easy solution. We cannot build our way out. There are not enough transportation funds, right-of-way is not available in urban areas, and public opposition often arises. Yet the mobility needs of a growing population need to be met.

Making better use of our existing transportation system will require overcoming significant obstacles. Local governments and rural counties are hard pressed to maintain the roads they have. Ridesharing is an important concept, but two-income families, shifting commute patterns, and the economic need for personal mobility limit its ultimate effectiveness. Public transit is an important alternative mode choice, but funding is limited and based on ridership. Deeply ingrained personal travel habits continue to be an obstacle.

The transportation issue itself is now interlinked with many complex issues. Air quality and transportation go hand in hand. Accommodating growth, land use, environmental concerns, and public safety directly relate to transportation. The state spending limit, budgeting process, and the economics of transportation tie the issue to a myriad of often conflicting or competing interests.

## ORGANIZATION CHART
## SHASTA COUNTY REGIONAL TRANSPORTATION PLANNING AGENCY




**RTPA BOARD**
Shasta County Supervisors (3)
Anderson City Council (1)
Redding City Council (1)
Shasta Lake City Council (1)
Redding Area Bus Authority (1)

**STAFF**
Executive Director (1)
Senior Planner (4)
Accountant Auditor III (1)
Administrative Secretary II (1)

**Technical Advisory Committee**
Air Quality Management District
Caltrans
Consolidated Transportation Services Agency (CTSA)
City of Anderson Staff
City of Redding Staff
City of Shasta Lake Staff
County of Shasta Staff
Redding Area Bus Authority Staff
Redding Airports

**Social Services Transportation Advisory Council**
This committee includes nine members representing older adults, persons with disabilities, those of limited means, and the CTSA

## Legal Requirements

State law requires each RTPA to adopt and submit an updated regional transportation plan (RTP) to the California Transportation Commission (CTC) and the Department of Transportation (Caltrans) every four years in urban regions and every five years in federally designated air quality attainment areas (Government Code Section 65080(d)). The plan is to be action-oriented and pragmatic, considering both the short- and long-term future, and provide clear and concise policy guidance to local and state officials. A public hearing must be held before adoption.

The Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and its implementing regulations (23 CFR 450.322) specify federal requirements for metropolitan transportation plans (called "regional" transportation plans in California).

## Purpose

RTPs are developed with regional goals, policies, objectives, and strategies in mind

The federal metropolitan planning regulations are designed to ensure that each urbanized area has a "... continuing, cooperative, and comprehensive multimodal transportation planning process, including the development of a metropolitan transportation plan and a transportation improvement program (TIP), that encourages and promotes the safe and efficient development, management, and operation of surface transportation systems to serve the mobility needs of people and freight (including accessible pedestrian walkways and bicycle transportation facilities) and foster economic growth and development, while minimizing transportation-related fuel consumption and air pollution" (23 CFR 450.300).

The 2007 California Regional Transportation Plan Guidelines (dated September 20, 2007), adopted by the CTC, state "The RTPs are developed to provide a clear vision of the regional transportation goals, policies, objectives and strategies. This vision must be realistic and within fiscal constraints." An Addendum to the Guidelines was adopted in May of 2008 "Addressing Climate Change and Greenhouse Gas Emissions during the RTP Process."

In addition to consolidating local needs into a coherent regional vision, the Shasta County RTP has many specific objectives and responsibilities, including:

- Attempt to resolve regional mobility issues and provide policy direction for local plans through the achievement of a coordinated, balanced regional transportation system, including mass transportation, highway, railroad, aviation, bicycle, and pedestrian facilities;

- Identify and document the region's mobility needs and issues in terms of the transportation system, land use, financial needs, air quality and environmental considerations, including wetlands, endangered species, and cultural resources;

- Provide the foundation for transportation decisions by local, regional, state, and federal officials to resolve the region's mobility and accessibility needs;

- Document the region's goals, policies, and objectives for meeting current and future transportation mobility needs while meeting air quality requirements;

- Identify the specific actions planned to address the region's mobility needs and issues consistent with regional, state, and federal policies, and identify those agencies responsible for implementing the actions;

Strategies promote consistency in the state and local planning process

- Identify transportation improvements in sufficient detail to aid in the development of the regional transportation improvement program (RTIP), state transportation improvement program (STIP), and the federal transportation improvement program (FTIP), to be useful in making decisions related to the development and growth of the region, and to permit an estimate of emissions impacts for showing conformity with the State Implementation Plan (SIP) for achieving air quality standards;

- Document the financial resources needed to implement the region's transportation plan and meet required emissions reductions and performance standards;

- Promote consistency between the California Transportation Plan, the regional planning process, and local plans in responding to statewide and interregional transportation issues and needs, and by providing input to the California Transportation Plan; and

- Inform the public, federal, state, and local agencies, federally recognized tribes, and local elected officials who make land use and other project decisions of the transportation planning process and related socioeconomic, air quality, and environmental concerns.

## Participants

Federal law and regulations require that the RTPA consult with affected agencies, and that all interested parties be given reasonable access to information and an opportunity to comment on the updated RTP. The RTPA adopted a Public Participation Plan for Transportation Planning in April of 2008. During preparation of the updated RTP, the RTPA:

RTPs are developed through an active public participation process

- Mailed 129 questionnaires to a wide variety of agencies, groups, and individuals to determine what aspects of the transportation planning process they would be interested in (e.g. public participation plan, RTP update, public transit, bicycling, etc.). Forty-four questionnaires were returned.

- Mailed a letter to local transportation agencies indicating the start of the RTP update process.

- Held a public meeting to solicit comments on the scope of the environmental impact report (EIR) to be prepared for the updated RTP, and to answer questions regarding the update process. Invitations were mailed to everyone who indicated an interest on the questionnaire, and a display ad was placed in the local newspaper.

- Consulted with local transportation planning agencies and Native American Tribal governments to obtain and refine lists of project needs, timeframes, and costs.

- Notified the public and affected agencies that the draft updated RTP and draft EIR were available for review and comment. Copies of draft documents were made available for review at Shasta County libraries, the RTPA office, and on the RTPA website (www.scrtpa.org).

- The final EIR and updated RTP are scheduled for consideration by the Board at the July 27, 2010, RTPA meeting. Copies of the certified Final EIR and adopted RTP will be placed on the RTPA website.

### Native American Consultation

The RTP process shall meet the federal and state requirements to appropriately involve Native American Tribal governments in the development of transportation plans and programs, including funding and programming of transportation projects accessing tribal lands through state and local transportation programs.

During the development of the 2009 RTP, we consulted with the region's two federally recognized tribes, the Pit River Tribal Council and Redding Rancheria. Planning efforts started by utilizing our contact at the Bureau of Indian Affairs. Direct communication with the Redding Rancheria's Public Works Director and the Pit River Tribal Council representative was informally accomplished. The need to update the RTP and continue to program Tribal projects in the FTIP from their most current Indian Reservation Road (IIR) inventory was officially presented to the Pit River Tribe representatives at the Caltrans rural county task force meeting. Additionally, during the RTP EIR process, a representative from the Pit River Tribe attended the kick off meeting on behalf of the council. The most recent communication as well as the most current Tribal Transportation plans formed a needs or project list, which form the basis for the preliminary

planning for the following considerations:

1. Transportation problems
2. Land use
3. Employment
4. Economic Development
5. Environmental and cultural resource considerations
6. Housing and Community development

Shasta County, the City of Redding, and Caltrans are part of this process. The communication with all parties is required due to the fact that many of the roads serving the tribes depend on county, city, and/or Caltrans roads for access.

### Compliance with Title VI

In order to comply fully with the RTP guidelines, the planning process requires strategies and efforts to ensure measures are in place to verify multi-modal access and mobility performance improvements are included in the plan and comply with Title VI.

In accordance with the adopted Public Participation Plan for Transportation Planning, the RTPA will seek out and incorporate the needs of those traditionally underserved by existing transportation systems, such as the elderly, low-income, and minority households, and mentally or physically disabled persons. The RTPA utilizes the Social Services Transportation Advisory Council to represent the needs of the traditionally underserved segments of the population.

The transportation needs of the low-income and minority populations in Shasta County will continue to be balanced with the benefits and burdens of the transportation investments included in the plan and Transportation Improvement Program (TIP). Measures to identify imbalances will continue to be monitored. For instance, the unmet needs process for transit services, setting annual Disadvantaged Business Enterprise (DBE) goals, and performance audits of transit services for ADA compliance will continue.

The RTPA will monitor census and Title IV information to identify minority populations and document changing needs. Data collection will need to continue to improve and support this analysis. Public participation is a cornerstone of this effort.

## The Regional Transportation Planning Process

Transportation systems of the county and its cities are interconnected

The transportation systems of the county and its cities are interconnected, serving each other's needs as well as their own citizens. Continual expansion of the cities means today's county roads (and problems) may belong to the cities tomorrow. State and interstate highways, while serving as the major traffic movers of the county, experience localized traffic congestion from newly built

traffic generators. Thus, a need exists for inter-jurisdictional circulation planning. That need is partially addressed by the RTPA using the biennial RTIP and five-year RTP update processes as vehicles for examining and settling potential conflicts. The RTPA's authority to withhold project approval, and thus federal and state aid, puts it in a position to act as an arbitrator and facilitator in resolving transportation conflicts.

State and federal regulations also require that public transit operators be fully involved in the public transportation planning process. Their involvement should include data collection and analysis and participation in the decision-making process that follows. Consultation with private transit operators is also a federal requirement for grant recipients under Sections 5303-5306 under Chapter 53 (formerly known as Section 8) of the Federal Transit Act.

State and/or federal regulations require several periodic planning activities as follows:

**1. Overall Work Program (OWP)**

Each year, the RTPA is required to prepare and adopt an OWP that serves as the RTPA's planning budget.

**2. Allocate Local Transportation Funds (LTF) and State Transit Assistance (STA) funds**

Each year, the Shasta County RTPA, functioning as the Local Transportation Commission, must evaluate regional transit needs and allocate funds based on transit needs found reasonable to meet.

**3. Regional Transportation Improvement Program (RTIP)**

Every two years, the MPO is required by the state to develop and adopt a five-year program for planned transportation projects (see discussion to follow).

**4. State Transportation Improvement Program (STIP)**

Every two years, the California Transportation Commission must adopt a STIP. State law allows the RTPA to comment on this program.

**5. Federal Transportation Improvement Program (FTIP)**

Every two years, the RTPA is required to prepare and approve a four-year program for planned transportation projects involving federal funding (see discussion below).

**6. Regional Transportation Plan (RTP)**

Every five years, the RTPA is required to review and update the RTP.

**7. Coordinated Human Transportation Plan (CHTP)**

Every five years, following the update of the RTP, the RTPA is required to review and update the CHTP.

### Transportation Improvement Programs

There are different types of transportation improvement programs (TIPs), all of which must be updated every two years. These include regional, state, and federal TIPs.

The MPO (RTPA) is responsible for the regional (RTIP) and the federal (FTIP) program. The RTIP includes a list of years of recommended capital outlay projects for transportation improvements, including new facilities, rehabilitation, and operational improvements. It is designed to support and implement the Regional Transportation Plan. The FTIP includes projects from the RTIP and lists projects with federal funding over a four-year period, and includes all regionally significant projects regardless of funding type.

### Regional Performance Measures

The overall goal of the RTP is to provide a safe, balanced, coordinated, and cost effective transportation system that conserves energy and preserves air quality, serves the needs of the local metropolitan area and region, and is consistent with and helps implement local agencies' general plans.

This goal is intended to guide all subsequent polices and actions in the chapters that follow.

Performance measures are used to evaluate and analyze the performance and effectiveness of the transportation system, government policies, and programs presented in the RTP.

A set of standard performance measures have been identified which allow for the quantitative analysis of the regional transportation system and plan. They have been categorized into the following measures: safety, mobility/accessibility, reliability, productivity, system preservation, and environmental quality.

The Caltrans guidebook *Performance Measures for Rural Transportation Systems, June 2006,* describes and defines the following measures:

Safety - The safety of the regional transportation system is a key measure used to evaluate fatalities, injury, and property loss of system users.

Mobility/Accessibility - Mobility refers to the ease or difficulty or traveling from an origin to a destination. Accessibility is defined as the opportunity and ease of reaching desired locations. As mobility increases, accessibility tends to improve.

Reliability – Reliability refers to the consistency or dependability of travel times and is a measure that compares expectations with experience.

Productivity - Productivity is defined as the utilization of transportation system capacity. For roadways, capacity is defined as the maximum number of vehicles that a roadway can accommodate.

System Preservation - System preservation refers to maintaining the roadway network at a desired or agreed upon level.

In addition, the RTPA has included a measure for environmental quality which calculates air quality and greenhouse gas emissions derived from the regional

transportation system. All performance measures are shown in Table 2-1 (see page 2-11).

In evaluating the performance of the transportation plan, the RTPA utilizes multiple tools and datasets to quantify information for each of the measures listed above:

- RTPA's regional transportation model
- California Air Resources Board emissions model (EMFAC 2007)
- RTPA's regional geographic information system (GIS) database
- RABA ridership data
- California Highway Patrol Statewide Integrated Traffic Records System (SWITRS)
- Caltrans Highway Performance Monitoring System (HPMS)

In a few instances, the RTPA has the ability to quantify present and future dates for analysis. In other instances, available data has been quantified for the base year for the purpose of establishing a measurement in which future data collections can be compared. Measures in which sufficient information was not available have been noted in the table.

## Goals, Objectives, and Policies

In addition to discussing background information, issues, and actions, each chapter describes transportation goals, short- and long-range objectives, and policy statements. These are intended to support and complement other local and regional plans and programs that address the issues of transportation, air quality, and land use.

While recognizing the automobile as the current primary means of personal transportation, the RTP addresses alternate modes of transportation. The plan emphasizes the need to balance the use, maintenance, and rehabilitation of the existing transportation system with expansion of the system to accommodate inevitable growth.

The following definitions should be kept in mind when considering the goals, objectives, and policies:

1. **A goal** is the end toward which effort is directed. It is general and timeless.

2. **An objective** is a completed action or a point to be reached. It is measurable and can be attained. Objectives are successive levels of achievement in the movement toward a goal and should be tied to some time-specified period (short- and long-term) for implementation programs.

3. **A policy** is a course of action selected from alternatives (with given conditions) to guide the decision-making process toward the achievement of the ultimate

goals.

4. **Short-Range** is a 10-year planning horizon (2010 to 2020).

5. **Long-Range** is a 20-year planning horizon (2020 to 2030).

# TABLE 2-1
## Performance Indicators and Measures

| Indicator | Performance Measures | | | Current System Performance (Baseline) | Projected Impact of Plan (Build Senario) 2030 | Projected Impact w/o Plan (No-Build Senario) 2030 | Data Source** |
|---|---|---|---|---|---|---|---|
| | Mode | Level* | Measures | | | | |
| Safety | Roadway | Region | Fatalities/Vehicle Miles Traveled (VMT) | 0.0000019% | N/A | N/A | SWITRS/TDM |
| | | | Fatal Collitions/VMT | 0.0000015% | N/A | N/A | SWITRS/TDM |
| | | | Injury Collisions/VMT | 0.0000646% | N/A | N/A | SWITRS/TDM |
| | | | Property Damage/VMT | 0.0001011% | N/A | N/A | SWITRS/TDM |
| | | | Total Collisions/VMT | 0.0001690% | N/A | N/A | SWITRS/TDM |
| | Transit | Mode | Fatalities/Passenger Miles (PM) | 0% | N/A | N/A | SWUTRS/RABA |
| Mobility/ Accessibility | Roadway | Region | Passenger Hours of Delay/ Year | 2,304,409 | 5,151,125 | 9,197,803 | TDM |
| | | | Average Peak Period Travel Time | 14.7 min | 15.6 min | 15.9 min | TDM |
| | | | Average Non-Peak Period Travel Time | 14.5 min | 15.3 min | 15.3 min | TDM |
| | Transit | Region | Percentage of Population within 1/4 mile of bus transit route | N/A | N/A | N/A | not available |
| Reliability | Roadway | Corridor | Travel Time Variability | N/A | N/A | N/A | not available |
| | Transit | Mode | Percentage of vehicles that arrive no more than 5 minutes late | N/A | N/A | N/A | not available |
| | | | Percentage of vehicles that leave early | N/A | N/A | N/A | not available |
| Productivity (Throughput) | Roadway-Vehicles | Region | Average Peak Period Vehicle Trips | 148,229 | 213,229 | 213,166 | TDM |
| | | | Average Daily Vehicle Trips | 827,082 | 1,190,645 | 1,190,267 | TDM |
| | Roadway-People | Corridor | Average Peak Vehicle Trips x Occupancy Rate | 211,967 | 304,917 | 304,827 | TDM |
| | | | Average Daily Vehicle Trips x Occupancy Rate | 1,182,727 | 1,706,622 | 1,702,082 | TDM |
| | Trucks | Corridor (State Hwys) | Percentage of Average Daily Vehicle Trips that are (5+ axle) Trucks | SR 44 = 1.31%<br>SR 89 = 17.25%<br>SR 151 = 1.59%<br>SR 273 = 2.66%<br>SR 299 = 3.83%<br>I-5 = 14.94% | N/A | N/A | Caltrans (1) |
| | | | Average Daily Vehicle Trips that are Trucks | SR 44 = 2.97%<br>SR 89 = 17.25%<br>SR 151 = 4.51%<br>SR 273 =5.31%<br>SR 299 = 6.11%<br>I-5 = 17.87% | N/A | N/A | Caltrans (1) |
| | Transit | Mode | Passengers per Vehicle Revenue Hour | 10.5 | N/A | N/A | RABA |
| | | | Passengers per Vehicle Revenue Mile | 0.715 | N/A | N/A | RABA |
| System Preservation | Roadway | Region | Total Number of Distressed Lane Miles | City of Anderson = 8<br>City of Redding = 251<br>City of Shasta Lake = 14<br>County of Shasta = 448<br>State Routes = 967 | N/A | N/A | City of Anderson<br>City of Redding<br>City of Shasta Lake<br>County of Shasta<br>Caltrans (2) |
| | | | Percentage of Distressed Lane Miles | City of Anderson = 26%<br>City of Redding = 27%<br>City of Shasta Lake =23%<br>County of Shasta = 25%<br>State Routes = 24% | N/A | N/A | City of Anderson<br>City of Redding<br>City of Shasta Lake<br>County of Shasta<br>Caltrans (2) |
| Environmental Quality | Roadway | Region | Air Quality Conformity (non-attainment pollutants) | | | | Air Quality Conformity Determination |
| | | | Total VMT for Greenhouse Gas (GHG) Analysis | 5,395,278 | 8,317,348 | 8,246,020 | TDM |

*Level:
Corridor = Regionally Significant Roadways
Region = All public roads within RTPS's region (Shasta County
Mode = Bus transit

**Data Sourse:
SWITRS = California Highway Patrol Statewide Integrated Traffic Records System
TDM = Shasta County Travel Demand Model
RABA = Redding Area Bus Authority ridership data
RTPA GIS = Shasta County RTPA's Regional Geographic Information System
Caltrans (1) = Annual Average Daily Truck Traffic on the CA State Highway System
Caltrans (2) = Caltrans Maintenance Program Pavement Summary

## Geographic Area

Shasta County is located at the geographical center and transportation crossroads of northern California. It is situated at the north end of the Sacramento Valley, 150 miles north of Sacramento, and 110 miles south of the Oregon border.

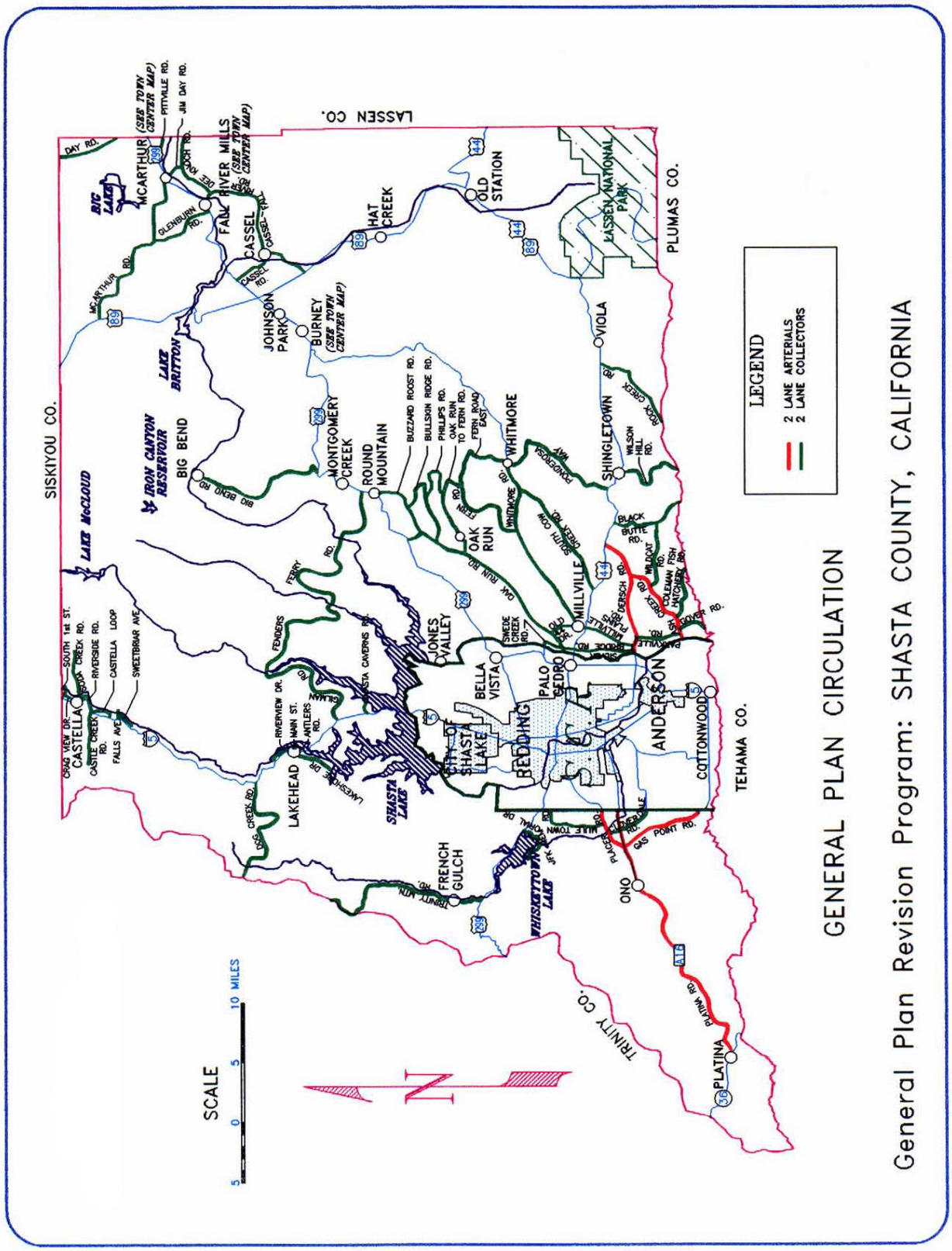
Shasta County's 3,788 square miles range in elevation from 425 feet in the Sacramento Valley, to 3,300 feet in the Fall River Valley, to more than 10,000 feet in Lassen Volcanic National Park.

The County's three incorporated cities (Redding, Anderson, and City of Shasta Lake), and the town centers of Cottonwood and Palo Cedro, all lay in the south-central, non-mountainous portion of Shasta County - referred to as the South Central Region or SCR (see Maps 1 and 2). The SCR contains about 335 square miles or about 8.8 percent of the county's area, yet it is home to about 85 percent of the county's total population. Outside of the SCR, there are two more town centers located in Burney/Johnson Park and Fall River Mills/McArthur, which are both located in the mountains of northeastern Shasta County.

## Demographics

The unique geographical make-up of Shasta County has influenced the location of its urban development. The level topography, availability of water, and soil conditions in the area's three major valleys (Sacramento, Fall River, and Burney) have allowed the formation of the urban center and town centers found in these valleys today. Chart 3-1 and Table 3-1 show population estimates for Shasta County and various jurisdictions and sub-areas within the county.

**Map 3-1 – Map of Shasta County**



**Map 3-2 – South Central Region**

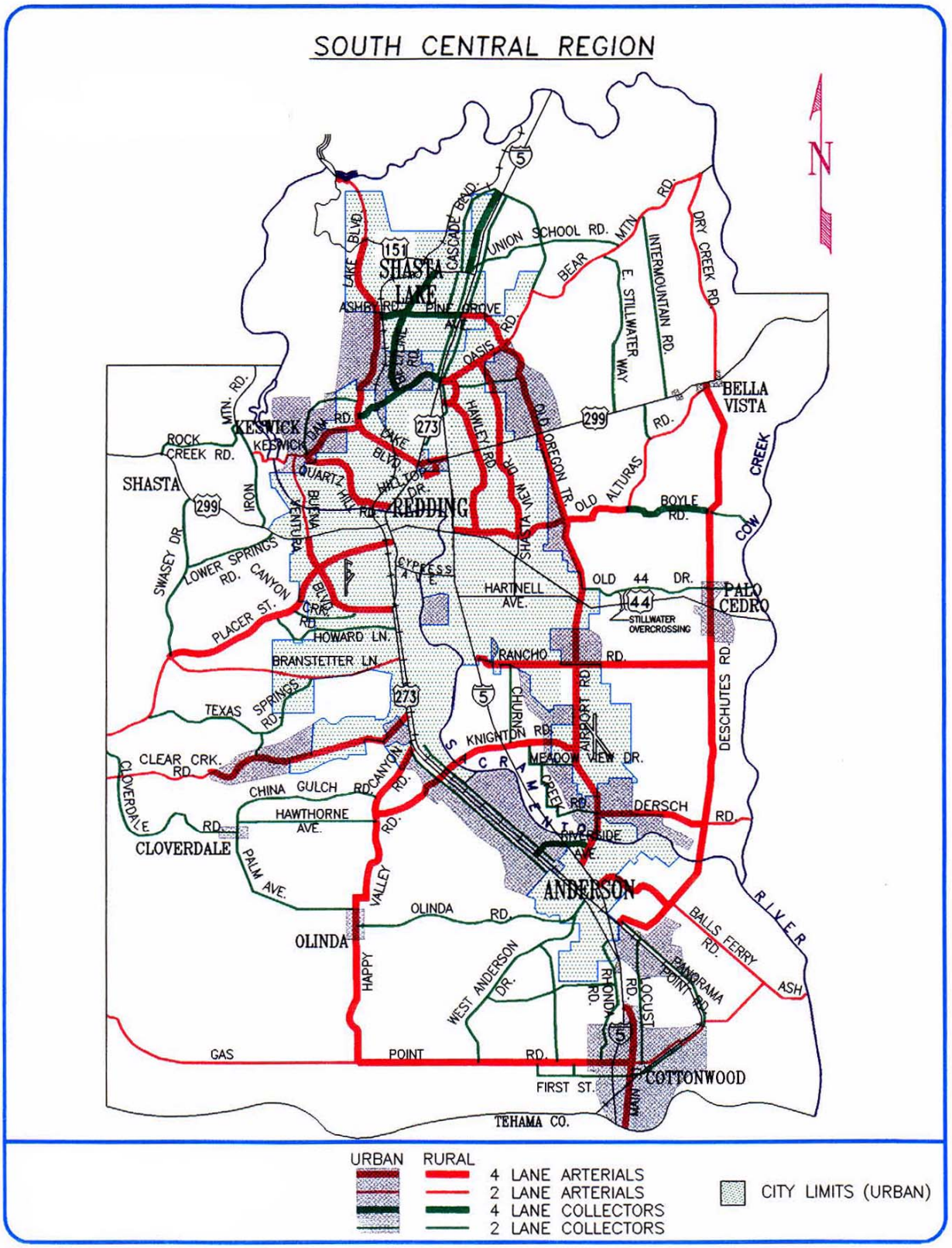


**CHART 3-1**

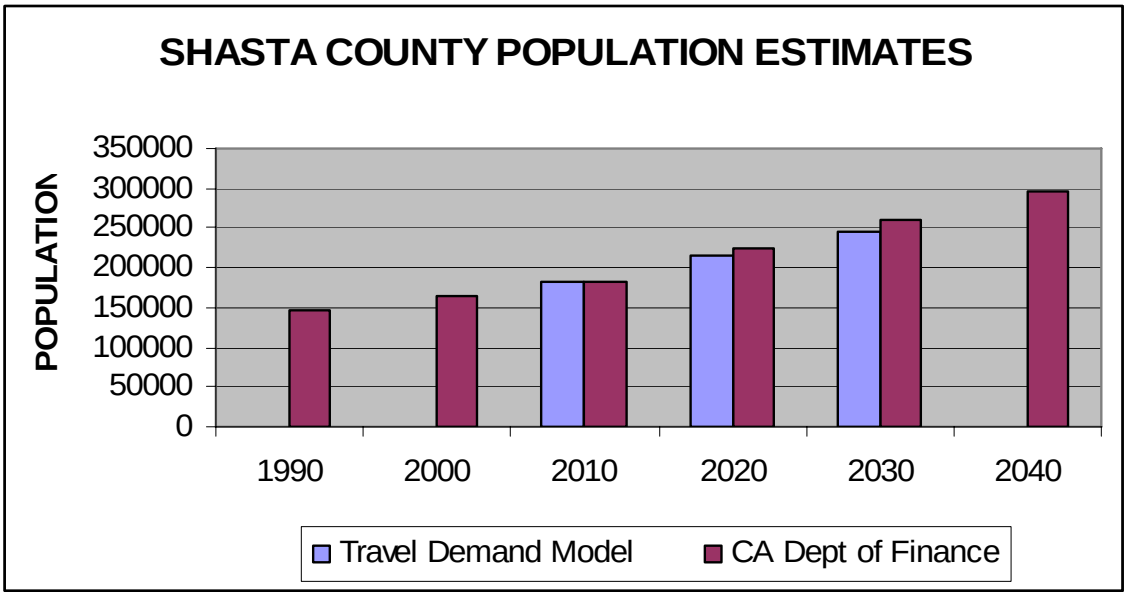



**TABLE 3-1**

**POPULATION ESTIMATES FOR MAJOR JURISDICTIONS AND SUBAREAS IN SHASTA COUNTY**

| Jurisdiction or Area | 2000 US Census | 2009 E-1 Dept of Finance Estimate | Percentage Change 2000-2009 |
|---|---|---|---|
| State of California | 33,871,648 | 38,292,687 | 13.1% |
| Shasta County total | 163,256 | 183,023 | 12.1% |
| Shasta County unincorporated | 64,361 | 71,091 | 10.5% |
| Shasta Urbanized Area | 105,267 | No estimate | N/A |
| City of Redding | 80,865 | 90,898 | 12.4% |
| City of Anderson | 9,022 | 10,765 | 19.3% |
| City of Shasta Lake | 9,008 | 10,279 | 14.1% |
| Burney | 3,217 | No estimate | N/A |
| Cottonwood | 2,960 | No estimate | N/A |
| Shingletown | 2,222 | No estimate | N/A |

These estimates indicate that the region's population growth of 12.1 percent between 2000 and 2009 lags the state growth rate by 1%. The City of Anderson had the highest growth in the region, at over 19%.

Tables 3-3 through 3-8 show population attributes that influence travel choices, as determined through the 2000 Census.

**TABLE 3-2**

| Age Distribution | | |
|---|---|---|
| **Age** | **Amount** | **Percentage** |
| Under 16 | 37,343 | 22.87% |
| 16-20 | 11,909 | 7.29% |
| 21-24 | 6,732 | 4.12% |
| 25-44 | 41,210 | 25.24% |
| 45-64 | 41,296 | 25.30% |
| 65+ | 24,766 | 15.17% |

**TABLE 3-3**

| Household Income in 1999 | | |
|---|---|---|
| **By Income Group ($)** | **Amount** | **Percentage** |
| Less than 15,000 | 12,742 | 20.07% |
| 15,000-19,999 | 5,350 | 8.43% |
| 20,000-24,999 | 5,197 | 8.18% |
| 25,000-49,999 | 19,838 | 31.24% |
| 50,000-74,999 | 11,088 | 17.46% |
| 75,000-99,999 | 4,706 | 7.41% |
| 100,000 + | 4,576 | 7.21% |
| Total Households Shasta County | 63,497 | 100.00% |
| Mean HH Income (Dollars) | $ 45,204 | |
| Median HH Income (Dollars) | $ 34,335 | |

**TABLE 3-4**

| Number of Vehicles Per Household (HH) | | |
|---|---|---|
| **Number** | **HH's** | **Percentage** |
| 0 Vehicles | 4,546 | 7.16% |
| 1 Vehicles | 21,544 | 33.93% |
| 2 Vehicles | 24,776 | 39.02% |
| 3 Vehicles + | 12,631 | 19.89% |
| | 63,497 | 100.00% |

**TABLE 3-5**

| Region to State Profile of Selected Characteristics | | | |
|---|---|---|---|
| **Selected Characteristics** | **California** | **Shasta County** | **% Difference** |
| Median Age | 33.3 | 38.9 | 16.82% |
| Age 65 and over | 10.6% | 15.2% | 43.40% |
| Veterans | 10.5% | 17.0% | 61.90% |
| Disabilities by age group | | | |
| 5 – 20 | 7.5% | 7.7% | 2.67% |
| 21 – 64 | 20.0% | 23.3% | 16.50% |
| 65+ | 42.2% | 45.5% | 7.82% |
| Household Income | | | |
| Less than $10,000 | 8.4% | 11.6% | 38.10% |
| Less than $25,000 | 25.5% | 36.6% | 43.53% |
| Less than $50,000 | 52.1% | 67.8% | 30.13% |
| Median HH Income | $ 47,493.00 | $ 34,335.00 | -27.71% |

**TABLE 3-6**

| | Census Place to State Profile of Selected Characteristics | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Place** | **Total Population** | **Male** | **Female** | **65 Years +** | **Avg HH size** | **In Labor Force** |
| 1 | Redding | 80,865 | 38,750 | 42,115 | 12,569 | 2.44 | 36,618 |
| 2 | Anderson | 9,022 | 4,207 | 4,815 | 1,251 | 2.64 | 3,813 |
| 3 | Shasta Lake | 9,008 | 4,454 | 4,554 | 1,184 | 2.64 | 3,818 |
| 4 | Burney | 3,217 | 1,557 | 1,660 | 483 | 2.45 | 1,321 |
| 5 | Cottonwood | 2,960 | 1,401 | 1,559 | 321 | 2.77 | 1,397 |
| 6 | Shingletown | 2,222 | 1,121 | 1,101 | 503 | 2.43 | 831 |
| 7 | Palo Cedro | 1,247 | 610 | 637 | 177 | 2.85 | 563 |
| 8 | Fall River Mills | 648 | 295 | 353 | 111 | 2.46 | 215 |
| 9 | Millville | 610 | 296 | 314 | 89 | 2.81 | 302 |
| 10 | McArthur | 365 | 193 | 172 | 43 | 2.43 | 159 |
| 11 | French Gulch | 254 | 130 | 124 | 36 | 2.33 | 98 |
| 12 | Big Bend | 149 | 81 | 68 | 21 | 2.13 | 50 |
| 13 | Round Mountain | 122 | 62 | 60 | 21 | 2.14 | 34 |
| 14 | Montgomery Creek | 96 | 50 | 46 | 11 | 2.29 | 38 |
| 15 | Total Region in Census | 110,785 | 53,207 | 57,578 | 16,820 | N/A | N/A |
| | | | | | | | |
| 16 | Total Shasta County | 163,256 | 79,572 | 83,684 | 24,861 | 2.52 | 72,193 |
| 17 | Total California | 33,871,648 | 16,874,892 | 16,996,756 | 3,595,658 | 2.87 | 15,977,879 |

**TABLE 3-7**

| | Census Place to State Profile of Selected Characteristics | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Place** | **Travel Time to Work** | **Median HH Income** | **Families Below Poverty Level** | **SF Owner Occupied Homes** | **Median Value with Mortgage** | **Median Owner Costs with Mortgage** |
| 1 | Redding | 17.8 | 34,194 | 2,400 | 15,583 | 121,600 | 1,073 |
| 2 | Anderson | 20.2 | 24,558 | 528 | 1,559 | 86,900 | 791 |
| 3 | Shasta Lake | 23.4 | 26,275 | 396 | 1,862 | 91,100 | 817 |
| 4 | Burney | 13.5 | 30,510 | 136 | 764 | 84,500 | 716 |
| 5 | Cottonwood | 30 | 30,191 | 93 | 525 | 95,700 | 865 |
| 6 | Shingletown | 35.7 | 32,813 | 66 | 537 | 126,300 | 923 |
| 7 | Palo Cedro | 25.3 | 51,471 | 20 | 344 | 152,700 | 1,113 |
| 8 | Fall River Mills | 15.3 | 29,833 | 44 | 148 | 78,800 | 1,009 |
| 9 | Millville | 20.6 | 51,406 | 11 | 145 | 202,700 | 1,500 |
| 10 | McArthur | 16.6 | 16,116 | 41 | 66 | 101,500 | 754 |
| 11 | French Gulch | 33.4 | 27,083 | 16 | 50 | 98,000 | 1,036 |
| 12 | Big Bend | 21.5 | 23,750 | 16 | 7 | 182,500 | - |
| 13 | Round Mountain | 26.1 | 18,250 | 7 | 9 | 88,300 | 625 |
| 14 | Montgomery Creek | 19.1 | 26,250 | 8 | 2 | 12,500 | 350 |
| 16 | Average for Shasta County | 20.9 | 34,335 | 5,006 | 31,137 | 120,800 | 1,025 |
| 17 | Average for California | 27.7 | 47,493 | 845,991 | 5,527,618 | 211,500 | 1,478 |

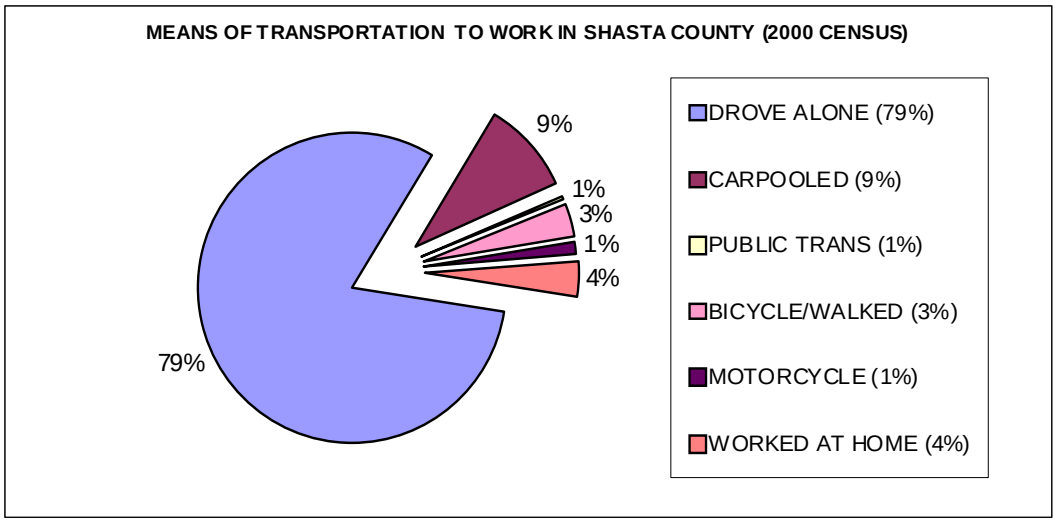
Planning efforts for the region need to constantly recognize the demographics that make Shasta County unique:

- Shasta County's population mix is older than the statewide average.
- The region's elderly population exceeds the statewide characteristic by greater than 40%.
- The result of this growing population creates mobility needs that the region's resources are challenged to meet.
- The region has 43% more households than the statewide average that earn less than $25,000.
- Greater than one of every three households earn less than $25,000 and two of every three earn less than $50,000.
- The median household income for the region is approximately 30% less than the statewide average.
- The population mix continues to advance in age and disabilities.

## Travel Characteristics

Travel characteristics information for Shasta County is available through the U.S. Census and the Shasta County Travel Demand Model. To estimate current and future traffic, the RTPA uses a countywide travel demand forcasting model. The model is a computer program that simulates which roads get used when people travel from one place to another - from homes to work, shopping, or recreation, for example. It was recently recalibrated to year 2005 traffic data and is used to forecast traffic for years up to 2030. The model was used to project trip length information for various trip designations (Table 3-12). Although work trips are only part of the transportation picture, work trips are a primary concern since they are the main cause of congestion during peak flow periods.

**CHART 3-2**



By far, the most common mode of travel to work is the single-occupant automobile - about 79%. Car-pooling and walking account for another 12%. Mode choice is important when determining where to focus transportation planning efforts. Trends in travel time to work are indications of development trends and increases in congestion. Travel time data will continue to be monitored during future transportation studies. The good news is that there are more workers in the region. The bad news is that, no matter what time they leave for work, it takes longer. An increase of the mean travel time of 21.5% (17.2 minutes compared to 20.9) in ten years since 1990 can be expected to grow as the population of the region creates greater congestion levels. The census data indicates that the region's workers increased from 55,080 to 61,859, an increase of 12.3%. It is interesting to note that, percentage wise, the travel time to work remains relatively constant in Shasta County, except for those reporting a commute of 45 minutes or more. The long commute category increased to 8% of the work force, up from 6%.

**CHART 3-3**

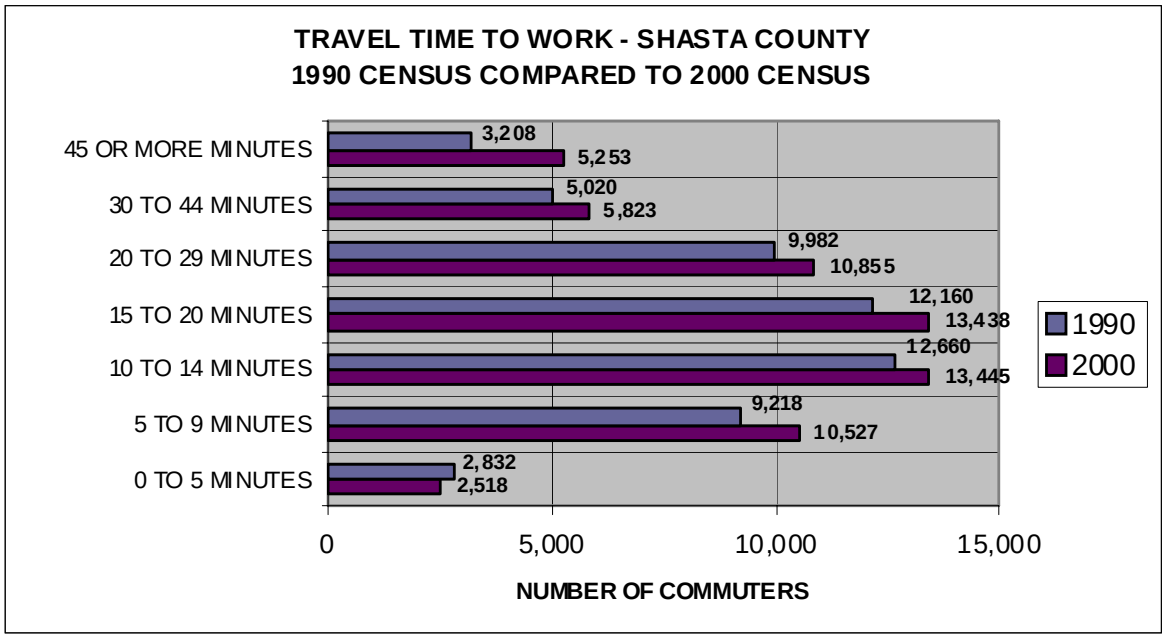


**CHART 3-4**

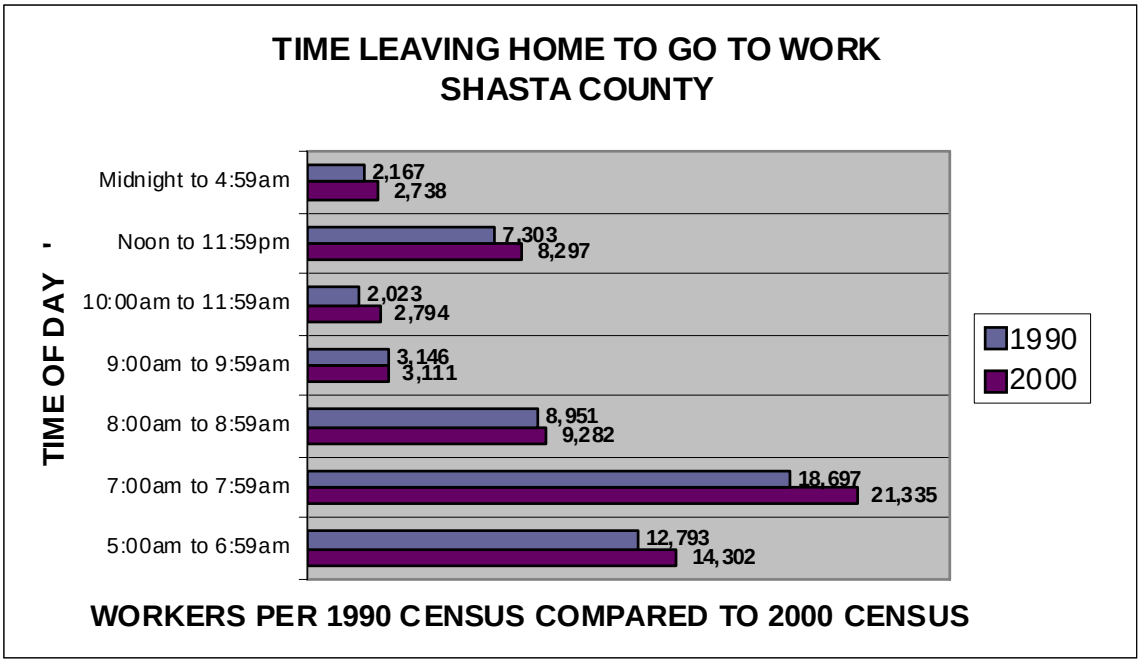



**TABLE 3-8**
**Trip Length Summary**

| Purpose | Model Trip Length Estimate (minutes) | | | |
|---|---|---|---|---|
| | 2005 | 2010 | 2020 | 2030 |
| 1. **Home-Work (HW)** trips are between residences and places of employment. | 20.8 | 20.7 | 21.4 | 22.2 |
| 2. **Home-School (SC)** trips are by students (including college) between home and school. | 21.0 | 21.4 | 22.5 | 23.6 |
| 3. **Home-Shop (HS)** trips are between residences and shopping locations (not including home to work trips). | 16.7 | 16.2 | 16.1 | 16.5 |
| 4. **Home-Other (HO)** trips account for all other trips generated from a home, including medical, entertainment, recreation and , visiting other people, | 17.2 | 17.3 | 17.9 | 18.4 |
| 5. **Work-Other (WO)** trips are those trips at employment sites which do not have either end at the residence. These trips could include stopping at the gas station on the way home from work or driving to a restaurant during a lunch break from work. | 20.3 | 20.6 | 21.6 | 22.3 |
| 6. **Other-Other (OO)** trips are trips which do not have an end at home or the workplace, such as trips between two shopping centers. | 8.0 | 8.0 | 8.1 | 8.3 |
| 7. **Commercial Vehicle (CV)** trips are non-home-based trips made by heavy trucks as well as light trucks and vans that are commercially owned and not used as personal vehicles. | 28.6 | 28.7 | 29.4 | 30.0 |
| **TOTAL (Average for all trip purposes)** | 14.7 | 14.8 | 15.2 | 15.7 |

## South-Central Region

It is anticipated that most of the population and economic growth of Shasta County will continue to occur near to the north-south Interstate 5 corridor in what the Shasta County General Plan refers to as the South-Central Region (SCR). (See Map 2.) This region contains about 335 square miles (about 8.8 percent of the county's area), yet 85 percent of the county's total population. The population density in the SCR is 373 people per square mile versus an average for the county of 42 people per square mile.

In addition to Interstate 5, the SCR also contains the Union Pacific Railroad, the Redding Municipal Airport, all of the present Redding "Urbanized Area" (as designated by the U.S. Census), and the cities of Redding, Anderson, and Shasta Lake. Lake Shasta is at the northern edge of this region, and the Sacramento River, which flows from Shasta Dam, bisects the region.

As previously noted, 85 percent of the population is concentrated in a relatively small area of the county with the remainder dispersed throughout the county in small concentrations. Transportation service costs to rural areas are greater per person, and service options are fewer, than for those in the SCR. Due to limited funds, transportation improvements will continue to be concentrated in the SCR.

## Economy

Shasta County's economic base has a number of major components: tourism, agriculture, forest products, government, healthcare, education and retail trade (see Table 3-13). Retail trade has received considerable impetus from the recent development of several major retail centers. Transportation of goods to distant markets is also an important component of the region's economy.

Until 2007, Shasta County saw a steady increase in taxable sales. The City of Redding experienced most of the economic growth due to its role as the goods and employment center for the region. The current recession has altered this trend, with sales taxes declining over the last few years.

The County's labor force in year 2030 is projected to be about 111,000, of which about 103,800 are projected to be employed residents. Shasta County has less than 50% of the statewide average of manufacturing and information industry. The ratio of employed residents to Shasta County jobs is projected to remain essentially constant over the 20 years, with local jobs projected to rise from about 76,017 in 2010 to 103,800 by 2030. The distribution of jobs by industry is

projected to continue to be in the service sector. Retail employment is greater than 25% higher than the statewide average. Its share of overall employment will continue to increase.

**TABLE 3-9**

| Region to State Profile of Selected Employment Characteristics per 2000 Census | | | |
|---|---|---|---|
| **INDUSTRY** | **California** | **Shasta County** | **% Difference** |
| Agriculture, forestry, fishing and hunting and mining | 1.9% | 2.5% | 31.6% |
| Construction | 6.2% | 7.4% | 19.4% |
| Manufacturing | 13.1% | 6.4% | -51.1% |
| Wholesale trade | 4.1% | 3.0% | -26.8% |
| Retail trade | 11.2% | 14.1% | 25.9% |
| Transportation and warehousing, and utilities | 4.7% | 5.7% | 21.3% |
| Information | 3.9% | 2.0% | -48.7% |
| Finance, insurance, real estate, and rental and leasing | 6.9% | 5.2% | -24.6% |
| Professional, scientific, management administrative, and waste management services | 11.6% | 7.7% | -33.6% |
| Educational, health and social services | 18.5% | 24.7% | 33.5% |
| Arts, entertainment, recreation, accommodation and food services | 8.2% | 9.5% | 15.9% |
| Other Services | 5.2% | 6.0% | 15.4% |
| Public Administration | 4.5% | 5.8% | 28.9% |
| **CLASS OF WORKER** | **California** | **Shasta County** | **% Difference** |
| Private wage and salary worker | 76.5% | 70.8% | -7.5% |
| Government worker | 14.7% | 18.4% | 25.2% |
| Self-employed workers in own business | 8.5% | 10.2% | 20.0% |
| Unpaid family workers | 0.4% | 0.5% | 25.0% |
| **OCCUPATION** | **California** | **Shasta County** | **% Difference** |
| Management, professional and related occupations | 36.0% | 30.4% | -15.6% |
| Service Occupations | 14.8% | 19.6% | 32.4% |
| Sales and Office Occupations | 26.8% | 27.0% | 0.7% |
| Farming, fishing, and forestry occupations | 1.3% | 0.9% | -30.8% |
| Construction, extraction, and maintenance occupations | 8.4% | 9.8% | 16.7% |
| Productions, transportation, and material moving occupations | 12.7% | 12.3% | -3.1% |

## Background


Public transportation comprises passenger transportation services available for use by the general public. This chapter reviews public, non-profit, private, intercity connecting transportation services, and what is required to preserve transportation services.

The primary public transportation provider in Shasta County is the Redding Area Bus Authority (RABA). RABA provides fixed-route and demand-response transit service in the urbanized area and some unincorporated areas of Shasta County (see Maps 4-1 and 4-2).

The Redding Area Bus Authority provides fixed-route and demand-response transit service

Fixed-route and demand-response service is not available outside of the urban boundary. Many social service and non-profit agencies transport clients to and/or from services or programs they offer. These agencies, in coordination with transit agencies and private transportation providers, make up the landscape of special needs transportation. Appendix B includes a list of social service, non-profit, and private transportation providers.

Shasta Senior Nutrition Programs (SSNP) provides the majority of older-adult transportation.

The RTPA has prepared a "Need a Ride?" brochure, which identifies transportation providers within the County. This brochure is distributed throughout Shasta County.

Existing services are briefly described in the following paragraphs:

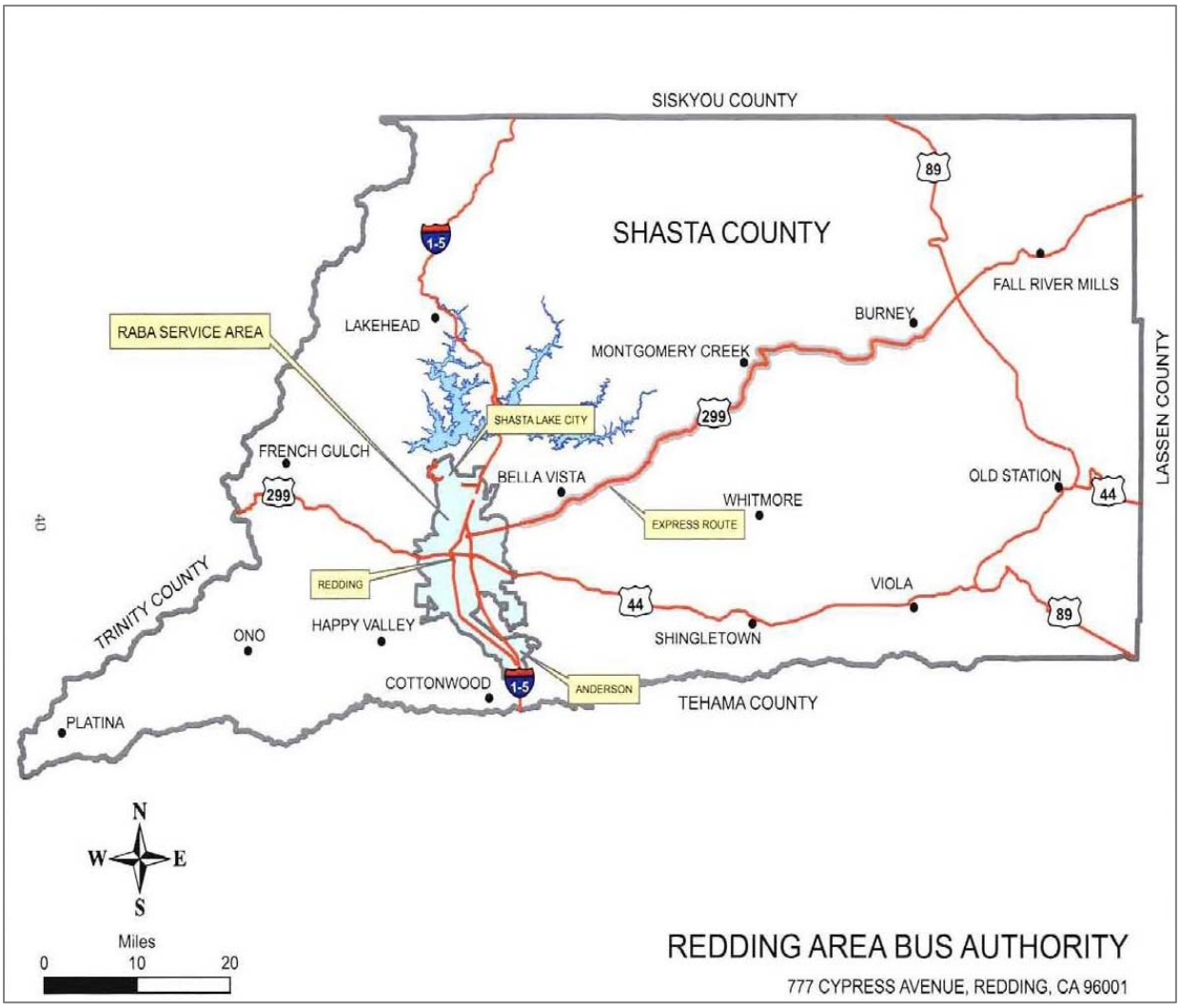
### Redding Area Bus Authority (RABA)

RABA is a joint powers agency created by the County of Shasta and the cities of Anderson, Redding, and Shasta Lake.

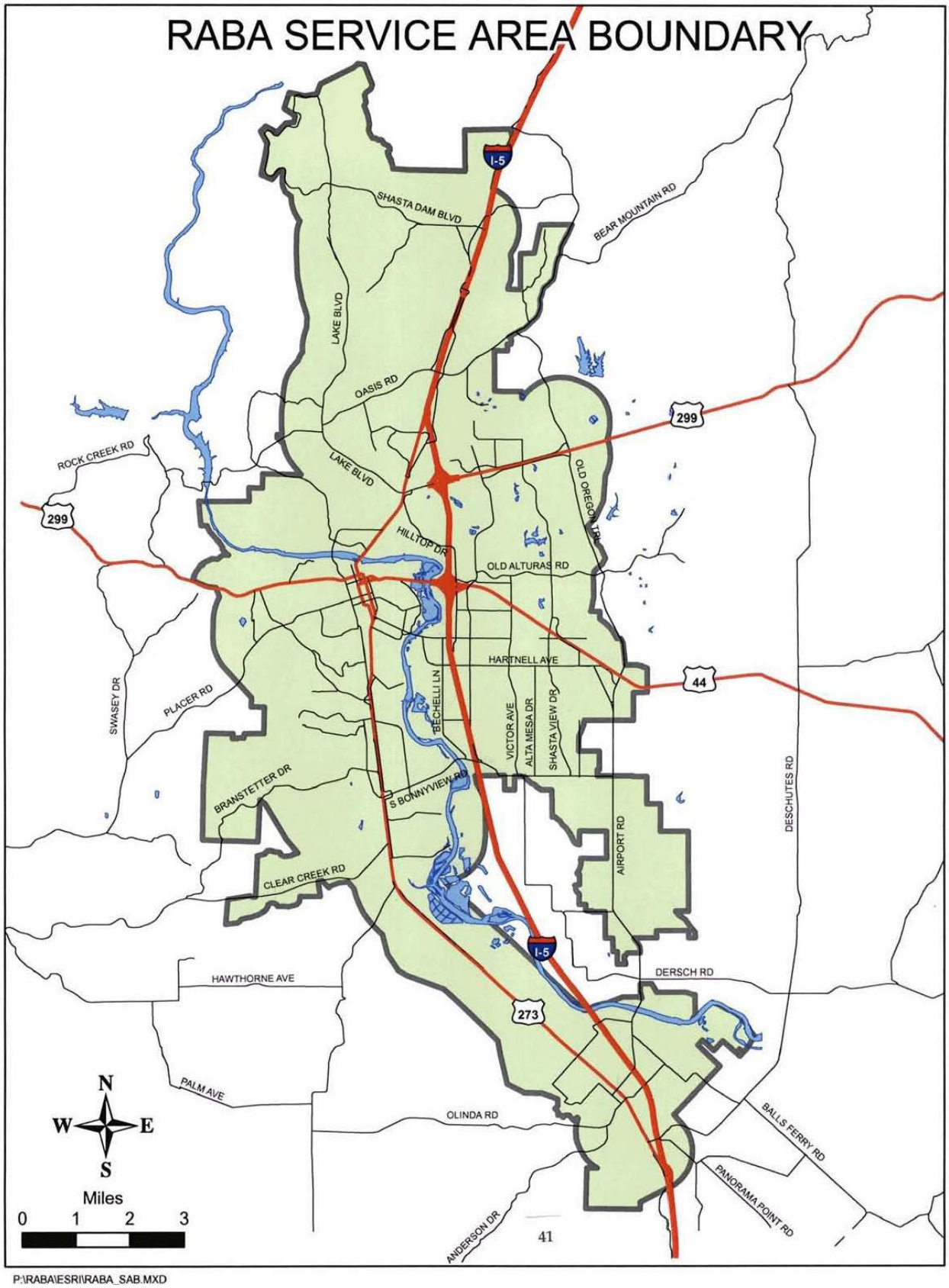
**Fixed-Route:** RABA operates 10 fixed-routes serving the cities of Anderson, Redding, and Shasta Lake. The service is divided into three fare zones. The hours of operation are Monday through Friday from 6:30 a.m. to 7:30 p.m., and Saturday from 9:30 a.m. to 7:30 p.m. Seven of the routes operate on one-hour headways (waiting periods between busses), two routes on 30-minute headways, and one route on two-hour headways. In total, 11 vehicles are required. In 2008/09, 664,118 one-way passenger trips were provided.

**Demand-response:** RABA's demand-response service provides complementary paratransit service to persons with disabilities. In compliance with Americans with Disabilities Act mandates, the service is generally available within three-quarters of a mile of the fixed-route. To be eligible for this service, passengers must complete RABA's certification process. In 2008/09, demand-response service provided 79,286 one-way passenger trips.

**Map 4-1: RABA Service Area**

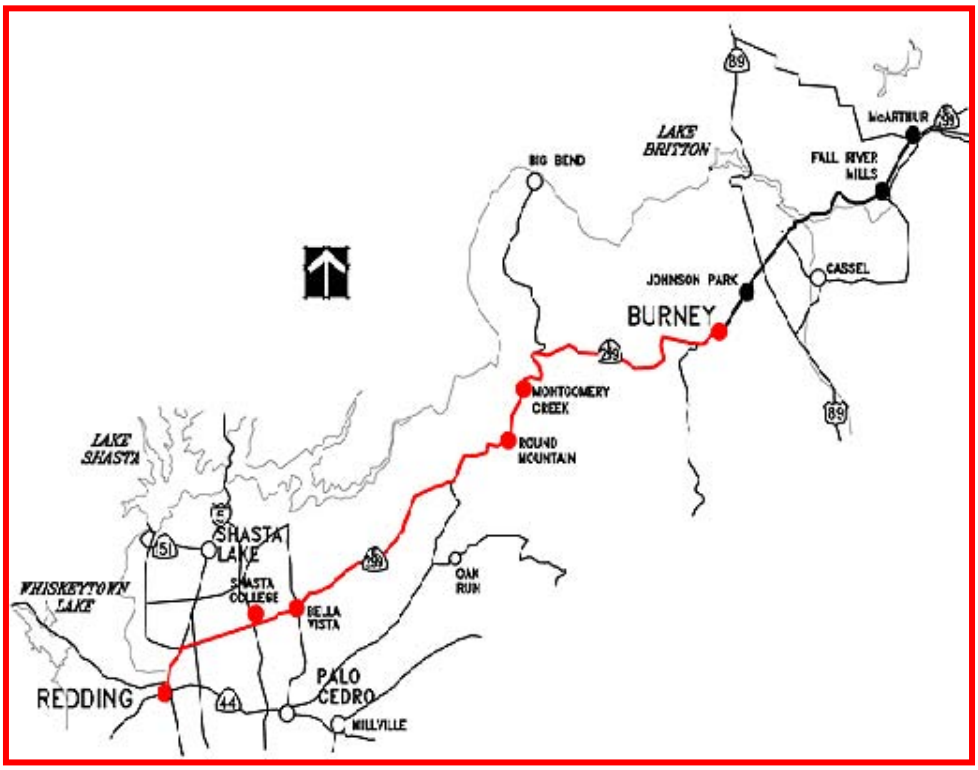


**Map 4-2: RABA Service Area Boundary**



**Burney Express.** Under contract with Shasta County, RABA operates an express route service between the community of Burney and Redding (see Map 4-3). The service operates Monday through Friday, with two round-trips each day. The service provides approximately 400 one-way trips per month.

**Map 4-3 – Burney Express Route**




### Shasta Senior Nutrition Programs (SSNP)

SSNP is the primary transportation provider for older-adults. SSNP is a subsidiary of Catholic Healthcare West and is supported, in part, by Mercy Foundation North. Funding is provided by the Area on Aging. SSNP is also the designated Consolidated Transportation Services Agency (CTSA) for Shasta County.

**Consolidated Transportation Services Agency (CTSA).** The CTSA provides specialized services to those who can not use conventional transit services, such as older-adults and persons with disabilities. Hours of operation are Monday through Friday from 8:00 a.m. to 4:30 p.m. Over 21,000 one-way trips were provided in 2008/09.

The CTSA is a community transit service funded by the RTPA pursuant to Transit Development Act (TDA) statutes. These services are not subject to "unmet transit needs" and "reasonable to meet" standards, but must meet established performance criteria. Funding is limited to 5% of local transportation fund revenue received annually by the RTPA.

The County of Shasta provides funds for Lifeline Transit Service to persons with disabilities outside of the RABA service area

**Lifeline Service.** The County contracts with SSNP to provide County Lifeline transit service to persons with disabilities living outside of the RABA service area. In 2008/09, 5,400 one-way trips were provided.

### Intercity Bus and Rail Transportation Providers

Intercity service is defined as service that "connects two or more communities located within a distance greater than fifteen (15) miles apart of each other." The following bus and rail services provide intercity transportation to areas outside of Shasta County:

**Amtrak motorcoaches** connect Redding to the Capitol Corridor (Sacramento) and San Joaquin (Stockton) train routes.

**Amtrak's Coast Starlight** Seattle/Portland/Los Angeles rail route services Redding daily at 2:21 a.m. southbound and 3:14 a.m. northbound.

**Greyhound** offers north and southbound bus service four times daily in each direction from the Redding Greyhound Station. There is no east or westbound bus connection. In 2001, service between Eureka and Redding was funded through a Federal Transit Administration (FTA) 5311(f) grant program. The service was discontinued in 2003 due to lack of ridership.

**Sage Stage**, operated by the Modoc County Transportation Commission, provides bus service between Alturas and Redding twice-weekly along the 299East corridor. This service connects to Reno, Nevada and Klamath Falls, Oregon.

**Tehama and Trinity counties** have applied for 2009 FTA 5311(f) Intercity Bus Program grant funding to provide limited service to Redding from each county. Trinity County began service from Weaverville to Redding starting in January, 2010.

**Susanville Indian Rancheria.** In July 2009, the Susanville Indian Rancheria started a public transportation program that provides round-trip service from Susanville to Redding, via Westwood, Chester, and Red Bluff. The service operates on Monday, Tuesday, and Thursday (excluding holidays), and includes three round-trips daily from Red Bluff to Redding. Paratransit vans that seat eight passengers and one

wheelchair are used for the service. Service is currently free, however, special trips are available for a fee.

### Other Transportation Providers

**Taxicabs.** Redding Yellow Cab and ABC Cab Company operate in the Redding area 24 hours a day, seven days a week, with five and four cabs, respectively.

**School transportation** is the largest source of transportation other than private vehicles. The 26 public county school districts and the County Superintendent of Schools Office together operate 159 buses, traveling more than 2.28 million miles a year and transporting an average of 8,965 students a day.

**Shasta College** provides a fixed-route service during the school year. Riders must be enrolled at the college to use this service. The service operates every school day, originating in Red Bluff, and serving Cottonwood, Anderson, and south Redding on its way to Shasta College. The bus makes a reverse trip in the afternoon. For the 2009 school year, there is one arrival trip in the morning and one departure trip in the afternoon. Service is coordinated with the Tehama Rural Area Express transit service, which transports students in south and east Tehama County.

**Vanpools.** No vanpool service is currently available in Shasta County.

### Park-and-Ride Facilities

Shasta County has six park-and-ride lots (see Table 4-1). Three are under the jurisdiction of Caltrans. Carpoolers may use these lots to park vehicles when commuting.

**TABLE 4-1: PARK-AND-RIDE LOTS**

| FACILITY | LOCATION | OWNER | SPACES | TRANSIT ACCESSIBLE | BIKE RACK/ LOCKERS |
|---|---|---|---|---|---|
| Clear Creek Road | Hwy 273/Clear Creek Road | County | 13 | Yes | Yes |
| Deschutes | Deschutes Road/Hwy 44 | State | 20 | No | Yes |
| Burney | Hwy 89/Hwy 299 | USFS | 10 | No | No |
| Shingletown | Hwy 44/Wilson Hill Road | State | 7 | No | Yes |
| Black Butte | Hwy 44/Black Butte Road | State | 12 | No | No |
| RABA | Tehama Street/UPRR | RABA | 47 | Yes | No |

## Transit Demand

A key element in the development of operational and financial plans is the demand for transit service. Forecasts are developed based on existing transit utilization patterns, future population growth, and demographic change in the service area.

The RTPA is required to conduct an annual assessment of transit needs within each jurisdiction. This assessment consists of two major steps: the identification of "unmet transit needs," and a determination of whether the identified need is "reasonable to meet." The RTPA has adopted definitions for "unmet transit needs" and "reasonable to meet" (see below).

### Unmet Transit Needs Process

An unmet transit need must involve an identifiable population group with unmet transit needs that are necessary for the maintenance of life, health, education, access to social service programs, and trips that serve employment purposes.

Unmet transit needs are those that are necessary for the maintenance of life

For a transit need to be determined "reasonable to meet" it must, among other things, not exceed a public subsidy of 80% in urban areas and 90% in rural areas. This minimum subsidy requirement is also called the farebox ratio. This annual process is central to transit planning in the urban and rural areas of the county.

Transit needs continue to be a challenge. Over the past several years RABA has made service adjustments, expenditure reductions, and fare increases in an attempt to meet the RTPA-established 19% farebox requirement. RABA completed a 7-year financial plan based on projections in their recent short-range transit plan update. In 2008/09, the RTPA Board approved a temporary farebox ratio reduction schedule that corresponds to RABA's financial plan. RABA expects to meet the 19% farebox requirement in 2014/15.

## Transit Planning

Transit planning provides a framework for transit service and capital investments over a period of the next 10 to 20 years. Transit plans establish goals and strategies for transit and paratransit services and capital needs. It also incorporates new strategies to address transit-oriented development and locally developed transit.

### Short and Long-Range Transit Planning

Long-range transit planning is based on RABA's 2001 Transit Development Plan. This plan included a 10- and 20-year capital improvement plan. The report

identified funding, transit costs, limited ridership, and land-use development patterns as the major constraints to transit growth in the county.

In 2007, a new Short-Range Transit Plan was prepared. In September 2008, RABA began implementation of recommendations in this plan. Modifications were made to six fixed-routes, one route was eliminated, and a second bus was added to a route serving Shasta College. Administrative changes included updating demand-response certification, and developing and implementing a marketing plan that includes a new logo and bus designs.

Transit operations in Shasta County are primarily dependent on TDA funds. TDA funds originate from sales tax collected in Shasta County. Due to California's economy, sales tax revenues have declined. Transit costs continue to increase due to labor, fuel, and other operating costs.

Land-use patterns also create a problem for transit systems. The low-residential density of the county and the three cities, combined with scattered work destinations, limit the ability of traditional transit service to efficiently and effectively serve an increasing number of people.

All transit projects must be derived from the locally developed coordinated human transportation plan

### Coordinated Human Transportation Plan

The FTA mandates that all projects involving federal funds must be derived from a Coordinated Human Transportation Plan (CHTP). The CHTP prioritizes transportation services for funding and implementation, with an emphasis on the transportation needs of individuals with disabilities, older-adults, and persons of limited means. Development of Shasta County's CHTP included participation from the Social Services Transportation Advisory Council, CTSA, local transportation providers, social service agencies, and the general public. The RTP is coordinated and consistent with the CHTP.

### Google Transit

In 2008, the RTPA was the lead-agency for a nine-county northern California pilot planning study to improve online travel information in rural areas using Google Maps/Transit's trip planner feature.

The pilot study concluded that the trip planner (with some limitations) is a viable customer information tool for rural transportation services. Participating agencies are in the process of implementing the program, with full implementation by 2010.

The study was funded with a FTA Section 5311 grant through the California Department of Transportation (Caltrans) - Division of Mass Transportation. Based on the success of the study, Caltrans is planning a second phase for statewide implementation of the trip planner in rural counties.

## Funding Sources

State and federal funds are the primary source of funding for public transportation.

### Sales Tax Revenue

The primary source of transit funding is generated from one-quarter cent of sales tax collected statewide

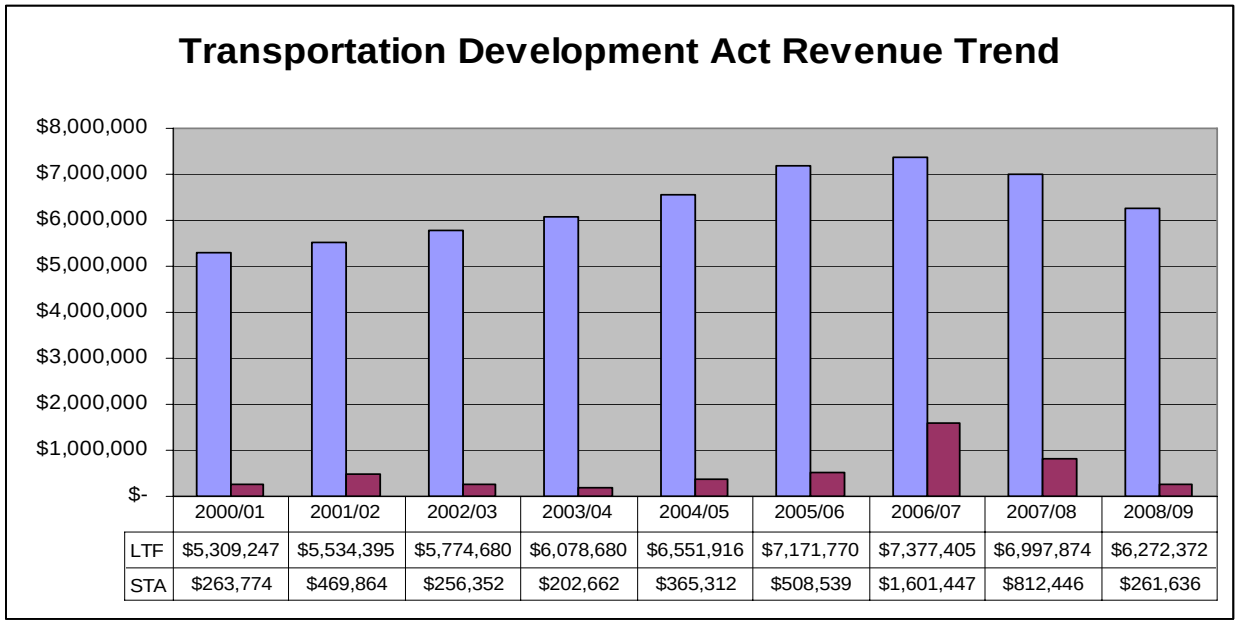
The primary source of transit funding in Shasta County is through the TDA. TDA provides two funding sources for public transportation:

1. **Local Transportation Fund (LTF**), which is derived from ¼ cent of the general sales tax collected statewide; and

2. **State Transit Assistance (STA),** which is derived from the statewide sales tax on gasoline (to be shifted to an excise tax in 2010/11) and diesel fuel. STA is a formula driven allocation based on population and revenue. STA is considered "spillover" revenue and may be seized by the Governor for the state's General Fund.

California's budget continues to affect public transportation and infrastructure projects. In 2006, California voters passed Proposition 1B which included $19.9 billion for transportation projects. Funds are available to transit operators for capital improvements and safety and security enhancements. On December 17, 2008, the Governor's Department of Finance issued a budget letter suspending the release of any additional bond funds until California's fiscal situation improves. Combined, LTF and STA funds were $1.5 million less than expected for fiscal year 2008/09. Chart 4-1 demonstrates the history trend of TDA revenue received from 2000/01 through 2008/09.

**Chart 4-1**




| | 2000/01 | 2001/02 | 2002/03 | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 | 2008/09 |
|---|---|---|---|---|---|---|---|---|---|
| LTF | $5,309,247 | $5,534,395 | $5,774,680 | $6,078,680 | $6,551,916 | $7,171,770 | $7,377,405 | $6,997,874 | $6,272,372 |
| STA | $263,774 | $469,864 | $256,352 | $202,662 | $365,312 | $508,539 | $1,601,447 | $812,446 | $261,636 |

### Federal Transit Administration (FTA)

The FTA is the second major source of transit revenue in Shasta County. The FTA Urbanized Area Formula (Section 5307) and Rural and Small Urban Formula (Section 5311) provide funding for transit operations and capital purchases. Grant programs, such as the Elderly Persons with Disabilities (Section 5310) Program, Job Access and Reverse Commute (Section 5316), and New Freedom (Section 5317), provide funding for specific projects.

### State Transportation Improvement Program (STIP)

There is flexibility in the way that STIP funding can be used. However, these funds can only be used to meet capital, not operational, requirements and must be matched with non-federal funds. TDA funds are often the only source of non-federal funds that are available to meet the match requirement.

There is a concern in the region about building a transit system that cannot be sustained due to a lack of adequate funding from TDA sources. This concern coupled with meeting minimum farebox requirements along with the financial shortfall to meet streets and roads needs, has resulted in all STIP funding being directed to streets and roads projects. See Chapter 5 for an expanded discussion of this issue.

## Public Transportation Goal, Issues, Objectives, Policies, and Actions

**Goal:** ***To prioritize transportation services for funding and implementation, with an emphasis on the transportation needs of the transit-dependent.***

## Issues

A. Decreased sales tax revenue for public transportation.

B. Public transit needs to obtain maximum cost-effectiveness to meet farebox ratio requirements.

C. Demand for specialized services for older-adults will increase as the population ages.

D. Due to low residential density and a large service area, it is not feasible to expand the service area.

E. Service area boundaries differ between human-service programs and public transportation providers.

F. Proposals for increased transit service need to be carefully evaluated in terms of operating costs and anticipated revenues.

G. Agencies have different requirements for vehicle safety, driver training, driver licensing, or other standards.

H. Federal, state, and local agencies that fund special needs transportation have different reporting requirements attached to their funds.

I. Indemnification issues prohibit agencies from sharing or loaning vehicles.

J. Confidentiality and privacy requirements for sharing information.

K. During the last decade, there has been substantial growth in both residential and business development in Shasta County. Interagency coordination during short-and long-range transit planning and land-use planning will ensure the transit-dependent population will be served.

## Objectives

**Short-Range (2010-2020)**

O-1 Continue implementation strategies addressed in the 2007 Shasta County Coordinated Human Transportation Plan.

O-2 Increase public awareness of transit through outreach and marketing.

O-3 Continue distribution of the "Need a Ride" brochure.

O-4 Improve coordination of transportation services through agency participation.

O-5 Support and participate in mobility-management programs, such as California 211.

O-6 Provide mobility-management information to populations that require specialized transportation in efforts to reduce dependency on heavily subsidized paratransit services.

O-7 Obtain maximum transit and paratransit system efficiency by continuously monitoring transit needs, performance, funding, and capital requirements.

O-8 Continue to work with local land-use planning agencies to further coordinate development with transit.

O-9 Work in conjunction with transit advocacy groups to address legal ramifications for transit providers involved in coordination efforts.

O-10 Pursue grants and other funding resources to improve and provide interconnectivity between transportation providers and neighboring counties.

O-11 Research opportunities for volunteer driver programs.

**Long-Range (2020-2030)**

O-12 Provide the highest feasible level of transit service within the region consistent with TDA and FTA revenue sources.

O-13 Invest in infrastructure and land-use patterns to create transit friendly communities.

O-14 Consolidation of operations and services into one mobility-management center or centralized dispatch center.

## Policies

P-1 Periodically review and update transit development plans. Encourage consideration of transit/multimodal options during updates of cities and counties general plans.

P-2 Monitor the required farebox ratio and performance criteria for transit operators.

P-3 Provide adequate funding to maintain the existing transit fleet and fleet expansion consistent with TDA regulations.

P-4 Control the cost of providing mandatory demand-response to maximize overall transit service consistent with TDA regulations.

P-5 Make potential transit users more aware of available services through public outreach and marketing programs.

P-6 Continuously monitor and evaluate transit needs and allocate funding to extend transit service to areas where unmet needs have been identified that are reasonable to meet.

P-7 Maximize the efficiency of private non-profit paratransit providers and support services which would otherwise need to be provided by public transit at substantially higher costs.

P-8 Encourage the cities and county to identify, protect, and enhance transit corridors on the existing roadway system.

P-9 Encourage local jurisdictions to require mitigation of project traffic impacts to include operational support for transit within the long-range period.

P-10 Maximize intermodal connections by continuing to provide for bicycle transport on transit vehicles.

P-11 Consider all available sources of funding as sources of meeting transit for both capital and operation needs.

P-12 Seek funding programs for rural transit providers as they become available.

P-13 Update the Coordinated Human Transportation Plan, as needed.

## Actions

All actions support regional goals, objectives, and policies. The specific policy to be supported by the respective action is indicated in parenthesis.

**Short-Range (2010-2020)**

***Redding Area Bus Authority (from RABA's Short-range Transit Plan)***

- Operate an efficient and effective system that maximizes cost impacts (P2, P4, P5, P7, P11)
  - Minimize operating costs
  - Maximize use of transit funding
  - Increase transit usage
  - Utilize technology to improve real-time service

- Provide safe, reliable, and high quality transportation (P3, P11)
  - Maintain a minimum of 50,000 miles between preventable collision accidents
  - Maintain a 90% on-time performance
  - Maintain less than one-percent of monthly missed trips
  - Maintain less than five-percent monthly missed transfers
  - Maintain FTA required spare vehicle ratio
  - Complete regularly scheduled maintenance service within 500 miles or five-days of scheduled service

- Serve the transportation needs of the community (P1, P6, P7)
  - Maximize accessibility by providing equal coverage throughout the local tax base area
  - Mark all transit vehicles and stops appropriately for ADA accessibility

- Evaluate, monitor, and improve transit service on an on-going basis (P1, P7)
  - Update short-range transit plan at intervals of no greater than five years

- Undertake effective marketing, outreach, and public participation (P1, P5, P8, P13)

- Coordinate transit-system development with intermodal connectivity, community planning, development efforts, and land-use policy. (P1, P9, P10, P11)

- Continue to maximize the use of federal funds for operations (P3, P11, P12)

- Attempt to meet the RTPA established farebox ratio requirement of 19% by fiscal year 2014/15 (P2, P4)

- Caltrans Division of Research and innovation (DRI) has indicated that RABA can seek Congressional support for a ITS Application of Efficient Deployment of Advanced Public Transportation Systems (EDAPTS) for the following (P-4):

    1. Automatic Vehicle Location (AVL) using the Global Positioning Satellite (GPS) system.

    2. Dynamic Messaging Sign (DMS) for real time bus arrival information at bus stops.

    3. Solar power option for the DMS to allow mounting at remote, un-powered bus stops.

    4. Central dispatch software and Internet web page showing current bus locations and schedule adherence data.

    5. Silent emergency alarm for situations requiring police/emergency intervention.

    6. Radio Frequency (RF) modem for transmission of digital data over the voice radio link.

    7. Mobile Data Terminal (MDT) to monitor bus data sources, calculate and display information to drivers, and route relevant bus data information to the RF modem.

    8. Card-reader input for magnetic or electronic fare media.

    9. Keypad entries from the bus driver.

    10. Time of day using GPS time base.

    11. These components will be available as off-the-shelf products in the near future.

- RABA and the RTPA will provide comments on environmental documents regarding the need to mitigate transit impacts. This is usually limited to EIRs and further coordination is needed. (P-9, P-10)

***Regional Transportation Planning Agency***

- The RTPA performs annual unmet transit needs assessments to evaluate transit demand, existing transit performance, and system efficiency. Currently, all the areas in the region with substantial identified transportation disadvantaged populations are being served by public transit. As the area grows in population and the demographics change, it may become necessary to add transit services. (P2, P3, P6, P7, P12, P13)

- The RTPA provides supplemental funds to the CTSA. These funds provide transit services to seniors and persons with disabilities living outside of the RABA service area. Through the CTSA, there is at least a minimum level of transit service available to seniors and transit dependent populations in rural areas. (P7, P11, P13)

- The RTPA will work with federal, state, and local agencies to improve mobility-management throughout the region. (P1, P6, P8, P9, P10, P12)

- The RTPA, CTSA, and Social Services Transportation Advisory Council will continue to address strategies in the Shasta County Coordinated Human Transportation Plan. The CHTP is scheduled to be updated in 2011. (P13)

***Consolidated Transportation Service Agency (CTSA)***

- The Consolidated Transportation Service Agency holds regular meetings to coordinate the resources of the various social service transportation providers. This action will lead to more efficient use of resources by social service agencies involved in transportation. (P-7, P13)

- The CTSA should continue to meet performance criteria established by the RTPA. (P2, P3, P4, P7, P12, P13)

**Long Range (2020-2030)**

***Redding Area Bus Authority***

- RABA should continue with a capital replacement plan following the Federal Replacement Threshold of 12-years/500,000 miles for heavy-duty vehicles, and 7-years/200,000 for medium-duty vehicles in the fleet. (P3, P11)

- A long-range operating budget has been established for RABA, which is adjusted annually. This provides guidance to local decision makers of the impact of their decisions in the long run. It is also a tool to ensure that any system expansions can be financially sustained into the future. (P3, P11).

The Streets and Highways element is the result of extensive collaboration with all stakeholders in the region. Within this element is an assessment of the current condition, usage, performance, and safety of the road network. Included are summaries of core programs and studies, issues, action items by each agency, short- and long-range objectives, and policies used to manage the regional circulation system.

This element includes the projects needed for the region's road network from a short- and long-term perspective. The overall purpose of the proposed projects is to reduce traffic delays and congestion, improve safety, and improve overall mobility on both the state highway system and local roads in Shasta County. Project lists, with descriptions of the needed improvements and estimated funding needs, are detailed in this section of the plan.

The main source of funding for planned capacity-increasing highway improvements is the State Transportation Improvement Program (STIP). The main source of funding for Caltrans to maintain the integrity of the existing State Highway system is the State Highway Operations and Protection Program (SHOPP).

One of the major issues within Shasta County is the lack of revenues to add capacity and adequately maintain the local streets and roads network. Action plans are detailed for each agency within the region to address the issues as funding permits. The project lists contained within this element are sorted by agency and categorized as short-term fundable, long-term fundable, or needed but not fundable. The main function of the RTP is to identify transportation needs and improvements over the life of the plan that are within reasonable funding projections. A secondary function of the RTP is to quantify long-range project needs.

## Background

### Daily Vehicle Miles Traveled (DVMT)

Motor vehicles traveled an estimated 5.3 million miles daily on the public roads in Shasta County in 2008 (see Table 5-1). This is a 8.5 percent *decrease* from the daily vehicle miles traveled in 2003. This change is higher than the national change for rural areas for 2003 to 2007 (2008 data was not available), which

indicates a 4.6 percent decrease per the National Transportation Statistics 2009 Report. This is due in large part to the recession and higher fuel prices.

From 2003 to 2008, the City of Anderson's, daily vehicle miles traveled decreased 14.4 percent, and City of Shasta Lake's decreased 28.5 percent. In contrast, the City of Redding's daily vehicle miles traveled increased 2.1 percent. The County's vehicle miles traveled decreased 26.7 percent, and state highway miles decreased five percent. The decrease may mean a change in the previous long-term trends toward more vehicle miles traveled, which appears to have peaked in 2003.

Chart 5-1 shows the percentage of vehicle miles traveled by jurisdiction. In 2008, approximately 58 percent of all daily vehicle miles traveled within the county were on state highway facilities.

In 2009, the California Department of Motor Vehicles estimated there were 218,584 vehicles registered in Shasta County. Of those, 105,883 were for automobiles, 53,798 were for trucks, 8,362 were for motorcycles, and 50,541 were for trailers. When compared to the county population of 183,028 (on 1/1/10), there were 1.2 vehicles per person in Shasta County. When compared to 136,332 active driver licenses at the end of 2009, there were 1.6 registered vehicles per driver.

## TABLE 5-1

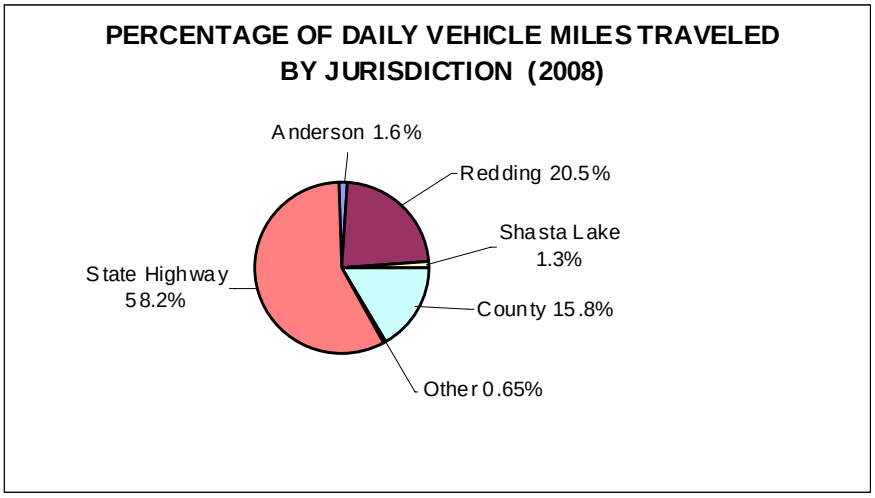
**Shasta County**
**Daily Vehicle Miles Traveled (DVMT)**
**2003 to 2008**

**(Mileage in thousands)**

| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | Mileage Change 2003-2008 | Percent Change 2003-2008 |
|---|---|---|---|---|---|---|---|---|
| Anderson | 97.06 | 94.03 | 79.02 | 83.14 | 83.12 | 83.10 | -13.96 | -14.4% |
| Redding | 1,168.16 | 1,123.22 | 1,142.44 | 1,134.59 | 1,124.83 | 1,192.53 | +24.37 | +2.1% |
| Shasta Lake | 94.64 | 92.64 | 84.49 | 84.91 | 67.63 | 67.63 | -27.01 | -28.5% |
| Total Cities: | 1,359.86 | 1,309.89 | 1,305.95 | 1,302.64 | 1,275.58 | 1,275.58 | -84.28 | -6.2% |
| | | | | | | | | |
| County | 1,141.57 | 1085.96 | 801.3 | 801.41 | 835.75 | 836.81 | -304.76 | -26.7% |
| State Forestry | 0.97 | 0.92 | 0.81 | 0.81 | 0.81 | 0.81 | -0.16 | -16.5% |
| State Highway | 3,248.31 | 3,266.70 | 3,185.20 | 3,295.98 | 3,258.92 | 3,084.62 | -163.69 | -5.0% |
| State Parks and Recreation | 3.78 | 3.59 | 3.15 | 3.15 | 3.15 | 3.15 | -0.63 | -16.7% |
| US Bureau of Indian Affairs | 0.2 | 0.19 | 0.17 | 0.17 | 0.17 | 0.17 | -0.03 | -15.0% |
| US Forest Service | 16.59 | 15.77 | 13.86 | 13.86 | 13.86 | 13.86 | -2.73 | -16.5% |
| US National Park Service | 16.3 | 16.55 | 16.48 | 16.48 | 16.48 | 15.92 | -0.38 | -2.3% |
| US Bureau of Reclamation | 2.1 | 0.6 | 0.53 | 0.53 | 0.53 | 0.51 | -1.59 | -75.7% |
| Total: | 5,789.67 | 5,700.17 | 5,327.45 | 5,435.05 | 5,405.25 | 5,299.10 | -490.57 | -8.5% |

*Source: California Public Road Data, Table 6 (2003 through 2008 editions)*

## CHART 5-1



## Maintained Road Mileage

Table 5-2 provides details regarding maintained road mileage by jurisdiction from 2002 to 2007. Overall, the maintained mileage in Shasta County decreased 1.4%, most of which was due to the reduced mileage reported by the National Park Service starting in 2003. Redding's maintained miles increased by 10.6 miles or 2.6%; the City of Anderson reduced maintained mileage by ½ mile, or 1%; the City of Shasta Lake gained 4.0 miles, or 7.6%; and the County decreased by 23.3 miles, a decrease of 2 percent. Chart 5-2 shows the percentage of maintained road mileage by jurisdiction.

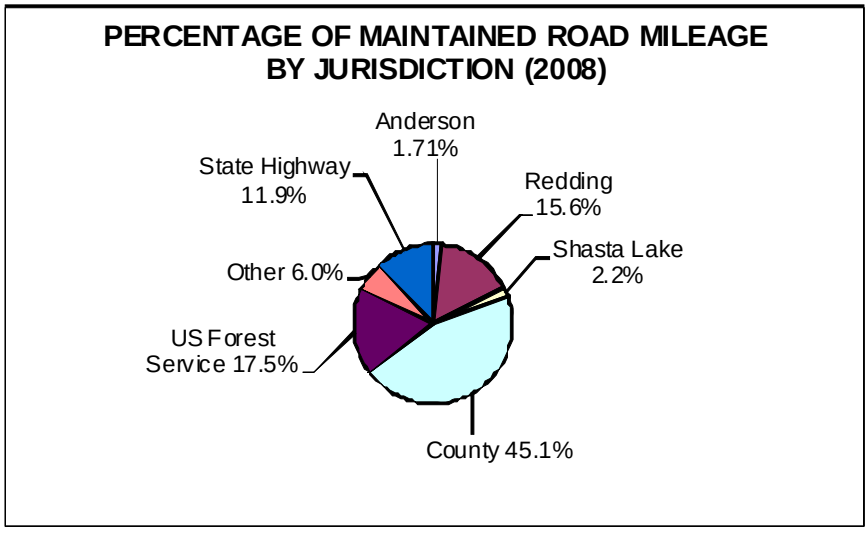
**TABLE 5-2**

**Shasta County**
**Maintained Road Mileage Summary**
**2003 to 2008**

| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | Mileage Change 2003-2008 | Percent Change 2003-2008 |
|---|---|---|---|---|---|---|---|---|
| Anderson | 45.54 | 45.54 | 45.05 | 45.05 | 45.05 | 45.05 | -0.49 | -1.1% |
| Redding | 403.95 | 404.79 | 406.17 | 407.66 | 411.45 | 411.45 | +7.50 | +1.9% |
| Shasta Lake | 52.97 | 52.97 | 52.97 | 52.97 | 56.97 | 56.97 | +4.00 | +7.6% |
| Total Cities: | 502.46 | 503.30 | 504.19 | 505.68 | 513.47 | 513.47 | 11.00 | +2.2% |
| | | | | | | | | |
| County | 1,187.91 | 1,191.19 | 1,191.19* | 1,191.19* | 1,191.19* | 1,191.19 | +3.28 | +0.3% |
| State Forestry | 81.00 | 81.00 | 81.00 | 81.00 | 81.00 | 81.00 | 0.00 | 0.0% |
| State Highway | 313.90 | 313.90 | 313.90 | 313.90 | 313.90 | 313.90 | 0.00 | 0.0% |
| State Park Service | 35.04 | 35.04 | 35.04 | 35.04 | 35.04 | 35.04 | 0.00 | 0.0% |
| US Bureau of Indian Affairs | 2.80 | 2.80 | 2.80 | 2.80 | 2.80 | 2.80 | 0.00 | 0.0% |
| US Forest Service | 461.89 | 461.89 | 461.89 | 461.89 | 461.89 | 461.89 | 0.00 | 0.0% |
| US National Park Service | 34.62 | 34.62 | 34.62 | 34.62 | 34.62 | 34.62 | 0.00 | 0.0% |
| US Bureau of Reclamation | 5.00 | 5.30 | 5.30 | 5.30 | 5.30 | 5.30 | 0.30 | 6.0% |
| Total: | 2,624.62 | 2,629.04 | 2,629.93 | 2,631.42 | 2,639.21 | 2,639.21 | +14.59 | +0.6% |

*Source: California Public Road Data, Table 6 (2003 through 2008 editions)*
** Corrected mileage provided by Shasta County Department of Public Works*

**CHART 5-2**



## Safety of the Road Network

Table 5-3 contains safety statistics for roads in Shasta County, as reported by the California Highway Patrol (CHP) Office of Traffic Safety. The table shows that year-to-year collisions from 2003 to 2008 have generally remained in the 1,130 to 1,318 range, with two years (2004 and 2008) having less than 1,000 collisions.

Improving the safety of the road network is a core planning goal. The region's performance measures (Table 2-1 in Chapter 2) account for indicators to be tracked to assist with planning priorities. One of the criteria used to rank projects are calculations to quantify the safety benefits of proposed projects. Estimated accident reductions costs are calculated for each proposed project prioritized for STIP funding. Technology can also have an impact on the network safety characteristics. Please refer to the ITS section for additional information.

Projects that promote a safer transportation network receive the highest priority for funding.

**Table 5-3**

**Summary of Collisions and Victims Killed or Injured in Shasta County Between 2003 and 2008***

| Year | Collisions | Victims Killed | Victims Killed per 1,000,000 Vehicle Miles Traveled** | Victims Injured | Victims Injured per 1,000,000 Vehicle Miles Traveled** |
|---|---|---|---|---|---|
| 2003 | 1318 | 32 | 0.015 | 1990 | 0.94 |
| 2004 | 746 | 15 | 0.007 | 1044 | 0.50 |
| 2005 | 1292 | 38 | 0.020 | 1880 | 0.97 |
| 2006 | 1130 | 22 | 0.011 | 1579 | 0.80 |
| 2007 | 1172 | 24 | 0.012 | 1643 | 0.83 |
| 2008 | 976 | 21 | 0.011 | 1336 | 0.69 |
| **Ave.** | 1106 | 25 | 0.013 | 1579 | 0.79 |

* Collision data is from the CHP Statewide Integrated Traffic Records System
** VMT for state highways is from Table 5-1

## Level of Service

Level of service (LOS) is a scale used to define the amount of congestion on a roadway (see Table 5-4). Due to growth and land use patterns in the area, the LOS on the roadway network is declining. Specifically, the road segments listed in Table 5-5 are projected to fall below the target LOS planning threshold of C/D within the 20-year planning horizon.

The Shasta County Travel Demand Model projects that the portion of Interstate 5 that runs through the Anderson and Redding area will have LOS F for most of its length by the year 2020. In 2008, Caltrans District 2 adopted a Transportation Concept Report (TCR) for I-5 that identified growth, impacts, and LOS deterioration in more detail. The TCR indicates the first priority for improvements on I-5 is to widen it from four to six lanes between Knighton Road and State Route 273/North Market Street.

**TABLE 5-4**
**Level of Service for Streets and Highways**

| Level of Service | Type of Flow | Traffic Conditions |
|---|---|---|
| A | Free Flow | Low volumes, maximum legal speeds, drivers very comfortable. |
| B | Stable Flow | Volumes and speed controlled by physical features or roadway, reasonable freedom to select desired speeds, drivers comfortable. |
| C | Stable Flow | Speed and maneuverability are more closely controlled by high traffic volumes, drivers still fairly comfortable. |
| D | Approaching Unstable Flows | Speeds are affected considerably by operating conditions, little freedom to maneuver, driver's comfort level reduced. |
| E | Unstable Flows | Volumes at or near capacity of roadway, speeds substantially declined, momentary stoppages, driver comfort is poor. |
| F | Breakdown; No Flow | Stop and go traffic may occur for periods of time, drivers highly uncomfortable. |

**TABLE 5-5**
**ROADWAY SEGMENTS FORECAST TO OPERATE BELOW LEVEL OF SERVICE (LOS) C/D AT YEAR 2030 WITH NO IMPROVEMENTS**
**(Source: Shasta County Travel Demand Model)**

| Roadway | Segment | Estimated LOS AM | PM |
|---|---|---|---|
| I-5 | County Line to Fourth Street | F | F |
| I-5 | Fourth Street to SR 273 | F | F |
| I-5 | SR 273 to Deschutes Road | F | E |
| I-5 | Deschutes Road to Riverside Avenue | F | F |
| I-5 | Riverside Avenue to Knighton Road | F | F |
| I-5 | Knighton Road to S. Bonnyview Road | F | F |
| I-5 | S. Bonnyview Road to Cypress Avenue | F | F |
| I-5 | SR 44 to SR 299 | F | F |
| SR 44 | East Street to Auditorium Drive | F | F |
| SR 44 | Auditorium Drive to I-5 | D | E |
| SR 44 | Airport Road to Deschutes Road | E | E |
| SR 273 | Westwood Avenue to S. Bonnyview Drive | F | F |
| Airpark Drive | Gold Street to Placer Street | F | F |
| Airport Road | Dersch Road to Knighton Road | E | E |
| Balls Ferry Road | Ventura Street to Gateway Drive | F | F |
| Buenaventura Boulevard | Summit Drive to SR 273 | E | E |
| Buenaventura Boulevard | Starlight Boulevard to Placer Street | E | E |
| Caterpillar Road | George Drive to SR 273 | F | F |
| Churn Creek Road | Churn Creek Bridge to Rancho Road | F | E |
| Churn Creek Road | Browning Street to Canby Road | E | F |
| Churn Creek Road | Canby Road to Bodenhamer Boulevard | F | F |
| Churn Creek Road | Bodenhamer Boulevard to College View Dr | E | E |
| Court Street | 11th Street to Riverside Drive | E | E |
| Cypress Avenue | Athens Avenue to Hartnell Avenue | D | E |
| Cypress Avenue | Bechelli Lane to I-5 | E | D |
| Cypress Avenue | I-5 to Hilltop Avenue | D | E |
| Deschutes Road | SR 273 to I-5 | F | F |
| Deschutes Road | Old Hwy 44 to Boyle Road | E | D |
| Hilltop Drive | SR 44 EB Ramps to Dana Drive | D | E |
| Market Street | Tehama Street to Shasta Street | E | E |
| N. Market Street | Riverside Drive to Quartz Hill Road | E | E |
| N. Market Street | Benton Drive to SR 299 | D | E |
| North Street | Stingy Lane to Riverside Avenue | F | F |
| Oasis Road | Randolph Road to Old Oasis Road | E | E |
| Oasis Road | Gold Hills Drive to Shasta View Drive | F | F |
| Old Alturas Road | Oak Mesa Lane to Shasta View Drive | F | F |
| Old Alturas Road | Old Oregon Trail to Salmon Creek Road | E | E |
| Old Oregon Trail | SR 44 to Old Hwy 44 | F | F |
| Olinda Road | West Anderson Drive to West Street | F | F |
| Ox Yoke Road | SR 273 – Riverside Avenue | E | E |
| Pine Grove Avenue | Cascade Boulevard to I-5 NB Ramps | D | F |

| | | | |
|---|---|---|---|
| Railroad Avenue | Grandview Avenue to Laurel Avenue | F | F |
| Railroad Avenue | Laurel Avenue to Schley Avenue | E | E |
| Rhonda Road | Anderson Hills Parkway to Pleasant Hills Dr | E | E |
| Rhonda Road | Pleasant Hills to SR 273 | F | E |
| Riverside Avenue | Loop Street to Little Street | E | E |
| Riverside Avenue | I-5 to North Street | F | F |
| Shasta Dam Boulevard | Deer Creek Road to Mussel Shoals Avenue/ Grand Coulee Boulevard | D | E |
| Shasta View Drive | SR 44 to Tarmac Road | F | F |
| Shasta View Drive | Tarmac Road to Atrium Way | F | E |
| Shasta View Drive | Old Alturas Road to College View Drive | F | F |
| South Bonnyview Road | E. Bonnyview Road to I-5 | F | F |
| South Street | West Street to Balls Ferry Road | F | E |
| Victor Avenue | Marlene Avenue to Hartnell Avenue | F | F |
| Victor Avenue | Hartnell Avenue to Cypress Avenue | E | E |
| Victor Avenue | Cypress Avenue to Mistletoe Lane | E | E |
| Victor Avenue | Aspen Avenue to Old Alturas Road | F | F |

### Street and Road Maintenance

The cities and the county are faced with growing deficits in funding for maintenance of streets and highways. One example is deferred pavement maintenance costs.[1] A report prepared by the RTPA in 1984 documented this problem for nine northern California counties. During the ensuing 25 years since this study, the situation has become much worse in Shasta County. As discussed in the Financial section of this document, based upon the Pavement Management System, the amount of deferred maintenance is approximately $240 million for streets and roads maintenance (not including the state highway system). This does not include bridge rehabilitation costs.

A review of the needs for roads maintained by the County indicated a need for maintenance and rehabilitation expenditures at approximately $16.84 million a year. With resources available at significantly lower levels, the problem continues to grow by about $9 million dollars annually. Budgets for maintenance will only be able to cover about half of the estimated annual need.

Unless new sources of revenue are found, maintenance expenditures will continue their downward trend. Maintenance divisions are operating at near historically low staffing levels already. Any further reductions in staff or funding would severely impact the condition and safety of the region's road network.

Two possible options to offset the shortfall in funding for street and road maintenance include generating new funding sources and reducing the

[1] Report on Deferred Pavement Maintenance Costs for Nine Northern California Counties, Shasta County Regional Transportation Planning Agency, September 1984.

construction of capacity-increasing projects. The first option is to raise needed maintenance funds locally. In many jurisdictions, dedicated sales tax measures have been passed by the voters with funds earmarked for improving public transit and maintenance, or improvements to the streets and highways system. Passage of this type of measure in Shasta County would be unlikely, unless the streets and highways transportation system deteriorated to a gridlock level.

The second option would be to more efficiently use the existing infrastructure rather than continuing to increase the miles of streets and roads. This could be accomplished by a more compact urban form featuring infill development with higher residential densities and a closer proximity of jobs and services to housing. Except in areas where large new developments are built, most change is slow. It is the purpose of Intelligent Transportation Systems (ITS) to increase safety and productivity of the network's existing capacity through efficiency without constructing capacity-increasing transportation improvements.

## Bridge Rehabilitation Needs

### County

There are 317 bridges in Shasta County; 220 are over a 20-foot span and are eligible for federal aid. Eighty-eight bridges are beyond their design lives, functionally obsolete, or structurally deficient. Their current cost for replacement is approximately $109.9 million. Unfortunately, this sum is unavailable for a small county like Shasta. Federal aid can be used for rehabilitation, replacement, or maintenance. These bridges are scheduled for replacement at an average of three per year. A 20-year plan for the County's bridge rehabilitation needs using Highway Bridge Program (HBP) resources is presented in Table 5-14. All of the jurisdictions are having difficulty maintaining and replacing bridges at an optimum rate. For example, at the current rate it will take Shasta County 50 years to rehabilitate all of the currently eligible bridges, and by that time, others will also deteriorate and qualify for rehabilitation.

### Cities

The City of Anderson has two bridges, the City of Shasta Lake has 11, and the City of Redding has 88. The City of Redding is proposing to rehabilitate several bridges, as shown in Table 5-15.

### Caltrans

Caltrans is responsible for bridges on the state highway system. Tables 5-12 and 5-13 (pages 5-33 and 5-34), and Table 5-16 (page 5-40) include bridge rehabilitation and replacement projects on the state highway system.

## New Streets and Roads

Streets and roads are grouped into classes, or systems, according to the character of service they are intended to provide. Most travel involves movement through a network of roads. This travel has to be channeled within the network in a logical and efficient manner.

Streets under the local jurisdictions' authority consist of arterials, collectors, and local roads (private roads and driveways are excluded). Local streets and roads are described in detail in the circulation element of the city and county general plans. The circulation element of the general plan is the local jurisdiction's plan for the movement of people and goods. Section 65302(b) of the California Government Code requires that the circulation element address the general location and extent of the existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities. This section also requires that the circulation element be correlated with the land use element.

In view of the severe under-financing of maintenance, local jurisdictions should be careful when planning for expansion of the road system. The need for new collector and arterial streets should be critically reviewed. Wherever possible, infill development should be encouraged before street extensions are considered. When an extension is considered, it should serve the maximum density of residential development, concentration of jobs or commercial uses. A key consideration is how a new facility would enhance the efficiency of the multimodal transportation system. Goods movement, transit service, bicycle and pedestrian use all must be considered, as well as the transfer from one mode of transportation to another.

### Project Selection for the RTP

Each agency in Shasta County prepared lists of project needs classified into three categories: (1) short-term fundable (within 10 years), (2) long-term fundable (10-20 years), and (3) beyond (over 20 years). These lists were then reviewed and modified for inclusion in the RTP based on funding projections. The lists are shown in Tables 5-17 to 5-24 located near the end of this chapter (beginning on page 5-43).

### Project Selection for the Regional Transportation Improvement Program (RTIP)

The RTPA has accepted the following guiding principles for selecting projects for RTIP funding:

1. **Project consistency with Regional Transportation Plan (RTP).** The Board approves a prioritized list of needed projects over 20 years as part

of the RTP. State and Federal rules require that all projects are consistent with our RTP.

2. **Project ability to leverage new funds for the region.** To stretch limited RTIP dollars, other funds need to be leveraged, including Interregional Transportation Improvement Program (ITIP) funds from 25% of the STIP, local funds, state grants, federal earmarks, and State Highway Operation and Protection Program (SHOPP) dollars.

3. **Regional congestion-relief benefit.** Projects that serve wide-spread regional traffic needs — as opposed to projects that serve localized areas or individual development projects — should have priority. Regional significance is evaluated using the travel model, functional road classifications, and joint project sponsorships among local agencies and Caltrans. Also, since most other transportation funds are committed to maintenance, RTIP funds should be reserved for capacity-increasing improvements.

4. **Full project funding likely.** There is little sense in expending resources or tying up programming capacity in a specific project if full project funding cannot be demonstrated.

5. **Appropriateness of using STIP funds where project is eligible for funds through other programs.** A project or portion of a project more appropriately funded through other eligible programs should be pursued accordingly. Examples include projects eligible under bridge, safety, or rehabilitation programs.

6. **Local agency funding contribution to regional needs identified in the RTP.** To some degree, all local agencies contribute locally raised revenue to regional needs identified in the RTP. Examples currently include local revenue programs for regional interchanges and major arterials. Priority should be given to projects where there is local funding participation in regional projects.

## Transportation System Management (TSM)

Transportation System Management (TSM) is a system of strategies for low-cost transportation investments targeted at improving the overall performance and operational efficiency of the existing system. The Shasta County Travel Demand Model is the primary tool available to address TSM. As roads near deficiency or become deficient, TSM alternatives need to be considered. Major investment studies are conducted as part of the TSM alternatives analysis prior to programming projects.

Caltrans, Shasta County, Redding, Anderson, Shasta Lake, and Redding Area Bus Authority (RABA) have a combined investment in the county's

transportation system. Low-cost investments aimed at increasing the capacity and efficiency of the existing system can be as much or more effective than adding more costly new facilities.

As previously noted, some projects listed in the Regional Transportation Improvement Program (RTIP) have TSM features, though they are not labeled as such.

Some low-cost TSM efforts under consideration are:

- Interchange ramp widening, realignments, and other improvements.
- Interchange ramp metering.
- Road widening, re-striping, and intersection improvements.
- Signalization improvements.

Additional strategies include:

- Guaranteed Ride Home - Guaranteed Ride Home (GRH) is a TSM program providing car and vanpool patrons a ride to home or to other destination in an emergency. The intent of the program is to overcome one of the barriers to ridesharing.
- Telecommuting is an approach for reducing home-to-work trips by allowing employees to work-at-home. Employees may be linked to the work place by computer and Internet, or simply may take work home requiring no computer. The ability to save work trips makes this program attractive.
- Travel allowance programs provide subsidies to employees in one form or another and include:
- Transit fare allowances or subsidies.
- Vanpool fare allowances.
- Variable Work Hours - A general view of variable work hours is that it flattens the busy hour peak, thus reducing congestion. Work hour policies established by employers govern when employees travel to and from work. The policies influence not only the volume of employees traveling during peak traffic periods, but employee propensity to consider transit, carpooling and other alternatives to driving alone. Consequently, work hour management is an important component of travel demand management. There are three types of variable work hours with potential application as demand management tools:

    A. Staggered work hours
    B. Compressed workweeks
    C. Flextime

- Parking Cash Out - Employers often provide employees with subsidized parking. Employers may provide free parking to employees in parking spaces they own or lease, or provide parking at rates below market value in

the area. The parking subsidy is the difference between what employees pay for parking, if anything, and the market rate for parking as established by comparison with rates for long-term parking in the vicinity of the employer.

This alternative may not be considered effective in our region. Due to relatively cheap land, free parking is almost considered mandatory for any auto-related business in Shasta County. There is very little paid parking in the region.

- Parking Supply Management - The management of parking supply is one important strategy for discouraging solo driving and encouraging use of ridesharing, transit, cycling and walking. Although parking supply is not considered a viable motivator of change in our region, some planning discussion should encompass the following strategies:

    A. Preferential parking for car and vanpool patrons.
    B. Reduced minimum requirements in parking codes.
    C. Maximum parking requirements in parking codes.
    D. Caps on the overall supply of parking.
    E. Timed curb parking.
    F. Peripheral parking combined with shuttles.

- Traffic Calming - Traffic calming supports the policies of the Comprehensive Plan and the Transportation Element, which call for protection of residential areas by mitigating impacts of vehicular traffic on local streets. Staff works to improve neighborhoods by working with residents in planning education efforts which address traffic concerns related to safety, speeding, and excessive volumes on local streets and neighborhood collector streets through traffic management plans and the construction of traffic management devices.

### Intelligent Transportation Systems (ITS)

ITS applies advanced communication information and electronics technology to solve existing transportation problems. The regional ITS architecture describes how elements communicate and what function will be performed by each. Rural COATS Project (California-Oregon Advanced Transportation System) was a collaboration between northern California and Oregon transportation agencies in the effort to develop and construct a regionally interoperable system.

The RTPA adopted regional ITS architecture in 2006 and maintains it semi-annually. As we implement ITS, we work within the regional framework of our region, in partnership with the Caltrans and other stakeholders. All ITS projects funded with highway trust funds are based on a systems engineering analysis.

Rural and urban needs are taken into consideration in the Shasta ITS architecture process. Planning for these significant additions in technology is completed with the purpose of increasing the efficiency of existing capacity, not to add capacity.

The following are the expected benefits of integrating ITS into the transportation network and the role of the RTPA in regional safety and large-scale security incidents:

- **Increase Safety.** National statistics document that approximately 60 percent of fatalities occur in rural areas, and of those fatalities, 70 percent are due to run-off-the-road vehicles. Future projects will utilize ITS techniques to reduce accidents, the impact of weather on driving conditions, the impact of driver/roadway operations characteristics, and the impact of vehicle mix on safety.

- **Improve Emergency Response**. National statistics document that rural areas have approximately 2:1 greater response time to incidents and arrival at medical facilities. Future projects will aim to improve incident response time, emergency preparedness, and hazardous cargo identification. The role of the RTPA for large-scale security and/or emergency issues is to promote coordinated planning in anticipation of unexpected events or natural disasters. ITS project 12 - Emergency and Maintenance Response Systems - defines key stakeholders, physical investment required, and emergency management centers (Shascom) roles and responsibilities.

- **Improve Commercial Vehicle Operations (CVO).** Given that rural areas are dependent on CVO efficiencies, future projects will examine technologies that would serve to streamline CVO regulation and operation and improve CVO safety.

- **Increase Travel Information and Trip Enhancement**. Identify traveler information needs, strategies, and technologies to improve traveler information systems (e.g. highway advisory radio).

- **Improve Interagency Communications.** Communication, cooperation, and coordination are essential to ITS effectiveness. Projects will determine methods and systems that may assist in communication and improve relationships between stakeholders.

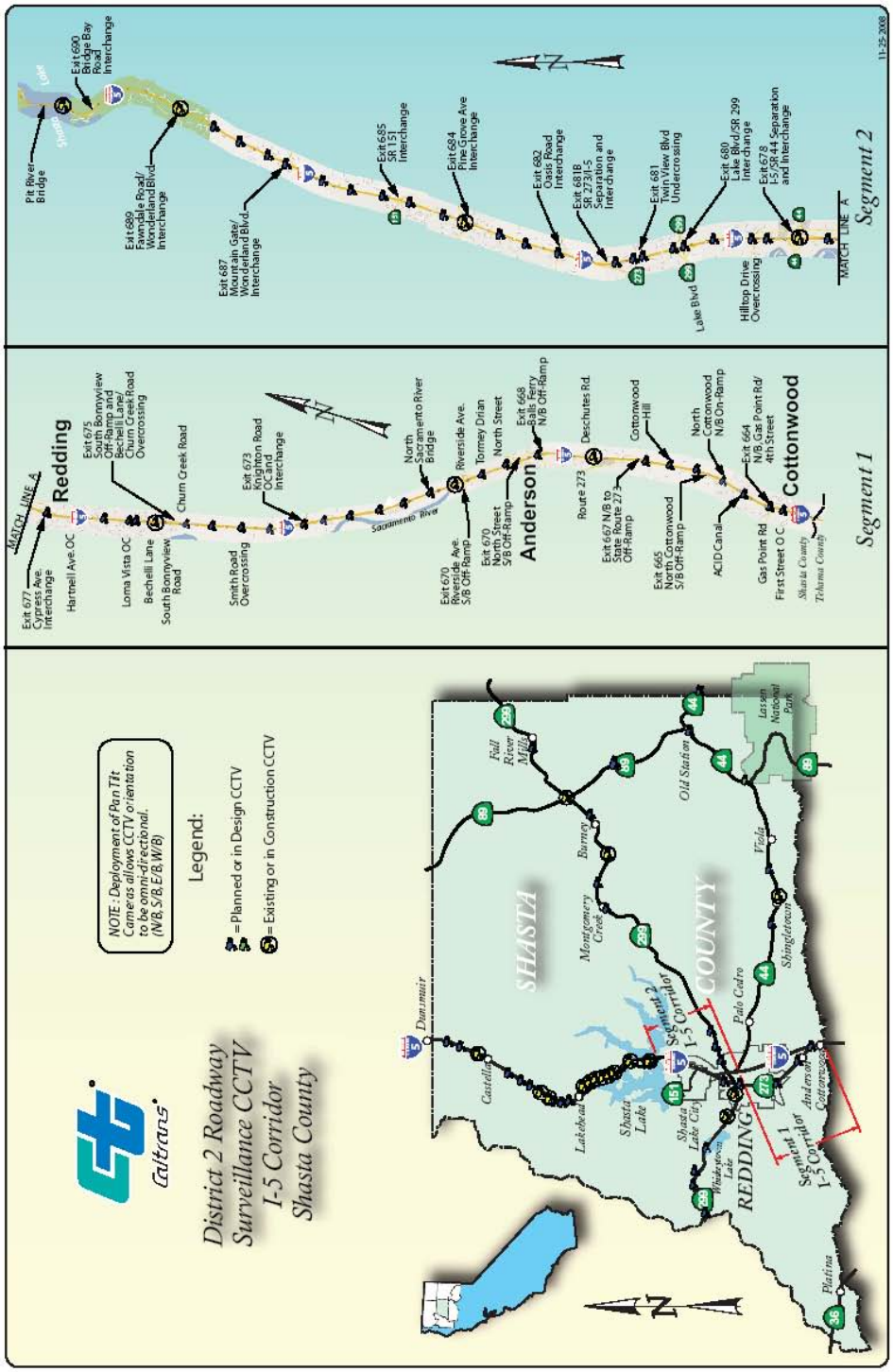
- **Reduce Congestion.** Many roadways in the region have *non-recurrent* congestion (i.e., congestion caused by incidents) challenges. Recreational attractions, such as national parks, national monuments, or ski areas have *recurring* congestion challenges at gate entrances and visitor site-specific locations. Projects will examine advanced technologies to improve traffic flow in these areas.

- **Increase Economic Activity**. Tourism is critical to the regional economy and improvements that improve tourism and travel will boost economic activity. This future project will determine how ITS technologies may impact economic activity.

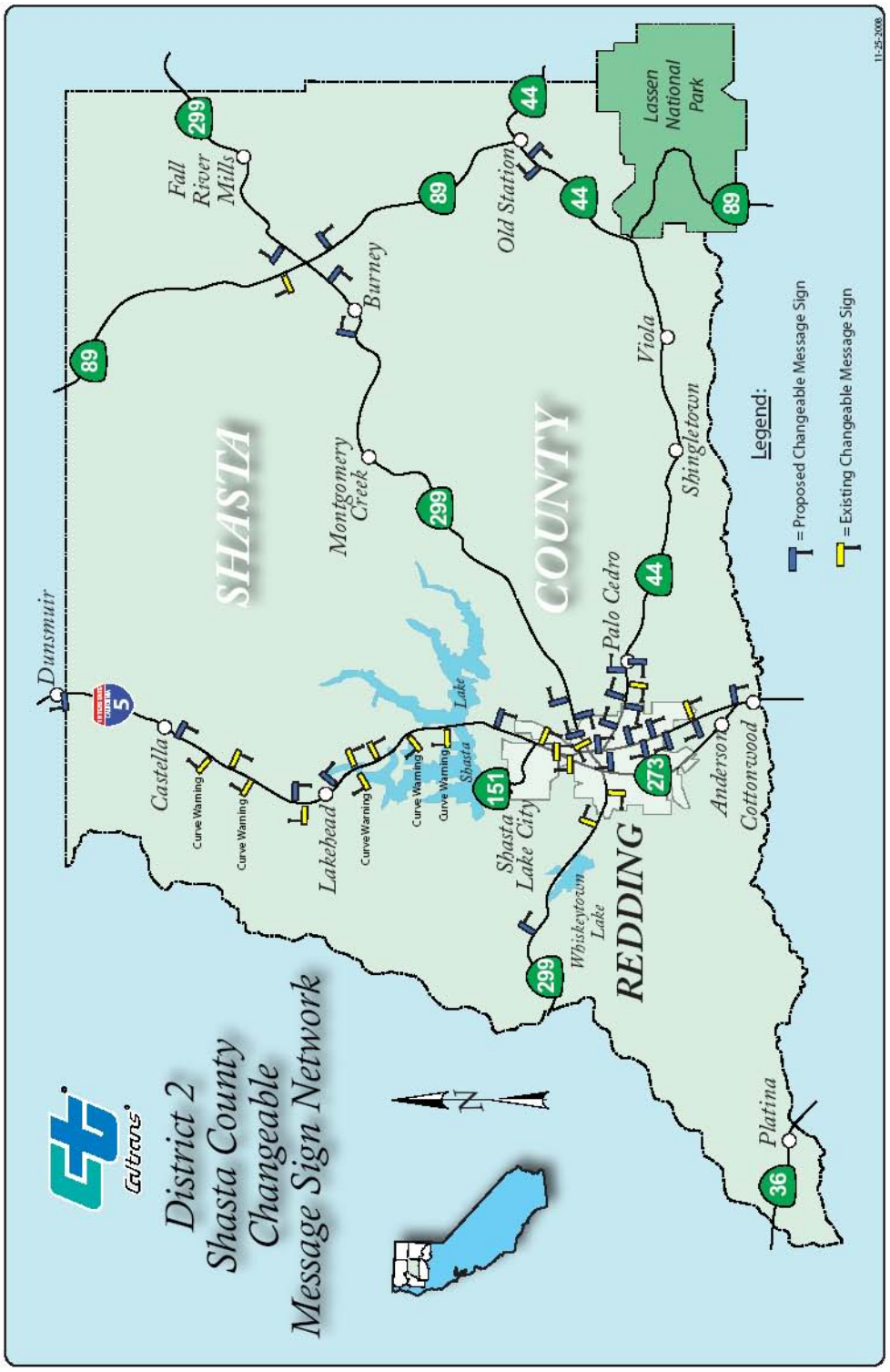
Maps 5-1 to 5-4 detail the existing locations and planned construction of ITS devices for the region. They include:

| | |
|---|---|
| Map 5-1: | Closed Circuit Television Camera Locations (CCTV)<br>16 units are existing; 18 additional units are planned |
| Map 5-2: | Changeable Message Sign Locations (CMS)<br>13 units are existing; 13 additional units are planned |
| Map 5-3: | Highway Advisory Radio Locations (HAR)<br>9 units are existing; 5 additional units are planned |
| Map 5-4: | Roadside Weather Information Systems Locations (RWIS)<br>6 units are existing; 10 additional units are planned |

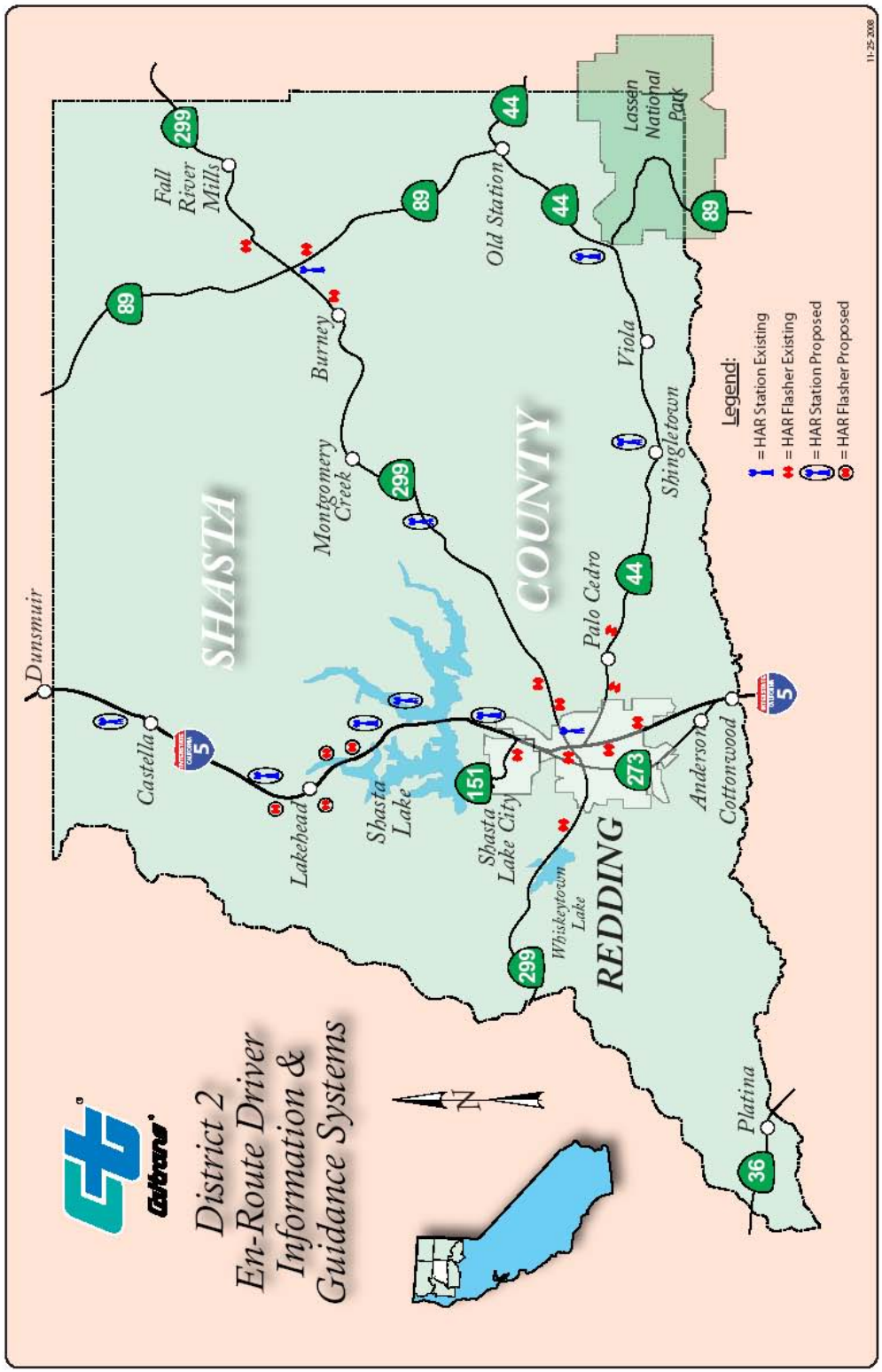
## Map 5-1 – Closed Circuit Television Camera Locations



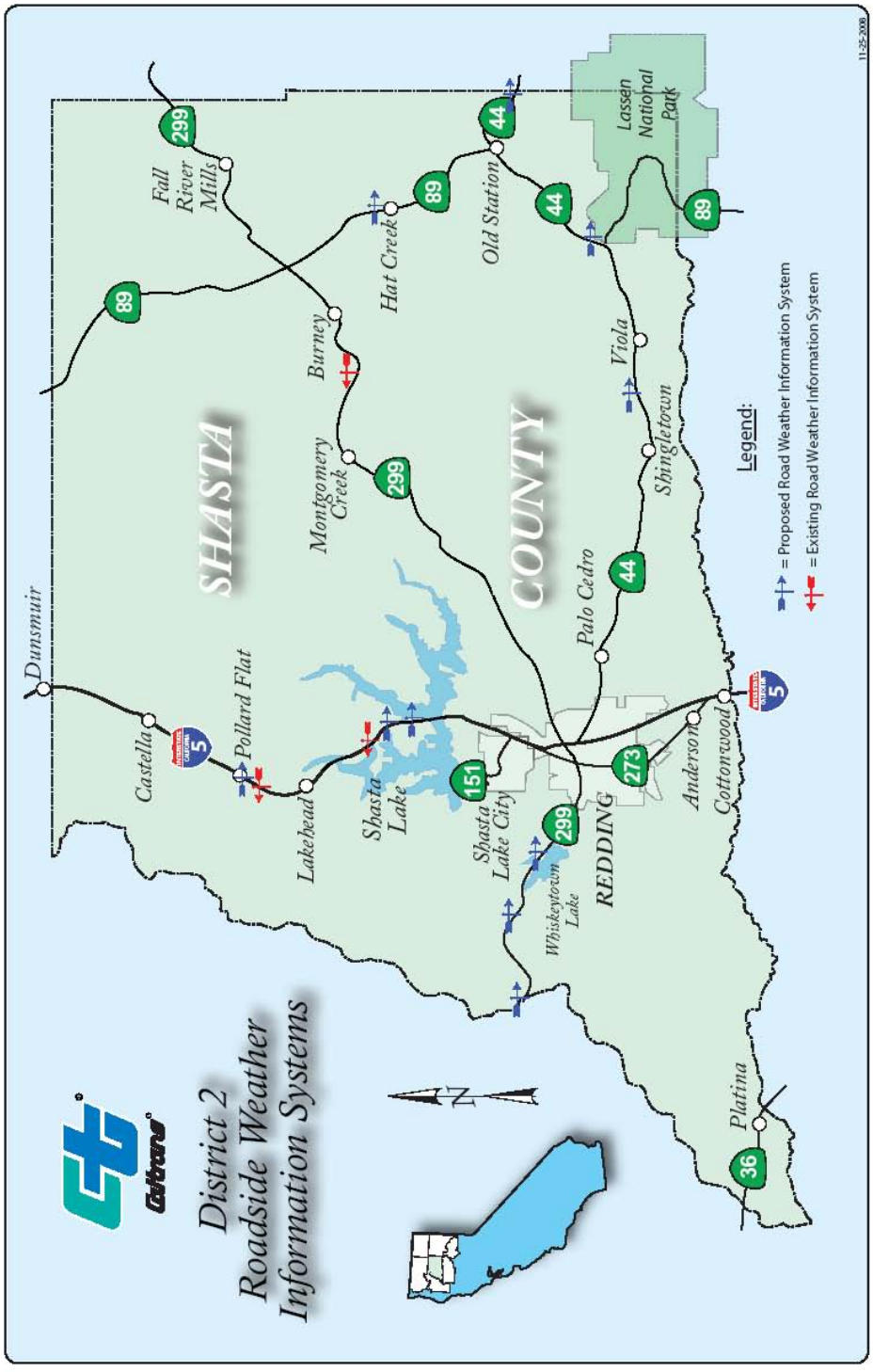
## Map 5-2 - Changeable Message Sign Locations



## Map 5-3 - Highway Advisory Radio Locations



## Map 5-4 - Roadside Weather Information Systems Locations



## Regional Transportation Programs and Special Studies

The following sections are summaries of significant planning efforts and programs that require a coordinated and collaborative process. They include:

1. State Highway Interchange Studies
2. State Highway Transportation Concept Reports (TCRs)
3. Soundwalls/Noise Studies
4. Recreation
5. High Priority Program (HPP)
6. Transportation Enhancement Program
7. Indian Reservation Roads (IRR) Program
8. Southern Region Study
9. Riverside/Ox Yoke Corridor Study
10. Fix 5 Program

### State Highway Interchange Studies

In 1996, the RTPA funded a two-year study to identify current deficiencies and possible improvements needed by 2025 at major interchanges on Interstate 5, State Route 44, and State Route 299. The final report was called the "Shasta County Interchange Improvement Study-Final Report." It resulted in a compilation of technical studies for 17 different interchanges within Shasta County. The purpose of the study was to provide the RTPA and various public agencies with a detailed description of improvements needed to accommodate future growth within Shasta County. This is a valuable tool to make sure adequate funds are planned for and right-of-way is preserved to implement the improvements. The RTPA has offered assistance to jurisdictions to develop funding programs for these projects. This is an important next step in the process to ensure there is a long range-source of funds.

Table 5-6 contains a list of interchange improvement needs.

| TABLE 5-6<br>Interchange Improvement Needs | | | |
|---|---|---|---|
| **ROUTE** | **POSTMILE** | **EXIT NUMBER** | **DESCRIPTION** |
| I-5 | 0.91 | 664 | Reconfigure Gas Point Road/Fourth Street interchange |
| I-5 | 1.91 | 665 | Reconfigure Main Street interchange |
| I-5 | 4.29 | 667 | Modify Deschutes Road interchange |
| I-5 | 5.64 | 668 | Reconfigure Balls Ferry/North Street interchange – relocate southbound off-ramp, add turning lanes and signals |
| I-5 | 6.74 | 670 | Reconfigure Riverside Drive interchange |
| I-5 | 9.77 | 673 | Reconfigure Knighton Road overcrossing and interchange |
| I-5 | 12.15 | 675 | Reconfigure South Bonnyview overcrossing and interchange |
| I-5 | 14.46 | 677 | Reconfigure Cypress Avenue Interchange and construct new I-5 overcrossing from Bechelli Lane to Industrial Street |
| I-5 | 15.45 | 678 | Reconfigure I-5/44 interchange (Central Redding interchange) |
| I-5 | 17.32 | 680 | Reconfigure 299E overcrossing and interchange |
| I-5 | 18.07 | 681A | Reconfigure the Twin View Boulevard interchange |
| I-5 | 18.48 | 681 | Reconfigure the State Route 273/I-5 interchange |
| I-5 | 19.40 | 682 | Reconstruct/Relocate Oasis Road interchange |
| I-5 | 21.00 | 684 | Reconfigure Pine Grove interchange |
| I-5 | 22.14 | 685 | Improve Shasta Dam Boulevard interchange -- limit access at Cascade Boulevard and improve turning movements at Wonderland Boulevard |
| 44 | L0.85 | 1 | Reconfigure Auditorium Drive interchange |
| 44 | R3.62 | 5 | Improve Airport Road interchange – add turning lanes and signals |
| 299 | 25.35 | 141 | Improve Churn Creek Road interchange – add turning lanes and signals |
| 299 | 27.00 | 143 | Improve Old Oregon Trail interchange – add turning lanes and signals |

### State Highway Corridor Studies and Transportation Concept Reports (TCR)

The RTPA participates with the Caltrans on corridor studies and TCRs. They identify improvement needs on state highways for the next 20 years, serve as a basis for future improvements, and assist Caltrans, regional, and local agencies in addressing the specific needs of communities they serve. They are route specific documents that analyze traffic conditions, demographics, local economies, land use, the environment, and other issues.

Caltrans has completed TCR for Interstate 5 and SR 299, and a Corridor Management Plan for the SR 299/44/36/89 Focus Route. TCRs are planned for SR 151 and 273.

A public outreach element is included in all corridor studies and TCRs. This involves a variety of stakeholders at the federal, state, and local level, including: regional transportation planning agencies, local transportation commissions, cities, counties, Native American Tribal governments, private businesses, community based organizations, and the general public. Diverse and ongoing communication is necessary to help ensure that the plans address the needs of system operators, users, and the people/environment affected by the system. The RTPA and Caltrans believe that, with a consensus-based document, they will be more effective in implementing a shared vision for the route.

Ongoing public outreach and stakeholder awareness are achieved in a number of ways during preparation of corridor studies and TCRs, including:

- Meetings with staff from regional transportation planning agencies, local transportation commissions, cities, counties, resource agencies and other local agencies.
- Attendance at meetings of local elected government bodies.
- Meetings/phone conferences with staff from other Caltrans districts and Sacramento, the Federal Highway Administration, the Washington Department of Transportation, and the Oregon Department of Transportation.
- Consultation with Native American Tribal governments.
- Interviews with representatives from community-based organizations, business associations, and other special interest groups.
- Press releases and media coverage (newspaper, radio, television).
- Informational brochure, posters, and outreach letters.
- Internet websites.
- Public workshops in the counties and communities in the roadway segment area.
- Comment cards, survey forms, and sign-in sheets.

Given that the subject routes pass through tribal ancestral lands in Shasta County, the RTPA, and Caltrans have emphasized ongoing communication with

Native American Tribal governments to identify potentially significant cultural resources within the study corridors. Participation in the development of the actual plans and identification of transportation issues/solutions has also been actively sought.

Workshops have proven to be a highly effective means of engaging the general public in development of corridor plans and TCRs. The workshops provide the public with the opportunity to present their insights, concerns, and needs directly to transportation managers. Information regarding the date and time of workshops has been distributed via newspaper, radio, television, fliers, brochures, posters, and community newsletters. Comment cards, survey forms, and sign-in sheets were created and available at all the workshops. Attendees at the workshops included Native Americans, community based organizations, Chambers of Commerce, the California Trucking Association, city and county staff, private businesses, the general public, and Congressional representatives. Media coverage and distribution of workshop information has included newspaper, radio, television, and local newsletters.

For the Interstate 5 project, an eye-catching brochure (and Spanish-language flier insert) was created and distributed with funding obtained through the Caltrans' Planning Public Participation program in the Office of Community Planning. Five hundred of these brochures were produced and mailed to individuals/organizations, most of which were Title VI and Environmental Justice groups in Shasta County. Three hundred additional outreach letters/brochures were sent to individuals/organizations located on or near I-5.

### Soundwalls/Noise Studies

Soundwalls are a way to minimize the increase in noise that comes with additional traffic lanes. Historically, soundwalls have been constructed under four basic programs:

- As part of a new freeway project;
- As part of a freeway widening project;
- Under the School Noise Abatement Program; and
- Under the Community Noise Abatement Program.

The Community Noise Abatement Program (HB 311) is where most of the construction of soundwalls has occurred. This program for the construction of soundwalls along existing freeways is in residential areas where three criteria are met. The three criteria were:

- The noise level must exceed a threshold of 67dBA in an area frequently used by people.
- Noise mitigation must be designed to reduce the noise level at least 5 decibels.
- Projects must be cost-effective, costing no more than $35,000 per

residential unit protected by the barrier.

Caltrans prepared the *2003 Shasta I-5/SR 44 Noise Study* to prioritize sound attenuation projects in Shasta County, at the request of the RTPA. This study encompassed Interstate 5 (I-5) from the Tehama County line to Shasta Lake City, and the freeway segment of State Route (SR) 44, I-5 to Airport Road.

The study consisted of 16 segments on I-5 and four segments on SR 44. Table 5-7 presents these segments in Priority Index Number Order. Caltrans uses the Priority Index Method to provide a relative comparison between study segments. The priority index numbers are generated using an algebraic equation based on four factors at each location. These factors are: achievable noise reduction, measured noise level, number of living units, and cost of the noise barrier. It is important to note that the order of this list may, or may not, represent funding priorities.

In 2009, Caltrans prepared a project level noise study report for the I-5 South Redding Six Lane Project. The report indicated noise levels would not increase significantly. A Noise Abatement Decision Report was prepared, where the preliminary noise abatement decision was "not to include sound walls as part of the project." The Report noted sound walls are not required for mitigation of impacts identified in the environmental document. A final decision will be made upon completion of the project design.

## Table 5-7
## Sound Attenuation Prioritization
## 2003 Shasta I-5/SR 44 Noise Study

| Priority Number [1] | Direction/Location Description | Segment/Calculated Length of Soundwall; Number of Residences Benefiting | Cost in $1,000s | Post Mile |
|---|---|---|---|---|
| 5 | **Interstate 5** | | | |
| 38.118 | Northbound/.5 mile north of Gas Point interchange | A (Option #1) 850 feet; 14 residences [2] | $375 | 1.43-1.69 |
| 31.648 | Southbound/1.25 miles north of Ox Yoke Road | C/5200 feet; 90 residences | $4,750 | 8.06-8.99 |
| 21.943 | Northbound/.5 mile south of Cypress Avenue interchange | E/1000 feet; 12 residences | $438 | 14.81-14.96 |
| 15.398 | Southbound/.5 mile north of Gas Point interchange | A (Option #2) / 1900 feet; 16 residences[2] | $830 | 1.43-1.69 |
| 11.109 | Southbound/Near Hartnell Avenue overcrossing | 4/2000 feet; 24 residences | $875 | R13.95-R14.5 |
| 9.796 | Northbound/Just north of Churn Creek interchange | 1/2800 feet; 15 residences | $1,225 | R12.1-R14.5 |
| 8 | Southbound/.75 mile north of Ox Yoke Road | B/1400 feet; 10 residences | $613 | 7.45-7.67 |
| 7.588 | Southbound/Near Hartnell Avenue overcrossing | 2/6100 feet; 72 residences | $2,625 | R13.95-R14.5 |
| 3.2 | Southbound/.75 mile north of Ox Yoke Road | D/2400 feet; 24 residences | $1,050 | 17.5-17.9 |
| 3.017 | Northbound/Just north of Churn Creek interchange | 5/1500 feet; 22 residences | $663 | 12.1-R14.5 |
| 2.993 | Northbound/1.75 miles north of Ox Yoke Road | C1/2100 feet; 11 residences | $735 | 8.48-8.9 |
| 2.803 | Northbound just north of Churn Creek interchange | 3/6100 feet; 91 residences | $2,135 | R12.1-R14.5 |
| 2.071 | Northbound/.25 mile south of Hilltop overcrossing | F/1700 feet; 11 residences | $600 | 15.8-16.0 |
| N/A | Southbound/at Ox Yoke Road interchange | B1 Not qualified – low noise | N/A | 6.74 |
| N/A | | 6 No benefiting residences | N/A | I-5 |
| 44 | **State Route 44** | | | |
| 0 | Just east of Churn Creek overcrossing | 44A/ Not qualified – low noise | $1,400 | 0.39-0.87 |
| 0 | Just east of Shasta View overcrossing | 44C/ Not qualified – low noise | $740 | 2.3-2.8 |
| N/A | Just east of Victor Ave. overcrossing | 44B Not qualified – low noise | N/A | 1.2-1.6 |
| N/A | Just east of Airport Road overcrossing | 44D Not qualified – low noise | N/A | 3.6-4.0 |

[1] A higher number indicates a greater benefit-to-cost ratio.
[2] Segment A has been calculated under two different scenarios. In Option 2, the wall is 1050 feet longer

## Recreation

Travel and tourism within Shasta County also affects streets and highways. The major recreational destination points can be seen on Map 5-5.

Visitation to these areas is seasonal with the highest use being between Memorial Day and Labor Day. Yearly fluctuations may be a function of drought conditions, poor weather, wildfires, higher gas prices, or the economy.

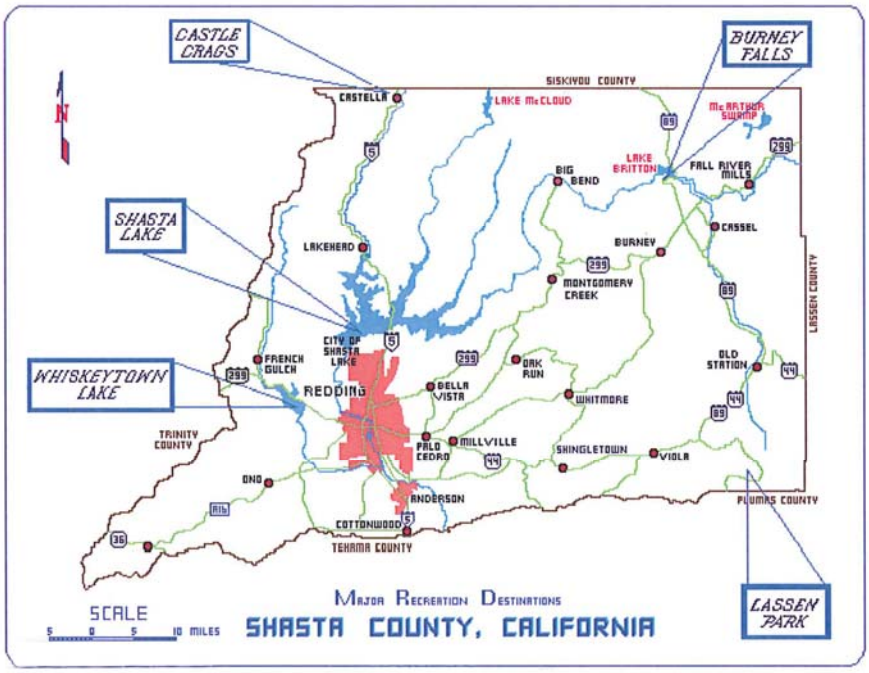
Only a portion of Lassen Volcanic National Park is within Shasta County. The vehicle numbers for this park include vehicles entering from the south through Tehama County. Some visitors enter through one gate, travel the length of the park, and exit through the other gate. Because of the high elevation of the major highway through the park, the road is usually closed by snow in October and rarely opens before June. Winter use is restricted to visitors hiking, snowshoeing, or skiing in on a snow-covered road.

Access to recreation areas is primarily by state highways, particularly the following:

| | | | |
|---|---|---|---|
| Interstate 5 |  | State Highway 299 |  |
| State Highway 44 |  | State Highway 89 |  |

Shasta County currently has the road capacity to handle recreationists. This is mainly due to the recreational destinations being far from Shasta County urban areas. No short- or long-range negative impacts are envisioned.

**Map 5-5 - Major Recreation Destinations**




## High Priority Program Projects

High Priority Program (HPP) projects are specifically established and funded by congress through federal law (see Table 5-8). Congress initiates HPP projects, usually at the request of constituents within a given congressperson's district. HPP projects are generally provided as part of the periodic transportation authorization acts or the annual transportation appropriations acts.

TABLE 5-8
High Priority Program Projects

| Project Name | Route | Post-Mile | Implementing Agency | Amount |
|---|---|---|---|---|
| Construct interchange on SR 44 at Stillwater Road | 44 | R3.6/R7.0 | Caltrans | $4 million |
| Realign SR 299 between Trinity and Shasta counties | 299 | 0.0/R7.4 | Caltrans | $5.6 million |

The federal reimbursement rate is 80%; however, HPP funds provided by legislation may not be enough to fully fund a project. In addition, most HPP legislation distributes the HPP authorizations incrementally, on a yearly basis, over the life of the act.

### Transportation Enhancement (TE) Program

The intent of the federal TE program is for such transportation improvements to become a common part of transportation investment policy as well as integrated into many projects. Federal TE funds are used for transportation-related capital improvement projects that enhance the transportation experience, in or around transportation facilities. Projects must be over and above required mitigation and normal transportation projects, and the project must be directly related to the surface transportation system. Projects must meet the criteria of twelve established program categories. TE funds are used almost exclusively for bicycle and pedestrian projects.

Regional transportation planning agencies receive 75 percent of the TE dollars in California. Each region receives a TE share by formula. The other 25 percent goes to the state. All eligible projects must be adopted in the STIP and approved by FHWA in the Federal State Transportation Improvement Program (FSTIP). Caltrans prepares preliminary determinations of eligibility for the FHWA.

Caltrans' proposed TE projects are shown in Table 5-9.

**TABLE 5-9**
**Caltrans' Proposed Transportation Enhancement Projects**

| Project Count | Regional Transportation Projects | Project Band* | Project Type | Project Costs ($1,000) | Comments |
|---|---|---|---|---|---|
| 1 | Castella Vista Point Enhancements on I-5 | **Short** | Scenic beautification | $443 | Programmed |
| 2 | Geoarchaeology Survey - Several counties Caltrans District 2 | **Short** | Historic and archaeological | $285 | Provide a baseline of geology along State Routes to assist in the identification of buried soils and potential archaeological sites - Programmed |
| 3 | Various Projects | **Short** | Varies | | |
| 4 | Shasta Divide - Widening SR 299 Old Shasta to Whiskeytown Lake NRA | **Short / Long** | Bicycle and pedestrian | $5,500 | Add shoulders to provide multimodal access along SR 299. Currently, a gap in useable shoulders exists that limits access along this corridor between Redding/ Old Shasta and the Whiskeytown National Recreation Area |
| 5 | Phase 1 SR 273 PM 3.8/11.1 Bike Lane - I-5 to Canyon Road | **Long** | Bicycle and pedestrian | $1,200 | Carryover from 2004 RTP |
| 6 | Phase 2 SR 273 PM 11.1/14.9 Bike Lane - Canyon Road to Wyndham Lane | **Long** | Bicycle and pedestrian | $1,200 | Carryover from 2004 RTP |
| 7 | SR 299 Lake Blvd Complete Streets | **Long** | Bicycle and pedestrian | $2,000 | Gap closure for multimodal use facilities and aesthetic treatments between SR 273 and Interstate 5 |
| 8 | Various Multi Use paths in rural communities of Shasta County along the State highways including: Round Mountain, Montgomery Creek, Shingletown, Old Station, Fall River Mills, McArthur | **Beyond** | Bicycle and pedestrian | $1,000 - $5,000 | Locations not scoped anticipate one or two projects over next 10 to 15 years |

** Short = 2010-2020; Long = 2020-2030; Beyond = after 2030*

### Indian Reservation Roads (IRR) Program

Indian Reservation Roads (IRR) are public roads that provide access to or within Indian reservations, Indian trust land, restricted Indian land, and Alaska native villages. IRR funds can be used for any type of Title 23 transportation project providing access to or within federal or Indian lands. The FHWA and Bureau of Indian Affairs (BIA) jointly administer the program in accordance with an interagency agreement. The BIA and Tribal governments undertake most of the design and construction of IRR projects. Nationwide Priority Indian Reservation

Bridge Program was established using a set aside of $13 million of IRR funds per year. Under Public Law 93-638 contracts, Tribal governments can undertake portions of the IRR Program within its boundary; about one third of the IRR Program is being undertaken by Tribal governments. Based upon the IRR's plans, a list of needed projects is presented in Tables 5-10 and 5-11.

**TABLE 5-10**
**Redding Rancheria Tribe IRR Projects**

| | | All Funding shown in $1,000s | | | | | |
|---|---|---|---|---|---|---|---|
| **Project Name** | **Project Description** | **FY 09/10** | **FY 10/11** | **FY 11/12** | **FY 12/13** | **FY 13/14** | **FY 14/15** |
| No projects | | | | | | | |
| | | | | | | | |

**TABLE 5-11**
**Pit River Tribe IRR Projects**

| | | All Funding shown in $1,000s | | | | | |
|---|---|---|---|---|---|---|---|
| **Project Name** | **Project Description** | **FY 09/10** | **FY 10/11** | **FY 11/12** | **FY 12/13** | **FY 15/16** | **FY Long Range** |
| Windy Point Road | Upgrade | 840 | | | | | |
| Jenkins Road | Maintenance | | 40.9 | | | | |
| Thomas Ryan Road | Maintenance | | 25 | | | | |
| Pit River Health Clinic Loop | Maintenance | | 12 | | | | |
| XL Ranch Housing Loop | New road | | 1,210 | | | | |
| Thoms Creek Road | Maintenance | | 25 | | | | |
| Big Bend Rancheria/Kosh Creek Road | Maintenance | | 19.3 | | | | |
| Lookout Dr/Lookout Cemetery Road | Maintenance | | 24.1 | | | | |
| XL Cemetery | Upgrade | | 240 | | | | |
| Thoms Creek Road | Upgrade | | 1,210 | | | | |
| Lookout Drive | Upgrade | | 295 | | | | |
| Lookout Cemetery Road | Upgrade | | 1,320 | | | | |
| BIA 76 Loop Extension to High 36 | New road | | | 1,210 | | | |
| Big Bend Rancheria/Kosh Creek Road | New road | | | | 945 | | |
| Smith Camp Road | Upgrade | | | | | 240 | |

## Southern Region Transportation Planning Study and Traffic Impact Fee Program

In 2004, Shasta County requested that the RTPA prepare a planning document to determine road improvement alternatives for the rapidly growing southern region of the County – in the Cottonwood area and in and near the City of Anderson. Planning an efficient and affordable transportation system to alleviate existing traffic congestion and support future development was the

primary focus of the study. Consistent with the Shasta County General Plan, the study analyzed a new north/south arterial between Gas Point Road and West Anderson Drive, and a new east/west arterial between West Anderson Drive and Rhonda Road, as a new transportation system backbone for the southern region. Several alternatives were evaluated, and final preferred arterial alignments were identified. The Southern Region Transportation Planning Study and Traffic Impact Fee Program was adopted by Shasta County in 2007.

### Ox Yoke Road/Riverside Avenue Corridor Study

Growth and development pressures continue within the City of Anderson and areas of Shasta County north of the City of Anderson. In August of 2007, the Ox Yoke Road/Riverside Avenue Corridor Study was prepared. The corridor connects State Highway 273 to Airport Road.

The first phase of the study generated a working paper that presented a summary of existing conditions, forecasts of future traffic volumes, assessment of improvement needs, preliminary designs for four improvement alternatives and preliminary cost estimates for the improvement alternative that will be needed to accommodate area development through the year 2030.

The second phase of the study focused on identifying the fee methodology to fund the transportation improvements identified in phase 1.

Over time, increased development within the City of Anderson and areas of the County north of the City of Anderson would create more auto, truck, and pedestrian traffic, all using the existing limited transportation infrastructure. Without this comprehensive study, transportation improvements within the corridor may not have adequate funding.

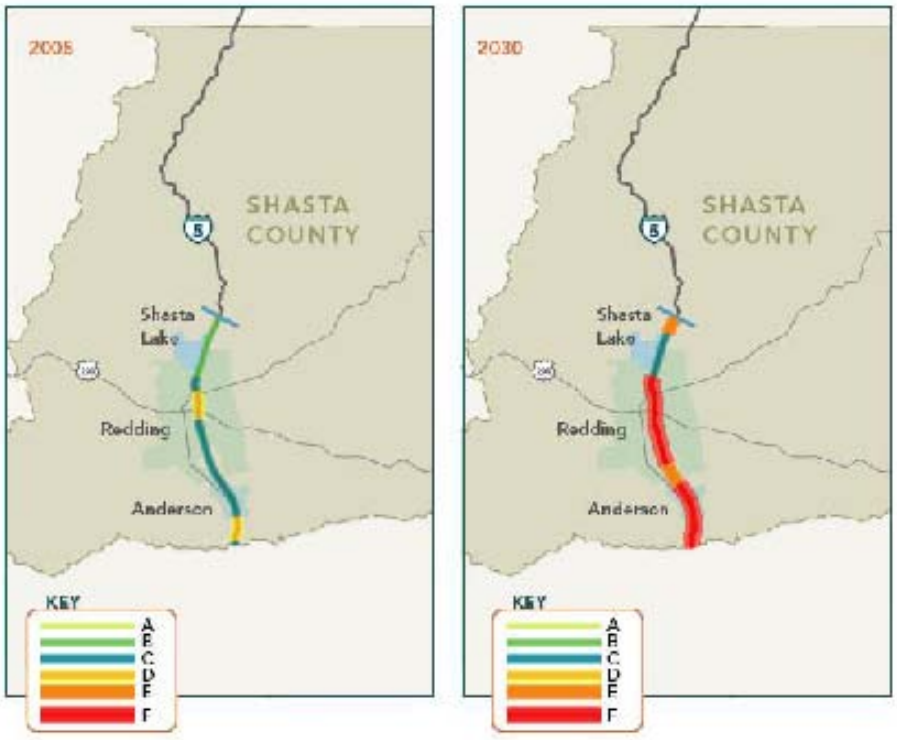
The fee program component of the study was suspended by the City of Anderson due to the economic recession. The study is expected to be finalized before the next update of the RTP.

### Fix 5 Partnership

Increasing traffic volumes are already causing congestion on I-5. The peak hour level of service (LOS) on segments of I-5 in southern Shasta County are projected to degrade to LOS "F" within five years, with virtually all segments in this area and in Tehama County failing within 20 years, unless additional lanes are added.

Seeing the need for improvements, a coalition of the RTPA, Tehama County Transportation Commission, Caltrans, Shasta and Tehama counties, and all five of the cities along I-5 from Shasta Lake south to Corning joined together to form the Fix 5 Partnership in 2007. The Partnership studied the corridor and identified a program to systematically improve capacity by adding lanes to I-5. A traffic impact fee program was developed. This program evolved into the Shasta

**Map 5-6 – I-5 Level of Service**




County Regional Improvement Program (SCRIP), which would have imposed traffic impact fees for road improvements to major roads throughout the south central region of Shasta County. In 2009, the City of Shasta Lake voted to support the grogram, but the cities of Anderson and Redding voted against the program. Due to the stipulation for unanimous participation, the SCRIP was not implemented.

As congestion increases in the region and the traveling public becomes more impacted, local agencies may once again decide to pursue a regional solution. Information generated by the Fix 5 Partnership can serve as the foundation to develop a regional solution.

The RTPA has continued to pursue funding for I-5 improvements through other funding programs.

## Streets and Highways Goal, Issues, Objectives, Policies, and Actions

### Goal: *Maintain a safe and efficient road system within the limits of existing and projected funding constraints.*

## Issues

A. The effect of the backlog created by deferred pavement maintenance is cumulative. The present maintenance deficit represents many years of revenues falling short of needs.

B. Road capacity may soon be reached on some road segments, given sustained development and population growth.

C. Existing development restricts the range of options available to solve traffic circulation problems, particularly in urbanized areas. Purchasing right-of-way for planned future roadways is necessary to reduce the costs of future road construction projects.

D. Funding for any road or highway project is limited within both the short-range and long-range horizon of this plan.

E. Inadequate services and facilities require that the existing transportation system increase its efficiency. Implementing TSM techniques is an essential part of the effort.

F. Shasta Dam has the potential of being enlarged. The RTPA should be involved in the development of feasibility studies to account for the impact on the region's transportation infrastructure.

### Objectives

**Short-Range (2010-2020)**

O-1 Develop more cost-effective methods to maintain the existing road network.

O-2 Identify anticipated street and road problems, including capacity problems, before they become critical in order to program preventive measures.

O-3 Plan for and reserve necessary road right-of-way for future expansion prior to development occurring.

O-4 Maximize the number of persons that can use the existing transportation system.

**Long-Range (2020-2030)**

O-5 Develop a safe, sustainable street and highway system that can be maintained within the projected available funding and will meet automobile, truck, and transit needs.

## Policies

P-1 Use the Shasta County Traffic Model as a tool to monitor circulation and determine improvement needs, including capacity improvements, on key road segments.

P-2 Reserve adequate road right-of-way as outlined in the local agencies' general plans to the extent that funding can be reasonably expected to be available.

P-3 Retain existing right-of-way needed to serve future planned development.

P-4 Continue to provide funding for implementation of the road system and bridge inventory program to identify existing and projected levels of deterioration and to determine present and future road repair and maintenance needs.

P-5 Pace the growth of maintained miles of streets, roads, and highways to match the projected availability of maintenance funds.

P-6 Support efforts to create stable, local funding sources for streets and highways, and oppose state and federal proposals that reduce local funding.

P-7 Conduct special studies for selected corridors, road segments, and key locations, as needed to evaluate safety concerns, project alternatives, estimate costs, and assign priorities.

P-8 Develop plans and programs that emphasize reconstruction and improvement projects on existing roads that will enhance safety, circulation, and traffic flow.

P-9 TSM alternatives should be studied for corridors developing unacceptable congestion and also studied in any analysis conducted as part of a major investment study for major transportation projects.

## Actions

**Short-Range (2010-2020) -** The tables near the end of this chapter contain information for planned improvements in the region. All projects listed are considered to be regionally significant.

### *Caltrans*

Caltrans utilizes the State Highway Operation and Protection Program (SHOPP) to maintain the safety and integrity of the State Highway system. Typical projects in the SHOPP include: pavement rehabilitation and preservation, safety, bridge replacement and rehabilitation, traffic operational improvements, mandated projects, facility improvements, and information technology. (P-5, P-9)

Projects for the SHOPP are nominated by each Caltrans District office and are sent to Caltrans Headquarters for programming on a competitive basis statewide. Final project determinations are subject to CTC review. Individual districts are not guaranteed any minimum level of funding.

Table 5-12 describes projects that are programmed in the four-year programming cycle (2010-2014) in Caltrans, District 2. Table 5-13 describes projects that are not programmed in the four-year programming cycle of the SHOPP at this time, but are being considered as future short-range SHOPP projects (2014-2020).

**TABLE 5-12**
**SHASTA COUNTY**
**SHORT-RANGE SHOPP PROJECTS PROGRAMMED**
**CALTRANS (DISTRICT 2)**

| SHOPP PROJECTS (Short-Range 2010-2014) PROGRAMMED | | | | | | |
|---|---|---|---|---|---|---|
| **Rte** | **Beg PM** | **End PM** | **Project Location** | **Type of Work** | **Const. Cost X ($1,000)** | **Anticipated Begin Construction Year** |
| 5 | Var | Var | At various location on Interstate 5 near Anderson | Bridge Polyester Overlays | $1,800 | 2010 |
| 5 | 8.5 | 12.1 | In and near Redding. Knighton Road to Bechelli | Median Cable Barrier | $1,400 | 2010 |
| 5 | R15.0 | R15.8 | In Redding at the Central Redding Interchange from Cypress to 0.1 miles north of Hilltop OC | Collector Distributor SB | $12,500 | 2011 |
| 5 | 16.0 | 17.0 | In Redding 0.1 miles south of Hilltop to 0.3 miles south of Rte. 5/299 separation | Tree Planting and Temp. Irrigation | $147 | 2011 |
| 5 | R28.9 | R29.3 | Near Shasta Lake from 0.4 miles south of and to Turntable Bay overcrossing (In Construction) | Increase in curve radii-Operational Improvement | $1,700 | 2010 |
| 5 | 30.6 | | Near Shasta Lake City at Tunnel Gulch Viaduct Bridge/Castella-Sweetbriar overcrossing | Rehabilitate Bridges | $10,100 | 2011 |
| 5 | R39.5 | R40.8 | Near Lakehead (In Construction) | Replace Antlers Bridge | $135 | 2009 |
| 5 | R43.1 | R43.1 | At the SB Lakehead Rest Area (In Construction) | Rehabilitate Southbound Rest Area | $1,200 | 2010 |
| 5 | R44.0 | R58.0 | In Shasta County near Lakehead from 1.3 miles south of Dog Creek Bridge to 0.6 miles north of Sims UC. | Roadway Rehabilitation (GARVEE) | $42,000 | 2011 |
| 5 | Var | Var | In Shasta County on Interstate 5 | Repair and install new MBGR | $3,500 | 2011 |
| 44 | 46.9 | 48.3 | Near Viola from 2.5 to 1.1 miles west of the Lassen Park entrance. (In Construction) | Curve Improvement and extend climbing lane | $6,700 | 2010 |
| 44 | 69.0 | 69.8 | Near Old Station from 3.6 miles east of Plum Valley Road to 1.6 miles west of Shasta/Lassen County Line. (In Construction) | Shoulder Widening | $1,530 | 2010 |
| 89 | 4.0 | 10.7 | From 0.4 miles south of Hat Creek Bridge to 0.4 miles north of Doty Road | Extend Culverts and Widen Shoulders | $300 | 2010 |
| 273 | 6.4 | 6.4 | In Anderson at Alexander Street (In Construction) | Install Signals | $856 | 2010 |

**TABLE 5-12**
**SHASTA COUNTY**
**SHORT-RANGE SHOPP PROJECTS PROGRAMMED**
**CALTRANS (DISTRICT 2) (continued)**

| | | | | | | |
|---|---|---|---|---|---|---|
| 273 | 4.3-5.1<br>5.8-7.1<br>11.0-<br>12.5 | | In Shasta County on Route 273, (Anderson Creek Bridge to Briggs is being done under separate project PM 5.1 to PM 5.8) | Rehabilitate Roadway | $5,600 | 2010 |
| 273 | 7.1 | 11.0 | In Shasta County on Route 273, Jolly Giant CAPM | Pavement Preservation (STIM II) | $23,000 | 2010 |
| 273 | 12.7 | 14.3 | In Shasta County on Route 273, Cedar Road CAPM | Pavement Preservation | $1,000 | 2011 |
| 273 | 15.4 | | In Redding from Wyndham Lane to Angelo Avenue | Install Signals | $650 | 2010 |
| 299 | 3.0 | 4.3 | Near Redding east of Trinity County line | Realign roadway | $10,500 | 2010 |
| 299 | 4.3 | 5.5 | Near Redding east of Trinity County line | Curve Improvement | $9,036 | 2011 |
| 299 | 23.7 | | In Redding at 11th Street | Install Signals | $630 | 2010 |
| 299 | 30.3 | 40.7 | Near Bella Vista from 0.3 miles east of Intermountain Road to 0.3 miles west of Backbone Ridge Road | Rehabilitate Roadway | $27,000 | 2013 |
| 299 | 40.7 | 60 | In and near Montgomery Creek, 0.3 miles west of Backbone Ridge Road to Big Bend Road | Rehabilitate Pavement | $20,413 | 2012 |
| 299 | 74.8 | | In Burney at Burney Creek Bridge | Bridge Scour | $3,502 | 2012 |
| 89 | 8.5 | | Near Hat Creek at 2.3 miles south of Hat Creek Ranger Station | Replace Culverts | $110 | 2011 |
| 299 | VAR | VAR | In Shasta County | Treat Bridge Decks and replace joint seals | $1,435 | 2010 |

**TABLE 5-13**
**SHASTA COUNTY**
**SHORT-RANGE SHOPP PROJECTS NOT PROGRAMMED**
**CALTRANS (DISTRICT 2)**

| SHOPP PROJECTS (Short-Range 2014-2020) NOT PROGRAMMED | | | | | | |
|---|---|---|---|---|---|---|
| **Rte** | **Beg PM** | **End PM** | **Project Location** | **Type of Work** | **Const. Cost X ($1,000)** | **Anticipated Begin Construction Year** |
| 5 | Var | Var | In Shasta County on Interstate 5 | Repair and install new MBGR | $4,000 | 2016-2019 |
| 5 | 28.14 | | Pit River Bridge | Seismic and Paint | $20,000 | 2016-2019 |
| 5 | 57.41 | | Sims Road UC | Replace Deck | $2,600 | 2016-2019 |
| 5 | 66.80 | | Craig View Drive | Replace Bridge | $3,600 | 2016-2019 |
| 5 | 5.10 | 5.90 | Upgrade Landscaping | Highway Planting Restoration | $1,800 | 2015-2018 |
| 5 | 13.80 | 16.10 | Central Redding Interchange | Highway Planting Restoration | $1,000 | 2015-2018 |
| 5 | 21.20 | 22.00 | Pine Grove to Shasta Lake City | Highway Planting Restoration | $1,000 | 2013-2014 |
| 5 | 16.10 | 18.00 | Hilltop OC to Oasis | New Highway Planting | $1,700 | 2016-2019 |
| 5 | 5.90 | 11.90 | North Anderson to South Redding | New Highway Planting | $1,600 | 2016-2019 |
| 5 | 18.00 | 22.50 | Maintenance Access Roads and Pullouts | Freeway Maintenance Access | $600 | 2013-2014 |
| 5 | 42.00 | 66.90 | Chain on Area, Sacramento River Canyon | Freeway Maintenance Access | $3,200 | 2014-2016 |
| 5 | 5.10 | 22.50 | Hardscape, to reduce worker exposure | Roadside Safety Improvement | $1,800 | 2014-2016 |
| 5 | 0.00 | 22.50 | Gore and Safety Device Paving | Roadside Safety Improvement | $1,600 | 2014-2016 |
| 44 | 59.62 | | Hat Creek | Replace Bridge | $1,500 | 2016-2020 |
| 44 | 7.50 | 14.50 | Palo Cedro CAP M | Pavement Preservation CAP M | $4,500 | 2014-2018 |
| 44 | 15.43 | | Central Redding Interchange | Correct Vertical Clearance | $8,000 | 2016-2019 |
| 44 | 1.50 | 3.90 | Victor to Old Oregon Trail | New Highway Planting | $1,500 | 2016-2019 |
| 44 | 7.00 | 62.00 | Drainage Restoration | Drainage Restoration | $1,600 | 2016-2019 |
| 89 | 29.19 | | Lake Britton | Replace Bridge | $80,000 | 2016-2019 |
| 273 | VAR | VAR | Pavement Rehabilitation Redding | Rehabilitate Roadway | $30,000 | 2016-2019 |
| 299 | 24.80 | 27.20 | 299/5 interchange to Stillwater Bridge | New Highway Planting | $1,600 | 2016-2019 |
| 299 | 6.50 | 18.50 | Whiskey Creek Rehab. | Rehabilitate Roadway | $30,000 | 2014-2018 |
| 299 | 77.80 | 79.60 | Johnson Park Rehab. | Rehabilitate Roadway | $3,000 | 2014-2018 |
| 299 | 41.50 | 55.20 | Safety Devise Paving and Pullouts | Roadside Safety Improvement | $600 | 2016-2019 |

*Regional Transportation Planning Agency*

- The RTPA will maintain "performance measures". (O-2, P-7)
- Identify projects to optimize traffic control, traffic signal performance, reduce traffic congestion, and improve air quality. (P-5, P-9)
- Identify advanced technologies to improve traffic flows and system efficiency. (P-5, P-9)
- Improve its ability to model the network using the Travel Demand Model, and continue to calibrate the model to increase its overall usefulness. (P-5, P-9)

*Shasta County*

Most of the county's effort will continue to be concentrated on replacing or rehabilitating (including seismic retrofits) deficient bridges (see Table 5-14); and sealing, overlaying, or rehabilitating selected road segments; safety projects; and guard rails at various locations, as funds are available.

The Shasta County General Plan proposes a few new roads (mostly in the SCR) to improve circulation at build out. Most of the cost of these proposed roads will be borne by the developers who will be required to build them along approved alignments to required minimum standards. Shasta County's budget limitations prevent the construction of new routes in any other manner.

## TABLE 5-14
## SHASTA COUNTY (UNINCORPORATED)
## LOCAL ROADS BRIDGE REPLACEMENT PLAN
## HBP 20-YEAR FORECAST

| Bridge | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|---|
| | | | | Cost in thousands | | | |
| East Fork Road @ Clear Creek | $1,310 | | | | | | |
| Buzzard Roost Road @ Cedar Creek | $1,070 | | | | | | |
| Swede Creek Road @ Swede Creek | | $ 835 | | | | | |
| Swede Creek Road @ Little Cow Creek | | $2,285 | | | | | |
| Old Oasis Road @ Churn Creek | | $ 870 | | | | | |
| Spring Creek Road @ Fall River | | | $2,122 | | | | |
| Cassel Fall River Road @ Pit River | | | $6,238 | | | | |
| Smith Bottom Road @ ACID Canal | | | $ 750 | | | | |
| Inwood Road @ South Fork Bear Creek | | | | $710 | | | |
| Island Road @ Little Tule River | | | | $520 | | | |
| Fern Road East @ Glendenning Creek | | | | $860 | | | |
| Old 44 Drive @ Oak Run Creek | | | | | $1,370 | | |
| White House Road @ ACID Canal | | | | | $440 | | |
| Soda Creek Road @ Soda Creek | | | | | $970 | | |
| Soda Creek Road @ SFk Soda Creek | | | | | | $640 | |
| Ponderosa Way @ NFk Bear Creek | | | | | | $860 | |
| Ponderosa Way @ Snow Creek | | | | | | $730 | |
| Bear Mtn. Road @ Deep Hole Creek | | | | | | | $950 |
| Lower Gas Pt Road @ NFk Cottonwood Creek | | | | | | | $2,350 |
| La Moine Road @ Slate Creek | | | | | | | $2,350 |
| **Totals (in thousands):** | **$2,380** | **$4,225** | **$9,110** | **$2,070** | **$1,980** | **$3,930** | **$4,420** |

**TABLE 5-14**
**SHASTA COUNTY (UNINCORPORATED)**
**LOCAL ROADS BRIDGE REPLACEMENT PLAN**
**HBP 20-YEAR FORECAST (CONTINUED, PAGE 2)**

| Bridge | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 |
|---|---|---|---|---|---|---|---|
| | | | | Cost in thousands | | | |
| Holiday Rd @ Spr. Branch Stillwater Crk | $640 | | | | | | |
| Platina Road @ Arbuckle Gulch | $950 | | | | | | |
| Adobe Road @ Anderson Creek | $2,460 | | | | | | |
| Oak Run Road @ Oak Run Crk, 6C-188 | $1,170 | $1,210 | | | | | |
| Lakeshore Road @ Doney Crk | | $7,830 | | | | | |
| Parkville Road @ Ash Creek | | $710 | | | | | |
| Main Street @ Castle Creek | | | $2,060 | | | | |
| Lakeshore Road @ Charley Crk | | | $6,480 | | | | |
| Ponderosa Way @ Snow Creek | | | $830 | | | | |
| Pittville Road @ Pit River | | | | $3,640 | | | |
| Riverside Road @ Sacramento River | | | | $2,120 | | | |
| Ash Creek Road @ Sacramento River overflow | | | | $2,610 | | | |
| Gibson Road @ Boulder Creek | | | | | $2,600 | | |
| Jackrabbit Flat Rd @ Burney Creek | | | | | $1,130 | | |
| Churn Creek Rd @ Churn Creek 6C-86 | | | | | $3,780 | | |
| Bland Road @ NF Wilson Creek | | | | | | $680 | |
| Westside Road @ Squaw Creek | | | | | | $1,520 | |
| Platina Road @ Huling Creek | | | | | | $540 | |
| Bland Road @ SF Wilson Creek | | | | | | | $ 950 |
| Mineral Road @ Bailey Creek | | | | | | | $ 490 |
| Phillips Road @ Little Cow Crk | | | | | | | $1,210 |
| **Totals (in thousands):** | **$4,050** | **$9,750** | **$9,370** | **$8,370** | **$7,510** | **$2,740** | **$2,650** |

## TABLE 5-14
## SHASTA COUNTY (UNINCORPORATED)
## LOCAL ROADS BRIDGE REPLACEMENT PLAN
## HBP 20-YEAR FORECAST (CONTINUED, PAGE 3)

| Bridge | 2023/24 | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 |
|---|---|---|---|---|---|---|---|
| | | | | Cost in thousands | | | |
| Rock Creek Road @ Bailey Creek | $910 | | | | | | |
| Sunny Hill Road @ Ducket Creek | $720 | | | | | | |
| Trinity Mountain Road @ French Gulch | $670 | | | | | | |
| Ponderosa Way @ SFk Cow Creek | | $1,630 | | | | | |
| Dersch Road @ Lack Creek, 6C-131 | | $1,770 | | | | | |
| Mountain Meadow Road @ Battle Creek | | $740 | | | | | |
| Clark Creek Road @ Burney Creek | | | $760 | | | | |
| Statton Road @ Salt Creek | | | $1,070 | | | | |
| Churn Creek Rd @ Churn Creek 6C-128 | | | $6,690 | | | | |
| Gas Point Road @ Antelope Creek | | | | $1,890 | | | |
| Tamarack Road @ Burney Creek | | | | $1,570 | | | |
| Mears Ridge Road @ Mears Creek | | | | $2,490 | | | |
| Nelson Creek Road @ Nelson Creek | | | | | $1,840 | | |
| Meyers Road @ Dry Creek | | | | | $1,480 | | |
| Soda Creek Road @ Soda Creek, 6C-139 | | | | | $1,180 | | |
| Platina Road @ NFk Cottonwood Creek | | | | | | $1,590 | |
| Gas Point Road @ Dry Creek | | | | | | $1,720 | |
| Soda Creek Road @ Sacramento River | | | | | | $3,510 | |
| Cline Gulch @ Clear Creek | | | | | | | $3,470 |
| Deer Flat Road @ NF Battle Creek | | | | | | | $760 |
| Big Bend Road @ Roaring Creek | | | | | | | $730 |
| **Totals (in thousands):** | **$2,300** | **$4,140** | **$8,520** | **$5,950** | **$4,500** | **$6,820** | **$4,960** |
| **20 Year Total:** | | | | | | | **$109,860** |

***City of Anderson*** - The City of Anderson's project needs are included in Tables 5-20 and 5-21 near the end of this chapter.

- Anderson will concentrate on rehabilitation, maintenance, widening, and installing new traffic signals. (P-5, P-9)

***City of Redding*** – The City of Redding's project needs are included in Table 5-15 (bridge replacements) below, and Tables 5-22 (capacity increasing), and 5-23 (safety) near the end of this chapter. In addition, Tables 5-25 and 5-26 show proposed Redevelopment Agency projects and plans.

- Redding will concentrate on maintenance, rehabilitation, and operational improvements, such as new signals, signal improvement, and road widening.(P - 5, P - 9)

- The City's general plan has requirements similar to the county's, by which the City will have most of the new roads constructed and paid for by developers as direct costs or through contributions to overall City traffic impact fees to construct specific projects of regional benefit. (P-5, P-9)

- Redding produced a street master plan in 1991 and the Urban Area Transportation Study in January 2002. A variety of potential improvements aimed at addressing the capacity problems of critical intersections and corridors were analyzed in these reports. These improvements range from intersection revisions, street widening, grade-separated interchanges, and extensions of parallel roadways. (P-5, P-9)

- There are several improvement projects being contemplated for the interchange area at Cypress, Hilltop, and I-5 to help relieve heavy congestion. They include widening ramps, signalization, and other improvements.

- Miscellaneous road widening and intersection improvements.

***City of Shasta Lake*** - The City of Shasta Lake's project needs are included in Table 5-24 near the end of this chapter.

- Emphasis will be on bringing existing street pavement to an acceptable level of maintenance. The City has approximately 50 miles of paved streets, of which approximately 10-15 percent are at an acceptable level of maintenance. The city has an additional 15 miles of unpaved streets. (P-5, P-9)

**TABLE 5-15**
**CITY OF REDDING**
**SUMMARY OF BRIDGE PROJECTS**
**HBP SHORT-RANGE**

| STATE BRIDGE NUMBER | LOCATION | COST | PROJECT TYPE |
|---|---|---|---|
| 06C0033 | Lake Blvd @ SPRR | $5,000,000 | Rehabilitation |
| 06C0047 | Locust St @ ACID Canal | $1,000,000 | Rehabilitation |
| 06C0057 | Twin View Blvd @ Boulder Creek | $5,000,000 | Rehabilitation |
| 06C0106 | Hartnell Ave @ Churn Court | $5,000,000 | Rehabilitation |
| 06C0106 | Hilltop Dr @ I-5 | $10,000,000 | Rehabilitation |
| 06C0070 | Westside Rd @ Oregon Gulch | $1,000,000 | Rehabilitation |
| 06C0071 | Westside Rd @ Canyon Cr | $1,000,000 | Rehabilitation |
| 06C0078 | Westside Rd @ ACID Canal | $1,000,000 | Rehabilitation |
| 06C0085 | Eastside Rd @ Canyon Cr | $1,000,000 | Rehabilitation |
| 06C0088 | Old Oregon Trail @ W. Fork Stillwater Creek | $5,000,000 | Rehabilitation |
| | Total = | $35,000,000 | |

### *Recreation Areas*

Whiskeytown Recreation Area – Project needs for this facility include the following:

1. New entrance stations on Kennedy Memorial Drive and Oak Bottom Road.
2. Redesign intersection on Kennedy Memorial Drive at Whiskeytown Dam
3. Up to four designated parking areas adjacent to the lake to allow for proper entrance and exit lanes to resolve possible safety hazards
4. Add designated bike lane or trail adjacent to Highway 299

Lassen Volcanic National Park – Transportation improvement needs include:

1. Improve traffic controls and signs outside of the Park to notify travelers of current road conditions in the park. The Park and/or Caltrans need to be able to change the message from remote locations.
2. Improve asphalt concrete condition and drivability on SR 89 from SR 36 East to the southern boundary of the Park.
3. Widen 500 feet of road shoulder section on Lassen Park Highway (SR 89) between the south entrance monument and the new visitor center.

California State Parks - Improvements for the following parks are needed:

1. McArthur-Burney Falls Memorial State Park

   Replace Lake Britton Bridge and realign road (in conjunction with Caltrans project in Table 5-13 on page 5-34)

   New park entrance road and entrance kiosk. Redesign of abandoned section of Highway 89 into park perimeter road.

2. Castle Crags State Park

   New entrance parking lot to facilitate day use and vehicles during camping registration.

3. Shasta State Historic Park

   Construct parking lot for day use visitors and school busses. (This project will alleviate some of the parking that occurs on Highway 299.)

**Long-Range (2020-2030)** - The tables near the end of this chapter contain information for planned improvements in the region. All projects listed are considered to be regionally significant.

***Caltrans***

Present and future budgetary limitations at all government levels dictate a contined emphasis on maintaining and rehabilitating existing streets and highways, rather than investing in new routes to serve new areas. Long-range SHOPP projects are shown in Table 5-16 (on the next page).

As required by Government Code (Sections 65085 et seq.) and to show fiscal constraint, the long range "future development" list of capacity increasing projects for the years 2020 through 2030 identifies and prioritizes the projects that could be completed. Fundable projects are listed in Table 5-17. Additional projects that are necessary, but currently not funded or prioritized, are also listed in Table 5-17. Needed interchange improvements are listed in Table 5-6* (on page 5-21). Local funding sources for interchange improvements, such as zones of benefit and mitigation fees, are currently being considered by local jurisdictions.(P-5, P-7, P-10)

*Funding for these projects is dependent on the county and cities adopting zones of benefit for each interchange.

**TABLE 5-16**
**SHASTA COUNTY**
**LONG-RANGE SHOPP PROJECTS NOT PROGRAMMED**
**CALTRANS (DISTRICT 2)**

| SHOPP PROJECTS (Long-Range 2020-2030) NOT PROGRAMMED | | | | | | |
|---|---|---|---|---|---|---|
| **Rte** | **Beg PM** | **End PM** | **Project Location** | **Type of Work** | **Const. Cost X ($1,000)** | **Anticipated Begin Construction Year** |
| 5 | 28.14 | 28.14 | Pit River Bridge | Replace Bridge | $400,000 | 2022 |
| 5 | VAR | VAR | Pavement Restoration/Rehabilitation | Rehabilitate Roadway | $100,000 | 2020-2030 |
| 44 | VAR | VAR | Pavement Restoration/Rehabilitation | Rehabilitate Roadway | $70,000 | 2020-2030 |
| 89 | VAR | VAR | Pavement Restoration/Rehabilitation | Rehabilitate Roadway | $20,000 | 2020-2030 |
| 273 | VAR | VAR | Pavement Restoration/Rehabilitation | Rehabilitate Roadway | $50,000 | 2020-2030 |
| 299 | VAR | VAR | Pavement Restoration/Rehabilitation | Rehabilitate Roadway | $70,000 | 2020-2030 |
| 273 | 17.08 | 17.08 | Sacramento River Bridge | Replace Bridge | $50,000 | 2022 |

*City of Anderson*

Anderson's long-range project needs are included in Tables 5-20 and 5-21 near the end of this chapter. The City of Anderson is in the process of studying how to provide better access to its commercial area adjacent to Interstate 5. One of the alternatives outlined in the Shasta County Interchange Improvement Study Final Report needs to be implemented in order to address the access problems at Deschutes Road. (P-5, P-9)

*City of Redding*

Redding's long-range project needs are included in Tables 5-22 and 5-23 near the end of this chapter. The City of Redding plans to develop a number of arterials to serve planned development within the city. These facilities will have to rely on local sources of funding, with the exception of those projects prioritized to address the Interstate 5 corridor. (P-5, P-9)

*City of Shasta Lake*

Shasta Lake's long-range project needs are included in Table 5-24 near the end of this chapter. The City of Shasta Lake General Plan defines in its circulation element four areas of interest. New construction per the plan includes the extension of Black Canyon Road, extension of Cascade Boulevard and the extension of Shasta Gateway Drive. The Pine Grove extension and interchange improvement is the most significant project in the city. The Shasta Dam Boulevard at Interstate 5 interchange and the streets in the vicinity of Shasta Dam Boulevard and Cascade Boulevard will need improvements. (P-5, P-9)

## TABLE 5-17

**Shasta County Regional Transportation Planning Agency**

**Summary of Projects - Capacity Increasing**

## CALTRANS

| Project Count | REGIONAL TRANSPORTATION PROJECTS | TOTAL EST COST OF PROJECT | TOTAL EST COST OF PROJECT | PROJECT BAND | PROJECT TYPE/(PROJECT INTENT) | EXPECTED FUNDING SOURCES |
|---|---|---|---|---|---|---|
| 1 | Liberty Street Imp to SR 44 (Dana to Downtown) | $ 78,943,000 | | (2010-2020) | Capacity Increase / (1, 2, 3, 5) | STIP |
| 2 | Add Lanes to I-5 - S Bonneyview Road (exit 675) to Central Redding Interchange (exit 678 A | $ 29,000,000 | | (2010-2020) | Capacity Increase / (1, 2, 3, 5) | Prop 1B/STIP |
| 3 | Add Lanes to I-5 - 4th Street Overcrossing (exit 664) to Deschutes OC in Anderson (exit 667) (AKA Cottonwood Hills Truck Climbing Lanes) | $ 25,000,000 | | (2010-2020) | Capacity Increase / (1, 2, 3, 5) | Prop 1B/STIP |
| 4 | Add Lanes to I-5 - Riverside Ave Overcrossing (exit 670) to S Bonneyview Road (exit 675) | $ 38,100,000 | | (2010-2020) | Capacity Increase / (1, 2, 3, 5) | STIP |
| | **Total Short Term Needs =** | **$ 171,043,000** | | | | |
| 5 | Add Lanes to I-5 - Central Redding Interchange (exit 678) to N Redding Interchange | | $ 34,290,000 | (2020-2030) | Capacity Increase / (1, 2, 3, 5) | STIP |
| 6 | Add Lanes to I-5 - SR 273 (exit 667)in Anderson to Riverside Av Overcrossing (exit 670) | | $ 69,850,000 | (2020-2030) | Capacity Increase / (1, 2, 3, 5) | STIP |
| 7 | Add Lanes to I-5 - Shasta County Border to 4th Street Overcrossing | | $ 22,225,000 | (2020-2030) | Capacity Increase / (1, 2, 3, 5) | STIP |
| 8 | Add Lanes to I-5 - SR 151 to Mtn Gate Overcrossing | | $ 22,860,000 | (2020-2030) | Capacity Increase / (1, 2, 3, 5) | STIP |
| 9 | Highway 44 - Stillwater Project | | $ 64,000,000 | (2020-2030) | Capacity Increase / (1, 2, 3, 5) | STIP |
| 10 | Reconfigure I-5/44 Interchange (Central Redding) Exit 678 A,B,C | | $ 50,000,000 | (2020-2030) | Interchange/ (1,2,3,5,7) | SHOPP |
| 11 | Buckhorn Grade Improvement Project | | $ 240,000,000 | (2020-2030) | Capacity Increase/Safety / (1,2,3,4,6,7) | STIP/SHOPP |
| | **Total Long Term Fundable Needs =** | | **$ 503,225,000** | | | |

| DESCRIPTION | Short (2010-2020) | Long (2020-2030) | Total |
|---|---|---|---|
| **Funding Needed By Short and Long Range Bands** | **$ 171,043,000** | **$ 503,225,000** | **$ 674,268,000** |
| **Recap of Expected/Estimated/Unknown Resources** | | | |
| **State Transportation Improvement Program Current/Programmed =** | **78,943,000** | **$ -** | **$ 78,943,000** |
| **State Transportation Improvement Program Future=** | **54,860,000** | **54,860,000** | **$ 109,720,000** |
| **State Highway Operations and Protection Program =** | | **$ -** | **$ -** |
| **Local =** | | | **$ -** |
| **Prop 1B =** | **$ 44,500,000** | **$ -** | **$ 44,500,000** |
| **Total Funding Reasonably Available =** | **$ 178,303,000** | **$ 54,860,000** | **$ 233,163,000** |
| **Total Unfunded Needs =** | **$ 7,260,000** | **$ (448,365,000)** | **$ (441,105,000)** |

| Project Intent Legend |
|---|
| 1) Reduce Congestion |
| 2) Increase Mobility |
| 3) Economic Development |
| 4) Improve Access |
| 5) Reduce Pollutants |
| 6) Connectivity |
| 7) Collision Reduction |
| 8) Improve Bike/Ped Access |
| 9) Transit Improvements |

**Note 1 : Green highlighted projects above can be funded in the constrained funding analysis**

**Note 2 : Un-highlighted projects above cannot be funded. New funding sources will need to be identified or improvement will be developer funded.**

**Note 3 : $$ = Project is Partially funded at this time**

## TABLE 5-18

**Shasta County Regional Transportation Planning Agency**

**Summary of Projects - Capacity Increasing**

**SHASTA COUNTY**

| Project Count | REGIONAL TRANSPORTATION PROJECTS | SHORT TERM TOTAL EST COST OF PROJECT | LONG TERM TOTAL EST COST OF PROJECT | FUNDABLE PROJECT BAND | PROJECT TYPE/INTENT | EXPECTED FUNDING SOURCES |
|---|---|---|---|---|---|---|
| 1 | Gas Point Road from New N-S to Rhonda - Widen to 4 lanes | $ 2,731,000 | | (2010-2020) | Capacity Increase (1, 2, 3, 4, 5, 6) | TIF/Other |
| 2 | Old Oregon Trail, Widen to 3 Lanes Big League Dreams to N.O. Columbia School | $ 2,150,000 | | (2010-2020) | Capacity/Safety (1, 2, 3, 4, 5, 7) | TIF/Other |
| | **Total Short Term Needs =** | **$ 4,881,000** | | | | |
| 3 | **$$** -I-5 Main St Interchange Exit 665 - Connect to Rhonda, add roundabouts | | $ 9,781,000 | Unfundable/Unknown | Interchange (1, 2, 3, 4, 5, 6) | Unfunded or Developer |
| 4 | Rhonda Road Gas Point - I-5 Main New realigned 3 lane road | | $ 3,920,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4, 5, 6) | Unfunded or Developer |
| 5 | New N-S Road - First St to New E-W Construct to 3 lanes | | $ 4,687,600 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4, 5, 6) | Unfunded or Developer |
| 6 | New E-W Road -New N-S to Rhonda Construct 3 lane road | | $ 2,357,200 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4, 5, 6) | Unfunded or Developer |
| 7 | Reconfigure Knighton Road Over-Crossing at Interchange Exit 673 | | $ 23,000,000 | Unfundable/Unknown | Interchange (1, 2, 3, 4, 6) | Unfunded or Developer |
| 8 | Churn Ck Rd, Hartmeyer to Huntington, Widen, Realign, | | $ 3,200,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4, 5, 6) | Unfunded or Developer |
| 9 | Deschutes Road Widen to 3-Lanes, Old 44 Drive to Boyle Road | | $ 2,815,000 | Unfundable/Unknown | Capacity/Safety (1, 2, 3, 4, 5, 7) | Unfunded or Developer |
| 10 | I-5 Gas Point Interchange Improvements exit 664 | | $ 12,235,000 | Unfundable/Unknown | Interchange (1, 2, 3, 4, 5, 6) | Unfunded or Developer |
| 11 | First Street Widen from 2 to 5 lanes, N/S Arterial to Overcrossing | | $ 562,800 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4, 5, 6) | Unfunded or Developer |
| 12 | New N-S Road - New E-W to Rhonda | | $ 7,275,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4, 5, 6) | Unfunded or Developer |
| 13 | Deschutes Road Widen to 3-Lanes, Palo Cedro to Dersch Road | | $ 5,000,000 | Unfundable/Unknown | Capacity/Safety (1,3,7,8,9) | Unfunded or Developer |
| 14 | Cottonwood - Front, Magnolia, Pine and Chestnut St Roundabouts | | $ 500,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4, 5, 6) | Unfunded or Developer |
| 15 | Dry Creek Road Shoulder Widening, Deschutes Rd to Bear Mtn Rd | | $ 4,250,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4, 5, 6) | Unfunded or Developer |
| 16 | Knighton Road West | | $ 29,000,000 | Unfundable/Unknown | New Facility (1,2,3,4,6) | Unfunded or Developer |
| 17 | Improve SR 299 Old Oregon Trail Interchange - Exit 143 | | $ 2,500,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4, 5, 6) | Unfunded or Developer |
| 18 | Intermountain Road, SR 299 to Bear Mtn Road | | $ 7,090,000 | Unfundable/Unknown | New Facility (1,2,3,4,6) | Unfunded or Developer |
| 19 | East Stillwater Way, Shoulder Widen and Extend to Bear Mtn Road | | $ 5,060,000 | Unfundable/Unknown | New Facility (1,2,3,4,6) | Unfunded or Developer |
| 20 | Oasis Road Widen to 4-Lanes, Randolph to Old Oasis | | $ 950,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4, 5, 6) | Unfunded or Developer |
| 21 | Black Ranch Road Extension | | $ 2,350,000 | Unfundable/Unknown | New Facility (1,2,3,4,6) | Unfunded or Developer |
| | **Total Long Term Fundable Needs =** | | **$ 126,533,600** | | | |

| DESCRIPTION | Short (2010-2020) | Long (2020-2030) | Total |
|---|---|---|---|
| **Funding Needed By Short and Long Range Bands** | **$ 4,881,000** | **$ 126,533,600** | **$ 131,414,600** |
| **Recap of Expected/Estimated/Unknown Resources** | | | |
| **Traffic Impact Fee =** | **3,700,000** | **3,500,000** | **$ 7,200,000** |
| **Redevelopment Fees=** | **-** | **-** | **$ -** |
| **ARRA =** | | **$ -** | **$ -** |
| **Local/Other =** | **$ 1,181,000** | | **$ 1,181,000** |
| **HSIP =** | | **$ -** | **$ -** |
| **Total Funding Reasonably Available =** | **$ 4,881,000** | **$ 3,500,000** | **$ 8,381,000** |
| **Total Unfunded Needs =** | **$ -** | **$ (123,033,600)** | **$ (123,033,600)** |

**Project Intent Legend**

1) Reduce Congestion
2) Increase Mobility
3) Economic Development
4) Improve Access
5) Reduce Pollutants
6) Connectivity
7) Collision Reduction
8) Improve Bike/Ped Access
9) Transit Improvements

**Note 1 : Green highlighted projects above can be funded in the constrained funding analysis**

**Note 2 : Un-highlighted projects above cannot be funded. New funding sources will need to be identified or improvement will be developer funded.**

**Note 3 : $$ = Project is Partially funded at this time**

## TABLE 5-19

**Shasta County Regional Transportation Planning Agency**

**Summary of Projects - Safety**

**SHASTA COUNTY**

| Project Count | REGIONAL TRANSPORTATION PROJECTS | SHORT TERM TOTAL EST COST OF PROJECT | LONG TERM TOTAL EST COST OF PROJECT | FUNDABLE PROJECT BAND | PROJECT TYPE/INTENT | EXPECTED FUNDING SOURCES |
|---|---|---|---|---|---|---|
| 1 | Old Oregon Trail Bike Lanes, SR 299 to Old Alturas | $ 3,000,000 | | (2010-2020) | Safety (2, 6, 7,8) | BTA/Road Fund |
| 2 | Canyon Road Bike Lanes, Valley View Rd to China Gulch | $ 600,000 | | (2010-2020) | Safety (2, 6, 7,8) | BTA/Road Fund |
| 3 | Whitmore Road Shoulder Widening, 0.3 Miles WO Fern Rd to Old Cow Cr Rd | $ 1,050,000 | | (2010-2020) | Safety (7,8) | HSIP/Road Fund |
| 4 | Union School Road Shoulder Widening, Tierra Oaks Dr to Old Oregon Tr | $ 880,000 | | (2010-2020) | Safety (7,8) | HSIP/Road Fund |
| 5 | Olinda Road Shoulder Widening, Sammy Lane to Red Leaf Lane | $ 1,100,000 | | (2010-2020) | Safety (7,8) | HSIP/Road Fund |
| 6 | Hawthorne Ave Shoulder Widening, Happy Valley Rd to Dixieland Lane | $ 750,000 | | (2010-2020) | Safety (7,8) | HSIP/Road Fund |
| 7 | Olinda Road Shoulder Widening, Anderson City Limit to Sammy Lane | $ 1,050,000 | | (2010-2020) | Safety (7,8) | HSIP/Road Fund |
| 8 | Canyon Road Bike Lanes, SR 273 to Valley View Rd | $ 650,000 | | (2010-2020) | Safety (2, 6, 7,8) | BTA/Road Fund |
| 9 | Lake Boulevard at Pine Grove Avenue Roundabout/Signal | $ 500,000 | | (2010-2020) | Intersection (1, 2, 3, 4, 6, 7) | HFL |
| 10 | Happy Valley Road Shoulder Widen and Realign, Palm Avenue to Warwick St , | $ 1,875,000 | | (2010-2020) | Safety (7,8) | HSIP/BTA/TIF/Road Fund |
| | **Total Short Term Needs =** | **$ 11,455,000** | | | | |
| 11 | Dry Creek Road Shoulder Widening, Deschutes Rd to Project Funding Limits | | $ 1,000,000 | (2020-2030) | Safety (7, 8) | HSIP/Road Fund |
| 12 | Old Alturas Road, Shoulder Widen and Realign, Old Oregon Tr to Stillwater Ck | | $ 490,000 | (2020-2030) | Safety (2, 6, 7,8) | HSIP/Other |
| 13 | Placer Road, Shoulder Widen and Realign, Muletown Rd to Leaning Pine Rd | | $ 650,000 | (2020-2030) | Safety (7,8) | HSIP/Other |
| 14 | Churn Creek Road, Shoulder Widen from Rancho to Knighton | | $ 1,000,000 | (2020-2030) | Safety (7,8) | HSIP/Other |
| 15 | Churn Creek Road, Shoulder Widen from Knighton to Airport | | $ 1,000,000 | (2020-2030) | Safety (7,8) | HSIP/Other |
| 16 | 4th Street Median Lane, Main Street to Balls Ferry Road | | $ 1,000,000 | (2020-2030) | Capacity/Safety (1, 2, 3, 4, 7) | HSIP/Other |
| 17 | Clear Creek Road Shoulder Widen, 273 to Honey Bee | | $ 1,000,000 | (2020-2030) | Safety (7,8) | HSIP/Other |
| 18 | Old 44 Drive Shoulder Widen from COR to Deschutes Road | | $ 1,000,000 | (2020-2030) | Safety (7,8) | HSIP/Other |
| 19 | Old 44 Drive, Shoulder Widen and Realign, Silver Bridge Rd to Oak Run Rd | | $ 1,000,000 | (2020-2030) | Safety (7,8) | HSIP/Other |
| 20 | Bear Mountain Road - Shoulder Widen and Improve Alignment | | $ 1,000,000 | (2020-2030) | Safety (7,8) | HSIP/Other |
| 21 | Swasey Drive Shoulder Widening, SH 299 to Placer | | $ 3,090,000 | (2020-2030) | Safety (7,8) | HSIP/Other |
| 22 | Lower Springs Road Shoulder Widening, SH 299 to Swasey Drive | | $ 1,000,000 | (2020-2030) | Safety (2, 6, 7,8) | HSIP/Other |
| 23 | Old Alturas/Boyle Roads, Shoulder Widening, Stillwater Ck to Deschutes Rd | | $ 1,000,000 | (2020-2030) | Safety (2, 6, 7,8) | HSIP/Other |
| 24 | Placer Road at Swasey Drive, Roundabout | | $ 500,000 | Unfundable/Unknown | Safety (2, 6, 7,8) | Unfunded or Developer |
| 25 | Canyon Road at China Gulch Drive Roundabout/Signal | | $ 500,000 | Unfundable/Unknown | Intersection (1, 2, 3, 4, 6, 7) | Unfunded or Developer |
| 26 | Old Oregon Trail at Old Alturas Roundabout/Signal | | $ 500,000 | Unfundable/Unknown | Intersection (1, 2, 3, 4, 6, 7) | Unfunded or Developer |
| 27 | Deschutes Road at Boyle and Old Deschutes Rd Roundabout/Signal | | $ 500,000 | Unfundable/Unknown | Intersection (1, 2, 3, 4, 6, 7) | Unfunded or Developer |
| 28 | Cottonwood - Fourth Street and Locust Street Roundabout/Signal | | $ 500,000 | Unfundable/Unknown | Intersection (1, 2, 3, 4, 6, 7) | Unfunded or Developer |
| 29 | Quartz Hill and Keswick Dam Roads, Roundabout/Signal | | $ 500,000 | Unfundable/Unknown | Intersection (1, 2, 3, 4, 6, 7) | Unfunded or Developer |
| 30 | Cottonwood - Happy Valley at Gas Point Road Roundabout/Signal | | $ 500,000 | Unfundable/Unknown | Intersection (1, 2, 3, 4, 6, 7) | Unfunded or Developer |
| 31 | Deschutes Rd @ SR 44 Ramps and Old 44 Dr, Roundabouts/Signals | | $ 2,000,000 | Unfundable/Unknown | Intersection (1, 2, 3, 4, 6, 7) | Unfunded or Developer |
| | **Total Long Term Needs =** | | **$ 13,230,000** | | | |

| DESCRIPTION | Short (2010-2020) | Long (2020-2030) | Total |
|---|---|---|---|
| **Funding Needed By Short and Long Range Bands** | **$ 11,455,000** | **$ 13,230,000** | **$ 24,685,000** |
| **Recap of Expected/Estimated/Unknown Resources** | | | |
| **Traffic Impact Fee =** | **187,500** | **$ 509,000** | **$ 696,500** |
| **Projects currently programmed w/various sources (HRR/HSIP,etc) =** | **7,380,000** | | **$ 7,380,000** |
| **Expected funding from HSIP =** | **1,000,000** | **$ 4,750,000** | **$ 5,750,000** |
| **Expected funding from Bicycle Trans Act (BTA)** | **$ 1,839,500** | **$ 1,881,000** | **$ 3,720,500** |
| **Local/Other/ Road Match=** | **$ 548,000** | **$ 548,000** | **$ 1,096,000** |
| **Highways For Life (HFL) =** | **$ 500,000** | **$ 500,000** | **$ 1,000,000** |
| **Total Funding Reasonably Available =** | **$ 11,455,000** | **$ 8,188,000** | **$ 19,643,000** |
| **Total Unfunded Needs =** | **$ -** | **$ (5,042,000)** | **$ (5,042,000)** |

**Project Intent Legend**

1) Reduce Congestion
2) Increase Mobility
3) Economic Development
4) Improve Access
5) Reduce Pollutants
6) Connectivity
7) Collision Reduction
8) Improve Bike/Ped Access
9) Transit Improvements

**Note 1 : Green highlighted projects above can be funded in the constrained funding analysis**

**Note 2 : Un-highlighted projects above cannot be funded. New funding sources will need to be identified or improvement will be developer funded.**

**Note 3 : $$ = Project is Partially funded at this time**

## TABLE 5-20

**Shasta County Regional Transportation Planning Agency**

**Summary of Projects - Capacity Increasing**

### CITY OF ANDERSON

| Project Count | REGIONAL TRANSPORTATION PROJECTS | SHORT TERM TOTAL EST COST OF PROJECT | LONG TERM TOTAL EST COST OF PROJECT | PROJECT BAND | PROJECT TYPE/INTENT | EXPECTED FUNDING SOURCES |
|---|---|---|---|---|---|---|
| 1 | North Street - Ravenwood to Sharon - Widening | $ 900,000 | | (2010-2020) | Capacity Increase (1, 2, 3, 4,7,8) | Redevelopment |
| | **Total Short Term Fundable =** | **$ 900,000** | | | | |
| 2 | **$$** Deschutes/I-5 Interchange, Phase 1 - **(See Note 3)** | | $ 6,680,000 | Unfundable/Unknown | Interchange/ (1, 2, 3, 7) | Partially funded w/TIF |
| 3 | McMurray Drive - North of Ganyon Drive - Widening | | $ 500,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4,7,8) | Unfunded or Developer |
| 4 | Gateway Drive - From Balls Ferry South - Widen | | $ 1,193,750 | Unfundable/Unknown | New Facility (2, 3, 8) | Unfunded or Developer |
| 5 | East Street - North of Willow Glen Dr. - Extension | | $ 1,662,500 | Unfundable/Unknown | New Facility (2, 3, 8) | Unfunded or Developer |
| 6 | Reconfigure I-5 Central Anderson Interchange (North Street) | | $ 3,100,000 | Unfundable/Unknown | Interchange/ (1, 2, 3, 7) | Unfunded or Developer |
| 7 | Pleasant Hills SR 273 Vineyards construct 2 lane road extension | | $ 3,323,946 | Unfundable/Unknown | New Facility (2, 3, 8) | Unfunded or Developer |
| 8 | Gateway Drive - Balls Ferry to Deschutes - Construct 2 lane road | | $ 6,500,000 | Unfundable/Unknown | New Facility (2, 3, 8) | Unfunded or Developer |
| 9 | Rhonda Road - Factory Outlets Drive to Pleasant Hills - Intersection Reconstruction | | $ 2,286,875 | Unfundable/Unknown | New Facility (2, 3, 8) | Unfunded or Developer |
| 10 | Deschutes/I-5 interchange phase 2 | | $ 10,500,000 | Unfundable/Unknown | Interchange/ (1, 2, 3, 7) | Unfunded or Developer |
| 11 | Anderson Hills Parkway -W of Pleasant Hills - Construct 4 lane road | | $ 4,980,000 | Unfundable/Unknown | New Facility (2, 3, 8) | Unfunded or Developer |
| 12 | Anderson Hills Parkway Pleasant to Rhonda - Construct 4 lane road | | $ 3,000,000 | Unfundable/Unknown | New Facility (2, 3, 8) | Unfunded or Developer |
| 13 | Anderson Hills Parkway - Rhonda to Locust - Construct 4 lane road | | $ 2,659,157 | Unfundable/Unknown | New Facility (2, 3, 8) | Unfunded or Developer |
| 14 | Emily Drive - Widening | | $ 738,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4,7,8) | Unfunded or Developer |
| 15 | Ox Yoke Rd. - SR 273 to Riverside Av - Widening to 5 lanes | | $ 2,000,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4,7,8) | Unfunded or Developer |
| 16 | Riverside Avenue - Ox Yoke to North St. - Widening to 5 lanes | | $ 7,000,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4,7,8) | Unfunded or Developer |
| 17 | Balls Ferry Rd. - From Stingy Lane to the City Limits - Widening | | $ 1,193,750 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4,7,8) | Unfunded or Developer |
| 18 | South Street - SR 273 west to City Limits - Widening | | $ 3,750,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4,7,8) | Unfunded or Developer |
| 19 | Stingy Lane - North St. to Balls Ferry - Widening | | $ 13,500,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4,7,8) | Unfunded or Developer |
| 20 | Gateway Drive - From Existing Improvements to Deschutes - Widen | | $ 5,621,463 | Unfundable/Unknown | New Facility (2, 3, 8) | Unfunded or Developer |
| 21 | Fairgrounds Drive - 1st St. to 3rd St. -Widening | | $ 1,100,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4,7,8) | Unfunded or Developer |
| 22 | Third Street - SR 273 to Fairgrounds Dr. - Widening | | $ 1,800,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4,7,8) | Unfunded or Developer |
| 23 | Auto Mall - Extend to North Street - Extension | | $ 3,800,000 | Unfundable/Unknown | Capacity Increase (1, 2, 3, 4,7,8) | Unfunded or Developer |
| 24 | South County Extension - Ronda Rd to Anderson Hills - Extension | | $ 5,500,000 | Unfundable/Unknown | New Facility (2, 3, 8) | Unfunded or Developer |
| | | | | | | |
| | **Total Long Term Needs =** | | **$ 69,429,244** | | | |

| DESCRIPTION | Short (2010-2020) | Long (2020-2030) | Total | Project Intent Legend |
|---|---|---|---|---|
| **Funding Needed By Short and Long Range Bands** | **$ 900,000** | **$ 69,429,244** | **$ 70,329,244** | **1) Reduce Congestion** |
| | | | | **2) Increase Mobility** |
| **Recap of Expected/Estimated/Unknown Resources** | | | | **3) Economic Development** |
| **Traffic Impact Fee =** | **500,000** | **$ 500,000** | **$ 1,000,000** | **4) Improve Access** |
| **Redevelopment Fees=** | **900,000** | **-** | **$ 900,000** | **5) Reduce Pollutants** |
| **ARRA =** | **-** | **$ -** | **$ -** | **6) Connectivity** |
| **Local/Other =** | | | **$ -** | **7) Collision Reduction** |
| **Carry Over from Prior Period** | **$ -** | **$ 500,000** | | **8) Improve Bike/Ped Access** |
| **Total Funding Reasonably Available =** | **$ 1,400,000** | **$ 1,000,000** | **$ 2,400,000** | **9) Transit Improvements** |
| **Total Carry over and/or Unfunded Needs =** | **$ 500,000** | **$ (68,429,244)** | **$ (67,929,244)** | |

**Note 1 : Green highlighted projects above can be funded in the constrained funding analysis**

**Note 2 : Un-highlighted projects above cannot be funded. New funding sources will need to be identified or improvement will be developer funded.**

**Note 3 : $$ = Project is Partially funded at this time**

## TABLE 5-21

**Shasta County Regional Transportation Planning Agency**

**Summary of Projects - Safety**

**CITY OF ANDERSON**

| Project Count | REGIONAL TRANSPORTATION PROJECTS | SHORT TERM TOTAL EST COST OF PROJECT | LONG TERM TOTAL EST COST OF PROJECT | PROJECT BAND | PROJECT TYPE (INTENT) | EXPECTED FUNDING SOURCES |
|---|---|---|---|---|---|---|
| 1 | SR 273 @ North Street - Intersection Improvements | $ 1,500,000 | | (2010-2020) | Capacity Increase / Safety (1,2,4, 6,7,8) | HSIP |
| 2 | SR 273 @ South Street - Intersection Improvements | $ 1,500,000 | | (2010-2020) | Capacity Increase / Safety (1,2,4, 6,7,8) | HSIP |
| | **Total Short Term Needs =** | **$ 3,000,000** | | | | |
| 3 | Reconfigure I-5 Riverside Interchange. Widen and signals | | $ 17,200,000 | Unfundable/Unknown | Interchange (1), (2), (3), (5), (7) | Safety, TIF, SHOPP |
| 4 | Little Street - Realignment | | $ 700,000 | HSIP | Safety (3,4,7,8) | HSIP |
| 5 | Alexander St - Widening | | $ 500,000 | HSIP | Safety (3,4,7,8) | HSIP |
| | **Total Long Term Needs =** | | **$ 18,400,000** | | | |

| DESCRIPTION | Short (2010-2020) | Long (2020-2030) | Total |
|---|---|---|---|
| Funding Needed By Short and Long Range Bands | $ 3,000,000 | $ 18,400,000 | $ 21,400,000 |
| **Recap of Expected/Estimated/Unknown Resources** | | | |
| Traffic Impact Fee = | - | | $ - |
| Redevelopment Fees= | | | $ - |
| HSIP = | 3,000,000 | $ 1,200,000 | $ 4,200,000 |
| Local/Other = | | | $ - |
| STIP = | | | $ - |
| Total Funding Reasonably Available = | $ 3,000,000 | $ 1,200,000 | $ 4,200,000 |
| Total Unfunded Needs = | $ - | $ (17,200,000) | $ (17,200,000) |

| Project Intent Legend |
|---|
| 1) Reduce Congestion |
| 2) Increase Mobility |
| 3) Economic Development |
| 4) Improve Access |
| 5) Reduce Pollutants |
| 6) Connectivity |
| 7) Collision Reduction |
| 8) Improve Bike/Ped Access |
| 9) Transit Improvements |

**Note 1 : Green highlighted projects above can be funded in the constrained funding analysis**

**Note 2 : Un-highlighted projects above cannot be funded. New funding sources will need to be identified or improvement will be developer funded.**

**Note 3 : $$ = Project is Partially funded at this time**

## TABLE 5-22

**Shasta County Regional Transportation Planning Agency**

**Summary of Projects - Capacity Increasing**

**CITY OF REDDING**

Notes: *1. Assume all roadway widening or roadway extensions are to ultimate general plan / travel demand model width unless noted otherwise*

*2. ** = Project in City Design and Construction Document Preparation*

| New Project # | REGIONAL TRANSPORTATION PROJECTS | SHORT TERM TOTAL EST COST OF PROJECT | LONG TERM TOTAL EST COST OF PROJECT | PROJECT BAND | PROJECT TYPE/INTENT | EXPECTED FUNDING SOURCES |
|---|---|---|---|---|---|---|
| 1 | **Oasis Interchange - Add SB Loop On-ramp and Widen NB Off-ramp | $ 3,598,000 | | (2010-2020) | Interchange / (1,3,4,5,7,8) | NRTBD |
| 2 | Oasis Road Widening - Northbound I-5 Ramps to Gold Hills Drive | $ 11,608,800 | | (2010-2020) | Interchange / (1,3,4,5,7,8) | NRTBD/Developer |
| 3 | ** Buenaventura Blvd Widening - Railroad Ave to Hwy 273 | $ 750,000 | | (2010-2020) | Capacity Increase / (1,5,7,8) | RRA/HSIP |
| 4 | ** Placer Street Widening - Airpark Drive to Buenaventura Blvd | $ 1,800,000 | | (2010-2020) | Capacity Increase / (1,5,7,8) | TIF |
| 5 | ** Placer Street Widening - Buenaventura Blvd to Boston Ave | $ 2,000,000 | | (2010-2020) | Capacity Increase / (1,5,7,8) | TIF |
| 6 | ** Stillwater Business Park Improvements - Phase 1 & 2 | $ 15,000,000 | | (2010-2020) | New Facility / (3,4) | Other |
| 7 | ** Victor Ave Widening - Hartnell Avenue to E. Cypress Avenue | $ 4,100,000 | | (2010-2020) | Capacity Increase / (1,4,5,7,8) | TIF |
| 8 | Churn Creek Road Widening - Boulder Creek to SR 299E | $ 3,120,000 | | (2010-2020) | Capacity Increase / (1,4,5,7,8) | TIF |
| 9 | Hilltop Drive Widening - Lake Boulevard to I-5 | $ 1,400,000 | | (2010-2020) | Capacity Increase / (1,4,5,7,8) | TIF |
| 10 | Quartz Hill Road Widening - Snow Lane to Top of the Hill | $ 800,000 | | (2010-2020) | Capacity Increase/ (1,5,7,8) | TIF |
| 11 | Shasta View Drive Widening - Atrium Way to Old Alturas | $ 400,000 | | (2010-2020) | Capacity Increase / (1,4,5,7,8) | TIF/Developer |
| 12 | Victor Avenue Widening - Vega Street to Hartnell | $ 4,750,000 | | (2010-2020) | Capacity Increase / (1,5,7,8) | TIF |
| | **Total Short Term Needs =** | **$ 49,326,800** | | | | |
| 15 | Churn Creek Road Widening - Browning St. to Boulder Creek | | $ 3,468,000 | 2020-2030 | Capacity Increase / (1,4,5,7,8) | TIF |
| 16 | Hilltop Drive Overcrossing - Widen over I-5 | | $ 8,100,000 | 2020-2030 | Capacity Increase / (1,5,8,9) | TIF |
| 17 | Churn Creek Road Widening - City Limits east to Victor Avenue | | $ 2,816,000 | 2020-2030 | Capacity Increase / (1,4,5,7,8) | TIF |
| 18 | Railroad Avenue Widening - Sheridan Street to Grandview Avenue | | $ 2,320,000 | 2020-2030 | Capacity Increase / (1,4,5,7,8) | TIF |
| 19 | Victor Avenue Widening - E.Cypress Avenue to Mistletoe Lane | | $ 4,675,000 | 2020-2030 | Capacity Increase / (1,4,5,7,8) | TIF |
| 20 | Victor Avenue Widening - SR44 to Old Alturas Road | | $ 2,800,000 | 2020-2030 | Capacity Increase / (1,4,5,7,8) | TIF |
| 21 | Shasta View Drive Widening - SR 299E to Palacio Drive | | $ 3,785,000 | 2020-2030 | Capacity Increase / (1,4,5,7,8) | TIF |
| 22 | Shasta View Drive Widening - Hemmingway Drive to Atrium Way | | $ 4,992,000 | 2020-2030 | Capacity Increase / (1,4,5,7,8) | TIF |
| 23 | Hartnell Avenue Widening - Victor Avenue to Shasta View Drive | | $ 6,000,000 | 2020-2030 | Capacity Increase / (1,4,5,7,8) | TIF |
| 24 | Quartz Hill Road Widening - Top of Hill to City Limits | | $ 4,200,000 | 2020-2030 | Capacity Increase / (1,4,5,7,8) | TIF |
| 25 | Oasis Road & I-5 Interchange Exit 682 - Reconstruction and Widening | | $ 20,700,000 | Unfundable/Unknown | Interchange / (1,3,4,5,7,8) | Unfunded or Developer |
| 26 | Oasis Road Widening - Randolph Road to Old Oasis Road | | $ 3,500,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 27 | Airport Road Widening - SR 44 to Rancho Rd. | | $ 6,121,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 28 | Browning Street Reconfigure to 4 Lane - Hilltop Drive to Old Alturas | | $ 400,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 29 | $$ Cascade Blvd Realignment- North and South of Oasis Road | | $ 8,713,400 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 30 | Caterpillar Road - George Drive to SR273 Widen Roadway and Signal | | $ 1,700,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 31 | Cypress Ave Connection - Victor Avenue to Shasta View Drive | | $ 17,000,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 32 | Hilltop Drive Extension - Lake Boulevard to Twin View | | $ 1,000,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 33 | Old Alturas Road Widening - Victor Avenue to Shasta View Drive | | $ 8,550,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 34 | Palacio Drive Connection - Churn Creek to Cornell Place | | $ 8,500,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 35 | Shasta View Drive Extension - 2 Lane Widening - Collyer Drive to Manzanoaks Drive | | $ 6,000,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 36 | Shasta View Drive Widening - Hartnell Avenue to Goodwater Drive | | $ 5,819,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 37 | South Bonnyview & I-5 Interchange Exit 675 - Improvements | | $ 10,000,000 | Unfundable/Unknown | Interchange / (1,3,4,5,7,8) | Unfunded or Developer |
| 38 | Twin View Blvd & I-5 Interchange Exit 681 - Improvements | | $ 4,000,000 | Unfundable/Unknown | Interchange / (1,3,4,5,7,8) | Unfunded or Developer |
| 39 | Airport Road & SR44 Interchange Exit 5 - Improvements | | $ 15,000,000 | Unfundable/Unknown | Interchange / (1,3,4,5,7,8) | Unfunded or Developer |
| 40 | Airport Road Widening - Sacramento River to Rancho Road | | $ 35,000,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 41 | Buenaventura Blvd Reconfigure to 4 lane - Summit Drive to Railroad Avenue | | $ 300,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 42 | Buenaventura Blvd Widening - Starlight Boulevard to Placer Road | | $ 1,500,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 43 | Court Street Widening - 11th Street to Riverside Drive | | $ 500,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 44 | Hartnell Avenue at Airport Road Widening and Realignment | | $ 7,925,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 45 | Oak Mesa Lane Extension - Tarmac Road to Candlewood Drive | | $ 1,125,825 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 46 | Oasis Road Widening - Gold Hills Drive to Shasta View Drive | | $ 2,000,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 47 | Old Alturas Road Widening - Shasta View Drive to City Limits | | $ 4,585,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 48 | Old Oregon Trail Widening - Old Highway 44 to Viking Way | | $ 4,000,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 49 | Parkview Ave Widening - ACID Canal to Park Marina | | $ 925,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 50 | Rancho Road Widening - Goodwater to Airport Road | | $ 6,750,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 51 | Shasta View Drive Extension - Manzanoaks Drive to Oasis Road | | $ 4,000,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |

## TABLE 5-22

**Shasta County Regional Transportation Planning Agency**

**Summary of Projects - Capacity Increasing**

**CITY OF REDDING**

Notes: *1. Assume all roadway widening or roadway extensions are to ultimate general plan / travel demand model width unless noted otherwise*

*2. ** = Project in City Design and Construction Document Preparation*

| New Project # | REGIONAL TRANSPORTATION PROJECTS | SHORT TERM TOTAL EST COST OF PROJECT | LONG TERM TOTAL EST COST OF PROJECT | PROJECT BAND | PROJECT TYPE/INTENT | EXPECTED FUNDING SOURCES |
|---|---|---|---|---|---|---|
| 52 | Shasta View Drive Extension - Rancho Road to Airport Road | | $ 5,000,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 53 | Stillwater Business Park Improvements - Phase 3 | | $ 5,000,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 54 | Tarmac Road Extension to Old Oregon Trail | | $ 5,974,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 55 | Twin View Road Realignment - North and South of Oasis Road | | $ 6,483,064 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 56 | Westside Road Frontage Extension - Glengary Drive to Clear Creek Road | | $ 1,304,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 57 | Beltline Road Extension - Oasis Rd to Ashby Rd | | $ 4,725,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 58 | Buenaventura Blvd Extension - Eureka Way to Keswick Dam Road | | $ 10,000,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 59 | Cedars Road Extension - El Reno Lane to Buenaventura Boulevard | | $ 900,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 60 | Creekside Drive Extension - Sacramento Street to Bonnyview Road | | $ 1,000,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 61 | Cypress Ave & I-5 Interchange Exit 677 - Reconstruction | | $ 13,028,000 | Unfundable/Unknown | Interchange / (1,3,4,5,7,8) | Unfunded or Developer |
| 62 | Cypress Avenue Reliever Project - Industrial Street Extension Over crossing of I-5 | | $ 5,738,000 | Unfundable/Unknown | Capacity Increase / (1,5,7,8) | Unfunded or Developer |
| 63 | Eastside Road Extension - Girvan Road to Southern City Limits | | $ 5,650,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 64 | George Drive Extension - North Terminus to Oasis Road | | $ 1,000,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 65 | Kenyon Drive Extension - West Terminus to Placer Road | | $ 10,000,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 66 | Loma Vista Drive Extension - Churn Creek Road to Victor Avenue | | $ 6,000,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 67 | Palacio Drive Extension - Shasta View Drive to Old Oregon Trail | | $ 3,500,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 68 | S. Bonnyview Road @ SR273 - Grade Separation | | $ 30,000,000 | Unfundable/Unknown | Intersection/ (7) | Unfunded or Developer |
| 69 | Santa Rosa Avenue Extension - Quartz Hill Road to Lake Boulevard | | $ 2,000,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 70 | Shasta View Drive Extension - 4 Lane Widening - Collyer Drive to Manzanoaks Drive | | $ 7,000,000 | Unfundable/Unknown | Capacity Increase | Unfunded or Developer |
| 71 | Shasta View Drive Extension - College View Drive to Collyer Drive - SR299 OC | | $ 10,000,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 72 | Shasta View Drive Extension - Oasis Road to North City Limits | | $ 4,000,000 | Unfundable/Unknown | New Facility / (3,4) | Unfunded or Developer |
| 73 | South Street Railroad Crossing- Grade Separation | | $ 9,450,000 | Unfundable/Unknown | Intersection/ (7) | Unfunded or Developer |
| | | **Total Long Term Needs =** | **$ 376,522,289** | | | |

| DESCRIPTION | Short (2010-2020) | Long (2020-2030) | Total |
|---|---|---|---|
| **Funding Needed By Short and Long Range Bands** | **$ 49,326,800** | **$ 376,522,289** | **$ 425,849,089** |
| **Recap of Expected/Estimated/Unknown Resources** | | | |
| **Traffic Impact Fee =** | **18,370,000** | **$ 43,156,000** | **$ 61,526,000** |
| **Redevelopment Fees=** | **12,358,800** | **-** | **$ 12,358,800** |
| **ARRA =** | **3,598,000** | **$ -** | **$ 3,598,000** |
| **Local/Other =** | **$ 15,000,000** | | **$ 15,000,000** |
| | **$ -** | **$ -** | **$ -** |
| **Total Funding Reasonably Available =** | **$ 49,326,800** | **$ 43,156,000** | **$ 92,482,800** |
| **Total Unfunded Needs =** | **$ -** | **$ (333,366,289)** | **$ (333,366,289)** |

**Note 1 : Green highlighted projects above can be funded in the constrained funding analysis**

**Note 2 : Un-highlighted projects above cannot be funded. New funding sources will need to be identified or improvement will be developer funded.**

**Note 3 : $$ = Project is Partially funded at this time**

| Project Intent Legend |
|---|
| 1) Reduce Congestion |
| 2) Increase Mobility |
| 3) Economic Development |
| 4) Improve Access |
| 5) Reduce Pollutants |
| 6) Connectivity |
| 7) Collision Reduction |
| 8) Improve Bike/Ped Access |
| 9) Transit Improvements |

## TABLE 5-23

**Shasta County Regional Transportation Planning Agency**

**Summary of Projects - Safety**

**CITY OF REDDING**

Notes: *1. Assume all roadway widening or roadway extensions are to ultimate general plan / travel demand model width unless noted otherwise*
*2. ** = Project in City Design and Construction Document Preparation*

| New Project # | REGIONAL TRANSPORTATION PROJECTS | SHORT TERM TOTAL EST COST OF PROJECT | LONG TERM TOTAL EST COST OF PROJECT | PROJECT BAND | PROJECT TYPE/INTENT | EXPECTED FUNDING SOURCES |
|---|---|---|---|---|---|---|
| 1 | ** Parkview Avenue Street Improvements - Cape Seal and Restripe to 2 lane | $ 825,000 | | (2010-2020) | Safety / (4,5,7,8) | Redevelopment |
| 2 | ** Signal: Victor Avenue - Old Alturas | $ 300,000 | | (2010-2020) | Intersection / (1,7,8) | TIF |
| 3 | ** Signal: Lake Blvd - Keswick Dam Road | $ 250,000 | | (2010-2020) | Intersection / (1,7,8) | TIF |
| 5 | Roundabout: Shasta View Drive - Old Alturas | $ 1,200,000 | | (2010-2020) | Intersection / (1,7,8) | TIF - Developer |
| 6 | Signal: Cypress Avenue - Beverly/Rosemary | $ 400,000 | | (2010-2020) | Intersection / (1,7,8) | TIF |
| 7 | Signal: Court Street - Eleventh Street | $ 400,000 | | (2010-2020) | Intersection / (1,7,8) | TIF |
| 8 | Oasis at Old Oregon Trail/Akrich - Intersection Improvements | $ 900,000 | | (2010-2020) | Intersection / (1,7,8) | HSIP |
| | **Total Short Term Needs =** | **$ 4,275,000** | | | | |
| 8 | Signal: East Street - South Street | | $ 400,000 | (2010-2020) | Intersection / (1,7,8) | Developer |
| 9 | Signal: Churn Creek - Maraglia Street | | $ 400,000 | (2010-2020) | Intersection / (1,7,8) | TIF |
| 10 | Signal: West Street - Placer Street | | $ 400,000 | (2010-2020) | Intersection / (1,7,8) | TIF |
| 11 | Signal: Victor Avenue - Galaxy Way | | $ 400,000 | (2010-2020) | Intersection / (1,7,8) | TIF |
| 12 | Signal: Alta Mesa Drive - Hartnell Avenue | | $ 400,000 | (2010-2020) | Intersection / (1,7,8) | TIF |
| 13 | Signal: Shasta View Drive - Simpson Blvd | | $ 400,000 | (2010-2020) | Intersection / (1,7,8) | Developer |
| 14 | Signal: Airport Road - Fig Tree Lane | | $ 400,000 | (2010-2020) | Intersection / (1,7,8) | RRA |
| 15 | Signal: SR44 and Shasta View Dr (WB Ramp) | | $ 400,000 | (2010-2020) | Intersection / (1,7,8) | Developer |
| 16 | Signal: Placer Road - Wisconsin Avenue | | $ 400,000 | (2010-2020) | Intersection / (1,7,8) | TIF |
| 17 | Churn Creek Road/Rancho Road/Victor Avenue - Construct Roundabout | | $ 1,500,000 | Unfundable/Unknown | Safety / (4,5,7,8) | Unfunded or Developer |
| 18 | Old Oregon Trail 2 lane Realignment - Midland Drive to Frontier Road | | $ 4,420,000 | Unfundable/Unknown | Safety / (4,5,7,8) | Unfunded or Developer |
| 19 | Signal: Court Street - Schley Avenue | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| 20 | Signal: Court Street - Riverside Drive | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| 21 | Signal: Park Marina Drive - Locust Street | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| 22 | Signal: Airport Road - Meadowview Drive | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| 23 | Signal: Victor Avenue - Vega Street | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| 24 | Signal: Victor Avenue - Marlene Avenue | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| 25 | Signal: Lake Boulevard - Panorama Drive | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| 26 | Signal: Placer - O'conner Avenue | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| 27 | Signal: Twin View - Caterpillar | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| 28 | Signal: Hilltop Drive - Sand Point Drive | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| 29 | Signal: Churn Creek/Hawley Road - Collyer Drive | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| 30 | Signal: Churn Creek Road - Palacio Drive | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| 31 | Signal: Shasta View Drive - College View | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| 32 | Signal: Victor Ave - El Vista Street | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| 33 | Signal: Lake Boulevard - Santa Rosa Way | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| 34 | Signal: Hartnell Avenue - Lawrence Road | | $ 400,000 | Unfundable/Unknown | Intersection / (1,7,8) | Unfunded or Developer |
| | **Long Term Fundable Needs =** | | **$ 10,820,000** | | | |

| DESCRIPTION | Short (2010-2020) | Long (2020-2030) | Total |
|---|---|---|---|
| **Funding Needed By Short and Long Range Bands** | **$ 4,275,000** | **$ 10,820,000** | **$ 15,095,000** |
| **Recap of Expected/Estimated/Unknown Resources** | | | |
| **Traffic Impact Fee =** | **2,550,000** | **$ 3,600,000** | **$ 6,150,000** |
| **Redevelopment Fees=** | **825,000** | | **$ 825,000** |
| **HSIP =** | **900,000** | | **$ 900,000** |
| **Local/Other =** | | | **$ -** |
| | | | **$ -** |
| **Total Funding Reasonably Available =** | **$ 4,275,000** | **$ 3,600,000** | **$ 7,875,000** |
| **Total Unfunded Needs =** | **$ -** | **$ (7,220,000)** | **$ (7,220,000)** |

**Project Intent Legend**
1) Reduce Congestion
2) Increase Mobility
3) Economic Development
4) Improve Access
5) Reduce Pollutants
6) Connectivity
7) Collision Reduction
8) Improve Bike/Ped Access
9) Transit Improvements

**Note 1 : Green highlighted projects above can be funded in the constrained funding analysis**
**Note 2 : Un-highlighted projects above cannot be funded. New funding sources will need to be identified or improvement will be developer funded.**
**Note 3 : $$ = Project is Partially funded at this time**

## TABLE 5-24

**Shasta County Regional Transportation Planning Agency**
**Summary of Projects**

## CITY OF SHASTA LAKE

| Project Count | REGIONAL TRANSPORTATION PROJECTS | SHORT TERM TOTAL EST COST OF PROJECT | LONG TERM TOTAL EST COST OF PROJECT | PROJECT BAND | PROJECT TYPE / PROJECT INTENT | EXPECTED FUNDING SOURCES |
|---|---|---|---|---|---|---|
| 1 | Reconstruct Lake Blvd. N/O SR 151 | $ 3,000,000 | | (2010-2020) | Capacity and Safety / (2), (8) | TE, TIF, RDA |
| | **Total Short Term Needs =** | **$ 3,000,000** | | | | |
| 2 | Reconfigure Pine Grove Interchange East Exit 684 | | $ 3,875,000 | Unfundable/Unknown | Interchange / (1), (2), (4) | Unfunded or Developer |
| 3 | Cabello Extension - Vallecito to Pine Grove Ave. | | $ 2,025,000 | Unfundable/Unknown | New Facility / (1), (2), (6) | Unfunded or Developer |
| 4 | Improve Mountain Gate Interchange Exit 687 | | $ 2,000,000 | Unfundable/Unknown | Interchange / (1), (2), (4) | Unfunded or Developer |
| 5 | Shasta Gateway Dr. Extension to Cascade | | $ 11,200,000 | Unfundable/Unknown | New Facility / (2), (3), (4), (6) | Unfunded or Developer |
| 6 | Cascade Ave. Extension - North of Union School | | $ 4,000,000 | Unfundable/Unknown | New Facility / | Unfunded or Developer |
| 7 | Improve Shasta Dam Blvd Interchange Exit 685 | | $ 4,000,000 | Unfundable/Unknown | Interchange / (1), (2), (4) | Unfunded or Developer |
| 8 | Cascade Blvd Realignment, SR 151 to South City Limit | | $ 2,650,000 | Unfundable/Unknown | Capacity Increase / (1), (2), (4), (6) | Unfunded or Developer |
| 9 | Ashby Rd. widening, sidewalks - SR 151 to Pine Grove Ave. | | $ 7,000,000 | Unfundable/Unknown | Capacity Increase and Safety/ (1), (2), (4), (6), | Unfunded or Developer |
| 10 | Pine Grove Avenue Extension to Akrich | | $ 4,500,000 | Unfundable/Unknown | New Facility/ (4) | Unfunded or Developer |
| | **Total Long Term Needs =** | | **$ 41,250,000** | | | |

| DESCRIPTION | Short (2010-2020) | Long (2020-2030) | Total |
|---|---|---|---|
| **Funding Needed By Short and Long Range Bands** | **$ 3,000,000** | **$ 41,250,000** | **$ 44,250,000** |
| **Recap of Expected/Estimated/Unknown Resources** | | | |
| **Traffic Impact Fee =** | **200,000** | **$ 200,000** | **$ 400,000** |
| **Redevelopment Fees=** | **2,800,000** | **-** | **$ 2,800,000** |
| **ARRA =** | **-** | **$ -** | **$ -** |
| **Local/Other =** | | | **$ -** |
| | **$ -** | **$ -** | **$ -** |
| **Total Funding Reasonably Available =** | **$ 3,000,000** | **$ 200,000** | **$ 3,200,000** |
| **Total Unfunded Needs =** | **$ -** | **$ (41,050,000)** | **$ (41,050,000)** |

| Project Intent Legend |
|---|
| **1) Reduce Congestion** |
| **2) Increase Mobility** |
| **3) Economic Development** |
| **4) Improve Access** |
| **5) Reduce Pollutants** |
| **6) Connectivity** |
| **7) Collision Reduction** |
| **8) Improve Bike/Ped Access** |
| **9) Transit Improvements** |

**Note 1 : Green highlighted projects above can be funded in the constrained funding analysis**
**Note 2 : Un-highlighted projects above cannot be funded. New funding sources will need to be identified or improvement will be developer funded.**
**Note 3 : $$ = Project is Partially funded at this time**

## TABLE 5-25
## CITY OF REDDING
## SHORT-RANGE FUNDABLE
## REDEVELOPMENT AGENCY PROJECTS IN IMPLEMENTATION PLANS

| Project/Project Area | Cost in $1000 |
|---|---|
| **Buckeye Redevelopment Project Area** | |
| Replacement Bridge-Old Oasis Rd Over Churn Creek (Design) | $ 35 |
| Traffic Signal - Lake Blvd At Keswick Dam Rd (Construction) | $ 415 |
| Replacement Bridge-Old Oasis Rd Over Churn Creek (Construction) | $ 100 |
| Replacement Bridge-Dean Rd Over Buckeye Creek (Design) | $ 50 |
| Replacement Bridge-Twin View Blvd Over Churn Creek (Construction) | $ 550 |
| Replacement Bridge-Dean Rd Over Buckeye Creek (Construction) | $ 250 |
| Widen Randolph Rd To Minor Local Urban Standard (Design) | $ 75 |
| Oasis Road Area Phase I Improvements (Placeholder) | |
| Widen Randolph Rd To Minor Local Urban Standard (Construction) | $ 365 |
| Traffic Signal - Lake Blvd At Panorama (Design) | $ 35 |
| Widen Old Oasis Rd To Local Urban Standard (Design) | $ 50 |
| Traffic Signal - Lake Blvd At Panorama (Construction) | $ 315 |
| Widen Old Oasis Rd To Local Urban Standard (Construction) | $ 450 |
| **Canby-Hilltop-Cypress Redevelopment Project Area** | |
| Cypress Avenue Bridge Rehabilitation/Expansion - Expand the Cypress Bridge and bridge approaches to six lanes. | $ 3,000 |
| North Market Street Corridor Improvements - Additional improvements in the vicinity of the Lake Boulevard/Market Street intersection. | $ 300 |
| Dana Drive Streetscape - Beautification of Dana Drive between Churn Creek Road and Highway 44 ramps. | $ 750 |
| **Shastec Redevelopment Project Area** | |
| Airport Road/Fig Tree Lane - Traffic Signal | $ 350 |
| Stillwater Business Park Infrastructure | $ 10,000 |
| Old Oregon Trail Widening/Realignment Property Acquisition | $ 400 |
| Old Oregon Trail Widening/Realignment (match funds) | $ 1,250 |
| Sacramento River Bridge Widening (North Street) | $ 1,000 |
| Widen North Street - Ravenwood Street to Sharon Avenue | $ 650 |
| Riverside Avenue/I-5 Project (match funds) | $1,250 |
| Airport Road Widening (match funds) | $ 1,000 |
| **Market Redevelopment Project Area** | |
| Traffic Signal - State Route 273 & Parkview Avenue (partnership with Caltrans) | $ 200 |
| Intersection Improvements - Angelo/Market/California. Share cost of improvements with Caltrans. | $ 200 |
| Parkview Avenue Street Improvements | $ 500 |

## TABLE 5-26
## CITY OF REDDING
## LONG-RANGE NOT FUNDED
## REDEVELOPMENT AGENCY PLANS

| Plan Area | Description | |
|---|---|---|
| **Canby-Hilltop-Cypress** | | |
| | Realignment of Churn Creek Road from Alrose Lane to Hartmeyer Lane (includes drainage improvements) | |
| | Realignment of Gordon Lane | |
| | Traffic signal at Hilltop Drive and Palisades Avenue | |
| | Construction of new Interstate 5 Interchange at Hilltop Drive, north of the existing I-5 overcrossing | |
| | Second access to Lowden Lane extending the south end of Lowden Lane to Bechelli Lane and constructing a new street between Lowden Lane and Beverly Drive | |
| | Realignment of Palisades Avenue at Hilltop Drive | |
| | Curbs, gutters and sidewalks on Cypress Avenue between bridge at Sacramento River | |
| **Market Street** | | |
| | Extend Cedars Road from El Reno Lane to Canyon Creek Road | |
| | Connect Westside Road from Cedars Road to Jewell Street | |
| | Extend Bidwell Road approximately 700 feet | |
| | Realignment of Eastside Road/Breslauer Lane intersection | |
| | Extend Creekside Street from Sacramento Drive to South Bonnyview Road | |
| | Modify intersection on north end of East Street at either Eureka Way or Trinity Street | |
| | Widen Branstetter Lane between Cedars Road and State Route 273 | |
| | Widen Railroad Avenue from two lanes to four lanes from Court Street to Canyon Creek Road | |
| | Widen Wyndham Lane between Polk Street and Highway 273 | |
| | Install sidewalks on the north side of Riverside Drive, beginning 400 feet east of the center of the Southern Pacific Railroad and extending west to Benton Drive | |
| | Install curb, gutter, and sidewalk on east side of Henderson Road | |
| **Buckeye** | | |
| | New Oasis Road Interchange at I-5 | |
| | Widen Oasis Road adjacent to existing development | |
| | Widen Oasis Road east of I-5 to Gold Hills Drive | |
| | Bridge widening over Churn Creek at Oasis Road | |
| | Bridge widening over Churn Creek at Old Oasis Road | |
| | Bridge widening over Churn Creek at Twin View Boulevard | |
| | Bridge widening over Churn Creek at Hawley Road | |
| | Bridge widening over Newtown Creek at Oasis Road | |
| | Bridge widening over Newton Creek at Randolph Road | |
| | Bridge widening over Buckeye Creek at Oasis Road | |
| | Bridge widening over Salt Creek at Oasis Road | |
| | Bridge widening over Oasis Road at Railroad underpass | |
| | Extend road south from Oasis Road to Industrial Park boundary to provide connection to Mountain Lakes Boulevard. Includes bridge and traffic signal. | |

| | | |
|---|---|---|
| **Buckeye – Cont'd** | Extend Beltline Road north from Oasis Road to Ashby Road. | |
| | Extend Hawley Road north from Constitution Way to Twin View Boulevard | |
| | Install curb, gutter, and sidewalk at various locations | |
| | Various traffic signals | |
| **Shastec** | | |
| | Widen Rancho Road from Goodwater to Airport Road | |
| | Widen Airport Road from State Route 44 to Rancho Road | |
| | Widen Airport Road from Rancho Road to Fig Tree Lane | |
| | Widen Airport Road from Fig Tree Lane to Dersch Lane | |
| | Widen or realign Old Oregon Trail north of Harley Leighton Road | |
| | Widen Riverside Drive from I-5 to North Street | |
| | Widen North Street from Sharon Avenue to Ravenwood Lane (1.15 million) | |
| | Realign Hartnell Avenue | |
| | Realign Hartnell Avenue and extend east of Airport Road | |
| | Extend Tarmac Road to Old Oregon Trail | |
| | Widen or realign Old 44 north to Harley Leighton Road | |
| | Widen Airport Road overcrossing of Highway 44 | |
| | Construct Freeman Way bridge | |
| | Stillwater Business Park infrastructure | |
| | Construct Sylvia Lane bridge | |
| | Widen North Street bridge at Sacramento River (Dersch to Riverside) ($1 million) | |
| | Widen Riverside Drive overcrossing at I-5 | |
| | Various traffic signals | |

## Background

Goods movement – the transportation of things rather than people – is addressed as a separate element of the RTP. Trucks move most of the freight in Shasta County. Rail competes with trucking for items of extreme weight and large size or volumes that need to be transported over long distances. Low value items, where delivery time is not critical, are also good candidates for rail transport. Light freight/package delivery is a heavily represented class of goods in the Redding urban area. Light freight/package delivery uses many modes of transport including truck, airfreight, charter air service, and automobile/pickup.

### Airfreight

The volume of freight currently moved by air into or out of Redding is small compared to the volume moved by trucks. However, the county has the capacity to increase airfreight volumes significantly. As the only commercial airport in Shasta County, the Redding Municipal Airport is the center of airfreight and package movement activity. The most visible airfreight carriers are Federal Express and Airborne Express, with terminal facilities and several based aircraft. The following entities provide airfreight service at the Redding Municipal Airport:

| Provider | Mode |
|---|---|
| Federal Express | Air and Truck |
| United Parcel Service (UPS) | Air and Truck |
| United States Postal Service (USPS) | Commercial Air Carriers and Truck |

The commercial air carriers that primarily focus on passenger service also provide light freight and package movement service. The fixed-base operators at the local airports (see the following list) provide package and light freight movement, particularly for specialty items to remote locations.

| ***Charter air service is available at the following airports:*** | |
|---|---|
| **Redding Municipal Airport** | ***Benton Airport*** |
| Redding Aero Enterprises | *Hillside Aviation* |
| Redding Air Services (helicopter) | |
| Redding Jet Center | |
| Western Air Charter | |
| Air Shasta Rotor & Wing (helicopter) | |
| *Jim & I Aviators* | |

## Trucking

Trucking is an essential part of the goods movement system. It provides end delivery service for every other long-haul mode. Eight truck terminals serve the Redding area and Shasta County with daily service by 18 major carriers. Many local California and interstate carriers provide service to Washington, Oregon, Nevada, and Arizona. Including owner-operated trucking firms, there are close to 80 carriers in the Redding area.

The common practice of "just in time delivery" has made trucking the freight mode of choice. Fast delivery reduces on-site warehousing and allows retail outlets and other businesses to cut back on their inventory. Trucking has outperformed rail for this part of the market, because trucks can make faster deliveries directly to the businesses. This has led to the large increase in the number of trucks on the highways, as well as the call to legalize heavier and longer trailer combinations. The substantial increase in all vehicles, including trucks, contributes to increased congestion and will increase highway maintenance.

I-5 is a critical freight movement corridor, serving local, regional, interregional, and international goods movement. There are no viable alternatives for north/south goods movement in California north of Red Bluff. It is in the regional, state, and national interest to prevent I-5 from becoming congested. The peak hour LOS on segments of I-5 in the Redding area are projected to degrade to LOS "F" within five years. The RTPA has been trying to secure funding to add lanes and avoid congestion. In 2007, the CTC awarded Corridor Mobility Improvement Account (CMIA) funding for the Cottonwood Hills Truck Climbing Lanes project, which will add one lane on I-5 in each direction between Cottonwood and Anderson. Construction began in the spring of 2010. In 2010, the CTC awarded CMIA funding for the I-5 South Redding Six Lane project, which will add one lane in each direction from south of the South Bonnyview overpass to north of SR 44. Construction on this project is scheduled to begin in the spring of 2011.

SR 299W is an important goods movement corridor serving Trinity and Humboldt counties. Improvements along the "Buckhorn Grade" would aid goods movement along this corridor.

### Package Delivery

In recent years, many package delivery and courier services have become established in Shasta County. These services are responding to a need to move small parcels around the urban area and to outlying areas of the county. Fast delivery time is often very important in the decision to use these services. This service augments the parcel and light freight service that has been available on the established intercity buses and by the taxi services. Some delivery services specialize in movement of delicate materials for the medical community, such as blood and organs.

### Freight Movement by Railroad

**Union Pacific Railroad (UPRR)**: Freight loading/unloading opportunities on the UPRR mainline are available at the following rail siding locations: Cottonwood, Culp, Anderson, Girvan, Redding, Silverthorn, O'Brien, Mead, Lakehead, Delta, Lamoine, Gibson, Sims, Conant, Dirigo, and Castle Crags. House track or spur is available at all listed stations.

**The McCloud Railway Company** ceased providing commercial freight service in 2006. It is in the process of abandoning its rail lines east of McCloud, which includes the portion of the railway serving Burney in Shasta County. It retains its commercial carrier status, and is able to provide freight service between McCloud and Mt. Shasta in Siskiyou County.

### Intermodal Freight Movement

There is a national and international movement toward intermodal container systems. This system involves loading a "container" at a source (factory) and moving the container, by several modes, to the final destination (retail outlet). An example would be a large container moving from its origin by truck to a container ship, from the ship to a railroad car, and, finally, from the railroad car back to a truck for final delivery. A smaller version of the container is being used for airfreight where the container is packed at the origin, delivered to the airport by truck, moved by air, and finally delivered to its destination by truck. Within the state, UPRR and Burlington Northern Santa Fe Railway have been emphasizing "piggy back" movement of truck trailers on railroad cars. Again, truck delivery serves the origin and destination.

Currently, there are no container loading/unloading facilities for transfers of containers from truck to rail within Shasta County.

The only funding available to the region to address goods movement planning is Federal Planning funds. These will continue to be programmed in future Overall Work Programs in amounts adequate to address issues in this area.

## Goods Movement Goal, Issues, Objectives, Policies, and Actions

**Goal:** ***Maintain an efficient goods movement industry within the region with the least adverse impact possible on the transportation system.***

## Issues

A. There is no intermodal freight container transfer facility in Shasta County. The Northern California market area may not generate a large enough volume of shipments to warrant the investment in such a rail to truck facility at this time, but it should not be precluded from future studies. Population growth of the Northstate is expected to continue; therefore, consideration of container transfer may be warranted in the future.

B. Increased traffic volumes will increase conflicts with truck movement within the urban area, especially on Interstate 5.

C. Both truck and rail accidents, augmented by the spillage of hazardous materials, have forced the closure of Interstate 5 in the Sacramento Canyon and problems on other major arterials.

D. Buckhorn Summit creates operational problems for goods movement between Redding and points west. Due to windy and steep inclines, there is a truck length restriction advisory for SR 299 west of Redding. These conditions will remain until the Buckhorn Summit highway upgrade is addressed.

E. Vertical and horizontal clearance problems exist at many locations on interregional state highway routes.

## Objectives

**Short-Range (2010-2020)**

O-1 Maximize use of the existing goods movement infrastructure of the region.

O-2 Protect the transportation infrastructure from deterioration.

O-3 Minimize conflicts between trucks and other vehicles. Obtain data to determine the locations that need to be improved.

O-4 Reduce truck and rail accidents by supporting proposals for grade separation improvements, crossing arms, and railroad crossing upgrades of gates and warning devices (lights and bells).

O-5 Continue to work on the Buckhorn Grade Project to improve the horizontal and vertical alignment on SR 299.

O-6 Continue to work with the trucking industry to identify funding sources for intermodal freight facilities and rail spurs.

**Long-Range (2020-2030)**

O-6 Improve or increase goods movement modes available in the county.

O-7 Support the increasing need for regional truck parking areas by supporting attempts to identify funding.

## Policies

P-1 Encourage the establishment of a rail-to-truck intermodal freight container facility in the SCR. Consider set-aside or rezoning of suitable parcels for a future container transfer facility and work to maintain existing rail spurs.

P-2 Encourage the local jurisdictions to support a wide variety of modes of goods movement.

P-3 Review and develop recommendations on any legislation that would increase the size and axle weight of trucks in California.

P-4 Maintain and improve ground access to the Redding Municipal Airport in support of airfreight transfer to local surface transportation.

P-5 Local agencies should address the issue of truck accessibility and maneuverability during the review of commercial and industrial development proposals.

P-6 Support attempts to identify funding for improvements of SR 299 West at the Buckhorn Summit.

P-7 Continue to explore uses of Intelligent Transportation System (ITS) technology to improve truck movements and traveler information.

## Actions

All actions are to be in support of regional goals, objectives, and policies. The specific policy to be supported by the respective action is indicated in parenthesis.

**Short-Range (2010-2020)**

***Caltrans***

- Caltrans is participating in a study of new technological approaches to assist travelers/goods movement in rural Northern California and Southern Oregon. (P-7)

- Caltrans is installing video camera surveillance and radar changeable message signs. (See maps in Chapter 5 - "Streets and Highways") (P-7)

- Caltrans is installing additional changeable message signs on I-5 to improve traveler information. (P-7)

- Caltrans is installing a "Super" Highway Advisory Radio system to further improve traveler information with up to the minute road and weather conditions. (P-7)

***Regional Transportation Planning Agency***

- The RTPA is participating with Caltrans in the Rural Intelligent Transportation System study. (P-7)

***All Agencies***

- Chapter 5, Streets and Highways, includes actions to implement goods movement objectives.

**Long-Range (2020-2030)**
***Shastec Redevelopment Project***

- The 1996 Shastec Redevelopment Project, a cooperative effort by the City of Redding, Shasta County, and the City of Anderson, proposes improvements of the following roads and bridges in the area near the Redding Municipal Airport:

    - Airport Road
    - Rancho Road
    - Hartnell Avenue
    - State Route 44
    - North Street
    - Riverside Drive
    - North Street Bridge across the Sacramento River
    - Rancho Road across Stillwater Creek
    - Sylvia Lane Bridge across Clover Creek
    - Freeman Way Bridge across Clover Creek
    - Riverside Drive overcrossing of Interstate 5

If carried out, many of these projects could be developed by 2020. This would improve ground access to the airport and increase options for air/ground goods movement. (For more about this project, see Chapter 7, Aviation.) (P-4, P-5)

## Background

### City of Redding Airports

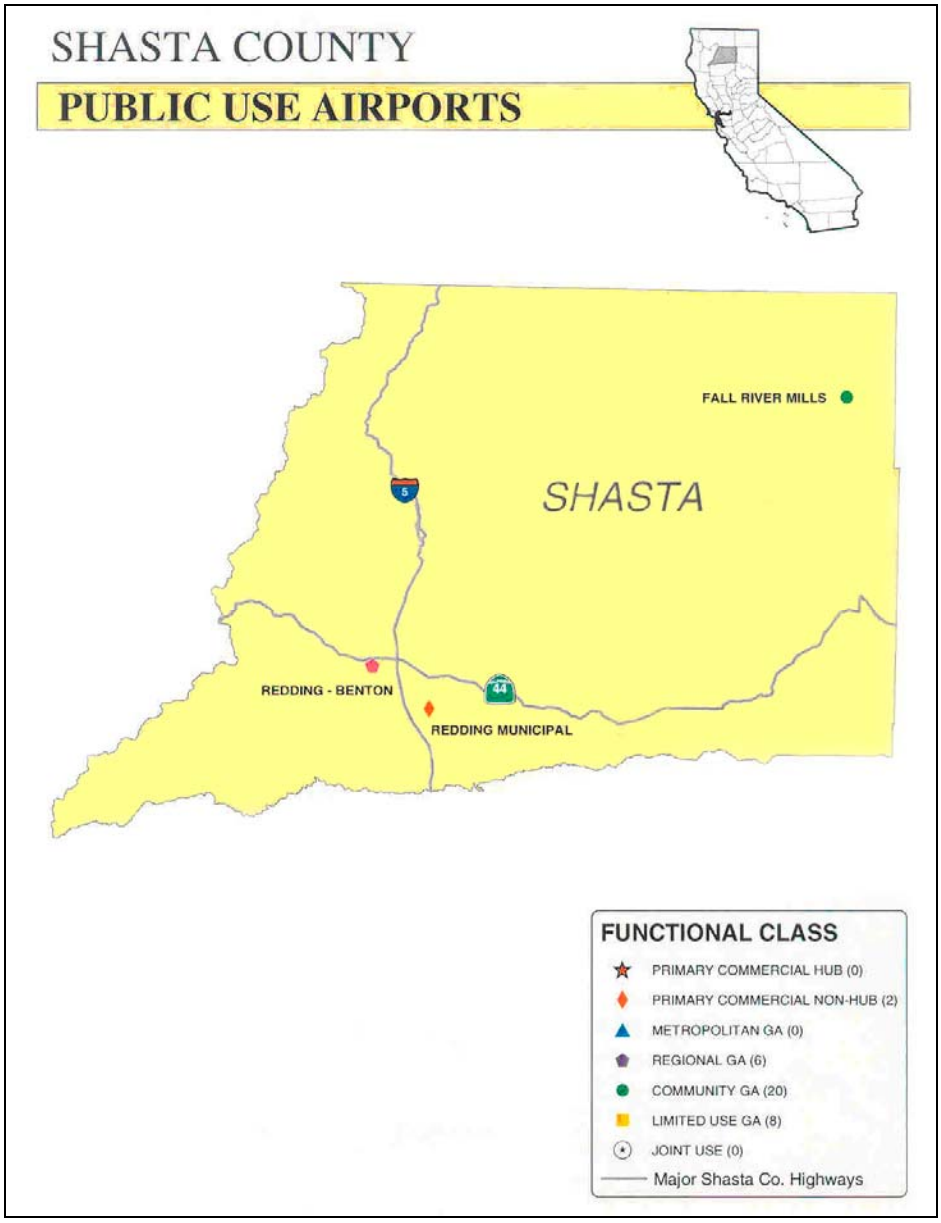
**Redding Municipal Airport**, the only airport in the county served by scheduled airlines, encompasses 1,659 acres, 500 of which are zoned for commercial use. It is a regional airport serving Shasta County and the seven surrounding counties. It was originally built by the U.S. Army as a military airfield in 1942. It was dedicated to the City of Redding in 1947. Today, it is the largest civilian facility in California, north of Sacramento (see Map 7).

Airline deregulation has resulted in some turnover among airlines serving Redding Municipal Airport with fluctuation in levels of service available to air travelers. The City of Redding has made serious efforts to attract enhanced air service through existing air carriers or the addition of new entrants. In May 2009, the City updated their air service study that reviewed the travel habits of the area's traveling public. The City received Federal assistance through the Small Community Air Service Grant program in 2004 and 2008. The City used one of those grants to subsidize new twice-daily service to Los Angeles by Horizon Air in 2004. The 2008 grant is intended to be used to assist in the recruitment of a third airline to a destination east of Redding. Even though the City has made efforts to improve air service, there are still only two incumbent airlines that have served this region for over 10 years. They are:

| Scheduled Airlines | Direct Flights to |
|---|---|
| SkyWest (doing business as United Express) | San Francisco |
| Horizon Air | Los Angeles, Arcata, and Seattle |
| **Charter Air Service Companies** | |
| Redding Aero Enterprises | |
| Redding Air Service Helicopters | |
| Redding Jet Center | |
| Western Air Charter | |
| Air Shasta Rotor & Wing | |
| Jim & I Aviators | |

Charter air service is provided by several companies. These fixed-base operators also provide aircraft sales, maintenance service, aircraft fuels, and accessories.

**Map 7-1**




The airport has 84 tie-down spaces and the City of Redding owns hangars that will accommodate 119 aircraft. The mix of aircraft and related operations is as follows: 138 single engine airplanes; 28 multi-engine airplanes; 6 jets; and 12 helicopters.

**Operations (takeoffs and landings)**: 2,308 air carrier; 0 commuter; 10,356 air taxi; 24,607 general aviation local; 35,456 general aviation itinerant; and 1,264 military, for a total of 73,991 operations in calendar year 2008.

The main runway used by commercial aircraft is 7,000 feet long, and includes a high intensity lighting system, precision approach path indicator lights on Runway 34, runway end identification lights, and a visual approach slope indicator on Runway 16. The airport also has a Global Positioning System approach to runways 16 and 34, a terminal very high frequency omni range radio facility, and a precision instrument landing system on Runway 34 with a localizer back course approach on Runway 16.

**Benton Airport** is uniquely situated within the city limits slightly more than one mile from the midtown business area and the center of Redding. Benton is a small, single runway, Visual Flight Rules (VFR) airport for single and small twin-engine general aviation aircraft. It is classified as a General Aviation Facility within the USDOT/FAA National Plan of Integrated Airport Systems. It contains 416 acres for aviation and commercial development, but its growth potential is constrained both by topography and residential encroachment. There are approximately 130 private aircraft based at Benton, in addition to the California Highway Patrol air operations. Hillside Aviation provides charter air service, sales, fuel, and maintenance.

The mix of aircraft and operations is as follows: 86 single engine, 3 multi-engine, and 0 helicopters. *Annual Operations*: 1,000 air taxi; 17,000 general aviation local; and 17,000 general aviation itinerant, for a total of 35,000 operations in 2008. Benton Airport has 38 shelters (monthly rentals), 50 T-hangars (monthly rentals), 64 tie-downs (58 monthly, 6 daily rentals), and 25 transient tie-downs.

### California Aviation System Plan (CASP)

The CASP is prepared by the California Department of Transportation, Division of Aeronautics and updated every five years per California Public Utilities Code Section 21701,et seq. The law requires the CASP to be developed in consultation with regional transportation planning agencies, such as Shasta County RTPA.

The primary purpose of the plan is to identify and prioritize needed airport capacity and safety related infrastructure enhancements that impact the safety and effectiveness of the California Aviation Transportation System. The plan is available online at Caltrans website: (http://www.dot.ca.gov/hq/planning/aeronaut/documents2/2007cip082107.pdf).

The following recaps the priority of the region's airports within the CASP and System Requirements Element (SRE):

- Redding Municipal Airport – Designated a Primary Commercial Service facility
- Benton Field – Designated a General Aviation facility
- Fall River Mills Airport – Designated a General Aviation facility

## County Airports

Shasta County recently expanded the Fall River Mills Airport runway to 5,000 feet that can accommodate small jets

**Fall River Mills Airport** is located at an elevation of 3,323 feet in the extreme northeast corner of the county, 70 miles from Redding. It was originally built in the 1940's as a graveled runway. Hangars, runway lights, tie-downs and security fencing have been added since 1965. This is a designated Remote Access airport.

Fall River Mills Airport is currently a General Aviation facility with a 5,000-foot runway, 14 based aircraft, and serving both piston-powered and turbine-powered general aviation transient aircraft. Services are limited to card-lock Aviation Fuel sales. There are currently no other services and no Fixed Base Operators on-site.

Taxiway repairs, additional aircraft parking, jet fuel, expanded runway facilities, and instrument approach capabilities will be necessary to meet both current and future demand. The County acquired land with funding from a $1.2 million FAA grant to buffer the airport from encroaching development and to preserve right-of-way for future runway extensions. Since the last RTP update approximately $10 million in improvements have been completed. Most notable was the extension of the runway and taxiways to 5,000 feet, apron expansion, and construction of a nine unit T-hangar with pilots lounge and ADA bathrooms. The entire airfield is now protected by chain link security fencing.

Aviation growth in eastern Shasta County will be moderate, yet significant for the area. The number of based aircraft at Fall River Mills Airport is expected to increase from 14 to 21 over the planning period.

**Shingletown Airport** was the least used public airfield in Shasta County. On November 1, 2002 the State suspended the operating permit due to trees encroaching into the FAR Part 77 7:1 transitional surfaces. In 2005, the County voluntarily relinquished the airport's California Aeronautics Operating Permit. The airport was fully decommissioned in 2009.

## Seaplane Facility

There is a seaplane facility on Lake Shasta near Bridge Bay Resort: FAA site No. 02088 I.C.

### Airport Ground Access

Ground access to the Redding Municipal Airport was enhanced in 2003 through the extension of Knighton Road, from Interstate 5 east to the airport. This project enhanced the economic viability of the airport and its surrounding industrially zoned lands.

A project is planned to expand Airport Road near the Redding Municipal Airport from two to four lanes with dedicated turn lanes, bike paths, and signals. As this area develops, this improvement should forestall any significant ground access problems.

There is currently no airport shuttle service, other than what is supplied by taxis and several motels in Redding. Due to lack of use, some services that were available in previous years have been discontinued. There was some interest expressed during the annual "unmet needs" hearing process for bus service to the airport and its surrounding area. The Transit Development Plan and its 1998 update showed that adequate ridership would not exist to support this route. There are several documented reasons for not providing bus service to airports. These include the following:

- Business travelers are typically "time conscious," and find the delay required by transit use to be unacceptable.

- Persons traveling for pleasure are often encumbered with large or numerous pieces of luggage that, by law, are not allowed on public transit.

- Providing a convenient schedule for airport arrivals and departures is difficult for a fixed-route bus system.

### Shastec Redevelopment Project

The 1996 Shastec Redevelopment Project is located near the Redding Municipal Airport and the surrounding industrial area, within the jurisdictions of Shasta County and the cities of Redding and Anderson. The plan facilitates road widening, signalization, bridge improvements, curb, gutter and sidewalks, street trees, and drainage improvements. (For specific roads impacted, see Chapter 6, Goods Movement, Long-Range Actions.) If funded, many of these projects could be developed by 2020. This would improve the ground access to the airport and the feasibility of transit options as the area grows.

The Airport Land Use Commission should be provided copies of all development plans within the Airport Influence Area to determine consistency with the Airport Master Plan, as well as the General Plan.

## Aviation Goal, Issues, Objectives, Policies, and Actions

### Goal: *Maintain efficient accessible air service in a safe and convenient manner.*

## Issues

A. Local aviation facilities will experience continued growth in demand for facilities and operations both for scheduled air carriers and general aviation.

B. The limited destinations offered and high ticket pricing by airlines at Redding Municipal Airport has resulted in periodic fluctuation in levels of air traveler's usage.

C. The effects of high oil prices and a bad economy have resulted in both incumbent airlines to reduce daily flights by one-third.

D. Fall River Mills Airport has substantial maintenance needs.

E. The Shasta County Airports Master Plan 1990-2010 is in need of an update.

F. Airport Land Use Compatibility Plan (ALUCP) should be revised every 5 years. Shasta County's should be updated.

G. Airport influence areas should be monitored as required by AB 2776.

H. A maintenance plan for avoiding air space obstructions must be developed between Shasta County and the Bureau of Land Management.

I. State funding is subject to availability and the priority of the region's smaller airports is low on the list. Priority is explained in the California Aviation System Plan Systems Requirement Element maintained by Caltrans.

## Objectives

**Short-Range (2010-2020)**

O-1 Prevent deterioration of the airport facilities within the county.

O-2 Enhance passenger service at Redding Municipal Airport.

O-3 Continue to apply for state and federal grants to make needed improvements at the three airports in the county and acquire funds to update plans.

O-4 Acquire property north and south of the Redding Municipal Airport, to enhance runway approach protection and to provide land for future expansion. In 2003 and 2004, the City of Redding acquired over 140 acres towards this objective.

**Long-Range (2020-2030)**

O-4 Encourage airport operators (Shasta County and City of Redding) to develop projects that enhance the safety, capacity, and security of regional aviation facilities.

O-5 Provide economical and frequent passenger service at Redding Municipal Airport connecting with surrounding major cities.

O-6 Support implementation of the Shastec Redevelopment Project.

## Policies

P-1 Give the highest priority to funding maintenance of the airport runways and supporting facilities.

P-2 Encourage airport sponsors to broaden the economic base by pursuing revenue enhancements to help finance airport operations, maintenance, and capital improvements.

P-3 Use airport master plans and the Regional TIP to identify and prioritize aviation projects which best support the aviation goal and objectives.

P-4 Implement airport capital improvement plans developed in airport master plans.

P-5 Encourage and support the improvement of traffic circulation and surface access to Redding Municipal Airport.

P-6 Assist the Caltrans Division of Aeronautics to develop the Northern California Aviation System Plan.

P-7 Maintain a strong land use program to assure compatibility with airport operations. Update the airport land use compatibility plans for both City of Redding airports.

## Actions

**Short-Range (2010-2020)**

***Regional Transportation Planning Agency***

- Conduct workshops with aviation community stakeholders to develop plans that identify and address airport-related noise and safety issues for airport neighbors. Then, in coordination

with the City of Redding Airport Manager and the Shasta County Airport Manager, address identified needs with available funding. (P-6)

*Shasta County*

- **Fall River Mills Airport**: A variety of improvements, programmed for the next ten years, include: expansion of the apron, upgrading of apron lighting, additional hangar construction, and installation of an All Weather Operating System (AWOS). (P-1, P-3)

- **Shasta County Airports Master Plan (AMP)** for the Fall River Mills Airport was completed in 1991. The Airport Layout Plan for Fall River Mills was completed in March 2003, the related Environmental Assessment was filed with the FAA at the same time. The AMP, which is included in this plan by reference, contains a comprehensive capital improvement program for the airport. (P-3, (P-4)

*City of Redding*

- **Redding Municipal Airport***:* As funding becomes available, projects programmed for airport improvements include apron reconstruction, runway and taxiway extensions, helicopter facilities air cargo apron, lighting and capacity improvements, land acquisition, and maintenance and rehabilitation of existing facilities. A good portion of this work is in preparation for a required shift of small aircraft facilities to the east. These projects have been prioritized and programmed in the RTIP. As air traffic at Redding Municipal Airport increases, small aircraft will gradually be shifted from the main runway to the parallel runway on the east side of the airport. A 2004 Airport Master Plan was developed for the Redding Municipal Airport in 2005. Other recent projects completed include the reconstruction of both runways, the second phase of the passenger terminal remodel, security enhancements, taxiway refurbishment, construction of a new Aircraft Rescue and Firefighting (ARFF) facility, and taxiway A & B reconstruction.

- Over the next several years, additional improvements expected are apron reconstruction, land acquisition, emergency systems upgrades, environmental review for a third runway, construction of a cargo apron, and the construction of a new taxiway. (P-4)

- **Benton Airport***:* Benton has seen the reconstruction of the eastside taxiway and parking apron, a master plan update, and drainage improvements over the past several years. The FAA has not only funded those projects, but will fund others that include reconstruction of its runway and the west side taxiway, a second phase of the drainage enhancements, and runway safety area enhancements. (P-4)

**Long-Range (2020-2030)**

***Shasta County***

The Shasta County Airports Master Plan, 1990-2010, recommended the following steps:

- Use the Master Plan as county policy for development on and next to the Fall River Mills Airport; (P-3)

- Apply to the Federal Aviation Administration and State of California for construction grants for facility expansion at Fall River Mills Airport; (P-4)

- Implement Stage 1 development at the Fall River Mills Airport with initial emphasis on land acquisition for runway and terminal expansion, instrument approach capabilities, and runway extensions; (P-4)

- Develop increased revenue-producing facilities at Fall River Mills airport, including county hangar development and expanded fueling facilities to generate matching funds for future airport development and maintenance grants; and (P-2)

***City of Redding***

The Redding Municipal Airport Area Specific Plan and Environmental Impact Report outline a 20-year expansion plan for the airport, which includes:

- Continued use of the main runway, with a programmed 2,000-foot extension to the north, throughout the period; (P-4)

- Development of highway commercial uses, including restaurants, motels, offices, car rental agencies, and aviation services on leasehold sites on airport property on the east frontage of Airport Road. (P-2)

## Background

All railroad tracks in Shasta County are owned by the Union Pacific Railroad (UPRR). Amtrak runs on the UPRR line, which runs north and south through the county, paralleling the Sacramento River.

Amtrak is an intercity rail passenger service. Amtrak's Coast Starlight runs from Seattle to Los Angeles and stops in Redding at 3:14 a.m. northbound and 2:21 a.m. southbound. Amtrak links Redding to Chico, Sacramento, and Davis to the south, and Dunsmuir and Klamath Falls to the north. Amtrak also operates state-supported feeder bus connections to the state-supported Capitol Corridor Route in Sacramento and San Joaquin Route in Sacramento/Stockton.

Eastbound connections can be made by Amtrak passengers on the west coast at Portland, Sacramento, Oakland, and Los Angeles.

The McCloud Railway Company, headquartered in McCloud, is currently in the process of abandoning its rail lines east of McCloud, which includes a line to Burney in Shasta County. Their rail service is currently limited to Siskiyou County.

### Intercity Passenger Rail Study

The Butte County Association of Governments conducted a feasibility study to learn if intercity rail service between Sacramento, Chico, and Redding is worth pursuing.

The Interim Findings Report on "The Northern Sacramento Valley Intercity Passenger Rail Study" was completed December 1995. ICF Kaiser Engineers, Inc. studied two options. Option A includes intercity rail between Sacramento and Chico, with more frequent service between Marysville/Yuba City. Option B is the same as Option A, with the addition of an intercity rail extension to serve Red Bluff and Redding.

Option B of the study estimated that by the year 2020, 147 passengers in Redding would be using the service each day. The farebox recovery for the proposed service would range between 19 and 22 percent during the 11-year forecast.

The Butte County Association of Governments and the Shasta County Regional Transportation Planning Agency accepted the conclusion of the study that

intercity rail service is not practical due to estimated low farebox recovery and the requirement for local revenue.

Caltrans Division of Rail had planned a further study on this route in 2005, which was deferred due to the Union Pacific's decision not to consider operation of new passenger trains at this time.

Intercity rail service is not practical at this time

The *California State Rail Plan 2007/08 – 2017/18,* prepared by Caltrans Division of Rail, examines passenger rail transportation in California, reviews the current operations of state-supported intercity rail passenger service, and outlines ten-year plans for the period through 2017/18. The operating plan includes one daily round trip between Sacramento and Redding starting in 2015/16. This rail service would be supplemented by bus service that would run over the same route as the train, but at other times of the day.

Division of Rail believes this extension is a good candidate for rail service because Amtrak currently operates the Coast Starlight passenger service on the route with existing stations at Sacramento, Chico, and Redding. The demographics of the route are positive: the northern Sacramento Valley has a fast growing population, Redding represents the urban hub for the northern part of the State, and the California State University at Chico is a focus of activity and population.

As California develops a high-speed rail system, it will become even more important to have daytime rail access to Shasta County. Daytime rail access to Sacramento and its connecting services will provide long-term prospects for employment through improved mobility and increased tourism.

### Intracounty Commuter Light Rail Service

Commuter rail service is only feasible to large downtown areas with dense populations (See Chapter 10, Land Use, Table 10-1). Although Redding and Anderson have some densely populated pockets, the overall density is too low to support intracounty rail service.

### Bus Service

State-supported buses connect Redding to the Capitol Corridor and San Joaquin train routes. From Redding, buses connect to Red Bluff, Chico, Oroville, Marysville, Davis, Sacramento, Elk Grove, Lodi, and Stockton in both a north and south direction. Riders can board the Capital Corridor and/or San Joaquin trains at the last five cities listed.

**Coast Starlight Ridership.** The single daily round trip of the Coast Starlight connects Redding and Chico with Sacramento, the Bay Area, and Los Angeles to the south and to Seattle, Washington to the north. Amtrak Coast Starlight

boardings and alightings in Redding averaged 6,838 per year between FY 03/04 and 07/08. The high was 7,461 in 06/07 and the low was 6,560 in 04/05.

**TABLE 8-1**
**Amtrak Boardings and Alightings**
**for FFYs 2003/2004 – 2007/2008 in Redding**

| FFY | Coast Starlight[1] | San Joaquin & Capitol Connecting Buses | | Total Train & Buses | Average Daily Riders per Bus |
|---|---|---|---|---|---|
| | | No. of One-way Buses | Total Bus Passengers[2] | | |
| 03/04 | 6,606 | 4 | 8209 | 14,815 | 2.8 |
| 04/05 | 6,560 | 4 | 6097 | 12,657 | 2.1 |
| 05/06 | 6,781 | 4 | 4654 | 11,435 | 2.3 |
| 06/07 | 7,461 | 4.5 | 4520 | 10,617 | 2.3 |
| 07/08 | 6,781 | 5 | 6043 | 12,824 | 1.7 |

Note: FFY means federal fiscal year

## Section 130 Railway-Highway Crossings Program


The purpose of the Railway-Highway Crossings Program is to 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. The PUC submits a prioritized list of projects eligible for Section 130 funding to the Caltrans, Office of Local Programs (OLP), by March 1 of each year. OLP transmits the Joint PUC/Caltrans approved funding list to Caltrans districts, railroads, the PUC and MPOs by July 1 of each year.

The most recent project locations and their status are:

1. Placer Street - $438,000 – Hazard Elimination - Completed 2008
2. South Street - $438,000 – Hazard Elimination - Completed 2008
3. Yuba Street - $1,589,897 – Hazard Elimination - Programmed in FY 2008/ 2009

[1] Amtrak data
[2] Caltrans O/D data from Amtrak data tapes

## Rail Goal, Issues, Objectives, Policies, and Actions

## Goal: *Make rail service convenient to Shasta County citizens when economically feasible.*

## Issues

A. Current rail service to Shasta County is very limited. No daylight rail service is available to or from Redding. Future rail service appears to remain quite limited, although connections to Sacramento and beyond may be feasible in 2015.

B. Intracounty commuter rail service is not currently available and does not appear feasible within the long-range horizon of this plan.

## Objectives

**Short-Range (2010-2020)**

O-1 Maintain existing railroad right-of-way and railroad services within the county.

O-2 Maintain feeder bus service to connect with rail service south.

O-3 Obtain more convenient daytime passenger rail service at the Redding station.

O-4 Maximize opportunities to study, plan, and install grade separations between rail and roadways.

**Long-Range (2020-2030)**

O-5 If transit corridors are developed, provide for the eventual use by rail or other fixed-guideway systems.

O-6 Consider the feasibility of construction of a new rail line between Eureka and Redding.

## Policies

P-1 Consider reservation of right-of-way for intracounty rail when it is part of a multiple-use transit corridor and would not compromise the establishment of the corridor.

P-2 Support the development of daylight Amtrak service to Redding.

P-3 Reassess intercity rail feasibility at the end of the short-range planning period.

P-4 Support legislation that preserves or enhances rail service without competing with funding sources for existing services.

## Actions

All actions are to be in support of regional goals, objectives, and policies. The specific policy to be supported by the respective action is indicated in parenthesis.

**Short-Range (2010-2020)**

***Redding Area Bus Authority***

- RABA's intermodal passenger transfer facility in central Redding opened in August 1996. Located on the rail line next to the Amtrak station, the facility is intended to be the hub for major bus routes.

- RABA and Caltrans should continue to negotiate with AMTRAK and UPRR to provide rail passenger services at the intermodal facility. (P-2)

**Long-Range (2020-2030)**

***Regional Transportation Planning Agency***

- Resolution No. 10-96, Supporting Passenger Rail Service, states: "The Shasta County Regional Transportation Planning Agency supports the concept of more convenient and frequent passenger rail service for Shasta County; and will continue to seek a long-term funding source other than Transportation Development Act funds, will continue to monitor passenger rail needs, and will continue to support such services where cost effective and consistent with the Shasta County Regional Transportation Plan." (P-2, P-5)

# Background

## Overview

The primary goal of the non-motorized transportation program is to create a transportation environment that encourages non-motorized alternatives. Actions and policies listed below promote bicycling and walking as a means to decrease automobile-dependency; reduce traffic congestion, air pollution, and noise pollution; and support sidewalks, and bike and pedestrian trails. Planning for facilities to promote walking and biking as transportation modes provides for safe non-motorized travel.

## Pedestrian

Most residents of Shasta County choose the automobile for transportation to work: 92% of workers, or 59,096 people, according to the 2000 Census.[1] Walking is the next most popular mode, with 2.2% of workers, or 1,443 people, walking. Although often overlooked as a significant mode of transportation, walking is more common than both transit and bicycling. Attempts to promote walking are primarily addressed through land use measures. The policy section of the land use chapter (see Chapter 10) encourages local agencies to provide for mixed-use development that lends itself to walking or bicycling.

Recreational hiking and bike riding are widespread in the many parks and forests in Shasta County. Lassen Volcanic National Park, in the southeast corner of the county, has perhaps the best-developed series of hiking trails. Additionally, hundreds of miles of abandoned logging roads provide recreational opportunities for mountain biking.

The Pacific Crest National Scenic Trail extends 2,600 miles from Canada to Mexico. Seventy-eight miles of this hiking and equestrian trail lie in Shasta County, extending up the east side and across the north side of the county. The U.S. Forest Service has another 275 miles of trails in Shasta County.

[1] The 2000 Census only addresses transportation modes to work; therefore, modes of travel to schools and stores are not addressed in this document.

The City of Redding has built a series of interconnected river and park trails along the Sacramento River. Approximately eight miles of paved pedestrian/bicycle trails have been completed along the Sacramento River between Hilltop Drive and Keswick Dam Road. A footbridge was completed in 1990 at the northerly end of the trail to provide a looped system. New feeder trails have been funded and are under design. These trails will provide bicycle and pedestrian access from adjacent residential areas to the main river trail. Various extensions of the main trail are planned as funding becomes available. The Sundial Bridge, which connects the Museums of Turtle Bay with the Redding Arboretum across the Sacramento River, opened in July 2004.

A former railroad grade has been improved and provides a 12 mile paved and unpaved trail from near Keswick Dam Road to Shasta Dam. This trail connects with the City of Redding's network of trails. These trails are coordinated with designated bikeways on roads to provide loop possibilities to the trail users. It is also anticipated that, as this network of trails matures and becomes more widespread, bicycling will become a more viable commuting option.

**TABLE 9-1**
**Summary of Trails and Bikeways in the Redding Area**

| | *TRAILS Paved and Dirt* | *BIKEWAYS Class I, II, III* | *TOTAL System Miles* |
|---|---|---|---|
| Existing Miles | 80.25 | 75.46 | 155.71 |
| Proposed Miles | 78.45 | 54.56 | 133.01 |
| Total Existing and Proposed Miles | 158.7 | 130.02 | 288.72 |

In the Burney area, there is a proposed project to create a multipurpose trail on the alignment of the former McCloud Railway Company railroad tracks. The rail line has been abandoned east of McCloud, which included a line to Burney in Shasta County. The tracks have been removed. The right-of-way is still owned by the Forbis family.

The Shasta County Department of Public Health encourages pedestrian facilities and walking as part of a healthy lifestyle. Walking can help reduce obesity, diabetes, hearth disease, and respiratory diseases. Public Health also encourages safe design of pedestrian facilities to prevent injuries.

## TABLE 9-2
Existing Trails in the City of Redding (2008)

**MULTIPLE-USE TRAILS**

| | Trail Name | From | To | Length | Acres * |
|---|---|---|---|---|---|
| 1 | Blue Gravel Mine Trail * | Placer St | Canyon Creek Rd | 2.04 | 12.34 |
| 2 | Buckeye Park Trail* | Internal Loop | Internal Loop | 0.29 | 1.76 |
| 3 | Buenaventura Trail | Lakeside Drive | Sunflower Drive | 0.45 | |
| 4 | Canyon Creek Trail* | Blazingwood Dr | Buenaventura Blvd | 0.51 | 3.09 |
| 5 | Cascade Park Trail | Internal Loop | Internal Loop | 0.50 | |
| 6 | Civic Center Perimeter Trail | Internal Loop | Internal Loop | 0.89 | |
| 7 | Clover Creek Preserve | Internal Loop | Internal Loop | 2.00 | |
| 8 | Enterprise Park Trail | Internal Loop | Internal Loop | 1.53 | |
| 9 | Knolls Trail * | Foothill Blvd | Eureka Way | 0.19 | 0.14 |
| 10 | Lema Ranch Trails (private, open to the public) | Internal Loop | Internal Loop | 3.58 | |
| 11 | Mary Lake Trail Loop | Internal Loop | Internal Loop | 0.75 | |
| 12 | Mary Lake - Westside Trail Connector * | Mary Lake Park | Westside Trail | 0.30 | 1.82 |
| 13 | Mary Street / Overhill Extension * | Sacramento River Trail | Overhill St | 0.31 | 1.90 |
| 14 | Park Marina River Front | Cypress Bridge | 2703 Park Marina | 0.11 | |
| 15 | Parkview Riverfront Park Trail | Civic Center | Cypress Bridge | 0.55 | |
| 16 | Peppertree Park Trail | Internal | Internal Loop | 0.37 | |
| 17 | Sacramento River Trail - North * | Keswick Dam Road | Hilltop Drive | 6.72 | 40.73 |
| 18 | Sacramento River Trail - South * | Court St | Keswick Dam Road | 3.40 | 20.61 |
| 19 | Sacramento River Rail Trail (BLM) | Motion Creek | Keswick Dam Rd | 12.00 | |
| 20 | Stanford Hills Trail * | Sutro Mine Rd | Sac. River Trail - North | 0.86 | 5.19 |
| 21 | Sundial Bridge * | Riverfront Park | Highway 44/Auditorium Dr | 1.32 | 8.00 |
| | | | **MULTIPLE-USE TRAILS** | **38.67** | **87.58** |

**DIRT TRAILS**

| | Trail Name | From | To | Length | Acres * |
|---|---|---|---|---|---|
| 1 | Buenaventura Trail | Sunflower Drive | Sacramento River Trail | 0.70 | |
| 2 | Churn Creek Open Space Trails (private, open to public) | Tidmore Lane | Minder Park | 4.00 | |
| 3 | Clover Creek Preserve | Internal Loop | Internal Loop | 2.50 | |
| 4 | Fishermens Trail (BLM) | Keswick Dam | Sacramento River Rail Trail | 0.40 | |
| 5 | Hornbeck Trail (BLM) | Quartz Hill Road | Walker Mine Road | 4.00 | |
| 6 | Lower Sacramento Ditch Trail (BLM) | | | 3.30 | |
| 7 | Sunset Trail (Palatine) * | Scenic Dr | Sacramento River Trail | 0.50 | 3.03 |
| 8 | Swasey Trails (BLM) | Swasey Road | Mule Town Road | 10.80 | |
| 9 | Upper Sacramento Ditch Trail (BLM) | Walker Mine Road | Shasta Dam | 10.00 | |
| 10 | Westside Trails | Lower Springs/Placer Rd | Mary Lake Park | 6.08 | |
| | | | **DIRT TRAILS** | **41.58** | **3.03** |
| | | | **MULTIPLE-USE and DIRT TRAILS** | **80.25** | |
| | | | **TRAIL ACREAGE *** | | **90.61** |

** TRAIL ACREAGE. Trails included in the Level-of-Service acreage, using a 50'-wide corridor, are marked with asterisks. Included in this acreage calculation are all public trails found within the city limits and outside a developed park.*

## TABLE 9-3
## Future Trails in the Redding Area

**MULTIPLE-USE TRAILS**

| | Trail Name | From | To | Miles | Acres | Year |
|---|---|---|---|---|---|---|
| 1 | ACID Trail | Butte St | Cypress Av | 0.89 | 5.38 | 2012 |
| 2 | Boulder Creek Trail | SR 299E Bikeway | Churn Creek | 1.69 | 10.24 | 2015 |
| 3 | Candlewood Trail | Highway 44 | Candlewood Dr | 0.55 | 3.32 | 2009 |
| 4 | Canyon Creek Trail Extension | Placer St | Blazingwood Dr | 2.13 | 12.93 | 2010 |
| 5 | Churn Creek Trail | Minder Park | Churn Creek Rd | 4.03 | 24.42 | 2007-2020 |
| 6 | Clear Creek Trail | SR 273S Bridge | Cascade Park | 1.66 | 10.06 | 2012 |
| 7 | Clover Creek Trail | Sports Park | Sacramento River | 8.30 | 50.32 | 2007-2020 |
| 8 | Dana To Downtown Bikeway | Sundial Bridge Drive Overpass | Mt. Shasta Mall | 1.00 | 6.06 | 2011 |
| 9 | Jenny Creek Trail | Eureka Way | Mary Lake | 0.62 | 3.78 | 2011 |
| 10 | Lema - Nash Trail | Shasta View Dr | Old Oregon Trail | 0.98 | 5.94 | 2015 |
| 11 | Linden Creek Trail | Placer St | MLK, Jr. Park | 1.64 | 9.94 | 2012 |
| 12 | Little Churn Creek Trail | Hartnell Av | Churn Creek | 1.07 | 6.48 | 2012 |
| 13 | Manzanita Trail | Manzanita Hills Av | Almond Av | 0.27 | 1.63 | 2012 |
| 14 | Middle Creek Trail | Old Shasta / SR 299W | Sacramento River Trail | 1.86 | 11.28 | 2009-2012 |
| 15 | Old 99 Spur Trail* | Lake Blvd | North Market St | 0.96 | 4.61 | 2010 |
| 16 | Palisades Trail | Hilltop Dr | North Bechelli Ln | 1.43 | 8.67 | 2012 |
| 17 | Riverside Trail | Sacramento River Trail | Center St | 0.38 | 2.31 | 2015 |
| 18 | Sac. River Trail - Future Expansion | Cypress Av | Anderson River Park | 11.50 | 69.72 | 2018-2020 |
| 19 | Sac. River Trail - Hatchcover Spur | Hemstead Dr | Cypress Av | 0.29 | 1.74 | 2010 |
| 20 | Sac. River Trail - Park Marina Trail | State Route 299W | Cypress Av | 2.12 | 12.87 | 2015 |
| 21 | Sac. River Trail - Turtle Bay West Extension | Convention Center | State Route 44 | 1.00 | 6.06 | 2007 |
| 22 | Stillwater Creek Trail | Old Oregon Trail | Sacramento River | 15.45 | 93.63 | 2020 |
| 23 | Stillwater Plant Trail | State Route 44 | Dersch Rd | 1.85 | 11.21 | 2020 |
| 24 | Sulphur Creek Trail -South | North Market St | Arboretum Perimeter Trail | 0.38 | 2.30 | 2010 |
| 25 | Upper Churn Creek Trail | Pine Grove Av | Oasis Rd | 1.75 | 10.62 | 2020 |
| 26 | Wentz Creek Trail | Mistletoe School | Cypress Av | 0.55 | 3.34 | 2020 |
| | | **FUTURE MULTIPLE-USE TRAILS** | | **64.36** | **390.08** | |

**TABLE 9-3 (Cont'd)**

| DIRT TRAILS | | | | | | |
|---|---|---|---|---|---|---|
| | **Trail Name** | **From** | **To** | **Miles** | **Acres** | **Year** |
| 1 | China Dam Trail | Placer Rd | Texas Springs Rd | 2.43 | 14.75 | 2012 |
| 2 | Mercedes Trail | Arboretum Perimeter Trail | Mercedes Ln | 0.21 | 1.26 | 2015 |
| 3 | Olney Creek Trail | Texas Springs Rd | Cascade Park | 3.67 | 22.22 | 2016 |
| 4 | Ridgeview Trail | Ridgeview Park | Blue Gravel Mine Trail | 0.65 | 3.91 | 2012 |
| 5 | Salt Creek Trail | Lower Springs Rd | Sacramento River Trail | 2.00 | 12.12 | 2010 |
| 6 | Sulphur Creek Trail - North | Quartz Hill Rd | North Market St | 3.30 | 20.02 | 2012 |
| 7 | Greenwood Trail | Walnut Ave | Sonoma St | 0.83 | 5.03 | 2010 |
| 8 | Avalon Trail | Shasta View Dr | Old Oregon Trail | 1.00 | 6.06 | 2015 |
| | | | **FUTURE DIRT TRAILS** | **14.09** | **85.37** | |
| | | | **TOTAL FUTURE TRAILS** | **78.45** | | |
| | | | **TOTAL FUTURE ACRES** | | **475.44** | |

## Bicycling

In California, 0.83% of employees bicycled to work in 2000, according to the 2000 Census. This is an unusually high average because of good weather and the presence of bicycle-friendly cities, such as Davis, where 25% of commuters bicycle.

In Shasta County, only 0.38% of employees bicycle to work. This is the same percentage as the national average.

There are some significant impediments for bicycle commuters in Shasta County. The major barriers in the urbanized area are Interstate 5, the Union Pacific Railroad, and the Sacramento River. Of the seven existing Sacramento River crossings for autos in the urbanized areas of Redding and Anderson, three have design provisions to accommodate bicycle traffic: the Diestelhorst, South Bonnyview, and Airport Road/North Street bridges. Two others, Cypress Avenue and Highway 44, are currently being widened and will contain pedestrian and bicycle facilities. There are also two bicycle/pedestrian bridges connecting sections of the Sacramento River Trail that cross the river: the Ribbon and Sundial bridges.

Bikeways are only part of the story. The Redding Area Bus Authority has front-mounted bike racks on its fixed-route buses. Each bus can carry three bicycles. This will increase opportunities for both commuting and recreational bicyclists.

Biking to the store, school, or work provides the added benefit of improving the health of Shasta County citizens. By providing a system that supports bicycling as an alternative transportation option, citizens have a time-efficient, low cost way of attaining the U.S. Surgeon General's recommended daily allowance for

physical activity. Bicycle exercise can help reduce heart disease, diabetes, obesity, and other chronic illnesses.

### State Facilities Not Restricting Bicycle Traffic

Existing bike routes in the county include portions of the state and federal highways listed in Table 9-4. In the vicinity of Redding, there are sections of SR 299, Interstate 5, and SR 44 that prohibit bicycle and/or pedestrian traffic. Per District 2's Cycling Guide for State Highways of Northern California, "While enjoying the 1,200+ miles open to cyclists in District 2, you should be aware of certain hazards. On all highways other than I-5, a cyclist should expect to find paved shoulder widths anywhere from 0-8 feet, with 2 feet or less being the most common. On I-5 a cyclist will encounter a 10-foot treated shoulder with rumblestrips." Pit River Bridge has less than 10-foot shoulders. State highways provide vital links from the rural areas of Shasta County to the cities of Redding, Anderson, and Shasta Lake.

**TABLE 9-4**
**STATE AND FEDERAL HIGHWAYS OPEN TO BICYCLISTS**

| HIGHWAYS | LOCATION | MILES OPEN TO BICYCLES |
|---|---|---|
| I-5 | North of Cottonwood to Anderson | 5 miles |
| I-5 | SR 273 to Oasis Road | 1 mile |
| I-5 | City of Shasta Lake to Dunsmuir | 40 miles |
| SR 36 | Platina to Trinity County line | 12 miles |
| SR 44 | Redding to Lassen County line | 75 miles |
| SR 89 | Siskiyou to Viola | 50 miles |
| SR 151 | City of Shasta Lake | 3 miles |
| SR 273 | Redding to Anderson | 15 miles |
| SR 299 | Trinity County to Lassen County | 100 miles |

*For more information, see the Caltrans District 2 Cycling Guide at www.dot.ca.gov/dist2.*

### Bikeways Defined

Bikeways are divided into three basic categories, based on the degree to which they separate bicycles from other travel modes:

- **Class I bikeways** (bike "paths") - Characterized by completely separate rights-of-way separating cyclists from motorists.
- **Class II bikeways** (bike "lanes") - Delineated by signs and striping along street shoulders.
- **Class III bikeways** (bike "routes") - Indicated only by posted signs on existing streets.

### Bikeways Existing and Proposed

The following is an inventory of bikeways, both existing and proposed:

**TABLE 9-5**
**Shasta County Bikeways**

| Class II Bike Lanes | | | | | |
|---|---|---|---|---|---|
| | **STATUS** | **ROAD SEGMENT** | **FROM** | **TO** | **MILES** |
| 1 | Existing | Lake Boulevard | Redding city limit | Ashby Road | 2.05 |
| 2 | Existing | Deschutes Road | Hillside Drive | Berkeley Drive | 0.60 |
| 3 | Existing | Ashby Road | Lake Boulevard | Shasta Lake city limit | 0.15 |
| 4 | Proposed | Gas Point Road | I-5/Cottonwood | Happy Valley Road | 6.44 |
| 5 | Proposed | Happy Valley Road | Gas Point Road | Hawthorne Avenue | 6.58 |
| 6 | Proposed | Canyon Road | Hawthorne Avenue | Highway 273 | 2.18 |
| 7 | Proposed | Balls Ferry Road | Anderson city limit | Deschutes Road | 1.03 |
| 8 | Proposed | Deschutes Road | Balls Ferry Road | Highway 299 East | 13.80 |
| 9 | Proposed | Placer Road | Redding city limit | Cloverdale Road | 7.64 |
| 10 | Proposed | Texas Springs Road | Placer Road | Branstetter Road | 4.60 |
| 11 | Proposed | Oasis Road | I-5/Redding | Old Oregon Trail | 1.72 |
| 12 | Proposed | Union School Road | I-5/Shasta Lake | Old Oregon Trail | 1.73 |
| 13 | Proposed | Old Oregon Trail | I-5/Mountain Gate | Highway 299 East | 7.34 |
| 14 | Proposed | Old Oregon Trail | Highway 299 East | Highway 44 | 4.37 |
| 15 | Proposed | Airport Road | Highway 44 | Anderson city limit | 6.40 |
| 16 | Proposed | Cloverdale Road | Placer Road | Oak Street | 5.78 |
| 17 | Proposed | Oak Street | Cloverdale Road | Palm Avenue | 1.57 |
| 18 | Proposed | Palm Avenue | Oak Street | Happy Valley Road | 2.54 |
| 19 | Proposed | Olinda Road | Happy Valley Road | Anderson city limit | 5.20 |
| 20 | Proposed | Old Alturas Road | Redding city limit | Old Oregon Trail | 0.45 |
| 21 | Proposed | Dersch Road | Airport Road | Deschutes Road | 2.79 |
| 22 | Proposed | Swasey Drive | Highway 299 West | Placer Road | 4.06 |
| 23 | Proposed | Abandoned McCloud Railway Company railbed* | Burney | To be determined | N/A |

* Sponsored by Save Burney Falls, a non-profit organization.

**TABLE 9-6**
**City of Anderson Bikeways**

| | | | | |
|---|---|---|---|---|
| **Class 1 - Bikeways** | | | | |
| | **STATUS** | **ROAD SEGMENT** | **FROM** | **TO** |
| 1 | Existing | Barney Road | South Street | SR 273 |
| 2 | Existing & proposed | SR 273 | South Street | South city limit |
| | | | | |
| **Class 2 – Bike Lanes** | | | | |
| 3 | Existing & proposed | South Street | SW city limit | SR 273 |
| 4 | Existing & proposed | North Street | | |
| 5 | Existing & proposed | Balls Ferry Road | South Street | SE city limit |
| 6 | Existing & proposed | East Street | Alexander Ave. | Balls Ferry Road |
| 7 | Existing | Rupert Road | Stingy Lane | Dodson Lane |
| 8 | Proposed | Dodson Lane | Balls Ferry Road | Rupert Road |
| 9 | Proposed | Stingy Lane | North Street | Balls Ferry Road |
| 10 | Proposed | Riverside Avenue | North Street | Ox Yoke Road |
| 11 | Proposed | McMurray Drive | North Street | Balls Ferry Road |
| 12 | Proposed | Ventura Street | North Street | Balls Ferry Road |
| 13 | Proposed | Freeman Street | North Street | South Street |
| 14 | Proposed | Fairgrounds Drive | 1st Street | 3rd Street |
| 15 | Proposed | 3rd Street | Fairgrounds Drive | SR 273 |
| 16 | Proposed | Marx Way | SR 273 | Barney Road |
| 17 | Proposed | Pinon Avenue | SR 273 | To the west |
| | | | | |
| **Class 3 – Bike Routes** | | | | |
| 18 | Existing | Church Street | North Street | South Street |
| 19 | Existing | Silver Street | Briggs Street | South Street |
| 20 | Existing & proposed | Ferry Street | ACID canal | Ventura Atreet |
| 21 | Proposed | Barney Road | South Street | SR 273 |
| 22 | Proposed | Alexander Avenue & Little Street | SR 273 | Riverside Avenue |
| 23 | Proposed | 1st Street & Briggs Street | Fairgrounds Drive | SR 273 |

**TABLE 9-7**
**City of Redding Bikeways**

| CLASS I - BIKEWAYS | | | | |
|---|---|---|---|---|
| **STATUS** | **ROAD SEGMENT** | **FROM** | **TO** | **MILES** |
| Existing | SR 299E | Boulder Creek | Interstate 5 | 0.24 |
| Existing | SR 299E | Interstate 5 | College View Dr | 0.61 |
| | SR 44 | Dana Drive | Sundial Bridge Drive | 1.10 |
| | | | **EXISTING CLASS I BIKEWAYS:** | **1.95** |

| CLASS II - BIKE LANES | | | | |
|---|---|---|---|---|
| **STATUS** | **ROAD SEGMENT** | **FROM** | **TO** | **MILES** |
| Existing | Buenaventura Blvd | Keswick Dam Rd | Stanford Hills Trailhead | 1.00 |
| Existing | Cedars Rd | Westside Rd | State Route 273 | 0.03 |
| Existing | Eastside Rd | Polk St | Radio Ln | 1.13 |
| Existing | Knighton Rd | Churn Creek Rd | Airport Rd | 1.75 |
| Existing | Park Marina Dr | Butte | Parkview Av | 1.36 |
| Existing | Polk St | Ellis | Eastside | 0.37 |
| Existing | South Bonnyview Rd | State Route 273 | Churn Creek Rd | 3.06 |
| Existing/ Proposed | N Market St | Lake Blvd | Quartz Hill Rd | 1.26 |
| Existing/ Proposed | Tarmac Rd | Shasta View Dr | Abernathy Ln | 0.97 |
| Existing/ Upgrade | Buenaventura Blvd | Buenaventura Trailhead | Railroad Av | 3.00 |
| Existing/ Upgrade | Hilltop Dr | State Route 299 | E Cypress Av | 3.34 |
| Existing/ Upgrade | Lake Blvd | Pine Grove Av | N Market St | 5.02 |
| Existing/ Upgrade | Old Alturas Rd | Churn Creek Rd | Old Oregon Trail | 2.46 |
| Existing/ Upgrade | Shasta View Dr | College View Dr | Rancho Rd | 5.97 |
| Existing/ Upgrade | Victor Av | Old Alturas Rd | Rancho Rd | 3.68 |
| Existing/ Upgrade/ Proposed | Bechelli Ln | Bechelli River Access | South Bonnyview Rd | 3.22 |
| Existing/ Upgrade/ Proposed | Browning St | Hilltop Dr | Old Alturas Rd | 1.11 |
| Existing/ Upgrade/ Proposed | Churn Creek Rd | State Route 299 | Knighton Rd | 8.53 |
| Existing/ Upgrade/ Proposed | Hartnell Av | Cypress Av | Airport Rd | 4.14 |
| | | | | |

| | | | | |
|---|---|---|---|---|
| Upgrade | Benton Dr | Quartz Hill Rd | Sacramento River | 0.47 |
| Upgrade | Butte St | Continental St | Park Marina Dr | 0.39 |
| Upgrade | Center St | Riverside Dr | Trinity St | 0.16 |
| Upgrade | College View Dr | Bodenhamer Blvd (Future) | Old Alturas Rd | 2.01 |
| Upgrade | Continental St | Trinity St | Butte | 0.31 |
| Upgrade | Court St | Sacramento River | Schley Av / Railroad Av | 1.19 |
| Upgrade | Cypress Av | Civic Center Dr | Ishi Dr | 2.90 |
| Upgrade | East St | Trinity St | South St | 1.14 |
| Upgrade | Keswick Dam Rd | Buenaventura Blvd | Lake Blvd | 1.70 |
| Upgrade | Oasis Rd | Lake Blvd | Old Oregon Trail | 4.15 |
| Upgrade | Old Oregon Trail | Oasis Rd | State Route 44 | 7.09 |
| Upgrade | Parkview Av | Market Street | Park Marina Dr | 0.96 |
| Upgrade | Quartz Hill Rd | Keswick Dam Rd | N Market St | 3.01 |
| Upgrade | Railroad Av | Schley Av | Buenaventura Blvd | 1.35 |
| Upgrade | Riverside Dr | Court St | Center St | 0.20 |
| Upgrade | Schley Av | Court St | Railroad Av | 0.07 |
| Upgrade | State Route 273 | South Bonnyview Rd | City Limits | 3.88 |
| Upgrade | Trinity St | Center St | Continental St | 0.43 |
| Upgrade | Westside Rd | Buenaventura Blvd | Cedars Rd | 1.87 |
| Upgrade/ Proposed | Boulder Dr | State Route 299 Bikeway | State Route 299 Bikeway | 0.18 |
| Upgrade/ Proposed | Hawley St | State Route 299 | Proposed Future Trailhead | 0.58 |
| Upgrade/ Proposed | Placer St | City Limits | Airpark Dr | 3.26 |
| Upgrade/ Proposed | Rancho Rd | Churn Creek Rd | Venture | 2.36 |
| Proposed | Airport Rd | Hartnell Av | Sacramento River | 6.15 |
| Proposed | Bechelli River Access | Dana-to-Downtown Bikeway | Bechelli Ln | 0.24 |
| Proposed | Future Rd | Future Trailhead | Tanglewood | 0.66 |
| Proposed | Loma Vista | Bechelli Ln | Churn Creek Rd | 0.50 |
| Proposed | Palisades Av | Hilltop Dr | Dana-to-Downtown Bikeway | 0.42 |
| Proposed | Preserve Blvd | Thomason | Airport Rd | 0.38 |
| Proposed | Radio Ln / East Bonnyview Rd | Eastside Rd | South Bonnyview Rd | 0.46 |
| Proposed | South St | Court St | Park Marina Dr | 1.35 |
| Proposed | Venture St | Rancho Rd | Unforgettable Ln | 2.34 |
| Proposed | View St | Browning St | Dana-to-Downtown Bikeway | 0.25 |
| | | | **TOTAL CLASS II BIKEWAYS:** | **103.80** |

| **CLASS III - BIKE ROUTES** | | | | |
|---|---|---|---|---|
| **STATUS** | **ROAD SEGMENT** | **FROM** | **TO** | **MILES** |
| Existing | Anita St | Ellis | Rio Street | 0.16 |
| Existing | Benton Dr | Quartz Hill Rd | N Market St | 1.00 |
| Existing | Branstetter Ln | West City Limits | Westside Rd | 2.06 |

| | | | | |
|---|---|---|---|---|
| Existing | Cedars Rd | El Reno Ln | Westside Rd | 1.50 |
| Existing | Clear Creek Rd | West City Limits | State Route 273 | 4.01 |
| Existing | Collyer Dr | Mountain View Dr | Old Oregon Trail | 2.42 |
| Existing | East St | South St | Locust St | 0.21 |
| Existing | Eastside Rd | Radio Ln | Girvan Rd | 2.35 |
| Existing | El Reno Ln | Cedars Rd | Westside Rd | 0.15 |
| Existing | Ellis St | Polk St | Anita St | 0.12 |
| Existing | Freebridge Av | Parkview Av | Rio St | 0.39 |
| Existing | Girvan Rd | Eastside Rd | State Route 273 | 0.04 |
| Existing | Honeybee Rd | Texas Springs Rd | Clear Creek Rd | 0.67 |
| Existing | Mountain View Dr | Twin View Blvd | Collyer | 0.57 |
| Existing | Rio St | Freebridge Av | Anita St | 0.04 |
| Existing | Texas Springs Rd | Honeybee Rd | Branstetter Ln | 2.42 |
| Existing | Twin View Blvd | Oasis Rd | Mountain View Dr | 1.29 |
| Proposed | 8 th St | Mary St | West St | 0.08 |
| Proposed | 11 th St | West St | Court St | 0.08 |
| Proposed | Airpark Dr | Placer St | Gold St | 0.16 |
| Proposed | California St | Trinity St | Tehama St | 0.24 |
| Proposed | Center St | Trinity St | Division | 0.10 |
| Proposed | Churn Creek Rd | Knighton Rd | Airport Rd | 3.43 |
| Proposed | Civic Center Dr | Locust St | Cypress Av | 0.14 |
| Proposed | Continental St | Butte St | South St | 0.32 |
| Proposed | Dersch Rd | Airport Rd | Stillwater Creek Trail | 0.81 |
| Proposed | Division | Center St | California St | 0.08 |
| Proposed | Foothill Blvd | Lakeside Dr | Knolls Trailhead / Las Animas | 0.59 |
| Proposed | Gold St | Airpark Dr | West St | 0.52 |
| Proposed | Hemstead | Cypress Av | Bechelli Ln | 0.47 |
| Proposed | Hilltop Dr | E Cypress Av | Maraglia St | 0.27 |
| Proposed | Keswick Dam Rd | Sacramento River Trailhead | Buenaventura Blvd | 1.48 |
| Proposed | Lakeside Dr | Buenaventura Blvd | Foothill Blvd | 0.14 |
| Proposed | Las Animas | Foothill Blvd | Monte Bello | 0.05 |
| Proposed | Locust St | East St | Civic Center Dr | 0.32 |
| Proposed | Manzanita Hills Av | Knolls Trailhead / Monte Bello | Shasta St | 0.11 |
| Proposed | Market St | Placer St | South St | 0.11 |
| Proposed | Mary St | Overhill Trailhead | 8 th St | 0.20 |
| Proposed | Meadow View Dr | Churn Creek Rd | Airport Rd | 0.93 |
| Proposed | Monte Bello | Las Animas | Manzanita Hills Av | 0.05 |
| Proposed | Overhill | Eureka Way | Overhill Trailhead | 0.53 |
| Proposed | Pleasant St | Placer St | Stratford | 0.20 |
| Proposed | Quartz Hill Rd | Keswick Dam Rd | Lake Blvd | 2.91 |
| Proposed | Railroad Av | South St | Schley Ave / Court St | 0.44 |
| Proposed | Shasta St | Stratford | Court St | 0.98 |
| Proposed | South St | West St | Court St | 0.08 |
| Proposed | Tehama St | West St | California St | 0.28 |

| | | | | |
|---|---|---|---|---|
| Proposed | Traveled Way | N Market St | Sacramento River Trailhead | 0.24 |
| Proposed | West St | 8 th St | 11 th St | 0.30 |
| Proposed | West St | Shasta St | Gold St | 0.46 |
| Proposed | Willis | Shasta St | Shasta St | 0.01 |
| | | | **TOTAL CLASS III BIKEWAYS:** | 36.50 |
| | | | **TOTAL ALL TYPES OF BIKEWAYS:** | 142.25 |

**TABLE 9-8**
**City of Shasta Lake Bikeways**

| **Class I - Bikeways (Path)** | | | | |
|---|---|---|---|---|
| | **STATUS** | **ROAD SEGMENT** | **FROM** | **TO** |
| 1 | Existing | Sacramento St | Shasta Dam Blvd | Rose Ave |
| 2 | Proposed | Ashby Road | Pine Grove Ave | El Cajon Ave |
| 3 | Proposed | Pine Grove Ave | Ashby Rd | Cascade Blvd |
| 4 | Proposed | Along Churn Creek | Pine Grove Ave | South city limits |
| 5 | Proposed | Shasta Way (future road) | Grand Avenue | Mountain Gate Blvd |
| 6 | Proposed | Future Rd | Shasta Way (future road) | Black Canyon Blvd |

| **Class II - Bike Lanes** | | | | |
|---|---|---|---|---|
| | **STATUS** | **ROAD SEGMENT** | **FROM** | **TO** |
| 7 | Existing | Shasta Dam Blvd (SR 151) | Lake Blvd | I-5 |
| 8 | Existing | Lake Blvd | Shasta Dam Blvd | Pine Grove Ave |
| 9 | Existing | Pine Grove Ave/Ashby Rd | Lake Blvd | El Cajon Ave |
| 10 | Proposed | Ashby Rd/Shasta Gateway Dr and future road | Pine Grove Ave | Cascade Blvd |
| 11 | Proposed | Future road/Cabello/Black Ranch Rd | Pine Grove Ave | Shasta Way (future road) |
| 12 | Proposed | Cascade Blvd | South city limit | Shasta Dam Blvd |
| 13 | Proposed | Grand Coulee Blvd | Shasta Dam Blvd | Cascade Blvd |
| 14 | Proposed | Twin View Blvd | South city limit | Pine Grove Ave east |
| 15 | Proposed | Shasta Way (future road) | Grand Ave | Mountain Gate Blvd |

| Class III - Bike Routes | | | | |
|---|---|---|---|---|
| | **STATUS** | **ROAD SEGMENT** | **FROM** | **TO** |
| 16 | Proposed | Lake Blvd | Shasta Dam Blvd | North city limit |
| 17 | Proposed | SR 151 | Lake Blvd | West city limit |
| 18 | Proposed | Flanagan Road | Lake Blvd | West city limit |
| 19 | Proposed | Hill Street | Lake Blvd (south) | Lake Blvd (north) |
| 20 | Proposed | Toyon Ave | Lake Blvd | Sacramento Ave |
| 21 | Proposed | Future road | Pine Grove Ave | South city limit |
| 22 | Proposed | Montana St | Vallecito Ave | Red Bluff Ave |
| 23 | Proposed | Vallecito Ave | Montana St | Washington Ave |
| 24 | Proposed | Washington Ave | Vallecito Ave | Shasta Way |
| 25 | Proposed | Shasta Way | Washington Ave | Shasta Dam Blvd |
| 26 | Proposed | Fort Peck St | Montana Ave | Shasta Way |
| 27 | Proposed | Red Bluff Ave | Montana Ave | Mussel Shoals Ave |
| 28 | Proposed | Mussel Shoals Ave | Shasta Dam Blvd | Black Canyon Rd |
| 29 | Proposed | Grand Ave | Mussel Shoals Ave | Shasta Way |

## Non-Motorized Goal, Issues, Objectives, Policies, and Actions

### Goal: *Create a transportation environment that encourages non-motorized alternatives.*

### Issues

A. Inadequate bicycle and pedestrian facilities discourage non-motorized trips. Bike plans need to account for commuter trail interconnectivity in order to increase bike- and walk-to-work trips.

B. Many existing or potential on-street bicycle/pedestrian routes are not used due to a lack of shoulders or other barriers.

C. Class I bikeways are costly, difficult to maintain, and used less by bicycle commuters.

D. Class II and III bikeways utilizing street and road shoulders are often littered with glass, gravel, and other debris.

E. The lack of a continuous regional bikeway system often impedes bicycle commuters.

F. In addition to bicycles, Class II facilities are important routes for wheelchair users and pedestrians.

G. Traffic lights often won't change for bicycles.

H. Maintenance of bike lanes and bike paths is a continuing problem.

I. Utility poles often obstruct pedestrian facilities.

## Objectives

**Short-Range (2010-2020)**

O-1 Strive to eliminate barriers to bicycle and pedestrian traffic.

O-2 Integrate non-motorized transportation into development plans throughout the region.

O-3 Keep bicycle and pedestrian lanes in a usable condition through an on-going maintenance program.

O-4 Mark the road as to where a bicycle should be placed to trip all new traffic signals.

O-5 At fixed-time traffic signals, where feasible, make all new walk/don't walk signals automatic so they go to walk without having to push the button. This is considered an ITS application for pedestrian crossing detection information.

**Long-Range (2020-2030)**

O-6 Strive to provide an interconnected bicycle/pedestrian network throughout the county.

O-7 Mark all signaled intersections as to where to place a bicycle to trip the signal.

O-8 Encourage the public to use non-motorized transportation facilities.

## Policies

P-1 Encourage each city and the county to maintain an updated bikeway plan.

P-2 Implement the Shasta County Regional Bikeway Plan including, where appropriate, street and highway improvements that accommodate non-motorized traffic by utilizing widened shoulders, bike paths, or lanes that serve non-motorized transportation.

P-3 Provide bicycle lanes and pedestrian walkways on the Sacramento River bridges in Redding and Anderson to allow for better non-motorized traffic flow.

P-4 Support continued development of the Sacramento River Trail and feeder trails.

P-5 Encourage pedestrian and bicycle transportation as mitigation for regional transportation impacts.

P-6 Encourage the inclusion of bike lanes and pedestrian facilities in road construction and improvement projects, where appropriate.

P-7 Eliminate non-motorized barriers to comply with the Americans with Disabilities Act.

P-8 Encourage sweeping of shoulders on all feeder and arterial routes on a frequent schedule to improve conditions for bicyclists.

P-9 Identify traffic signal detectors for bicycle placement with use of standard road markings.

P-10 Provide automatic walk signals at fixed-time signalized intersections equipped with walk/don't walk signals, where feasible.

P-11 Use the Transportation Enhancement (TE) funding available within Shasta County for development of non-motorized projects.

P-12 Where feasible and appropriate, enhance pedestrian safety by installing traffic calming measures, such as raised sidewalks, medians, and pedestrian countdown signals that are appropriately timed to meet the needs of seniors.

## Actions

**Short-Range (2010-2020)**

***Caltrans and Regional Transportation Planning Agency***

- TE funds will remain available for use in constructing/improving non-motorized facilities. (P-1, P-2, P-11)

***Shasta County***

- The Shasta County Bikeway Plan emphasizes safety, and focuses on Class II and III bike lanes adjacent to selected roadways. (P-2) This Bikeway Plan is currently being updated.

- Due to low construction and maintenance costs and higher commuter usage of Class II and III facilities, Shasta County is focusing on these types of facilities for improvement of its bicycle corridors. (P-2)

***City of Anderson***

- The City of Anderson Bicycle Transportation Plan was adopted October of 2007. It emphasizes coordination of bicycle facilities with local agencies to link major activity centers. The City currently has about 7.5 miles of Class I, II, and III bicycle facilities, including about 2.5 miles in the Anderson River Park. The Plan proposes to add 9.9 miles of bikeways. (P-1)

***City of Redding***

- The City of Redding has identified various potential bikeways and paths that are expected to be built by land developers as part of their requirements. Several feeder routes to the Sacramento River Trail are planned, allowing access from adjacent residential areas. (P-2, P-4)

***City of Shasta Lake***

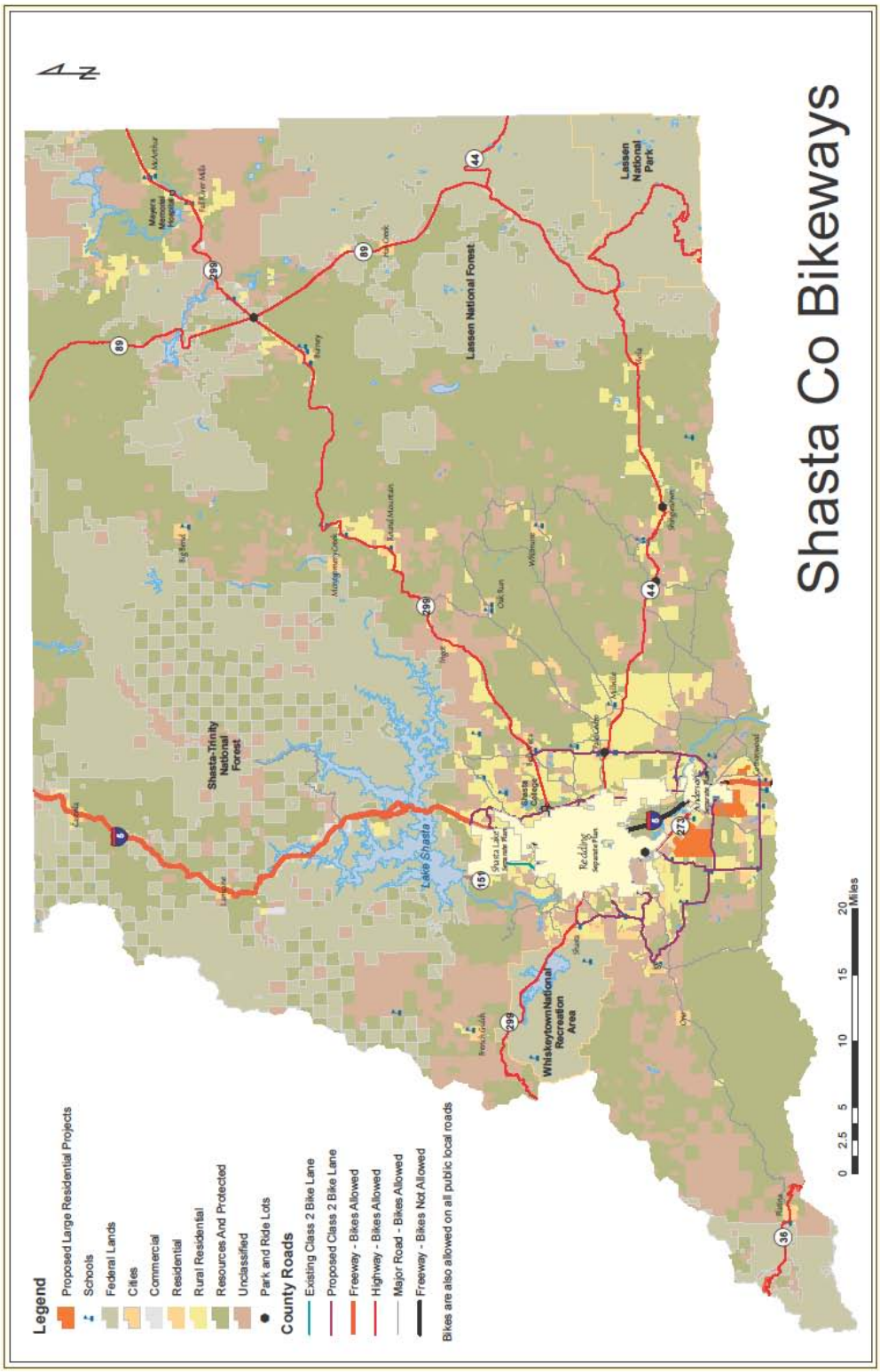
- The City of Shasta Lake adopted a new Bicycle Transportation Plan (BTP) in July of 2009. Adoption of the plan qualifies the city to apply for Bicycle Transportation Account funding. The City has about seven miles of existing bikeways. The BTP proposes to construct an additional 16.5 miles of bikeways. (P-1).

**Long-Range (2020-2030)**

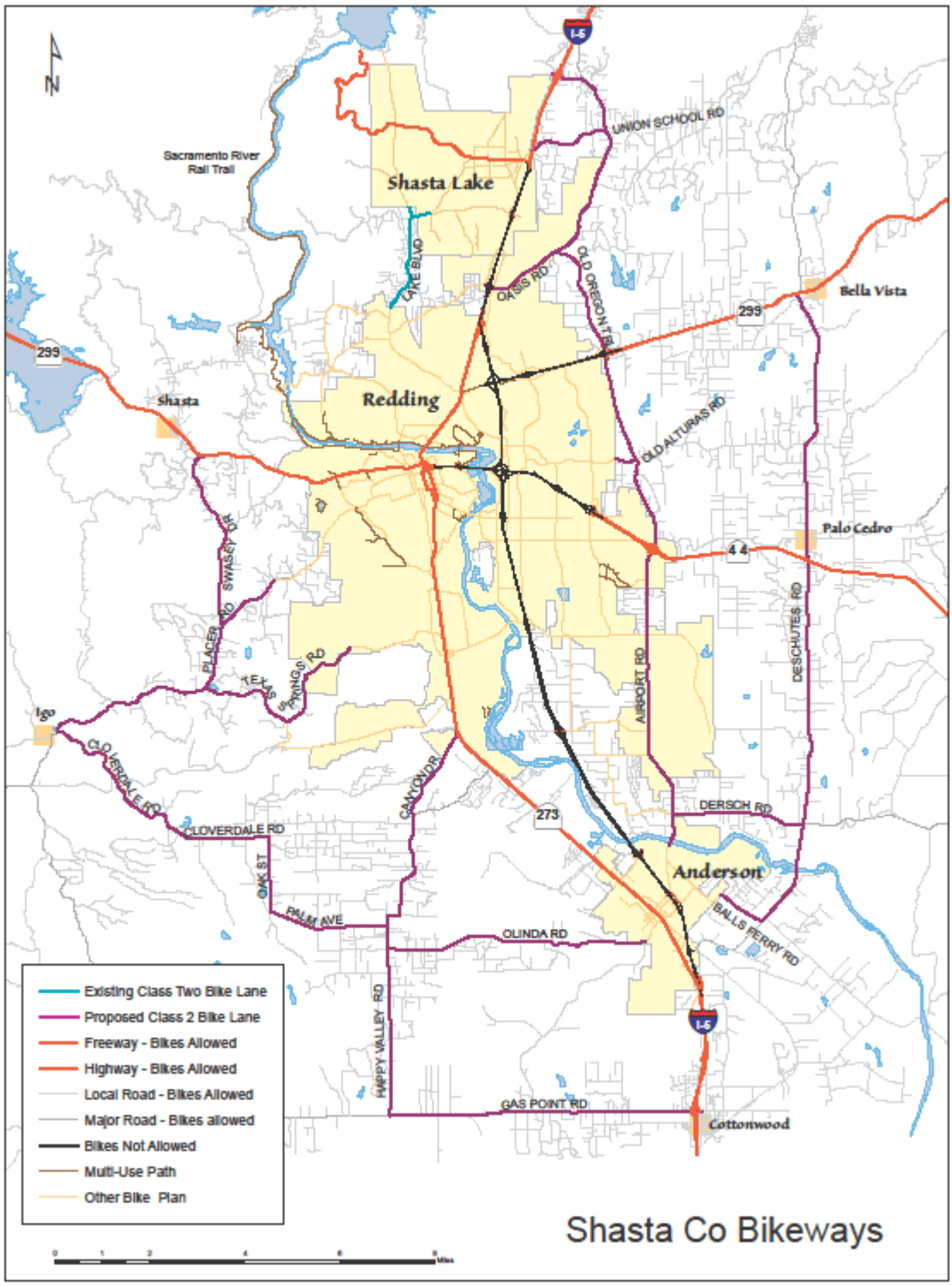
*Regional Transportation Planning Agency*

- The RTPA will pursue funding for non-motorized facilities and coordinate bikeway planning efforts. (P-11)

**MAP 9-1**
**Shasta County Bikeways**



**MAP 9-2**
**Shasta County South Central Region (SCR) Bikeways**



## Background


Among other things, the RTP is intended to support the area's general plans. Under state law, cities and counties are required to adopt a general plan to guide land use development within their jurisdiction. The existing circulation system has been developed in coordination with the various general plan land use elements adopted by the county and cities. As development occurs, the circulation systems are designed to accommodate planned land uses. The RTP depends primarily on the circulation elements of these plans for formulating regional plan goals, objectives, and policies.

Each time the RTP is updated, the cities and county are consulted and asked to update the proposed actions of their jurisdictions listed in the RTP.

There is a direct correlation between the allocation of land uses throughout the county and transportation. The lower the residential densities and the less the concentration of jobs and services, the more roads must be extended to serve the transportation needs of the residents. These factors also affect the success of transit systems. Table 10-1 shows the land use density needed to support a variety of transit modes.

### Redding

The City of Redding hosts a wide range of residential densities

Redding, the urban center of Shasta County, features a wide range of residential densities. Redding's general plan provides opportunities in select areas for high-density residential development, including no limit on residential density in the downtown core area. Other areas allow up to 20-30 units per acre. However, recent development trends have led to construction of residential units at lower than the allowed maximum densities. This has resulted in a low overall residential density of three to four dwelling units per acre within the developed areas. Redding has also become decentralized, leaving a smaller portion of retail business in the downtown area.

**TABLE 10-1**
**TRANSIT MODES RELATED TO RESIDENTIAL DENSITY**

| Mode | Service | Minimum Necessary Residential Dwelling Units Per Acre | Remarks |
|---|---|---|---|
| Dial-a-Bus | Many origins to many destinations | 6 | Only if labor costs are not more than twice those of taxis |
| Dial-a-Bus | Fixed destination or subscription service | 3.5 to 5 | Lower figure if labor costs twice those of taxis; higher if three times those of taxis |
| Local Bus | "Minimum," ½ mile route spacing, 20 buses per day | 4 | Average, varies as a function of downtown size and distance from residential area to downtown |
| Local Bus | "Intermediate," ½ mile route spacing, 40 buses per day | 7 | |
| Local Bus | "Frequent," ½ mile route spacing, 120 buses per day | 15 | |
| Express Bus - reached on foot | Five buses during two hour peak periods | 15 - Average density of two square mile tributary area | From 10 - 15 miles away to largest downtowns only |
| Express Bus - reached by auto | Five to ten buses during two hour peak period | 3 - Average density of 20 square mile tributary area | From 10 to 20 miles away to downtowns larger than 20 million square feet of nonresidential floor space |
| Light Rail | Five minute headways or better during peak hour | 9 - Average density for a corridor of 25 to 100 square miles | To downtowns of 20 to 50 million square feet of nonresidential floor space |
| Rapid Transit | Five minute headways or better during peak hour | 12 - Average density for a corridor of 100 to 150 square miles | To downtowns larger than 50 million square feet of nonresidential floor space |
| Commuter Rail | Twenty trains per day | 1 to 2 | Only to largest downtowns, if rail line exists |

*Source: Boris Rushbarev & Jeffery Zupan, Where Transit Works: Urban Densities for Public Transportation. Urban Transportation Perspectives and Prospects.*

Most of the recent commercial development has occurred east of the Sacramento River. This eastern portion of Redding has also developed concentrated areas of higher density residential development including apartments, condominiums, and small lot single-family dwellings. The residents of the other cities, along with the residents of the unincorporated area, depend on Redding for much of their shopping, service, and employment needs.

### Anderson

The City of Anderson General Plan allows for residential densities of up to 20 units per acre. The overall residential density in the developed portion of Anderson is slightly higher than in Redding with an average five to six dwelling units per acre. The commercial and industrial land uses are not centralized, in part because State Route 273 bisects the City. The central business district is experiencing high vacancy due to construction of commercial centers in other parts of Anderson.

### Shasta Lake

The City of Shasta Lake also supports denser overall residential development than Redding, but lacks enough commercial and service uses to compete with the draw from Redding's plentiful shopping and service opportunities. Shasta Lake is currently in the process of creating additional commercial opportunities through its redevelopment plans near Interstate 5.

### Shasta County

The unincorporated portion of the county is subject to the provisions of the Shasta County General Plan. This plan features a wide range of land uses. Large portions of the outlying areas of the county are designated for resource uses including open space, timber, and agriculture. Residential uses are incidental to the primary resource use of the land and feature extremely low residential densities. Rural residential uses featuring densities of one dwelling unit per two to five acres occupy approximately 99,000 acres out of a total of 186,000 acres in the entire SCR. The purpose of planning low-density rural residential areas is to focus growth in the rural community centers and the cities where urban services are available. Suburban residential densities of up to three dwelling units per acre are located next to the boundaries of the cities and in some unincorporated community centers. Urban residential densities of up to 16 dwelling units per acre are found primarily in the unincorporated communities of Cottonwood and Burney where supporting sewer and water service is available. Other rural community centers feature mixed-use designations that allow up to one residential unit per acre along with certain commercial uses.

### The Land Use/Transportation Link

There is a documented need to reduce vehicle miles traveled to reduce air pollution and traffic congestion. Decentralized, low-density development within the county will have a direct adverse impact on the ability of jurisdictions to provide transportation facilities to their residents. A more compact urban form featuring infill development with higher residential densities closer to jobs and services would result in more efficient use of the existing transportation system. Development should also focus on identified transit corridors. This type of

development increases the efficiency of public transit and allows for less dependence on the automobile.

Currently, the cities and the county are exploring planning options to create communities or nodes of development that are less dependent on the automobile. Air quality, traffic congestion, fiscal constraints, and quality of life concerns have all stimulated these efforts. Pedestrian and transit-oriented designs with mixed-use development are being experimented with in other communities. They show promise in addressing the land use/transportation link and other related issues.

In 2007, the RTPA started a regional blueprint planning program, called "Shasta*FORWARD*>>". Funded by state grants, the program has involved an unprecedented public outreach effort to solicit input from as many residents of Shasta County as possible. The purpose was to identify a preferred growth alternative for future development. Many of the issues identified by the public in the Shasta*FORWARD*>> process coincide with land use/transportation link concepts, such as compact urban form and pedestrian- and transit-oriented design. The preferred growth alternative report was approved by the RTPA Board in February 2010. The preferred growth alternative will be presented to the city councils and Board of Supervisors in Shasta County.

The RTPA will use information gathered for the regional blueprint plan to move toward preparation of a sustainable communities strategy (as required by SB 375) for the 2014 update of the RTP.

## Land Use Goal, Issues, Objectives, Policies, and Actions

**Goal**: ***Provide a Regional Transportation Plan that is supportive of the land use goals of the cities and county general plans and focuses transportation investments along major transportation corridors to encourage infill development within the urbanized area.***

## Issues

A. Development trends of the cities and the county have resulted in low-density, decentralized land use patterns that hinder the effective use of alternative transportation modes.

B. Significant, long-term changes in land use planning by the cities and the county are required to create a land use pattern that promotes alternatives to the automobile.

C. There is a direct link between land use and transportation. Land development can impact existing transportation facilities as well as create the need for new facilities. Failure to identify impacts and mitigation at the time of development will result in over-utilization and deterioration of the transportation system. Worse, local government will be left to fund costly improvements from existing resources.

## Objectives

**Short-Range (2010-2020)**

O-1 Focus residential growth and commercial uses near transit corridors and design them for efficient, convenient transit use.

O-2 Promote developments designed to encourage non-motorized trips by providing efficient, convenient, and safe pedestrian and bicycle facilities.

O-3 Encourage increased non-motorized accessibility by placing residential development, employment, and commercial uses near each other.

O-4 Ensure that transportation improvements necessary for development are fiscally constrained.

O-5 Perform a periodic review of traffic impact fees developed by the agencies.

O-6 Encourage the agencies to keep the RTPA in the loop at the onset of an application process.

**Long-Range (2020-2030)**

O-7 Integrate land use planning with supporting transportation programs to stabilize and, over time, reduce trip length.

## Policies

P-1 Conduct a land use analysis as part of a major investment study for large capacity-increasing transportation projects.

P-2 Coordinate local land use planning with the RTP.

P-3 Address capital and operating fiscal issues when proposing to expand the transportation system as a result of land use changes.

P-4 Include functional mixed-use provisions and design standards that reduce use of the single-occupant automobile in local general plans and zoning ordinances.

P-5 Consider neighborhood commercial uses during the design of infill and redevelopment projects in residential areas.

P-6 Identify and designate transit corridors in each locality.

P-7 Impacts to transportation facilities must be identified at the time of local development approval and methods for funding/implementing necessary mitigation identified.

P-8 Encourage information sharing and communication among local agencies and the RTPA on regionally significant land use applications.

## Actions

**Short-Range (2010-2020)**

***All Jurisdictions***

- Shasta County, Redding, and Anderson have recently updated the air quality element of their general plans. These elements are primarily aimed at land use policies and lessening vehicle miles traveled.

- Utilize RTPA TAC meetings as a forum to discuss current land uses/issues in the region.

- Encourage the cities and county to provide a list of pending land use applications and/or hearing notices to the RTPA and adjacent cities, to enhance interagency communication and coordination.

***Regional Transportation Planning Agency***

- Prepare a sustainable communities strategy for the 2015 update of the RTP.

**Long-Range (2020-2030)**

***All Jurisdictions***

- Land use and air quality elements of the county and city general plans will continue to be monitored, evaluated for effectiveness, and updated as necessary.

***Regional Transportation Planning Agency***

- It is anticipated that certain segments of highways may become congested with traffic during the long-range period. For these road segments, a plan will need to be developed to ease congestion that will include land use strategies.

## Background

### State and Federal Regulatory Status

Shasta County is in the northern portion of the Northern Sacramento Valley Air Basin. The county is presently in violation of state air quality standards for ozone and small particulate matter ($PM_{10}$), and is classified by the State Air Resources Board as a "moderate" nonattainment area. The county currently meets all federal air quality standards. Tables 11-1 and 11-2 (at the end of this chapter) show a 10 year history of air quality measurements for ozone and $PM_{10}$.

Shasta County currently meets all federal air quality standards

Shasta County has been close to exceeding the federal ozone standard for many years. If designated nonattainment for the federal standard, the RTPA would have one year to incorporate analyses with respect to the new standards for all major transportation projects.

While vehicle miles traveled in the state may eventually lead to exceedance of the new 8-hour standards, weather patterns are also a key factor. During the warm months of May through October, the county typically experiences elevated ozone readings. Ozone-forming pollutants can also be imported from metropolitan areas at the southern end of the air basin, such as Sacramento.

California has recently taken a series of actions intended to reduce greenhouse gas emissions to reduce climate change. Governor Schwarzenegger has issued two executive orders regarding this issue, and the state legislature has passed several bills. See Chapter 14 for a discussion of greenhouse gases and climate change.

### Shasta County Air Quality Attainment Plan

The Shasta County Air Quality Attainment Plan (AQAP) was initially adopted by the County Air Quality Management District (AQMD) in 1991, pursuant to the California Clean Air Act of 1988. The AQAP provides commitments to air quality planning efforts involving reduction of both mobile and stationary emission sources for ozone. Its application is countywide, including the cities of Anderson, Redding, and Shasta Lake. The AQAP was revised for the year 2006 as part of the required three-year update.

The California Air Resources Board's 2006 estimated emissions inventory indicates that Shasta County's on-road motor vehicles account for 27% of the reactive organic gases (ROG) and 55% of the nitrogen oxides (NOx), both chemical precursors to forming ozone.

### Federal and State Non-Attainment Requirements

The significance of federal nonattainment is of concern from both a public health standpoint and the impact it would have on development of transportation projects and associated land use development within the county. Upon classification as federal nonattainment, the RTPA must adopt a process to show that all transportation plans, programs, and ultimately projects generate no more air pollution than allowed by an emissions budget designed to bring the county into attainment by a specified date. Capacity-increasing road projects may not meet this test, requiring more emphasis on other ways to move people in the county. The cost and time required to complete transportation projects would increase. Amendment of projects in the RTIP, FTIP, and RTP would typically trigger new air quality analysis and conformity findings. Therefore, amendments to these documents would likely be infrequent and attention would be given to project selection and scheduling during each document's two-year update process.

*The regional travel demand model is used to estimate future traffic congestion*

To demonstrate conformity for the RTP, and all short-range programming documents that flow from the RTP, sophisticated computer modeling would be conducted. In order to complete the modeling, projects must be identified in more detail than is currently done in the RTP.

If the county is designated federal nonattainment, it would take at least three years of demonstrating compliance in order to return to the attainment classification.

The RTPA has taken steps to prepare for federal nonattainment because of the uncertainty of the timing. The regional travel demand model that is used to estimate future traffic congestion was updated in 2007. The model has been updated to a 2005 base year and the output will be formatted for use in the air pollution model currently approved by the EPA. This update has been formatted for use in the air pollution model most likely required by the U.S. EPA - EMFAC2000.

Although downwind transport of ozone and its precursors from the Sacramento region is responsible for a portion of Shasta County's ozone violations, state ozone standards are also violated in the Redding area as a result of locally produced air pollution. Results show that transport can be a significant factor, but not the sole factor on exceedance days. The transport study helps support the argument that some portion of the local air pollution cannot be controlled

locally, and that Shasta County will need to rely partly on air quality clean up measures in other nonattainment areas to the south.

Air quality issues will also affect public transit. Emission regulations currently being proposed by the California Air Resources Board (CARB) for heavy-duty urban buses will be significantly more stringent than federally mandated transit bus emission standards. Transit providers should begin the development of strategic plans for meeting new emission regulations and, if required, moving to alternative fuels. The various alternative fuels include "clean diesel" fuel, methanol, ethanol, natural gas, electric, and liquefied petroleum gas.

## Air Quality Goal, Issues, Objectives, Policies, and Actions

### Goal: ***Reduce harmful air emissions in Shasta County and maintain a level that meets or is better than the minimum state and federal health standards.***

### Issues

A. It is projected that vehicle miles traveled will increase in Shasta County in the long term. Despite technological improvements in vehicle emission rates, this will likely result in continued violation of state ozone standards and future violation of new and more stringent federal ozone standards.

B. As a state-designated nonattainment area for ozone and $PM_{10}$, Shasta County is faced with a state-mandated emission reduction program.

C. Nonattainment of the existing one-hour federal air quality standard for ozone is also possible during any year, especially given local atmospheric conditions.

D. Out-of-county traffic on Interstate 5 and state highways is projected to increase, adding to local air quality problems.

E. If air quality cannot be maintained within Shasta County, growth may be substantially curtailed by both regulation and a lack of general appeal to new residents.

F. The state will adopt greenhouse gas (GHG) emission reduction targets. Efforts will be necessary to reduce transportation-related GHG emissions.

## Objectives

**Short-Range (2010-2020)**

O-1 Prepare for Shasta County being designated a nonattainment area for federal air quality standards.

O-2 Reduce emissions of inhalable particulate matter ($PM_{10}$) and emissions contributing to ozone production to, at a minimum, meet state ambient air quality standards.

O-3 Reduce emissions of greenhouse gases.

**Long-Range (2020-2030)**

O-4 Reduce emissions of inhalable particulate matter and emissions contributing to ozone production to a level that assures compliance with state ambient air standards.

## Policies

P-1 Support and encourage measures that would result in a reduction of vehicle miles traveled in Shasta County.

P-2 Support and encourage programs to pave existing dirt and gravel roads throughout the county.

P-3 Support and encourage the implementation of measures to reduce emissions contributing to ozone production and climate change in Shasta County.

P-4 Support such additional reasonable measures as the Air Quality Management District may recommend for the improvement of air quality in Shasta County.

P-5 Monitor effective measures developed in other nonattainment areas and support the implementation of similar measures in Shasta County.

## Actions

**Short-Range (2010-2020)**

***Shasta County Air Quality Management District***

- A Transportation Control Measures (TCM) plan was developed for the RTPA by a consultant in 1991 to assist in meeting the goals of the Clean Air Act. The plan includes an assessment of the potential effectiveness of a variety of "reasonably available control measures" in reducing air pollution. The measures are used to mitigate air quality impacts identified in area development projects. The TCMs will be updated, prior to non-attainment designation, to better reflect any traffic and road changes that have occurred. (P-2, P-3)

- The Air Quality Management District has provided funding from the Motor Vehicle Registration Surcharge Funding program (AB 2766) for projects that help to reduce air pollution from motor vehicles and for related planning, monitoring, enforcement, and technical studies necessary for the implementation of the California Clean Air Act. Projects included a revision of the air quality elements for the general plans of the local jurisdictions, land use planning programs aimed at reducing the impact of development on air quality, and various public education programs. The projects are intended to provide a closer linkage between land use, air quality, and transportation planning. (P-4)

- Countywide educational programs are provided through the Community Education Section, which includes presentations and public service announcements. (P-4)

***Shasta County***

- In order to reduce the amount of small suspended particulate matter ($PM_{10}$) in the air, county road policies and standards require that all new roads in the county be paved, and prohibit the creation of new parcels unless they are served by a paved road. In addition, development of existing parcels not served by a paved road are required to pay a dust mitigation fee, which help to fund road paving projects. (P-2)

***Regional Transportation Planning Agency***

- The RTPA will prepare a "sustainable communities strategy" (or alternative planning strategy), as required by state law (SB 375).

**Long-Range (2020-2030)**

***Regional Transportation Planning Agency***

- The RTPA will continue to refine the Shasta County Travel Demand Model to produce projections that can be used in analyzing the impact of transportation projects on air quality. (P-1, P-5)

***Shasta County Air Quality Management District***

- Shasta County Air Quality Management District will continue to support the "Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles."

**Table 11-1**

## Ozone Trends Summary: Redding-Health Dept Roof

FAQs

| | Days > Standard | | | | 1-Hour Observations | | | 8-Hour Averages | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | State | | National | | | State | Nat'l | State | | National | | Year |
| Year | 1-Hr | 8-Hr | *1-Hr* | '08 8-Hr | Max. | D.V.[1] | *D.V.[2]* | Max. | D.V.[1] | Max. | '08 D.V.[2] | Coverage |
| 2008 | 0 | 13 | *0* | 4 | 0.090 | 0.10 | *0.093* | 0.083 | 0.084 | 0.082 | 0.075 | 99 |
| 2007 | 0 | 5 | *0* | 0 | 0.089 | 0.10 | *0.097* | 0.073 | 0.087 | 0.073 | 0.078 | 100 |
| 2006 | 2 | 19 | *0* | 9 | 0.107 | 0.10 | *0.103* | 0.087 | 0.090 | 0.086 | 0.080 | 99 |
| 2005 | 3 | 18 | *0* | 7 | 0.102 | 0.13 | *0.103* | 0.090 | 0.096 | 0.089 | 0.076 | 100 |
| 2004 | 2 | 11 | *1* | 4 | 0.131 | 0.13 | *0.098* | 0.096 | 0.096 | 0.096 | 0.075 | 97 |
| 2003 | 0 | 3 | *0* | 0 | 0.093 | 0.10 | *0.097* | 0.073 | 0.085 | 0.072 | 0.073 | 21 |
| 2002 | 4 | 16 | *0* | 10 | 0.097 | 0.10 | *0.098* | 0.085 | 0.088 | 0.084 | 0.078 | 99 |
| 2001 | 0 | 6 | *0* | 1 | 0.087 | 0.12 | *0.111* | 0.076 | 0.099 | 0.076 | 0.082 | 82 |
| 2000 | 3 | 25 | *0* | 12 | 0.102 | 0.14 | *0.140* | 0.088 | 0.126 | 0.087 | 0.093 | 66 |
| 1999 | 21 | 58 | *0* | 39 | 0.116 | 0.12 | *0.140* | 0.099 | 0.113 | 0.098 | 0.095 | 99 |
| Graph | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

**Info:** Click on a column header for more information about the statistic in that column.
**Area:** Shasta County; Sacramento Valley Air Basin;
Sacramento Valley 8-Hour Ozone Planning Area
**District:** Shasta County APCD
**Years:** Ozone data are available for this site from 1990 through 2008.
**Notes:** All concentrations expressed in parts per million.
The national 1-hour ozone standard was revoked in June 2005 and is no longer in effect. Statistics related to the revoked standard are shown in *italics* or *italics*.
State exceedances shown in **yellow**. National exceedances shown in **orange**.
An exceedance is not necessarily a violation.
[1] D.V. = State Designation Value
[2] D.V. = National Design Value
* There was insufficient (or no) data available to determine the value.

**Table 11-2**

**PM2.5 Trends Summary: Shasta County**

FAQs

| Year | Est. Days > Nat'l '06 Std. | Annual Average | | Nat'l Ann. Std. D.V.[1] | State Annual D.V.[2] | Nat'l '06 Std. 98th Percentile | Nat'l '06 24-Hr Std. D.V.[1] | High 24-Hour Average | | Year Coverage | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Nat'l | State | | | | | Nat'l | State | Min. | Max. |
| 2008 | 29.8 | 14.7 | 14.7 | 9.6 | 15 | 97.1 | 48 | 200.2 | 200.2 | 100 | 100 |
| 2007 | 0.0 | 5.6 | 5.6 | 7.2 | 9 | 16.8 | 22 | 18.6 | 18.6 | 94 | 94 |
| 2006 | 0.0 | 8.7 | 8.7 | 7.7 | 9 | 29.0 | 22 | 31.0 | 31.0 | 98 | 98 |
| 2005 | 0.0 | 7.3 | 7.3 | 7.4 | 8 | 19.0 | 18 | 20.0 | 20.0 | 98 | 98 |
| 2004 | 0.0 | 7.2 | * | * | 8 | 18.0 | 25 | 26.0 | 26.0 | 87 | 87 |
| 2003 | 0.0 | 7.5 | 7.5 | * | 9 | 16.0 | 28 | 34.0 | 34.0 | 100 | 100 |
| 2002 | * | * | * | * | 9 | 40.0 | 35 | 40.0 | 40.0 | 79 | 79 |
| 2001 | 6.0 | 9.2 | 9.2 | * | 13 | 29.0 | 40 | 49.0 | 49.0 | 95 | 95 |
| 2000 | * | * | * | * | 13 | 35.0 | 47 | 45.0 | 45.0 | 95 | 95 |
| 1999 | 38.3 | 12.9 | 12.9 | * | 13 | 55.0 | * | 57.0 | 57.0 | 95 | 95 |
| Graph | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

**Info:** Click on a column header for more information about the statistic in that column.
**Years:** Annual PM2.5 statistics are available for this county from 1999 through 2008.
**Notes:** All concentrations expressed in micrograms per cubic meter.
State exceedances shown in yellow. National exceedances shown in orange.
An exceedance is not necessarily a violation.
State and national statistics may differ for the following reasons:
State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods.
State and national statistics may therefore be based on different samplers.
State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.
[1] D.V. = National Design Value
[2] D.V. = State Designation Value
* There was insufficient (or no) data available to determine the value.

# Chapter 12 – Environmental Resources

## Background

Expansion and maintenance of the transportation system for Shasta County may affect sensitive environmental resources such as watercourses, wetlands, listed plant or animal species, and prehistoric or historic sites.

Shasta County has 15 species of plants and animals listed under the Federal and State Endangered Species Acts. Riparian habitats along streams, particularly the Sacramento River, provide corridors allowing movement of wildlife. Most listed species are dependent on these corridors. Wetlands are also prevalent in the county. Vernal pools are of particular concern, because they are subject to protection under the Federal Clean Water Act and often support listed species, such as fairy shrimp. The California Department of Fish and Game has an established policy of no net loss of wetlands.

All projects are subject to review under the California Environmental Quality Act (CEQA). Projects with federal funding are also subject to the requirements of the National Environmental Policy Act (NEPA). Strict adherence to these laws and related legal requirements serve to disclose and minimize negative environmental effects.

The CEQA and NEPA processes require consultation with agencies that have jurisdiction over affected resources. Besides identifying impacts and recommending mitigation/alternatives, resource agencies ensure compliance with other environmental regulations. Key resource agencies (and regulations) include the California Department of Fish and Game (California Endangered Species Act and Stream Bed Alteration Agreements), the U.S. Fish and Wildlife Service and National Marine Fisheries Service (Federal Endangered Species Act), the U.S. Army Corps of Engineers (Federal Clean Water Act/Section 404: Waters of the United States and Enhanced NEPA/404 Review), the State Historic Preservation Officer (National Historic Preservation Act), and the Regional Water Quality Control Board (Porter-Cologne Act: Basin Plan Consistency and Section 401 Water Quality Certification).

In 2007, Caltrans assumed a delegation of FHWA's responsibilities for environmental review (NEPA) and consultation under federal environmental laws for projects on California's State Highway System and for federal-aid local streets and roads projects.

A master environmental impact report (EIR) has been prepared for this updated RTP under separate cover. The EIR identifies numerous mitigation measures to minimize potential environmental effects of projects listed in the RTP. Both the updated RTP and draft EIR had a 45-day public comment period.

California's Wildlife Action Plan ("California Wildlife: Conservation Challenges") was reviewed in light of projects in the RTP. The Plan discusses species and habitats of greatest conservation need, and actions needed to restore and conserve California's wildlife. Projects in the RTP will not significantly effect sensitive wildlife species or their habitat. As noted above, projects are subject to the requirements of CEQA and NEPA. Strict adherence to these laws and related legal requirements will disclose and minimize negative environmental effects. Potential impacts to wildlife are discussed in detail in the EIR for this RTP.

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## Environmental Resources Goal, Issues, Objectives, and Policies

## Goal: *Minimize the negative environmental effects of transportation projects.*

## Issues

A. The NEPA process can be time consuming and expensive, thereby delaying needed projects and increasing project costs.

## Objectives

**Short-Range (2010-2020)**

O-1 Minimize environmental impacts, project delays, and added costs through early, continued resource agency consultation and public involvement.

O-2 Streamline administration of the NEPA and CEQA process to avoid duplication of efforts.

**Long-Range (2020-2030)**

O-3 As NEPA and CEQA reviews become more common for regional and corridor studies, develop standardized methods for content, format, and coordination of these documents to facilitate tiering (referring to prior applicable studies, rather than regenerating them) for later projects.

## Policies

P-1 Before programming a project in the FTIP, the sponsoring agency should consult with the appropriate resource agencies.

P-2 Communication and cooperation should be maximized between state and federal agencies, the local sponsoring agency, and the RTPA when developing NEPA and CEQA documents.

P-3 The RTPA should be used to house all transportation-related studies within the region for use in subsequent studies.

P-4 When feasible, the minimum legal public notification requirements should be exceeded to encourage public participation.

## Background

The Financial Element is fundamental to the development and implementation of the RTP. The Financial Element identifies the current and anticipated revenue sources and financing techniques available to fund the planned transportation investments and maintenance expenses of the region. The intent of this element is to provide a realistic assessment of financing constraints and opportunities. This financial information is used in planning for future transportation system improvements. The information is used by the state, RTPA, local agencies and local decisions-makers in funding planned projects and maintaining existing infrastructure.

City and county government in growing counties such as Shasta are caught in a squeeze between revenues and needs. Proposition 13 limitations on taxes and years of inflation have left local government in the difficult situation of having responsibility for public transportation facilities without adequate revenue to accomplish the task. While federal transportation acts and state bonds have provided some relief for capital projects, street and road maintenance needs still are critically under-funded. During the last two decades, gasoline tax revenues have not kept pace with either inflation or need. Existing revenue sources are not sufficient to offset these losses. Significant additional revenues over and above the existing revenues are needed.

*Growing counties are caught in a squeeze between revenues and needs*

The growing need to finance the maintenance and improvements to the transportation system is a key concern of the 2009 RTP. Improvements to the current network capacity are needed to keep pace with the increasing usage. Emphasis has been placed on how to best provide the needed operational and capacity improvement to maximize system efficiency; provide for balanced development of the various modes of travel; and adequately address the need for maintenance and rehabilitation of the systems.

In order to effectively plan, develop, and construct transportation projects, program funding should be predictable over time. Unfortunately, funding has become unpredictable from year to year. The multiyear nature of projects requires predictable funding. Complex projects take longer, sometimes many years to complete. A lack of predicable funding from year to year complicates planning for project workload and setting of priorities. Projects are funded from multiple sources, including state, bond, local, and federal funds. Each of these sources generally has different requirements or limitations on how funds can be spent. Stable and predictable funding from each source would help to avoid unnecessary project delays that can make projects more costly.

When funding is held up due to budgetary reasons, considerable staff resources are expended to determine which projects would be affected and how to minimize the impact on the projects. Staff resources are also spent to seek alternative funding to backfill the project requirements.

One source of funding, Proposition 1B, passed by voters, was intended to provide $20 billion in bonds to fund transportation improvements. This one time program was expected to provide funding with a high degree of predictability for a number of years. However, using bonds to fund projects has recently become problematic, as the state's cash problems, together with a tight credit market, have held up issuance of bonds.

At the highest level, even the federal Highway Trust Fund ran out of funds in 2008. The uncertainty regarding the availability of federal funds makes it even more complicated for the state and local governments to plan and deliver transportation programs on a timely and cost-effective basis.

The revenue estimates in this section are based on budget information, with the revenue projections representing estimates of available funds using a 1.2% annual inflation rate, or held flat, where appropriate. Costs in future periods have been adjusted in the same manner, held flat, and/or planning project estimates were used.

The financial element is organized with the following components:

1. An inventory of existing and potential funding sources from federal, state and local perspectives.

2. A summary of costs to operate and maintain the current transportation system as demonstrated in Tables 13-5 and 13-6.

3. A summary of street and road candidate projects with both available funding and potential funding shortfalls and the cost to build the projects.

4. A summary of deferred maintenance for the region and the resulting shortfall.

5. The first four years of the fund estimate is consistent with the four year STIP estimate adopted by the CTC.

6. The projects included in the ITIP costs have been summarized and included in the financial tables.

7. The projects included in the RTIP are consistent with the RTP.

8. The goal, objectives, and policies are consistent with the financial displays of cost and revenue included in the associated tables with this chapter.

## Current Funding Sources

### Federal

Federal funds are used for all modes of transportation, including highways and transit projects. These funds normally require a non-federal match of 10% to 11.47% for road projects, and up to 50% for transit projects.

## Aviation Funding

The Federal Aviation Administration (FAA) provides grants to public agencies — and, in some cases, to private owners and entities — for planning and development of public-use airports that are included in the National Plan of Integrated Airport Systems.

Authorized under the California Aeronautics Act of 1976, as amended, the California Aid to Airports Program (CAAP) assists in establishing and improving a statewide system of safe and environmentally compatible airports whose primary benefit is for general aviation. This program is administered by Caltrans. The following table lists grant information:

**Table 13-1**
Aviation Funding

| Federal Aviation Administration (FAA) | | | |
|---|---|---|---|
| **Program** | **Acronym** | **Purpose** | **Local Match** |
| Airport Improvement | **AIP** | Funds specific airport improvements and projects. | 5% |
| Matching Grant AIP | **AIP** | Provides local match portion of AIP grants. | None |
| **California Aid to Airports Program (CAAP)** | | | |
| Annual Grant Program | **CAAP** | Provides $10,000 annually to aid airports. | None |
| Acquisition & Development | **A&D** | Discretionary grants for capital improvements. | 10-50% |

## Streets and Highways Funding

**The Safe Accountable Flexible Efficient Transportation Equity Act – a Legacy for Users:** SAFETEA-LU, signed into law on August 10, 2005, was enacted 22 months after its precursor, the Transportation Equity Act for the 21st Century (TEA-21), expired. In the interim, a series of 12 stop-gap extension acts provided the authority to continue the Federal-Aid Highway Program, which provides financial assistance to states for transportation projects and programs.

With overall funding authorization totaling $244.1 billion, SAFETEA-LU enacted the largest highway program in the history of the nation. At the same time, it changed the structure and requirements of longstanding programs, introduced new initiatives, added oversight responsibilities, and altered transportation policies.

SAFETEA-LU addresses many of the challenges facing the transportation system today, such as enhancing safety, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, and protecting the environment.

Tables 13-2 and 13-3 list the programs that were reauthorized under SAFETEA-LU. This is a five-year funding cycle starting in fiscal year 2005/06 and ending in fiscal year 2009/10:

**Table 13-2**
Streets and Highways – Federal Program Funds

| Federal Highway Administration | | | |
|---|---|---|---|
| **Program** | **Acronym** | **Purpose** | **Local Match, if required** |
| National Highway System | **NHS** | Includes interstate highways, most urban and rural principal arterials, and the defense strategic highway network. | N/A |
| Surface Transportation Program | **STP** | May be used for any roads that are not classified as local or rural minor collectors. Bridge and transit capital projects are also eligible for funding under this program. | 16.4 % |
| Transportation Enhancement | **TE** | The program is funded from a 10% set aside of STP funds. Funds can be exchanged for State Highway Account funding. | Formula Program |
| Highway Bridge Program | **HBP** | Provides for funding of bridge replacement and rehabilitation projects for selected bridges that meet program criteria. | 11.47% |
| Congestion Mitigation and Air Quality Program | **CMAQ** | Funds may be used for transportation control measures (TCMs), including transit projects that are likely to contribute to meeting an air quality standard in ozone and carbon monoxide nonattainment areas classified by the 1990 Clean Air Act Amendments.<br><br>**Shasta County currently is in attainment; therefore these funds are not available.* | 11.47% |
| Metropolitan Planning funds | **PL** | Available to MPOs to conduct specific transportation planning activities. PL funds also include FTA Section 5303 funds that provide technical planning assistance grants for urbanized areas. These activities must be included in an approved annual work program | 11.47% |

| Streets and Highways – cont'd | | | |
|---|---|---|---|
| **Other Federal Programs** | | | |
| **Program** | **Acronym** | **Purpose** | |
| Regional Surface Transportation Program | **RSTP** | Provides funding for roadways, bridges, transit capital, bicycle, and pedestrian projects. Funds may be exchanged for state funds. | |
| Secure Rural Schools and Community Self-Determination Act of 2008 (Public Law 110-343) | | In 2000, PL 106-393 was enacted to supplement counties for the loss of revenue generated from timber harvest on National Forest lands. Funds can only be used for road and school purposes. Fifteen percent of the funds received must be used for projects that benefit forest health. The law, originally enacted for six-years, was extended in 2007 for one more year.<br><br>In October 2008, Congress approved the Economic Stimulus package that included reauthorization of the Secure Rural Schools and Self-Determination Act for four years (PL 110-343). The new distribution formula decreases payments, or "ramps down," over the four-year period. | |
| Interregional Transportation Improvement Program | **ITIP** | State-funding program for IIP funds. Caltrans nominates and the CTC approves a listing of interregional highway and rail projects for 25% of the funds to be programmed in the STIP (the other 75 percent are RIP funds). | |
| Highway Safety Improvement Program | **HSIP** | Replaces the Hazard Elimination Safety Program (HES). Provides a transition period allowing states to fund projects that were eligible under the old HES Program until such time that an annual 5 Percent Report, describing no less than five percent of public roadway locations with the most severe safety needs, and a Strategic Highway Safety Plan (SHSP) have been developed and implemented by the State. The intent of HSIP is to significantly reduce public roadway fatalities and serious injuries. The emphasis will be at locations that are data and strategically driven.<br><br>Projects must be on any public road, publicly owned bicycle pathway, pedestrian pathway, or trail. Projects must identify a specific safety problem that can be corrected or be improved substantially. | |
| High Risk Rural Roads/Highway for Life | **HR3** | Correct or improve hazardous roadway locations or features to reduce the frequency and severity of accidents on rural roads. Projects must be located on a rural major collector, a rural minor collector, or a rural local road and correct an identified safety hazard or problem. The annual program funding level is approximately $8.25 million. The federal reimbursement rate is 90%. This program is a set aside from the HSIP. | 10% Match |
| Highways for Life | **LIFE** | The purpose of this program is to advance long lasting highways using innovative technologies and practices to accomplish fast construction of efficient and safe pavements and bridges, with the overall goal of improving the driving experience for America. | |

| Table 13-3<br>Streets and Highways – State Program Funds | | | |
|---|---|---|---|
| **Program** | **Acronym** | **Purpose** | |
| California Proposition 42 | **Prop 42** | Passed in March of 2002, Prop 42 ensures that the money gained from the state gas tax and sales tax from gas sales is dedicated for transportation projects and will not be put into the State general fund. Only under "emergency" situations can the funds be taken with a repayment period. This program guarantees that 141 various transportation projects would get funding until 2008. After 2008 the funds generated from gas taxes would be dedicated to the following areas:<br>▪ 20% for city street repairs;<br>▪ 20% for county road repairs;<br>▪ 20% for mass transit and intercity rail; and<br>▪ 40% for new highway and transit capital investments.<br><br>This money is allocated through the STIP. | |
| California Proposition 1B | **Prop 1B** | Approved by the voters on November 7, 2006, includes programs of funding from the Corridor Mobility Improvement Account (CMIA) for performance improvements on the state highway system or major access routes to the state highway system; STIP augmentation; high-priority grade separation and railroad crossing safety improvements; and a created State-Local Partnership Program Account. | |
| Bicycle Transportation Account | **BTA** | Authorized under the California Bikeways Act of 1975, as amended, provides funds for bikeways and related facilities. An adopted bike plan is required for funding. | 10% |
| State Match | | Section 2210 of the Streets and Highways Code provides that the state shall pay out of the State Highway Account the matching money for county road projects in the Federal Aid Secondary exchange program, except that no county may receive more than $100,000 in any one year. Matching funds are provided on the basis of one state dollar for every two federal dollars up to the limitation. Excess state matching funds may be used for road improvement projects anywhere within the county's maintained mileage. | |
| Interregional Improvement Program | **IIR** | Under the provisions of Senate Bill 45 (SB 45), Caltrans remains responsible for the ownership and operation of the state highway system. Capital improvements including capacity increasing projects outside of the urbanized area are to be funded on a statewide basis from the Interregional Improvement Program (IIP). This program is funded with 25% of the state highway account revenues programmed through the STIP. | |

## Flexible Funding Sources

The categories of significant sources of flexible funding are listed below along with a discussion of the estimated amount available and possible alternative uses.

### Surface Transportation Program

Regional Surface Transportation Program (RSTP) revenue is the most flexible of the funding sources available to Shasta County. These funds are available to the cities of Redding, Anderson, and Shasta Lake, and the county.

Counties with urbanized areas less than 200,000 are considered rural counties and may exchange federal funds for state funds. The advantage of this fund exchange is that federal monies are subject to federal regulations. By exchanging for state funds, this allows the local cities and county to significantly reduce the amount of time and cost required to build a transportation project by having to meet only state and local regulation. The disadvantage of exchanging the revenue is that the use of the revenue becomes less flexible. State Highway Account (SHA) funds are subject to the restrictions of Article 19 of the State Constitution and are typically spent on street and road projects.

There are two main alternative ways that the RSTP funds could be used to support the objectives of the RTP. This revenue could be used for transit facility/vehicle acquisition and for non-motorized facilities. The RTP has found that passenger rail is not feasible within the life of the plan. Therefore, if RSTP revenue were to be used for transit, it would have to be in support of capital acquisitions for the bus/paratransit system. The main non-motorized facilities identified in this plan that could be funded with RSTP revenue would be bicycle lane construction and improvements for pedestrians primarily in the urbanized area.

### Regional Improvement Program (RIP)

RIP revenue is a combination of state and federal transportation revenue that is distributed to the region through the State Transportation Improvement Program (STIP). Shasta County's share of RIP funds available over the next five years is estimated to be $27.5M. These funds have been programmed in the 2008/09 RTIP.

The primary use of the RIP funding is to program street and road projects. The projects funded with this revenue source are more fully explained in the Streets and Highways Element (Chapter 5).

## Local Funding Sources

### Highway User's Tax

Sections 2104 and 2106 of the California Streets and Highway Code provide for continuous apportionment of funds from the Highway User's Tax Account to counties and cities for various purposes related to streets and highways, including research, planning and engineering, construction, improvement, maintenance and operations of public streets and highways, and related non-motorized facilities.

### Regional Improvement Program (RIP)

Senate Bill 45 (SB 45, Statutes of 1997) amended state statutes giving significant local control over the programming of the 75% of the State Highway Account that flows through the STIP. These regional improvement funds may be programmed for local capital improvement projects including local roads, public transit (including buses), intercity rail, pedestrian and bicycle facilities, grade separations, transportation system management, transportation demand management, sound walls, intermodal facilities, and safety.

### California Clean Air Act (CCAA) Implementation Funds (AB2766)

The Shasta County Air Pollution Control Board has implemented a vehicle registration surcharge to fund various programs necessary to implement the provisions of the California Clean Air Act of 1988. These funds may be used for the funding of transportation projects and planning activities with air quality benefits, such as travel demand management, transit, and land use planning.

### Zones of Benefit

Subject to California Government Code Section 6600 et. seq., the cities and county may assess impact fees by forming zone of benefit districts to collect fees from building permits to fund phased development of interchanges and other specific transportation system projects.

### Traffic Impact Fees (TIF)

TIF's are fees levied against new development in order to recover some of the costs by a city or county for providing public services or transportation infrastructure, such as roads, bike lanes, and sidewalks.

### North Redding Traffic Benefit District (NRTBD)

On October 16, 2007 the City of Redding voted to establish the North Redding Traffic Benefit District (NRTBD) impact fee area. This district is designed to gather fees to help with rebuilding and expanding of the Oasis Road/Interstate 5 interchange and freeway ramps as well as realigning the Oasis Road intersections at Twin View Boulevard and Cascade Boulevard, expanding bridges across Churn Creek and Salt Creek, and widening of Cascade Boulevard and Twin View Road.

The fees will come from new projects built within this district and are in addition to all other construction fees associated with new projects. Please contact the City of Redding Planning Department for current fees.

## Transit Funding

Transit financial assistance is available to transit operators through both federal and state sources. The Federal Transit Administration (FTA) provides financial assistance to transit operators throughout the country. FTA grant programs are administered through the Division of Mass Transportation. Projects must be derived from a locally developed, coordinated public transit-human services transportation plan.

The American Recovery and Reinvestment Act (ARRA), also known as the Economic Stimulus Act, included $8.4 billion for transit capital investments. Funds are apportioned by formula to urbanized and non-urbanized areas. In 2008/09, Shasta County's allocation of public transit ARRA funds was nearly $2 million. Ten percent of program funds may be used for ADA-paratransit operations.

Table 13-4 lists FTA transit grant programs and ARRA formula programs utilized in Shasta County:

**Table 13-4**
Transit Funding in Shasta County

| Federal Transit Administration | | | |
|---|---|---|---|
| **Program** | **Section** | **Purpose** | **Local Match, if required** |
| Small Urbanized Area Formula Program | **5307** | Provides funds for public transit in urbanized areas with populations under 200,000. | 50% Operating<br>20% Capital |
| Elderly and Disabled Specialized Transit Program | **5310** | Provides capital grants for meeting the transportation needs of elderly persons and persons with disabilities in areas where public mass transportation services are otherwise unavailable. Allows for the purchase of ADA-accessible vehicles, communication equipment, mobility management activities, and computer hardware and software for eligible applicants. | 11.47% |
| Rural and Small Transit Formula Program | **5311** | Provides for public transit formula grants for capital and operating expense projects in rural areas. | 50% Operating<br>20% Capital |
| Job Access and Reverse Commute | **5316** | Intended to improve access to transportation services to employment and employment-related activities for low-income individuals and welfare recipients. | 11.47% |
| New Freedom | **5317** | Provides new transportation services to overcome existing barriers facing Americans with disabilities | 11.47% |

| | | | |
|---|---|---|---|
| | | seeking integration into the workforce and full participation into society. | |
| ARRA Urbanized Area Formula Program: | **ARRA 5307** | Formula grant program for urbanized areas providing transit capital assistance for mass transportation. 10% of ARRA funds may be used for ADA paratransit operations. | None |
| ARRA Rural and Small Transit Formula Program | **ARRA 5311** | Formula grant program for rural and small transit areas providing transit capital assistance for public transit systems. 10% of ARRA funds may be used for ADA paratransit operations. | None |

### State Funding

**Proposition 1B**, approved by voters in November 2006, allows the state to sell $20 billion in general obligation bonds to fund transportation projects to relieve congestion, facilitate goods movement, improve air quality, and enhance the safety and security of the state's transportation system.

- **Public Transportation Modernization, Improvement and Service Enhancement Account, Highway Safety, Traffic Reduction, Air Quality, and Port Security Fund of 2006 (PTIMSEA).** PTMISEA funds may be used for intercity rail projects and by commuter or urban rail operators, bus operators, waterborne transit operators, and other transit operators in California for rehabilitation, safety or modernization improvements, capital service enhancements or expansions, new capital projects, bus rapid transit improvements, or for rolling stock procurement, rehabilitation, or replacement.

- **Transit System Safety, Security, and Disaster Response Account, Highway Safety Traffic Reduction, Air Quality, and Port Security Fund of 2006.** May be used for capital projects that provide increased protection against a security and safety threat, and for capital expenditures to increase the capacity of transit operators, including waterborne transit operators, to develop disaster response transportation systems that can move people, goods, and emergency personnel and equipment in the aftermath of a disaster impairing the mobility of goods, people, and equipment.

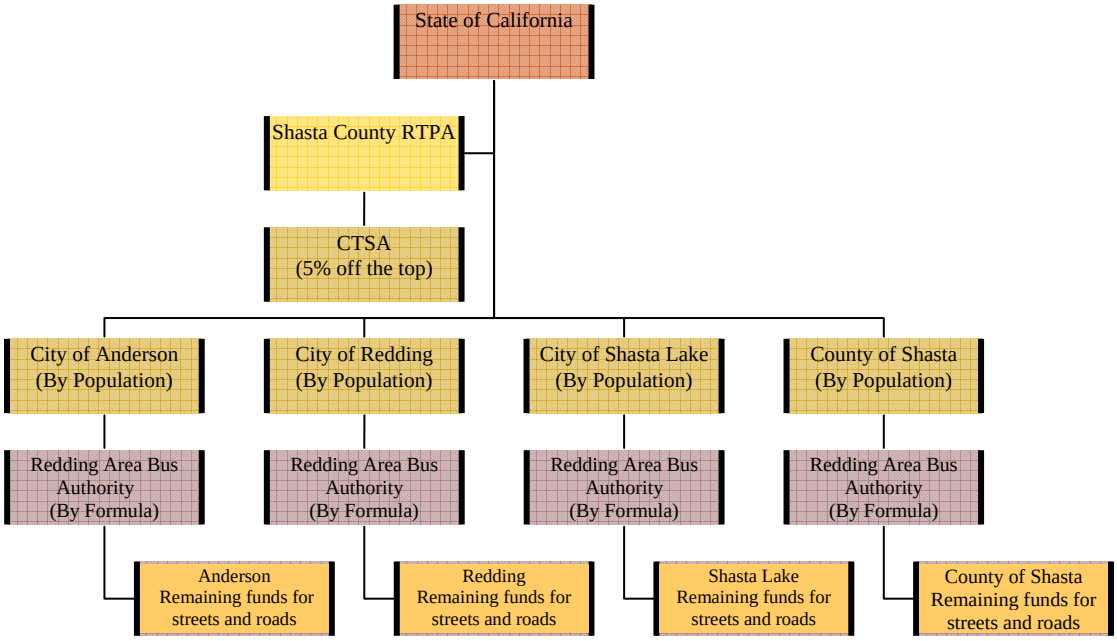
**The Transportation Development Act (TDA)** was enacted by the California Legislature in 1971 to improve existing public transportation. TDA provides two funding sources:

1. Local Transportation Fund (LTF), which is derived from ¼ cent of the general sales tax collected statewide; and
2. State Transit Assistance (STA), which is derived from the statewide sales tax on gasoline and diesel fuel. STA is a formula driven allocation based on *population* and *revenue*. STA may only be used for public transportation. The Governor has suspended distribution of STA funds until the year 2014.

**TDA Allocation Process**: The RTPA annually determines the amount of TDA funds to be allocated to each claimant within its jurisdiction. TDA allocations are determined during the annual unmet transit needs process based on a definition of transit service that is "reasonable to meet."

Bicycle and pedestrian facilities may be funded "off-the-top" prior to the unmet needs determination for transit, if requested by a jurisdiction. Once all transit needs that are "reasonable to meet" are met, funds may be used for other eligible uses. Chart 13-1 shows the allocation priority for jurisdictions in Shasta County, as outlined in TDA.

**CHART 13-1:**
**TDA APPORTIONMENT/ALLOCATION FUNDING PRIORITES**




## Funding and Financial Constraint Analysis

Both federal regulations and state statutes require that the RTP be financially constrained. This means that the plan is based on a realistic projection of revenue. There is more or less certainty of available funding depending on the source. This is because the sources of funding in some cases are dependent on relatively short cycles of funding determined by the U.S. Congress and in other cases by statute assuring more stability over a longer term.

**Short-Range (2010-2020)**

The sources and estimated amounts of short-term revenue by transportation mode and expenditure by mode are shown in the Tables 13-9, 13-11, and 13-13 (located near the end of this chapter). These tables reflect the allocation of funds to support the current mix of transportation modes within the county through the first 10 years (2010-2020) of the RTP.

As discussed in detail in the Streets and Highways element, a call for projects in the region was conducted. The results of this effort can be seen in the Short-Term Funded, Long-Term Funded, and Needed but Not Funded tables in the Streets and Highways element (Chapter 5). Table 13-5 summarizes the total costs of short-range fundable projects for streets and highways in Shasta County. Table 13-6 shows these costs with escalation ("year of expenditure dollars" to reflect inflation). The first four years of funding are intended to be consistent with the STIP fund estimate adopted by the CTC. Refer to Appendix B for current STIP and RTIP information. The projects in the RTP are consistent with the adopted STIP/FTIP and anticipated ITIP revenues.

The project list funding resources are found in Chapter 5 of the RTP. The tables in Chapter 5 provide the constrained funding levels that tie to the amounts in Tables 13-9 through 13-14.

**Long-Range (2020-2030)**

The sources and estimated amounts of long-term revenue by transportation mode and expenditure by mode are shown in Tables 13-10, 13-12, and 13-14. These tables reflect the allocation of funds to support the current mix of transportation modes within the county through the 2020-2030 long-range planning horizon.

Table 13-5 summarizes the total costs of long-range fundable projects. Table 13-6 shows these costs with escalation ("year of expenditure dollars" to reflect inflation). This is the constrained view for funding streets and highways in Shasta County.

| Table 13-5<br>Summary of Funded Projects by Jurisdiction<br>Short- and Long-Range Financially Constrained<br>***No Escalation*** | | | |
|---|---|---|---|
| Jurisdiction | Short-Term 2010-2020 | Long-Term 2020-2030 | Total Project Cost Funded |
| | In millions | In millions | In millions |
| Anderson | $ 4.4 | $ 2.2 | $ 6.6 |
| Caltrans | $ 178.3 | $ 54.9 | $ 233.2 |
| Redding | $ 53.6 | $ 46.8 | $ 100.4 |
| Shasta County | $ 16.3 | $ 11.7 | $ 28.0 |
| Shasta Lake | $ 3.0 | $ 0.2 | $ 3.2 |
| TOTAL = | **$ 255.6** | **$ 115.7** | **$ 371.3** |

| Table 13-6<br>Summary of Funded Projects by Jurisdiction<br>Short- and Long-Range Financially Constrained<br>***With Escalation*** | | | |
|---|---|---|---|
| Jurisdiction | Short-Term 2010-2020 | Long-Term 2020-2030 | Total Project Cost Funded |
| | In millions | In millions | In millions |
| Anderson | $ 6.2 | $ 4.8 | $ 11.0 |
| Caltrans | $ 251.0 | $ 120.7 | $ 371.7 |
| Redding | $ 75.5 | $ 102.9 | $ 178.3 |
| Shasta County | $ 23.0 | $ 25.7 | $ 48.7 |
| Shasta Lake | $ 4.2 | $ 0.4 | $ 4.7 |
| TOTAL = | **$ 359.9** | **$ 254.5** | **$ 614.4** |
| Change | $ 104.2 | $ 138.8 | $ 243.1 |
| FACTOR | 141% | 220% | |

### The Cities and County

This plan assumes that the current sources of funding for transportation facilities will continue to be available at similar levels during the second ten years of the plan. This will result in continued limited availability of funds for new facilities and inadequate funding for maintenance of existing facilities.

City and county general plans provide the basis for developing long-range actions. General plan circulation elements outline proposed projects, primarily street and road projects, which would serve the level of development, allocated by the general plans. However, these circulation elements are not fiscally constrained. That is, there is often no comparison of potential available funding to the planned facilities. Substantial financial participation by developers will be required to build many of these facilities even with the additional local control provided by Senate Bill 45 (SB 45). Besides requiring developers to build roads near their project, it will be necessary to use techniques such as traffic impact fees, redevelopment tax increment financing, and zones of benefit to augment project funding when RIP funds are used and to build low priority facilities

needed to offset the impacts of land development on regional facilities. The City of Redding has increased the level of resources by increasing its traffic impact fees. The City of Anderson has completed an analysis of needs near the I-5 and Deschutes Road intersection and has adopted a traffic impact fee in this zone of influence. Shasta County has developed a zone of benefit in the southern region of the county.

None of these funding sources address the shortfall to maintain existing facilities. This shortfall is critical in the county and in all the cities. The county and Redding have addressed this problem by establishing a policy requiring permanent road divisions to be formed. These divisions will provide funding for future maintenance of on-site streets built to serve residential subdivisions.

Transit expansion is limited because locally generated TDA funds provide the majority of operational funding for the system. These funds are generated by local sales tax, which can rise or fall with the local economic conditions. This source is projected to grow slowly on average in future years. FTA funding available for transit operations is assumed to remain constant in the future. The RTPA, in cooperation with RABA, has prepared, and will continue to maintain, a financially constrained transit capital plan. This plan ensures that there is adequate capital to support transit service in future years.

### Caltrans

**State Highway Operations and Protection Program (SHOPP)**

Biennially, Caltrans is required to prepare a State Highway Operations and Protection Program for expenditure of transportation funds for major capital improvements that are necessary to preserve and protect the state highway system. Projects included in the program are limited to capital improvements relative to maintenance, safety, and rehabilitation of state highways and bridges that do not add new traffic lanes to the system. Caltrans is required to review a draft of the proposed SHOPP program with the RTPAs prior to submitting the SHOPP to the California Transportation Commission for adoption. Projects can also include bridge replacement and seismic retrofitting.

*Funding for long-range state highway needs is difficult to estimate*

Funding for long-range state highway needs is difficult to estimate. Based on the current situation, it is estimated that funding will remain constant in future years. This plan estimates that the flow of funding will remain at the same rate during the second ten years of this plan in most of the categories of funding for state highway maintenance and operational projects. Because SR 299/44 forms part of a state emphasis route running from Humboldt County to SR 395 in Lassen County, there should be support in the Interregional Program for continuing work on the Buckhorn Summit. Regional Improvement Program revenue, local revenue from sources including zones of benefit, redevelopment

funds, and developer exactions will still be necessary for some projects on the state highway system outside of the urbanized area.

### Summary of Deferred Maintenance for the Region and the Resulting Shortfall

Based upon the region's (not including Caltrans) Pavement Management Systems, the amount of current deferred maintenance cost is estimated to be approximately $240 million.

**Table 13-7**
**Current Estimate of Deferred Maintenance**

| Jurisdiction | Estimated Current Total Maintenance/Rehab | Estimated Current Year Available Funding for Maintenance/Rehab | Estimated Unfunded or Deferred Maintenance |
|---|---|---|---|
| Anderson | $ 4,413,384 | $ 490,000 | $ 3,923,384 |
| Redding | $ 58,892,802 | $ 4,306,000 | $ 54,586,802 |
| Shasta County | $ 160,609,401 | $ 8,801,000 | $ 151,808,401 |
| Shasta Lake | $ 16,645,552 | $ 448,000 | $ 16,197,552 |
| Total | $ 240,561,139 | $ 14,045,000 | $ 226,516,139 |

As estimated above, the shortfall of approximately $226 million is a revenue need that continues to grow larger every year. The above data relates to approximately 1,675 miles of road network. The characteristics of these facilities range from unpaved gravel and dirt roads to multi-lane urban arterial roads carrying more than 52,000 vehicles per day. The need for overlays, crack sealing, patching, plowing, and grading dominates the work schedules of all employees in the maintenance division of each respective jurisdiction. Additionally, as the network continues to expand with needed projects, increased population, and overall trip generation growth, the competition for the available funding is expected to continue at a pace far exceeding supply.

The Shasta County transportation system is under-funded in the areas that are most important to the traveling public. Nearly all of the discretionary transportation funding is needed to meet the most critical maintenance needs. Roads are not being maintained and rehabilitated at the rate necessary to preserve their structural integrity. The reduction in funding from higher fuel efficiency (lower fuel consumption; reduced gas tax) and reduced timber harvesting will, unfortunately, assure that our expenses will continue to outpace our revenues earmarked for maintenance. At risk is the traveling public. Planning efforts will continue to include ways to measure and evaluate this need. Development of solutions will encompass partnerships between government agencies, assessment of feasibilities, analysis of costs and funding sources, documentation of economic impacts, and continued data evaluations.

Spending more resources to pay for maintenance leaves less funding for rehabilitation. The cost of maintaining both the state and local infrastructure has increased. Spending more to pay these increasing costs leaves less funding for major rehabilitation and repair work. As a result, a substantial number of repair projects planned in the region have not been funded. In addition, as the infrastructure ages, the amount of major rehabilitation needed has increased.

The deferred maintenance shortfall is one of the most challenging problems in largely rural regions, and will continue to grow unless new revenue streams or one-time allocations from the state or federal jurisdictions can be obtained.

## Financial Element Goal, Issues, Objectives, and Policies

### Goal: *Provide the best multimodal transportation system possible with available funds.*

### Issues

A. Roads are deteriorating faster than they can be maintained using the funding sources presently available. Many facilities need major reconstruction due to deterioration caused by lack of adequate maintenance.

B. Unstable funding adversely impacts transportation programs. Maintenance and rehabilitation funding continues to shrink.

C. The multiyear nature of most projects requires predictable funding to build large regional priority projects.

D. Transportation loans and bond funding, at times, increase instability of funding projects and delays the project's progress, and is inefficient.

E. Due to the state's difficult fiscal condition in the past several years, funding that has traditionally been dedicated to transportation has been loaned to the General Fund or redirected to pay for programs that previously were funded from the General Fund.

F. Gas Tax revenues have declined every year since 2005. This results in lower gas tax revenue to the state.

G. The increases in transportation funding for the region under the current federal transportation act and from the state highway account are for capital improvements, not maintenance.

### Objectives

**Short-Range (2010-2020)**

O-1 Address the maintenance deficit for roads faced by the cities and county to prevent further deterioration of the existing transportation system.

O-2 Obtain funding to expand non-motorized transportation opportunities.

O-3 Continue to refine a system to prioritize projects for utilizing Regional Improvement Program funds.

**Long-Range (2020-2030)**

O-4 Identify a stable long-term source of funding for construction and maintenance of a multimodal transportation system.

## Policies

P-1 Private/public partnerships should be explored as a method of funding for large- scale transportation projects.

P-2 Support efforts at the state and federal level to establish a broader funding base beyond fuel taxes to fund transportation.

P-3 Zones of benefit should be established to fund localized transportation projects, such as interchange improvements.

P-4 Continue to support optional management systems to generate information to establish priorities for allocation of transportation funds.

P-5 Grants should be pursued to fund non-motorized transportation projects.

P-6 Develop systems for prioritizing the allocation of major capital project funding through a collaborative process that involves the major stakeholders and the general public.

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TABLE 13-8 - AVIATION SHORT RANGE (in $1000s)

| | **Estimated Revenues:** | *2009/10* | *2010/11* | *2011/12* | *2012/13* | *2013/14* | *2014/15* | *2015/16* | *2016/17* | *2017/18* | *2018/19* | *Short Range - 10 YR TOTAL* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shasta County | AIP/CAAP | 137 | 600 | 416 | 50 | 750 | 150 | 150 | 150 | 150 | 150 | 2,703 |
| | CAAP Annual | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 100 |
| | Operating Revenue | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 500 |
| | Total Estimated Revenues | 197 | 660 | 476 | 110 | 810 | 210 | 210 | 210 | 210 | 210 | 3,303 |
| | Estimated Expenditures: | | | | | | | | | | | |
| | Capital Improvements | 127 | 590 | 406 | 40 | 740 | 140 | 140 | 140 | 140 | 140 | 2,603 |
| | Maintenance & Operations | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 700 |
| | Total Estimated Expenditures | 197 | 660 | 476 | 110 | 810 | 210 | 210 | 210 | 210 | 210 | 3,303 |
| | Estimated Revenues: | *2009/10* | *2010/11* | *2011/12* | *2012/13* | *2013/14* | *2014/15* | *2015/16* | *2016/17* | *2017/18* | *2018/19* | *Short Range - 10 YR TOTAL* |
| Redding | AIP/CAAP | 14,813 | 2,143 | 1,315 | 5,258 | 2,987 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 36,516 |
| | CAAP Annual | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 200 |
| | Operating Revenue | 1,389 | 1,445 | 1,502 | 1,562 | 1,625 | 1,690 | 1,758 | 1,828 | 1,901 | 1,977 | 16,676 |
| | Total Estimated Revenues | 16,222 | 3,608 | 2,837 | 6,840 | 4,632 | 3,710 | 3,778 | 3,848 | 3,921 | 3,997 | 53,392 |
| | Estimated Expenditures: | | | | | | | | | | | |
| | Capital Improvements | 14,956 | 2,291 | 1,468 | 5,416 | 3,151 | 2,170 | 2,176 | 2,182 | 2,188 | 2,195 | 38,193 |
| | Maintenance & Operations | 1,266 | 1,317 | 1,369 | 1,424 | 1,481 | 1,540 | 1,602 | 1,666 | 1,733 | 1,802 | 15,200 |
| | **Total Estimated Expenditures** | 16,222 | 3,608 | 2,837 | 6,840 | 4,632 | 3,710 | 3,778 | 3,848 | 3,921 | 3,997 | 53,392 |

Shasta County Regional Transportation Plan

TABLE 13-9 - AVIATION LONG RANGE (in $1000s)

| | Estimated Revenues: | *2019/20* | 2020/21 | 2021/22 | 2022/23 | 2023/24 | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | *Long Range - 10 YR TOTAL* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shasta County | AIP/CAAP | 135 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 1,485 |
| | CAAP Annual | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 100 |
| | Operating Revenue | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 500 |
| | **Total Estimated Revenue** | 195 | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 2,085 |
| | **Estimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 125 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 1,385 |
| | Maintenance & Operations | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 700 |
| | **Total Estimated Expenditures** | 195 | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 2,085 |
| | Estimated Revenues: | *2019/20* | *2020/21* | *2021/22* | *2022/23* | *2023/24* | *2024/25* | *2025/26* | *2026/27* | *2027/28* | *2028/29* | *Long Range - 10 YR TOTAL* |
| Redding | AIP/CAAP | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 20,000 |
| | CAAP Annual | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 200 |
| | Operating Revenue | 1,994 | 2,074 | 2,157 | 2,243 | 2,333 | 2,426 | 2,523 | 2,624 | 2,729 | 2,838 | 23,940 |
| | **Total Estimated Revenue** | 4,014 | 4,094 | 4,177 | 4,263 | 4,353 | 4,446 | 4,543 | 4,644 | 4,749 | 4,858 | 44,140 |
| | Estimated Expenditures: | | | | | | | | | | | |
| | Capital Improvements | 2,212 | 2,220 | 2,228 | 2,236 | 2,245 | 2,254 | 2,263 | 2,273 | 2,283 | 2,293 | 22,506 |
| | Maintenance & Operations | 1,802 | 1,874 | 1,949 | 2,027 | 2,108 | 2,192 | 2,280 | 2,371 | 2,466 | 2,565 | 21,634 |
| | **Total Estimated Expenditures** | 4,014 | 4,094 | 4,177 | 4,263 | 4,353 | 4,446 | 4,543 | 4,644 | 4,749 | 4,858 | 44,140 |

Shasta County Regional Transportation Plan
TABLE 13-10 - STREETS AND ROADS SHORT RANGE (in $1000s)
Growth Factor = 1.012
(Where appropriate)

| | Estimated Revenues: | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | Short Range - 10 YR TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shasta County | STP / Exchange | 672 | 676 | 689 | 698 | 706 | 715 | 723 | 732 | 741 | 750 | 7,101 |
| | Traffic Impact Fees - | 307 | 311 | 314 | 318 | 322 | 326 | 330 | 334 | 338 | 342 | 3,241 |
| | TE (includes ARRA) | 680 | | 1,752 | | | | | | | | 2,432 |
| | HBP | 2,145 | 4,225 | 9,110 | 2,070 | 1,980 | 3,930 | 4,420 | 4,630 | 10,570 | 10,840 | 53,920 |
| | Fed. Forest Reserve | 1,339 | 1,355 | 1,371 | | | | | | | | 4,065 |
| | ARRA Funding | 2,816 | | | | | | | | | | 2,816 |
| | Highway Users' Tax | 4,500 | 4,554 | 4,609 | 4,664 | 4,720 | 4,777 | 4,834 | 4,892 | 4,951 | 5,010 | 47,509 |
| | TDA (less RABA) | 2,290 | 2,317 | 2,345 | 2,373 | 2,402 | 2,431 | 2,460 | 2,489 | 2,519 | 2,550 | 24,177 |
| | High Risk Rural Roads | 2,583 | 500 | | | | | | | | | 3,083 |
| | Highway Safety Improvement Pro. | 430 | 430 | 430 | 430 | 430 | 430 | 430 | 430 | 430 | 430 | 4,297 |
| | **Total Estimated Revenues** | 17,762 | 14,368 | 20,621 | 10,553 | 10,560 | 12,607 | 13,196 | 13,507 | 19,548 | 19,921 | 152,642 |
| | **Estimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 6,145 | 5,465 | 11,606 | 2,818 | 2,732 | 4,686 | 5,179 | 5,393 | 11,337 | 11,611 | 66,973 |
| | Maintenance & Repair | 11,617 | 8,902 | 9,015 | 7,735 | 7,828 | 7,922 | 8,017 | 8,113 | 8,211 | 8,309 | 85,669 |
| | **Total Estimated Expenditures** | 17,762 | 14,368 | 20,621 | 10,553 | 10,560 | 12,607 | 13,196 | 13,507 | 19,548 | 19,921 | 152,642 |
| | **Estimated Revenues:** | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | Short Range - 10 YR TOTAL |
| Redding | STP / Exchange | 1,053 | 1,053 | 1,066 | 1,078 | 1,091 | 1,104 | 1,118 | 1,131 | 1,145 | 1,158 | 10,998 |
| | HBP | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 17,500 |
| | Prop 42 | 856 | 938 | 949 | 961 | 972 | 984 | 996 | 1,008 | 1,020 | 1,032 | 9,715 |
| | Highway Users' Tax | 1,714 | 1,735 | 1,755 | 1,776 | 1,798 | 1,819 | 1,841 | 1,863 | 1,886 | 1,908 | 18,096 |
| | TDA (less RABA) | 20 | 20 | 20 | 21 | 21 | 21 | 21 | 22 | 22 | 22 | 211 |
| | Highway Safety Improvement Pro. | 750 | 810 | | | 1,000 | | | | | 1,000 | 3,560 |
| | ARRA Funding | 1,202 | 2,396 | | | | | | | | | 3,598 |
| | Traffic Impact Fees | 1,700 | 1,700 | 1,700 | 1,700 | 1,720 | 1,741 | 1,762 | 1,783 | 1,804 | 1,826 | 17,437 |
| | NRTBD | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 17,680 |
| | Stillwater Business Park Phase 1 & 2 | 1,000 | 5,000 | 9,000 | | | | | | | | 15,000 |
| | RSTP | 1,865 | 1,899 | 1,933 | 1,956 | 1,980 | 2,003 | 2,027 | 2,052 | 2,076 | 2,101 | 19,893 |
| | Bond Debt on TIF Program | (913) | (912) | (914) | (911) | (914) | (913) | (910) | (915) | (911) | (912) | (9,125) |
| | **Total Estimated Revenues** | 12,765 | 18,157 | 19,028 | 10,099 | 11,186 | 10,278 | 10,373 | 10,462 | 10,560 | 11,654 | 124,563 |
| | **Estimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 7,257 | 12,512 | 13,304 | 4,307 | 5,324 | 4,346 | 4,370 | 4,386 | 4,411 | 5,432 | 65,650 |
| | Maintenance & Repair | 5,508 | 5,645 | 5,724 | 5,792 | 5,862 | 5,932 | 6,003 | 6,076 | 6,148 | 6,222 | 58,913 |
| | **Total Estimated Expenditures** | 12,765 | 18,157 | 19,028 | 10,099 | 11,186 | 10,278 | 10,373 | 10,462 | 10,560 | 11,654 | 124,563 |
| | **Estimated Revenues:** | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | Short Range - 10 YR TOTAL |
| Shasta Lake | STP / Exchange | 40 | 40 | 41 | 41 | 42 | 42 | 43 | 43 | 44 | 45 | 422 |
| | Traffic Impact Fees | 20 | 20 | 20 | 21 | 21 | 21 | 21 | 22 | 22 | 22 | 211 |
| | ARRA Funding | 409 | | | | | | | | | | 409 |
| | Highway Users' Tax | 210 | 213 | 215 | 218 | 220 | 223 | 226 | 228 | 231 | 234 | 2,217 |
| | TDA (less RABA) | 198 | 200 | 203 | 205 | 208 | 210 | 213 | 215 | 218 | 220 | 2,090 |
| | Highway Safety Improvement Pro. | 0 | 1,000 | | | | 1,000 | | | 1,000 | | 3,000 |
| | Other | | | | | | | | | | | |
| | **Total Estimated Revenues** | 877 | 1,474 | 479 | 485 | 491 | 1,497 | 503 | 509 | 1,515 | 521 | 8,350 |
| | **Estimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 20 | 20 | 20 | 21 | 21 | 21 | 21 | 22 | 22 | 22 | 211 |
| | Maintenance & Repair | 857 | 1,453 | 459 | 464 | 470 | 1,476 | 481 | 487 | 1,493 | 499 | 8,139 |
| | **Total Estimated Expenditures** | 877 | 1,474 | 479 | 485 | 491 | 1,497 | 503 | 509 | 1,515 | 521 | 8,350 |

TABLE 13-10 - STREETS AND ROADS SHORT RANGE (in $1000s)

Growth Factor = 1.012

(Where appropriate)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Anderson | **Estimated Revenues:** | *2009/10* | *2010/11* | *2011/12* | *2012/13* | *2013/14* | *2014/15* | *2015/16* | *2016/17* | *2017/18* | *2018/19* | *Short Range - 10 YR TOTAL* |
| | STP / Exchange | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 1,050 |
| | Traffic Impact Fees | 50 | 51 | 51 | 52 | 52 | 53 | 54 | 54 | 55 | 56 | 528 |
| | ARRA Funding | 421 | | | | | | | | | | 421 |
| | Highway Users' Tax | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 2,150 |
| | TDA (less RABA) | 170 | 172 | 174 | 176 | 178 | 180 | 183 | 185 | 187 | 189 | 1,795 |
| | Highway Safety Improvement Pro. | | | 1,000 | | | 1,000 | | | 1,000 | | 3,000 |
| | Other/Redevelopment | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 900 |
| | **Total Estimated Revenues** | 1,051 | 543 | 1,545 | 548 | 551 | 1,554 | 556 | 559 | 1,562 | 565 | 8,944 |
| | **Estimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 140 | 141 | 1,141 | 142 | 142 | 1,143 | 144 | 144 | 1,145 | 146 | 528 |
| | Maintenance & Repair | 911 | 492 | 1,494 | 496 | 498 | 1,500 | 503 | 505 | 1,507 | 509 | 8,416 |
| | **Total Estimated Expenditures** | 1,051 | 633 | 2,635 | 638 | 641 | 2,644 | 646 | 649 | 2,652 | 655 | 8,944 |
| Caltrans | **Estimated Revenues:** | *2009/10* | *2010/11* | *2011/12* | *2012/13* | *2013/14* | *2014/15* | *2015/16* | *2016/17* | *2017/18* | *2018/19* | *Short Range - 10 YR TOTAL* |
| | SHOPP | 12,758 | 44,527 | 19,692 | 31,818 | 10,400 | 25,860 | 25,860 | 25,860 | 25,860 | 25,860 | 248,495 |
| | TE - PROJECTS | | 16 | 62 | 365 | | | | | | | 443 |
| | IIP - PROJECTS | | 336 | | | | | | | | | 336 |
| | VARIOUS OTHER (TE, etc) | 443 | 204 | | 885 | | 1,230 | 885 | | 511 | | 4,158 |
| | STIP | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 55,000 |
| | ARRA Funding | 6,600 | | | | | | | | | | 6,600 |
| | CMIA/PROP 1B | | 44,500 | | | | | | | | | 44,500 |
| | **Total Estimated Revenues** | 25,301 | 95,083 | 25,254 | 38,568 | 15,900 | 32,590 | 32,245 | 31,360 | 31,871 | 31,360 | 359,532 |
| | **Estimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 5,943 | 50,583 | 5,562 | 6,750 | 5,500 | 6,730 | 6,385 | 5,500 | 6,011 | 5,500 | 104,437 |
| | Maintenance & Repair | 19,358 | 44,527 | 19,692 | 31,818 | 10,400 | 25,860 | 25,860 | 25,860 | 25,860 | 25,860 | 255,095 |
| | **Total Estimated Expenditures** | 25,301 | 95,110 | 25,254 | 38,568 | 15,900 | 32,590 | 32,245 | 31,360 | 31,871 | 31,360 | 359,532 |
| Consolidated | **Estimated Revenues:** | *2009/10* | *2010/11* | *2011/12* | *2012/13* | *2013/14* | *2014/15* | *2015/16* | *2016/17* | *2017/18* | *2018/19* | *Short Range - 10 YR TOTAL* |
| | STP / Exchange | 1,870 | 1,874 | 1,901 | 1,923 | 1,944 | 1,967 | 1,989 | 2,011 | 2,034 | 2,057 | 19,571 |
| | TE (includes ARRA) | 1,123 | 220 | 1,814 | 1,250 | 0 | 1,230 | 885 | 0 | 511 | 0 | 7,033 |
| | HBP | 3,895 | 5,975 | 10,860 | 3,820 | 3,730 | 5,680 | 6,170 | 6,380 | 12,320 | 12,590 | 71,420 |
| | Fed. Forest Reserve | 1,339 | 1,355 | 1,371 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,065 |
| | High Risk Rural Roads | 2,583 | 500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,083 |
| | Highway Safety Improvement Pro. | 1,180 | 2,240 | 1,430 | 430 | 1,430 | 2,430 | 430 | 430 | 2,430 | 1,430 | 13,857 |
| | Highway Users' Tax | 6,639 | 6,716 | 6,794 | 6,873 | 6,953 | 7,034 | 7,116 | 7,198 | 7,282 | 7,367 | 69,972 |
| | TDA (less RABA) | 2,678 | 2,710 | 2,743 | 2,776 | 2,809 | 2,843 | 2,877 | 2,911 | 2,946 | 2,982 | 28,273 |
| | ARRA Funding | 11,448 | 2,396 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13,844 |
| | SHOPP | 12,758 | 44,527 | 19,692 | 31,818 | 10,400 | 25,860 | 25,860 | 25,860 | 25,860 | 25,860 | 248,495 |
| | Prop 42 | 856 | 938 | 949 | 961 | 972 | 984 | 996 | 1,008 | 1,020 | 1,032 | 9,715 |
| | NRTBD | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 17,680 |
| | Stillwater Business Park Phase 1 & 2 | 1,000 | 5,000 | 9,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15,000 |
| | RSTP | 1,865 | 1,899 | 1,933 | 1,956 | 1,980 | 2,003 | 2,027 | 2,052 | 2,076 | 2,101 | 19,893 |
| | IIP | 0 | 336 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 336 |
| | Traffic Impact Fees | 2,077 | 2,082 | 2,086 | 2,091 | 2,116 | 2,141 | 2,167 | 2,193 | 2,219 | 2,246 | 21,417 |
| | Bond Debt on TIF Program | (913) | (912) | (914) | (911) | (914) | (913) | (910) | (915) | (911) | (912) | (9,125) |
| | STIP | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 55,000 |
| | CMIA/PROP 1B | | 44,500 | | | | | | | | | 6,600 |
| | **Total Estimated Revenues** | 57,666 | 129,624 | 66,927 | 60,254 | 38,688 | 58,526 | 56,874 | 56,396 | 65,056 | 64,021 | 616,131 |
| | **Estimated Expenditures:** | | | | | | | | | | | *Short Range - 10 YR TOTAL* |
| | Capital Improvements | 29,661 | 69,604 | 31,544 | 13,947 | 13,630 | 17,836 | 16,010 | 15,356 | 23,837 | 22,622 | 216,146 |
| | Maintenance & Repair | 28,005 | 60,020 | 35,383 | 46,306 | 25,058 | 40,690 | 40,864 | 41,041 | 41,219 | 41,399 | 399,985 |
| | **Total Estimated Expenditures** | 57,666 | 129,624 | 66,927 | 60,254 | 38,688 | 58,526 | 56,874 | 56,396 | 65,056 | 64,021 | 616,131 |

Shasta County Regional Transporation Plan
TABLE 13-11 - STREETS AND ROADS LONG RANGE (in $1000s)
Growth Factor = 1.012
(Where appropriate)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shasta County | **Estimated Revenues:** | *2019/20* | *2020/21* | *2021/22* | *2022/23* | *2023/24* | *2024/25* | *2025/26* | *2026/27* | *2027/28* | *2028/29* | *Long Range - 10 YR TOTAL* |
| | STP / Exchange | 710 | 719 | 727 | 736 | 745 | 754 | 763 | 772 | 781 | 791 | 7,497 |
| | Traffic Impact Fees | 324 | 324 | 324 | 324 | 324 | 324 | 324 | 324 | 324 | 324 | 3,241 |
| | TE | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 243 | 2,432 |
| | HBP | 5,392 | 5,392 | 5,392 | 5,392 | 5,392 | 5,392 | 5,392 | 5,392 | 5,392 | 5,392 | 53,920 |
| | Secure Rural Schools | | | | | | | | | | | 0 |
| | ARRA Funding | | | | | | | | | | | 0 |
| | Highway Users' Tax | 4,751 | 4,751 | 4,751 | 4,751 | 4,751 | 4,751 | 4,751 | 4,751 | 4,751 | 4,751 | 47,509 |
| | TDA (less RABA) | 2,418 | 2,418 | 2,418 | 2,418 | 2,418 | 2,418 | 2,418 | 2,418 | 2,418 | 2,418 | 24,177 |
| | High Risk Rural Roads | 308 | 308 | 308 | 308 | 308 | 308 | 308 | 308 | 308 | 308 | 3,083 |
| | Highway Safety Improvement Pro. | 430 | 430 | 430 | 430 | 430 | 430 | 430 | 430 | 430 | 430 | 4,297 |
| | **Total Estimated Revenues** | 14,576 | 14,585 | 14,593 | 14,602 | 14,611 | 14,620 | 14,629 | 14,638 | 14,647 | 14,657 | 146,157 |
| | **Estimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 6,697 | 6,697 | 6,697 | 6,697 | 6,697 | 6,697 | 6,697 | 6,697 | 6,697 | 6,697 | 66,973 |
| | Maintenance & Repair | 7,879 | 7,887 | 7,896 | 7,905 | 7,913 | 7,922 | 7,931 | 7,941 | 7,950 | 7,959 | 79,184 |
| | **Total Estimated Expenditures** | 14,576 | 14,585 | 14,593 | 14,602 | 14,611 | 14,620 | 14,629 | 14,638 | 14,647 | 14,657 | 146,157 |
| Redding | **Estimated Revenues:** | *2019/20* | *2020/21* | *2021/22* | *2022/23* | *2023/24* | *2024/25* | *2025/26* | *2026/27* | *2027/28* | *2028/29* | *Long Range - 10 YR TOTAL* |
| | STP / Exchange | 1,158 | 1,172 | 1,186 | 1,201 | 1,215 | 1,230 | 1,244 | 1,259 | 1,274 | 1,290 | 12,230 |
| | HBP | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 17,500 |
| | Prop 42 | 1,044 | 1,057 | 1,070 | 1,082 | 1,095 | 1,108 | 1,122 | 1,135 | 1,149 | 1,163 | 11,025 |
| | Highway Users' Tax | 1,931 | 1,954 | 1,978 | 2,002 | 2,026 | 2,050 | 2,074 | 2,099 | 2,125 | 2,150 | 20,388 |
| | TDA (less RABA) | 22 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 212 |
| | Highway Safety Improvement Pro. | 356 | | | | 1,000 | | | | | 1,000 | 2,356 |
| | ARRA Funding | | | | | | | | | | | 0 |
| | Traffic Impact Fees | 1,744 | 1,765 | 1,786 | 1,807 | 1,829 | 1,851 | 1,873 | 1,896 | 1,918 | 1,941 | 18,409 |
| | NRTBD | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 17,680 |
| | Stillwater Business Park Phase 1 & 2 | 5,000 | | | | | | | | | | 5,000 |
| | RSTP | 2,127 | 2,152 | 2,178 | 2,204 | 2,230 | 2,257 | 2,284 | 2,312 | 2,339 | 2,368 | 22,451 |
| | Bond Debt on TIF Program | (911) | (914) | (910) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | (2,735) |
| | **Total Estimated Revenues** | 15,989 | 10,725 | 10,827 | 11,835 | 12,934 | 12,035 | 12,137 | 12,240 | 12,345 | 13,450 | 124,518 |
| | **Estimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 9,707 | 4,369 | 4,394 | 5,325 | 6,347 | 5,369 | 5,391 | 5,414 | 5,436 | 6,459 | 58,210 |
| | Maintenance & Repair | 6,283 | 6,357 | 6,433 | 6,510 | 6,588 | 6,666 | 6,746 | 6,827 | 6,908 | 6,991 | 66,308 |
| | **Total Estimated Expenditures** | 15,989 | 10,725 | 10,827 | 11,835 | 12,934 | 12,035 | 12,137 | 12,240 | 12,345 | 13,450 | 124,518 |
| Shasta Lake | **Estimated Revenues:** | *2019/20* | *2020/21* | *2021/22* | *2022/23* | *2023/24* | *2024/25* | *2025/26* | *2026/27* | *2027/28* | *2028/29* | *Long Range - 10 YR TOTAL* |
| | STP / Exchange | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 422 |
| | Traffic Impact Fees | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 211 |
| | ARRA Funding | | | | | | | | | | | 0 |
| | Highway Users' Tax | 222 | 222 | 222 | 222 | 222 | 222 | 222 | 222 | 222 | 222 | 2,217 |
| | TDA (less RABA) | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 2,090 |
| | Highway Safety Improvement Pro. | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 3,000 |
| | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | **Total Estimated Revenues** | 794 | 794 | 794 | 794 | 794 | 794 | 794 | 794 | 794 | 794 | 7,941 |
| | **Estimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 321 | 321 | 321 | 321 | 321 | 321 | 321 | 321 | 321 | 321 | 3,211 |
| | Maintenance & Repair | 473 | 473 | 473 | 473 | 473 | 473 | 473 | 473 | 473 | 473 | 4,730 |
| | **Total Estimated Expenditures** | 794 | 794 | 794 | 794 | 794 | 794 | 794 | 794 | 794 | 794 | 7,941 |

Shasta County Regional Transporation Plan
TABLE 13-11 - STREETS AND ROADS LONG RANGE (in $1000s)
Growth Factor = 1.012
(Where appropriate)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Anderson | **Estimated Revenues:** | *2019/20* | *2020/21* | *2021/22* | *2022/23* | *2023/24* | *2024/25* | *2025/26* | *2026/27* | *2027/28* | *2028/29* | *Long Range - 10 YR TOTAL* |
| | STP / Exchange | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 1,050 |
| | Traffic Impact Fees | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 528 |
| | ARRA Funding | | | | | | | | | | | 0 |
| | Highway Users' Tax | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 2,150 |
| | TDA (less RABA) | 179 | 179 | 179 | 179 | 179 | 179 | 179 | 179 | 179 | 179 | 1,795 |
| | Highway Safety Improvement Pro. | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 3,000 |
| | Other/Redevelopment | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | |
| | **Total Estimated Revenues** | 852 | 852 | 852 | 852 | 852 | 852 | 852 | 852 | 852 | 852 | 8,523 |
| | **Estimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 528 |
| | Maintenance & Repair | 799 | 799 | 799 | 799 | 799 | 799 | 799 | 799 | 799 | 799 | 7,995 |
| | **Total Estimated Expenditures** | 852 | 852 | 852 | 852 | 852 | 852 | 852 | 852 | 852 | 852 | 8,523 |
| Caltrans | **Estimated Revenues:** | *2019/20* | *2020/21* | *2021/22* | *2022/23* | *2023/24* | *2024/25* | *2025/26* | *2026/27* | *2027/28* | *2028/29* | *Long Range - 10 YR TOTAL* |
| | SHOPP | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 248,495 |
| | TE - PROJECTS | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 443 |
| | IIP - PROJECTS | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 336 |
| | VARIOUS OTHER (TE, etc) | 416 | 416 | 416 | 416 | 416 | 416 | 416 | 416 | 416 | 416 | 4,158 |
| | STIP | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 55,000 |
| | ARRA Funding | | | | | | | | | | | 0 |
| | **Total Estimated Revenues** | 30,843 | 30,843 | 30,843 | 30,843 | 30,843 | 30,843 | 30,843 | 30,843 | 30,843 | 30,843 | 308,432 |
| | **Estimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 5,994 | 5,994 | 5,994 | 5,994 | 5,994 | 5,994 | 5,994 | 5,994 | 5,994 | 5,994 | 59,937 |
| | Maintenance & Repair | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 248,495 |
| | **Total Estimated Expenditures** | 30,843 | 30,843 | 30,843 | 30,843 | 30,843 | 30,843 | 30,843 | 30,843 | 30,843 | 30,843 | 308,432 |
| Consolidated | **Estimated Revenues:** | *2019/20* | *2020/21* | *2021/22* | *2022/23* | *2023/24* | *2024/25* | *2025/26* | *2026/27* | *2027/28* | *2028/29* | *Long Range - 10 YR TOTAL* |
| | STP / Exchange | 2,016 | 2,038 | 2,061 | 2,084 | 2,107 | 2,131 | 2,154 | 2,178 | 2,203 | 2,228 | 21,200 |
| | TE (includes ARRA) | 703 | 703 | 703 | 703 | 703 | 703 | 703 | 703 | 703 | 703 | 7,033 |
| | HBP | 7,142 | 7,142 | 7,142 | 7,142 | 7,142 | 7,142 | 7,142 | 7,142 | 7,142 | 7,142 | 71,420 |
| | Fed. Forest Reserve | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | High Risk Rural Roads | 308 | 308 | 308 | 308 | 308 | 308 | 308 | 308 | 308 | 308 | 3,083 |
| | Highway Safety Improvement Pro. | 1,386 | 1,030 | 1,030 | 1,030 | 2,030 | 1,030 | 1,030 | 1,030 | 1,030 | 2,030 | 12,653 |
| | Highway Users' Tax | 7,119 | 7,142 | 7,165 | 7,189 | 7,213 | 7,237 | 7,262 | 7,287 | 7,312 | 7,338 | 72,265 |
| | TDA (less RABA) | 2,828 | 2,827 | 2,827 | 2,827 | 2,827 | 2,827 | 2,827 | 2,827 | 2,827 | 2,827 | 28,275 |
| | ARRA Funding | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | SHOPP | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 24,850 | 248,495 |
| | Prop 42 | 1,044 | 1,057 | 1,070 | 1,082 | 1,095 | 1,108 | 1,122 | 1,135 | 1,149 | 1,163 | 11,025 |
| | NRTBD | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 1,768 | 17,680 |
| | Stillwater Business Park Phase 1 & 2 | 5,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5,000 |
| | RSTP | 2,127 | 2,152 | 2,178 | 2,204 | 2,230 | 2,257 | 2,284 | 2,312 | 2,339 | 2,368 | 22,451 |
| | IIP | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 336 |
| | Traffic Impact Fees | 2,142 | 2,163 | 2,184 | 2,205 | 2,227 | 2,249 | 2,271 | 2,294 | 2,316 | 2,339 | 22,390 |
| | Bond Debt on TIF Program | (911) | (914) | (910) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | (2,735) |
| | STIP | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 55,000 |
| | **Total Estimated Revenues** | 63,055 | 57,799 | 57,909 | 58,926 | 60,035 | 59,144 | 59,255 | 59,368 | 59,481 | 60,597 | 595,571 |
| | **Estimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 23,072 | 17,734 | 17,759 | 18,690 | 19,712 | 18,734 | 18,756 | 18,779 | 18,801 | 19,824 | 191,860 |
| | Maintenance & Repair | 39,983 | 40,066 | 40,151 | 40,236 | 40,323 | 40,411 | 40,499 | 40,589 | 40,680 | 40,772 | 403,711 |
| | **Total Estimated Expenditures** | 63,055 | 57,799 | 57,909 | 58,926 | 60,035 | 59,144 | 59,255 | 59,368 | 59,481 | 60,597 | 595,571 |

Shasta County Regional Transportation Plan

TABLE 13-12 - TRANSIT SHORT RANGE (in $1000s)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RABA | **Estimated Revenues:** | *2009/10* | *2010/11* | *2011/12* | *2012/13* | *2013/14* | *2014/15* | *2015/16* | *2016/17* | *2017/18* | *2018/19* | *Short Range - 10 YR Total* |
| | Federal Grants Operating (5307) | 750 | 750 | 750 | 750 | 720 | 250 | 250 | 250 | 250 | 250 | 4,970 |
| | Federal Grants Capital (5307) | 1,513 | 1,336 | 1,004 | 61 | 1,202 | 1,011 | 1,021 | 939 | 873 | 851 | 9,812 |
| | TDA for Operating cost (LTF & STA) | 4,264 | 4,428 | 4,533 | 4,639 | 4,744 | 4,851 | 4,577 | 4,629 | 4,662 | 4,684 | 46,010 |
| | TDA for Capital cost (LTF) | 303 | 334 | 251 | 15 | 301 | 253 | 243 | 233 | 216 | 210 | 2,358 |
| | Other Revenue | 236 | 241 | 247 | 252 | 258 | 263 | 249 | 252 | 254 | 255 | 2,506 |
| | Operating Revenue | 884 | 945 | 1,010 | 1,081 | 1,156 | 1,237 | 1,052 | 1,080 | 1,103 | 1,118 | 10,666 |
| | Other | | | | | | | | | | | 0 |
| | **Total Revenues** | 7,950 | 8,034 | 7,795 | 6,798 | 8,381 | 7,865 | 7,392 | 7,383 | 7,357 | 7,368 | 76,322 |
| | **Estimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 1,816 | 1,670 | 1,255 | 76 | 1,503 | 1,264 | 1,264 | 1,172 | 1,089 | 1,061 | 12,170 |
| | Maintenance & Operations | 6,134 | 6,364 | 6,540 | 6,722 | 6,878 | 6,601 | 6,128 | 6,211 | 6,268 | 6,306 | 64,152 |
| | **Total Expenditures** | 7,950 | 8,034 | 7,795 | 6,798 | 8,381 | 7,865 | 7,392 | 7,383 | 7,357 | 7,368 | 76,322 |
| Shasta County | **Estimated Revenues:** | *2009/10* | *2010/11* | *2011/12* | *2012/13* | *2013/14* | *2014/15* | *2015/16* | *2016/17* | *2017/18* | *2018/19* | *Short Range - 10 YR Total* |
| | Federal Grants -5311 | 260 | 266 | 272 | 278 | 284 | 290 | 296 | 303 | 309 | 316 | 2,873 |
| | TDA (LTF) | 0 | | | | | | | | | | 0 |
| | Other | 86 | 83 | 85 | 86 | 88 | 89 | 90 | 91 | 92 | 93 | 884 |
| | **Total Revenues** | 346 | 349 | 356 | 364 | 371 | 379 | 386 | 394 | 402 | 410 | 3,757 |
| | **Estimated Expenditures:** | | | | | | | | | | | |
| | Lifeline/ Vanpool | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 442 |
| | Burney Express | 106 | 108 | 111 | 113 | 116 | 118 | 121 | 123 | 126 | 129 | 1,171 |
| | RABA | 200 | 200 | 204 | 208 | 212 | 216 | 220 | 224 | 228 | 232 | |
| | **Total Expenditures** | 346 | 349 | 356 | 364 | 371 | 379 | 386 | 394 | 402 | 410 | 1,613 |
| CTSA | **Estimated Revenues:** | *2009/10* | *2010/11* | *2011/12* | *2012/13* | *2013/14* | *2014/15* | *2015/16* | *2016/17* | *2017/18* | *2018/19* | *Short Range - 10 YR Total* |
| | Federal Grants - 5310 | 65 | 66 | 68 | 69 | 71 | 72 | 74 | 76 | 77 | 79 | 718 |
| | TDA (LTF ) | 300 | 307 | 313 | 320 | 327 | 334 | 342 | 349 | 357 | 365 | 3,315 |
| | **Total Revenues** | 365 | 373 | 381 | 390 | 398 | 407 | 416 | 425 | 434 | 444 | 4,033 |
| | **Estimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 65 | 66 | 68 | 69 | 71 | 72 | 74 | 76 | 77 | 79 | 718 |
| | Maintenance & Operations | 300 | 307 | 313 | 320 | 327 | 334 | 342 | 349 | 357 | 365 | 3,315 |
| | **Total Expenditures** | 365 | 373 | 381 | 390 | 398 | 407 | 416 | 425 | 434 | 444 | 4,033 |
| CONSOLIDATED | | ***2009/10*** | ***2010/11*** | ***2011/12*** | ***2012/13*** | ***2013/14*** | ***2014/15*** | ***2015/16*** | ***2016/17*** | ***2017/18*** | ***2018/19*** | ***Short Range 10 YR Total*** |
| | REVENUE | **8,661** | **8,756** | **8,533** | **7,551** | **9,150** | **8,651** | **8,194** | **8,202** | **8,193** | **8,221** | **84,113** |
| | MAINTENANCE & OPERATIONS | **6,780** | **7,020** | **7,210** | **7,406** | **7,577** | **7,314** | **6,856** | **6,954** | **7,027** | **7,081** | **69,081** |
| | CAPITAL IMPROVEMENTS | **1,881** | **1,736** | **1,323** | **145** | **1,574** | **1,336** | **1,338** | **1,248** | **1,166** | **1,140** | **12,888** |

Shasta County Regional Transportation Plan

TABLE 13-13 - TRANSIT LONG RANGE (in $1000s)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RABA | **Estimated Revenues:** | *2019/20* | *2020/21* | *2021/22* | *2022/23* | *2023/24* | *2024/25* | *2025/26* | *2026/27* | *2027/28* | *2028/29* | *Long Range - 10 YR Total* |
| | Federal Grants Operating (5307) | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 2,500 |
| | Federal Grants Capital (5307& 5309 ) | 851 | 861 | 872 | 882 | 893 | 904 | 914 | 925 | 936 | 948 | 8,987 |
| | TDA for Operating cost (LTF & STA) | 4,684 | 4,740 | 4,797 | 4,854 | 4,912 | 4,971 | 5,031 | 5,091 | 5,152 | 5,214 | 49,447 |
| | TDA for Capital cost (LTF) | 213 | 215 | 218 | 221 | 223 | 226 | 229 | 231 | 234 | 237 | 2,248 |
| | Other Revenue | 255 | 258 | 261 | 264 | 267 | 270 | 274 | 277 | 280 | 283 | 2,688 |
| | Operating Revenue | 1,118 | 1,132 | 1,145 | 1,159 | 1,173 | 1,187 | 1,201 | 1,216 | 1,230 | 1,245 | 11,805 |
| | Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **Total Revenues** | 7,370 | 7,456 | 7,542 | 7,630 | 7,718 | 7,808 | 7,899 | 7,991 | 8,083 | 8,177 | 77,676 |
| | **Extimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 1,064 | 1,077 | 1,090 | 1,103 | 1,116 | 1,130 | 1,143 | 1,157 | 1,171 | 1,185 | 11,235 |
| | Maintenance & Operations | 6,306 | 6,379 | 6,453 | 6,527 | 6,602 | 6,679 | 6,756 | 6,834 | 6,913 | 6,993 | 66,440 |
| | **Total Expenditures** | 7,370 | 7,456 | 7,542 | 7,630 | 7,718 | 7,808 | 7,899 | 7,991 | 8,083 | 8,177 | 77,676 |
| Shasta County | **Estimated Revenues:** | *2019/20* | *2020/21* | *2021/22* | *2022/23* | *2023/24* | *2024/25* | *2025/26* | *2026/27* | *2027/28* | *2028/29* | *Long Range - 10 YR Total* |
| | Federal Grants - 5311 | 318 | 322 | 326 | 330 | 334 | 338 | 342 | 346 | 350 | 354 | 3,357 |
| | TDA (LTF) | 96 | 100 | 104 | 108 | 112 | 116 | 121 | 125 | 130 | 134 | 1,145 |
| | Other | | | | | | | | | | | 0 |
| | **Total Revenues** | 414 | 421 | 429 | 438 | 446 | 454 | 462 | 471 | 479 | 488 | 4,502 |
| | **Extimated Expenditures:** | | | | | | | | | | | |
| | Lifeline/ Vanpool | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 57 | 58 | 59 | 538 |
| | Burney Express | 129 | 132 | 135 | 138 | 141 | 144 | 147 | 150 | 153 | 157 | 1,425 |
| | RABA | 236 | 240 | 244 | 248 | 252 | 256 | 260 | 264 | 268 | 272 | |
| | **Total Expenditures** | 414 | 421 | 429 | 438 | 446 | 454 | 462 | 471 | 479 | 488 | 1,962 |
| CTSA | **Estimated Revenues:** | *2019/20* | *2020/21* | *2021/22* | *2022/23* | *2023/24* | *2024/25* | *2025/26* | *2026/27* | *2027/28* | *2028/29* | *Long Range - 10 YR Total* |
| | Federal Grants - 5310 | 79 | 81 | 83 | 84 | 86 | 88 | 90 | 92 | 94 | 96 | 873 |
| | TDA (LTF ) | 398 | 406 | 415 | 425 | 434 | 443 | 453 | 463 | 473 | 484 | 4,395 |
| | **Total Revenues** | 477 | 487 | 498 | 509 | 520 | 532 | 543 | 555 | 567 | 580 | 5,268 |
| | **Extimated Expenditures:** | | | | | | | | | | | |
| | Capital Improvements | 79 | 81 | 83 | 84 | 86 | 88 | 90 | 92 | 94 | 96 | 873 |
| | Maintenance & Operations | 398 | 406 | 415 | 425 | 434 | 443 | 453 | 463 | 473 | 484 | 4,395 |
| | **Total Expenditures** | 477 | 487 | 498 | 509 | 520 | 532 | 543 | 555 | 567 | 580 | 5,268 |
| CONSOLIDATED | | ***2019/20*** | ***2020/21*** | ***2021/22*** | ***2022/23*** | ***2023/24*** | ***2024/25*** | ***2025/26*** | ***2026/27*** | ***2027/28*** | ***2028/29*** | ***Long Range10 YR Total*** |
| | REVENUE | **8,261** | **8,365** | **8,470** | **8,576** | **8,684** | **8,794** | **8,904** | **9,017** | **9,130** | **9,245** | **87,446** |
| | MAINTENANCE & OPERATIONS | **7,118** | **7,207** | **7,297** | **7,389** | **7,482** | **7,576** | **7,671** | **7,768** | **7,865** | **7,964** | **72,798** |
| | CAPITAL IMPROVEMENTS | **1,143** | **1,158** | **1,172** | **1,187** | **1,202** | **1,218** | **1,233** | **1,249** | **1,265** | **1,281** | **12,108** |

# Chapter 14 – Greenhouse Gases and Global Climate Change

## Background

In 2008, the California Transportation Commission (CTC) added the "Addendum to the 2007 Regional Transportation Plan Guidelines - Addressing Climate Change and Greenhouse Gas Emissions during the RTP Process". Although the guidance is not required or identified in current statute, and therefore not required by state or federal law, the RTPA is nonetheless adhering to the guidance contained in the addendum. The purpose of this chapter in the RTP is to provide background information on greenhouse gases and climate change.

The 2015 update of the RTP will be subject to the new 2010 Regional Transportation Plan Guidelines, adopted by the CTC on April 7, 2010.

## Greenhouse Gases and Climate Change

Atmospheric greenhouse gases (GHGs) and clouds within the Earth's atmosphere influence the Earth's temperature by absorbing most of the infrared radiation rising from the Earth's sun-warmed surface that would otherwise escape into space. This process is commonly known as the "greenhouse effect". GHGs and clouds, in turn, radiate some heat back to the Earth's surface and some out to space. The resulting balance between incoming solar radiation and outgoing radiation from both the Earth's surface and atmosphere keeps the planet habitable. Current life on Earth could not be sustained without the natural greenhouse effect.

However, the greenhouse effect is becoming stronger as a result of human activities. Human-produced emissions of GHGs into the atmosphere enhance the greenhouse effect by absorbing additional radiation that would otherwise escape into space, thereby trapping more heat in the atmosphere, causing temperatures to rise. The human-produced GHGs responsible for increasing the greenhouse effect and their relative contribution to global warming (based on their relative ability to trap heat in the atmosphere) are carbon dioxide ($CO_2$) (53 percent); methane (17 percent); near-surface ozone (13 percent); nitrous oxide (12 percent); and chlorofluorocarbons (5 percent). All other GHGs are referenced in terms of a $CO_2$ equivalent.

The most common human-produced GHG is $CO_2$, which constitutes approximately 84 percent of all GHG emissions in California (California Energy Commission, 2006). California ranks as one of the world's largest emitters of $CO_2$ (the most prevalent GHG) and is responsible for approximately 2 percent of the world's $CO_2$ emissions (California Energy Commission, 2006). The increasing emissions of these GHGs—primarily associated with the burning of fossil fuels (during motorized transport, electricity generation, consumption of natural gas,

industrial activity, manufacturing, etc.) — and deforestation, as well as agricultural activity and the decomposition of solid waste, have led to a trend of human-induced warming of the Earth's average temperature, which is causing changes in the Earth's climate. This increasing temperature phenomenon is known as "global warming", and the climatic effect is known as "climate change" or "global climate change".

Climate change is a global problem and GHGs are global pollutants, unlike criteria air pollutants, such as those for carbon monoxide and ozone, which are pollutants of regional and local concern.

The California legislature adopted the public policy position that "Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California". Further, the state legislature has determined that "The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snow pack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious disease, asthma, and other human health related problems…Global warming will have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry (and)…will also increase the strain on electricity supplies necessary to meet the demand for summer air-conditioning in the hottest parts of the state". (Health and Safety Code § 38501)

The California Environmental Protection Agency (CalEPA) prepared a briefing package for Assembly Bill 1493 (AB 1493) entitled "Global Warming and Greenhouse Emissions from Motor Vehicles", stated that "Transportation is California's largest source of Carbon Dioxide".

Governor Schwarzenegger has issued two Executive Orders regarding this issue: S-3-05 (June 1, 2005) calls for a coordinated approach to address the detrimental air quality effects of GHG, and S-20-06 (October 18, 2006) requires state agencies to continue their cooperation to reduce GHG and that the Climate Action Team develop a plan by June 1, 2008 to outline a number of actions to reduce GHG.

## California Greenhouse Gas Emission Legislation

One of the most important legislative actions to address GHG is AB 32 (Nunez, 2005), known as the California Global Warming Solutions Act of 2006. AB 32 requires the California Air Resources Board (ARB) to set statewide GHG emission reduction targets. Under California's Clean Air Act, the ARB sets and updates air quality standards.

Related legislation includes the following:

Senate Bill (SB) 1771 (Sher, 2000) amended the Health and Safety Code to require consultation with Caltrans regarding the recording and promotion of voluntary GHG emissions reductions through the California Climate Action Registry.

AB 1493 (Pavely, 2002) added provisions to the Health and Safety Code that require the ARB to develop regulations designed to reduce GHGs emitted by passenger vehicles.

AB 1007 (Pavely, 2005) added Health and Safety Code provisions that mandates the California Energy Commission, in partnership with relevant state agencies, to develop a plan for evaluating the environmental and health impacts of alternative fuel use including vehicle operations. Since 2000, the legislature has approved several bills to ensure the reduction of GHG emissions from mobile sources.

SB 97 (Dutton, 2007) charged the Governor's Office of Planning and Research (OPR) with the responsibility of preparing guidelines to mitigate GHG emissions identified through the California Environmental Quality Act (CEQA) document review process, including the effects associated with transportation or energy consumption. Every RTP is subject to CEQA.

## RTPA Response to GHG Guidance and the RTP Process

The CTC's Guidance makes recommendations to reduce greenhouse gases with specific target dates. The RTPA's 2009 RTP addresses and works toward these goals as evidenced in the completed environmental impact report, and by the following actions:

- Initiated advance planning and coordination with planning and resource agencies via the "Regional Blueprint" process.
- Comprehensive Travel Demand Model update in 2007, which estimates current and future GHG emissions. Further enhancements are planned and funded.
- Started the process of preparing a sustainable communities strategy required by SB 375.
- Continued investment in ITS technologies.
- Adopted a Coordinated Human Transportation Plan.

## Greenhouse Gases and Global Climate Change Goal, Issues, Objectives, and Policies

**Goal:** ***Reduce GHG emissions by prioritizing transportation infrastructure investments with demonstrable GHG reduction, such as infill development, compact development patterns, and pedestrian- and transit-friendly development consistent with the Regional Blueprint vision and sustainable communities strategy upon adoption.***

## Issues

A. Current land use patterns and characteristics contribute to high household-based vehicle miles traveled.

B. The cities, county, and RTPA should develop a coordinated approach to reducing GHG emissions. The sustainable communities strategy will highlight opportunities where regional growth and development might result in reduced vehicle miles traveled per household.

## Objectives

**Short-Range (2010-2020)**

O-1 Complete the sustainable communities strategy for the 2014 update of the RTP.

O-2 Update the Travel Demand Model to incorporate add-on models to account for the effects of land use characteristics on travel.

O-3 Complete the Shasta Regional Geographic Information Systems Platform and utilize it to track and report GHG emissions and emission reduction efforts.

O-4 Work with the ARB to identify an ambitious and achievable GHG emission target.

**Long-Range (2020-2030)**

O-5 Reduce GHG emissions to target levels set by the ARB.

## Policies

P-1 Provide planning, funding, and technical assistance to local agencies to assist with local efforts to reduce GHG emissions and reduce climate change.

# Four Transportation Strategy Alternatives

Four broad alternatives are addressed in this chapter:

1. No action
2. Emphasize road and highway improvements
3. Emphasize public transportation improvements (transit)
4. Emphasize multimodal improvements

## No Action

The first alternative, no action, does not merit serious consideration except in the event of a total loss of funding. It is included because it represents the worst-case scenario. This alternative ultimately results in impassable roads and traffic gridlock.

## Emphasize Street and Road Improvements or Emphasize Public Transportation Improvements

Alternatives 2 and 3 each emphasize one mode at the expense of the other. Alternative 2 (emphasize street and road improvements) would be more appropriate for a primarily rural area without the population densities and travel behavior patterns that call for more extensive public transit systems. Heavily urbanized areas, on the other hand, would be more likely to place the greatest emphasis on public transit (Alternative 3) to help solve capacity and level-of-service problems for which street and road improvements are either not feasible, or would be prohibitively expensive.

## Preferred Alternative: Emphasize Multimodal Improvements

Alternative 4, the multimodal alternative, has previously been adopted by the RTPA and existing programs reflect that choice. As funding becomes available, projects will be added to the system to augment the multimodal system.

This alternative has been chosen and followed in past years. There are three funding scenarios to consider: (1) funding at present level, (2) decreased funding, and (3) increased funding.

## Three Possible Funding Scenarios for the Preferred Alternative

**Funding at Present Level:** This funding level would attach first priority to safety and Transportation System Management improvements on streets and highways and the development of public transportation to meet the basic needs of the "transportation-disadvantaged" within the urban areas, and second priority to the selection of projects to accommodate increases in transportation demand. The emphasis would be within the South-Central Region (SCR). Outside the SCR, the emphasis would be on maintenance and rehabilitation.

- **Decreased Funding:** This funding scenario would require slowing the development of multimodal facilities. Plans for necessary improvements in all modes would continue to be developed within the limits imposed by financial constraints, but with the clear understanding that project funding is problematic. With on-the-shelf plans available, needed projects would be in a favorable competitive position when, and if, program funding became available.

  The transit system could probably be maintained, but expansion would be slowed. Airport improvements would slow or cease. Bike facility improvements would slow or cease. Road and highway improvements (aside from those constructed by developers) would decline until only low cost TSM efforts, maintenance, and minimal rehabilitation remain.

- **Increased Funding**: This funding scenario would, depending on which programs are funded, increase the implementation of multimodal facilities improvements: public transit expansion within the SCR, airport improvements at the Redding Municipal Airport, bike facilities which are especially dependent on funding levels, TSM road and street improvements, road rehabilitation, and safety improvements.

### Funding at Present Level Scenario

The recommended funding scenario is "Funding at Present Level." With the current budget crisis at the state creating STIP funding "moving targets," the ability to leverage local funds is currently minimized.

The current funding scenario addresses the street and road maintenance deficit problem to the extent possible by continuing to exchange Regional Surface Transportation Program revenue for state funds, and utilize this source primarily for street and road maintenance.

In subsequent cycles, starting with the 2008 RTIP update, the Regional Improvement Program revenue should continue to be programmed for capital

improvement projects that address both regional and local priorities. Consideration will be given to utilizing a portion of the revenue to continue addressing the pavement preservation problem. The prioritization process will continue to move the most needed projects for consideration by the agency into the plans.

Non-motorized transportation system needs should be addressed, to the extent possible, by assisting local agencies to apply for Bicycle Transportation Account funding; seeking funding for recreational non-motorized projects from the Recreational Trails Program; and using Transportation Enhancement revenue for pedestrian and bicycle projects. The Transportation Enhancement revenue should be exchanged, when possible, for state highway account revenue in order to maximize the use of these funds.

Public transit needs should be addressed by encouraging transit providers to utilize the full flexibility allowed for Federal Transit Administration (FTA) funding to support both operations and capital. Transportation Development Act revenue will continue to be the major source of funding for public transit in the county. The unmet needs process must continue to be administered with the "reasonable to meet" principle in the forefront. The nonprofit paratransit providers' capital needs should be addressed by actively assisting them to apply for FTA grant funds. Coordination of paratransit services will be encouraged to maximize the number of rides that can be provided for the available revenue. Monitoring the RTP policies and objectives within the RTP generate special studies to ensure that the transportation disadvantaged needs are recognized and are being planned for, the resulting improved data should lead to better decisions.

Traffic impact fees have been adopted by the county and all three cities to fund various road improvement projects to accommodate growth. These fees can be used to leverage state and federal funding for projects.

The lack of reliable funding has also affected improvements needed on Interstate 5. The level of service (LOS) on I-5 in the Redding area is projected to drop to LOS F within the next five to ten years. In 2006, the RTPA received a grant from Caltrans to develop a program to fund mainline improvements on I-5. The Fix 5 Partnership was formed, with representatives from the RTPA, Tehama County Transportation Commission, Shasta County, Tehama County, and the cities of Corning, Red Bluff, Anderson, Redding, and Shasta Lake. A traffic impact fee program was developed and presented to cities in Shasta County in 2009. One city voted for the program, however, two cities voted against the proposal, and the effort was dropped. Opponents of the fee program perceive I-5 as a federal or state highway, and that the federal and state governments should be responsible for improvements. The "Great Recession" also put decision-makers in a tough position to support increasing fees of any kind.

The public is kept informed of plans within the RTP programs by the MPO's proactive Public Participation Plan. In addition, the RTPA website has become an increasingly important tool for informing the public about the activities of the RTPA.

The safe and efficient movement of people and goods has been and continues to be a top priority for the region. Employment, housing, and community development will all be improved by the implementation of this RTP.

# APPENDIX A

# SOCIAL SERVICE TRANSPORTATION PROVIDERS

# APPENDIX A
## SOCIAL SERVICES TRANSPORTATION PROVIDERS

The following agencies and organizations provide human transportation in Shasta County. This list was compiled from information gathered in a program survey and is not totally inclusive of all transportation providers in the region.

| ASSISTED LIVING/CARE HOMES/CLINICS/REHABILITATION CENTERS | |
|---|---|
| **Beverly Healthcare and Rehabilitation** | Wheelchair accessible van for use by residents and staff. Redding area only. |
| **Compass Care Services** | Supported living services for people with disabilities and senior services. Provides mileage reimbursement. |
| **Far Northern Regional Center** | Far Northern Regional Center (FNRC) is a private, non-profit agency, which provides a variety of services including transportation service to approximately 5,400 persons with developmental disabilities. Nine northern California counties are served by FNRC. Funding comes from the State of California Department of Developmental Services.<br><br>No vehicles are owned by FNRC. Transportation within Shasta County is contracted through Laidlaw Transit Services, Shascade Community Services, and a variety of other transportation providers. |
| **Golden Umbrella, Inc** | A private, non-profit agency, which has served Redding area senior citizens since 1968. Golden Umbrella operates one van. SSNP and RABA provide the majority of transportation to this agency. Golden Umbrella's service is available 8:00 a.m. to 4:00 p.m. Monday through Friday. The service area is confined to the greater Redding area. Eligibility is age 55+ or disabled adult over 18 for Adult Day Health Care. |
| **Holiday Retirement Corp (Hilltop Estates)** | One bus for resident transportation only. |
| **Krista Transitional Housing** | Auto and van for persons enrolled in program. |
| **Northern Valley Catholic Social Service** | Provides low-cost or free mental health, housing, vocational, and support services to individuals with families in six Northern California counties. The Redding headquarters has four vehicles—two vans, one 15 passenger van, and one ADA-compliant 12 passenger bus. |
| **Oakdale Heights Assisted Living** | One bus for use by residents of the facility. |
| **River Oaks Retirement** | One non ADA-compliant bus for residents. |
| **Sierra Oaks** | One ADA-complaint bus for residents. |
| **Stillwater Learning Program** | Provides rehabilitation services to disabled individuals. The service area covers Anderson, Redding and Shasta Lake. Their transportation revenue comes from the Shasta County Health Department. They own and operate one 14-passenger bus, three 11-passenger vans, and one 6-passenger van. |
| **Veterans Administration** | Provides a 12-passenger van from Redding with stops in Tehama and Butte counties to access their facilities in both Sacramento and Martinez. The van travels to Sacramento Monday through Friday, leaving Redding at 6:00 a.m. On Monday and Wednesday a van leaves Redding at 5:30 a.m. bound for Martinez. Reservations are required and may be made by calling 530-226-7575. Persons must be a veteran or escorting a veteran to use this service. |
| **Welcome Home Assisted Living** | Van for residents of facility only. |
| **Willow Springs Alzheimer** | Transport residents only. |

| COMMUNITY CHURCHES<br>Neighborhood and community churches provide transportation to their members on an as-needed basis. | |
|---|---|
| **Fountain Ministries** | Sunday bus service to members. |
| **Palo Cedro Community Church** | Auto service to members as needed. |

| NON-PROFIT TRANSPORTATION PROVIDERS | |
|---|---|
| **Shasta County Opportunity Center** | Shasta County Opportunity Center (OC) is a program within Shasta County Department of Social Services that has provided vocational services to individuals with disabilities since 1963. OC transports individuals to and/or from their work site, or between work sites when public transit or other forms of transit are not readily available. The center has a fleet of 18 vehicles including a wheelchair lift van. Approximately 250 clients are served per day with up to 9,000 miles a month being logged transporting people to and from work. *Transportation capital is funded in part with FTA Section 5310 funds.* |
| **Shascade Community Services, Inc.** | Shascade is a private, non-profit agency, which serves primarily persons with developmental disabilities who reside in Shasta County. The agency has been in operation since 1960. Their transportation resources include 16 vehicles, including 10 wheelchair accessible vehicles. Nine vehicles were obtained through the FTA Section 5310 grant program. Vehicles are used to transport individuals to work, program sites, and community outings. Shascade's service area encompasses the south central region of the County from Mountain Gate to Cottonwood, and from Bella Vista and Palo Cedro to West Redding. Normal hours of operation are from 7:00 am to 4:00 pm - Monday through Friday. *Transportation capital is funded in part with FTA Section 5310 funds.* |
| **Shasta Senior Nutrition Programs, Inc.** | Shasta Senior Nutrition Programs (SSNP) operates the largest fleet of social service agency vehicles in Shasta County and is the designated CTSA. SSNP is a private, non-profit agency, which has been in operation since 1979. Twenty-five vehicles are operated through a central radio dispatch system. SSNP provides 3,902 one-way passengers trips per month.<br><br>Service is provided Monday through Friday, 8:00 a.m. - 4:00 p.m. and occasionally on weekends for special events. Passengers are transported from rural areas of Shasta County to urban areas where medical and social needs can be met. A radio base station at SSNP and a remote station in the Burney Dining Center is offered to all social service transit at a nominal fee.<br><br>Federal and state funding for Shasta Senior Nutrition Programs' operation is obtained through contract with the Area Agency on Aging, Planning and Service Area II under provisions of the Older Americans Act. The contract calls for provision of services to individuals' age 60 or older on a donation basis. Disabled individuals and persons on low income are eligible for transit service. In addition, services in 5 zones are funded by Shasta County Consolidated Transportation Service Agency using Transportation Development Act (TDA) funds. These zones are outside of RABA'S Demand-Response service area and are for elderly and mobility- impaired 18-years of age and older. *Transportation capital is funded in part with FTA Section 5310 funds.*<br><br>The agency operates vehicles an average of 21 days per month, providing approximately 2,445 passenger trips to some 500 unduplicated passengers. With a normal five-day per week operating schedule, their vehicles cover 14,618 miles per month, about 25% on fixed-routes, with the other 75% responding to dial-a-ride requests. In addition to nutrition trips, transportation is provided for shopping and medical purposes. Social service and general senior activities account for the remaining |

| | |
|---|---|
| | trips. |

| PRIVATE TRANSPORTATION | |
|---|---|
| **R&M Medi-Trans, Inc.** | Provides non-emergency medical transportation within a 250-mile radius of Shasta County to Medi-Cal and private pay clients needing transportation. Their fleet contains 11 ADA-compliant vans. All drivers are EMT certified. |
| **ABC Cab** | Available to Shasta County residents 24/7. Six taxis provide Demand-Response service to customers. |
| **Laidlaw Transit Services Inc.** | Provides paratransit programs that range from curb-to-curb to door-to-door; group services to individual dial-a-ride; ADA; general public and special services to target populations. No local information available. |

| PUBLIC TRANSIT | |
|---|---|
| **Burney Express Service** | Express service is provided between Burney and Redding with stops at Round Mountain, Montgomery Creek, Bella Vista, and Shasta College Monday through Friday. This service is timed to connect with RABA'S fixed-route service. Two ADA-accessible 18-passenger vehicles provide this service, with an average of 439 passenger trips per month. *(SCRTPA 2006-2007 Transit Needs Assessment). Part of this service is funded with FTA Section 5311 funds.* |
| **Redding Area Bus Authority Fixed-route** | Redding Area Bus Authority (RABA) fixed-route system operates Monday through Friday 6:30 a.m. - 7:30 p.m. and Saturday 9:30 a.m. - 7:30 p.m. This service logs 62,877 miles per month, providing approximately 27,161 passenger trips. *(RABA 2005/2006 Transit Operators Financial Transactions Report). This service is funded through FTA 5307 and Transportation Development Act funds.* |
| **Redding Area Bus Authority (RABA) Demand Response** | Redding Area Bus Authority (RABA) also provides paratransit service to mobility-impaired through its contract with Veolia for lift-equipped Demand Response service. This service is for mobility-impaired of all ages in the RABA'S service area, and operates at the same time (or concurrently) as the fixed-route system: Monday through Friday 6:30 a.m. to 7:30 p.m. and Saturday 9:30 a.m. to 7:30 p.m. Demand Response vehicles travel approximately 31,809 miles per month, providing 5,939 passenger trips. *(RABA 2005/2006 Transit Operators Financial Transactions Report).This service is funded through FTA 5307 and Transportation Development Act funds.* |

| SCHOOL TRANSPORTATION | |
|---|---|
| **Head Start Child Development, Inc. (Shasta Head Start)** | Provides a mix of school bus and on-call transportation for low-income (federal poverty guidelines) families with children. |
| **Shasta College** | Shasta Community College operates eleven buses and three vans, which transport students from Tehama County, Trinity County, and remote portions of Shasta County. An unrecorded number of these students have disabilities, which would make it impossible for them to drive. Shasta College provides a fixed-route service from Monday-Friday, 6:00 am to 6:00 pm, during the school year. Students pay $60.00 per semester for this service. |
| **Shasta County Superintendent of Schools** | Provides transportation to students with special transportation needs. There are 77 high school buses in the county fleet, 91 elementary school buses, and 31 other transportation vehicles. Shasta County Office of Education, thru Far Northern Regional Center, has 40 buses and 8 other vehicles used for students with disabilities. |
| TRIBAL TRANSPORATION | |
| **Pit River Health Services** | Pit River Health Services provides transportation to access their health services within their ancestral tribal territory. This territory covers Shasta, Lassen, |

| | |
|---|---|
| | Modoc, and Siskiyou counties. |
| **Redding Rancheria** | Operates four programs that serve the local Native American Health Community with transportation services. These programs are: Native American Health Clinic, Head Start, Child Care, and Senior Nutrition *(not affiliated with Shasta Senior Nutrition Programs).*<br><br>The health clinic provides a demand-response service to transport clients from their homes, to the Clinic and back to their homes for medical and dental care.<br><br>Head Start provides a fixed-route service, which provides round trip transportation to pre-school children.<br><br>Child Care provides a fixed-route service that provides round trip transportation to pre-school and elementary school age children.<br><br>Senior Nutrition provides fixed-route service to seniors. |

# APPENDIX B

# CURRENT STATE TRANSPORTATION IMPROVEMENT PROGRAM (STIP) AND REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM (RTIP)

# 2010 STIP STAFF RECOMMENDATION - COUNTY SHARE

Does Not Include STIP Interregional Share Funding (See Separate Listing)

($1,000's)

## Shasta

| Agency | Rte | PPNO | Project | Ext | Del. | Voted | Total | Project Totals by Fiscal Year | | | | | | Project Totals by Component | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Prior | 10-11 | 11-12 | 12-13 | 13-14 | 14-15 | R/W | Const | E & P | PS&E | R/W Sup | Con Sup |
| **STIP Projects at Fund Estimate (October 2009):** | | | | | | | | | | | | | | | | | | | |
| Shasta RTPA | | 2368 | Planning, programming, and monitoring | | | Aug-08 | 364 | 364 | 0 | 0 | 0 | 0 | 0 | 0 | 364 | 0 | 0 | 0 | 0 |
| Caltrans | 5 | 3331 | S. Redding, Smith Rd-5/299, widen 6-lanes, env | | | | 1,195 | 1,195 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,195 | 0 | 0 | 0 |
| Caltrans | 44 | 6650Y | Dana-Downtown, landscaping (RIP) | | | | 257 | 33 | 224 | 0 | 0 | 0 | 0 | 0 | 200 | 1 | 32 | 0 | 24 |
| Caltrans | 299 | 166A | Buckhorn Grade, realign (RIP) | | | | 150 | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150 | 0 | 0 | 0 |
| Shasta RTPA | | 2368 | Planning, programming, and monitoring | | | | 1,460 | 365 | 365 | 365 | 365 | 0 | 0 | 0 | 1,460 | 0 | 0 | 0 | 0 |
| Shasta County | te | 2400 | East Redding bike lanes, phase 1-spurs (ARRA 6-09) | | | delete | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Shasta County | te | 2490 | East Redding bike lanes, phase 2 | | | | 1,752 | 0 | 0 | 1,752 | 0 | 0 | 0 | 0 | 1,752 | 0 | 0 | 0 | 0 |
| | **Total Existing STIP Projects** | | | | | | 5,178 | 2,107 | 589 | 2,117 | 365 | 0 | 0 | 0 | 3,776 | 1,346 | 32 | 0 | 24 |
| **RECOMMENDED 2010 STIP PROGRAMMING** | | | | | | | | | | | | | | | | | | | |
| **Highway Project Recommendations:** | | | | | | | | | | | | | | | | | | | |
| Caltrans | 44 | 6650Y | Dana-Downtown, landscaping (RIP) | | | | -257 | -33 | -224 | 0 | 0 | 0 | 0 | 0 | -200 | -1 | -32 | 0 | -24 |
| Caltrans | 44 | 6650Y | Dana-Downtown, landscaping (RIP) | | | | 33 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 32 | 0 | 0 |
| Caltrans | 5 | 3331 | S. Redding, Smith Rd-5/299, widen 6-lanes, env | | | | -1,195 | -1,195 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1,195 | 0 | 0 | 0 |
| Caltrans | 5 | 3331 | S. Redding, Smith Rd-5/299, widen 6-lanes (RIP) | | | | 1,419 | 1,195 | 224 | 0 | 0 | 0 | 0 | 0 | 0 | 1,195 | 174 | 50 | 0 |
| Shasta RTPA | | 2368 | Planning, programming, and monitoring | | | | -1,460 | -365 | -365 | -365 | -365 | 0 | 0 | 0 | -1,460 | 0 | 0 | 0 | 0 |
| Shasta RTPA | | 2368 | Planning, programming, and monitoring | | | | 1,586 | 365 | 365 | 364 | 164 | 164 | 164 | 0 | 1,586 | 0 | 0 | 0 | 0 |
| | | | **Subtotal, Highway Projects** | | | | 126 | 0 | 0 | -1 | -201 | 164 | 164 | 0 | -74 | 0 | 174 | 50 | -24 |
| **Transportation Enhancement (TE) Project Recommendations:** | | | | | | | | | | | | | | | | | | | |
| Caltrans | te | 6650Y | Rt 44 Dana-Downtown, landscaping (con) | | | NEW | 560 | 0 | 560 | 0 | 0 | 0 | 0 | 0 | 500 | 0 | 0 | 0 | 60 |
| Shasta County | te | 2490 | East Redding bike lanes, phase 2 | | | | -1,752 | 0 | 0 | -1,752 | 0 | 0 | 0 | 0 | -1,752 | 0 | 0 | 0 | 0 |
| Shasta County | te | 2490 | East Redding bike lanes, phase 2 | | | | 2,294 | 0 | 0 | 2,294 | 0 | 0 | 0 | 0 | 2,294 | 0 | 0 | 0 | 0 |
| | | | **Subtotal TE Projects** | | | | 1,102 | 0 | 560 | 542 | 0 | 0 | 0 | 0 | 1,042 | 0 | 0 | 0 | 60 |
| | **Total Recommended 2010 STIP Programming** | | | | | | 1,228 | | | | | | | | | | | | |

Notes:
RTIP adopted on 12/08/09 and delivered on 02/08/10. Additional information received 4/1.

| Balance of STIP County Share, Shasta | |
|---|---|
| Total County Share, June 30, 2009 | 11,490 |
| Programmed at Fund Estimate | 5,178 |
| 2010 STIP Fund Estimate Formula Distribution | 643 |
| Recommended New Programming | 1,228 |
| Unprogrammed Share Balance | 5,727 |
| Share Balance Advanced or Overdrawn | 0 |
| TE Programming Target | 1,111 |
| Recommended TE programming | 1,102 |
| Under (Over) TE Target | 9 |

# 2010 STIP STAFF RECOMMENDATION - INTERREGIONAL SHARE

Does Not Include County Share Funding (See Separate Listing)

($1,000's)

## Interregional Program

| | | | | | | | | | Project Totals by Fiscal Year | | | | | | Project Totals by Component | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| County | Agency | Rte | PPNO | Project | Ext | Del. | Voted | Total | Prior | 10-11 | 11-12 | 12-13 | 13-14 | 14-15 | R/W | Const | E & P | PS&E | R/W Sup | Con Sup |
| Los Angeles | Caltrans | 10 | 309S | W. Covina/Pomona soundwall (IIP) | | | | -4,922 | -4,922 | 0 | 0 | 0 | 0 | 0 | -304 | -4,618 | 0 | 0 | 0 | 0 |
| Los Angeles | Caltrans | 10 | 309S | W. Covina/Pomona soundwall (IIP) | | | | 4,922 | 304 | 0 | 0 | 0 | 4,618 | 0 | 304 | 4,618 | 0 | 0 | 0 | 0 |
| Los Angeles | Caltrans | 101 | 2789 | Van Nuys Blvd off ramps, add lanes (IIP) | | | | -11,993 | -2,485 | 0 | 0 | -9,508 | 0 | 0 | -118 | -8,008 | -497 | -1,674 | -196 | -1,500 |
| Los Angeles | Caltrans | 101 | 2789 | Van Nuys Blvd off ramps, add lanes (IIP) | | | | 11,809 | 2,301 | 9,508 | 0 | 0 | 0 | 0 | 118 | 8,008 | 497 | 1,674 | 12 | 1,500 |
| Los Angeles | Caltrans | 138 | 694Q | Widen, 175th St E-Largo Vista (IIP) | | | | -37,635 | -37,635 | 0 | 0 | 0 | 0 | 0 | -6,606 | -21,000 | -1,003 | -3,659 | -3,191 | -2,176 |
| Los Angeles | Caltrans | 138 | 694Q | Widen, 175th St E-Largo Vista (IIP) | | | | 37,635 | 14,459 | 23,176 | 0 | 0 | 0 | 0 | 6,606 | 21,000 | 1,003 | 3,659 | 3,191 | 2,176 |
| Los Angeles | Caltrans | 405 | 831 | Arbor Vitae, new interchange (grf, cost incr)(IIP) | | | | -7,281 | -7,281 | 0 | 0 | 0 | 0 | 0 | -5,866 | -1,415 | 0 | 0 | 0 | 0 |
| Los Angeles | Caltrans | 405 | 831 | Arbor Vitae, new interchange (grf, cost incr)(IIP) | | | | 7,281 | 5,866 | 0 | 0 | 0 | 0 | 1,415 | 5,866 | 1,415 | 0 | 0 | 0 | 0 |
| Marin | Caltrans | 101 | 360G | San Antonio Road curve correction (IIP)(08S-56) | | | | -65,653 | -13 | -6,930 | 0 | -58,710 | 0 | 0 | -5,270 | -51,050 | 0 | -13 | -1,660 | -7,660 |
| Marin | Caltrans | 101 | 360G | San Antonio Road curve correction (IIP) | | | | 66,040 | 400 | 30 | 0 | 0 | 0 | 65,610 | 10 | 57,950 | 0 | 400 | 20 | 7,660 |
| San Benito | Caltrans | 156 | 297 | 4-lane expressway, San Juan Bautista (IIP) | | | | -50,333 | -22,433 | 0 | 0 | -27,900 | 0 | 0 | -14,636 | -24,677 | -3,736 | -3,028 | -1,033 | -3,223 |
| San Benito | Caltrans | 156 | 297 | 4-lane expressway, San Juan Bautista (IIP) | | | | 50,683 | 22,783 | 0 | 0 | 0 | 27,900 | 0 | 14,636 | 24,677 | 3,936 | 3,178 | 1,033 | 3,223 |
| San Bernardino | Caltrans | 15 | 174L | NB lane, Victorville-Barstow (IIP), phase 2 | | | | -104,775 | -26,874 | 0 | -77,901 | 0 | 0 | 0 | -9,290 | -67,203 | -4,711 | -10,727 | -2,146 | -10,698 |
| San Bernardino | Caltrans | 15 | 174L | NB lane, Victorville-Barstow (IIP), phase 2 | | | | 104,775 | 36,917 | 0 | 0 | 67,858 | 0 | 0 | 16,822 | 57,160 | 5,420 | 10,727 | 3,948 | 10,698 |
| San Bernardino | Caltrans | 58 | 215C | 2-lane expressway, near Kramer Jct | | | | -148,067 | -28,867 | 0 | 0 | -119,200 | 0 | 0 | -9,767 | -104,200 | -7,044 | -8,000 | -4,056 | -15,000 |
| San Bernardino | Caltrans | 58 | 215C | 2-lane expressway, near Kramer Jct | | | | 148,067 | 29,567 | 0 | 0 | 0 | 118,500 | 0 | 9,767 | 104,200 | 7,044 | 8,000 | 4,756 | 14,300 |
| San Bernardino | Caltrans | 58 | 217F | 4-lane expressway, near Hinkley, R/W | | | | -36,868 | -11,993 | 0 | -24,875 | 0 | 0 | 0 | -20,742 | 0 | -5,643 | -6,350 | -4,133 | 0 |
| San Bernardino | Caltrans | 58 | 217F | 4-lane expressway, near Hinkley | | | | 36,868 | 13,993 | 0 | 0 | 0 | 22,875 | 0 | 20,742 | 0 | 6,643 | 7,350 | 2,133 | 0 |
| San Bernardino | Caltrans | 138 | 239D | Widening, LA Co-Rt 15, segment (IIP) | | | | -70,047 | -22,092 | 0 | -47,955 | 0 | 0 | 0 | -8,256 | -41,283 | -4,024 | -7,435 | -2,377 | -6,672 |
| San Bernardino | Caltrans | 138 | 239D | Widening, LA Co-Rt 15, segment (IIP) | | | | 70,047 | 20,408 | 0 | 49,639 | 0 | 0 | 0 | 3,569 | 41,394 | 7,538 | 6,341 | 2,960 | 8,245 |
| San Bernardino | SANBAG | loc | 154D | Rt 10 Tippecanoe Av interchange improvements | | | | -2,500 | -2,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -2,500 | 0 | 0 |
| San Bernardino | SANBAG | loc | 154D | Rt 10 Tippecanoe Av interchange improvements | | | | 2,500 | 0 | 2,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,500 | 0 |
| San Luis Obispo | Caltrans | 46 | 0226G | Route 46 Corridor Improvements (Whitley 2A) | | | | 9,000 | 0 | 0 | 9,000 | 0 | 0 | 0 | 4,400 | 0 | 0 | 4,000 | 600 | 0 |
| San Luis Obispo | Caltrans | 46 | 0226H | Route 46 Corridor Improvements (Whitley 2B) | | | | 7,000 | 0 | 0 | 0 | 0 | 0 | 7,000 | 0 | 0 | 0 | 7,000 | 0 | 0 |
| San Luis Obispo | Caltrans | 46 | 226D | Whitley - segment 2 | | | | -16,000 | 0 | 0 | -16,000 | 0 | 0 | 0 | -8,400 | 0 | 0 | -7,000 | -600 | 0 |
| Shasta | Caltrans | 5 | 3331 | S. Redding, Smith Rd-5/299, widen 6-lanes (IIP) | | | | 336 | 0 | 336 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 336 | 0 | 0 |
| Shasta | Caltrans | 44 | 6650Y | Dana-Downtown, landscaping (IIP) | | | | -387 | -51 | -336 | 0 | 0 | 0 | 0 | 0 | -300 | -3 | -48 | 0 | -36 |
| Shasta | Caltrans | 44 | 6650Y | Dana-Downtown, landscaping (IIP) | | | | 51 | 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 48 | 0 | 0 |
| Solano | Caltrans | 80 | 8273B | Recon connectors, Rt 680, landscaping (5-03 vote) | | | | -2,544 | -801 | -1,743 | 0 | 0 | 0 | 0 | 0 | -1,076 | 0 | -700 | -101 | -667 |
| Solano | Caltrans | 80 | 8273B | Recon connectors, Rt 680, landscaping | | | | 2,544 | 0 | 0 | 0 | 760 | 1,784 | 0 | 10 | 1,076 | 0 | 700 | 50 | 708 |
| Tulare | Caltrans | 99 | 6400 | Tagus Ranch 6-lane | | | | -16,800 | -4,300 | 0 | -3,500 | -9,000 | 0 | 0 | -7,800 | 0 | -4,300 | -3,500 | -1,200 | 0 |
| Tulare | Caltrans | 99 | 6400 | Tagus Ranch 6-lane, Env. | | | | 4,300 | 4,300 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,300 | 0 | 0 | 0 |
| Tulare | Caltrans | 99 | 6400A | Tulare to Goshen 6-lane freeway, north | | | | 3,150 | 0 | 0 | 2,000 | 1,150 | 0 | 0 | 1,000 | 0 | 0 | 2,000 | 150 | 0 |
| Tulare | Caltrans | 99 | 6400B | Tulare to Goshen 6-lane freeway, south | | | | 9,350 | 0 | 0 | 0 | 0 | 2,900 | 6,450 | 5,350 | 0 | 0 | 2,900 | 1,100 | 0 |
| Ventura/Sta Barb | Caltrans | 101 | 3918 | HOV lanes, Mussel Shoals-Casitas Pass Rd (CMIA) | | | | -19,870 | -19,870 | 0 | 0 | 0 | 0 | 0 | -229 | 0 | -4,400 | -14,800 | -441 | 0 |
| Ventura/Sta Barb | Caltrans | 101 | 3918 | HOV lanes, Mussel Shoals-Casitas Pass Rd (CMIA) | | | | 19,870 | 19,870 | 0 | 0 | 0 | 0 | 0 | 545 | 0 | 4,951 | 13,933 | 441 | 0 |
| | | | | **Subtotal, Interregional Highway Projects** | | | | 612 | -223,115 | 199,817 | -100,220 | -156,019 | 178,577 | 101,572 | -7,539 | -3,332 | 5,229 | 3,282 | 2,094 | 878 |
| | **Intercity Rail (Public Transportation) Projects** | | | | | | | | | | | | | | | | | | | |
| Orange | Fullerton | rail | 2026 | Fullerton parking expansion, phase 1 (P116)(08S-045) | | | | -2,750 | -2,750 | 0 | 0 | 0 | 0 | 0 | 0 | -2,750 | 0 | 0 | 0 | 0 |
| Orange | Fullerton | rail | 2026 | Fullerton parking expansion, phase 1 (P116) | | | | 2,750 | 0 | 2,750 | 0 | 0 | 0 | 0 | 0 | 2,750 | 0 | 0 | 0 | 0 |
| Santa Barbara | Caltrans | rail | 2087 | Siding upgrade and extension, Santa Barbara County | | | | -11,450 | 0 | -1,000 | -1,000 | -9,450 | 0 | 0 | 0 | -9,450 | -1,000 | -1,000 | 0 | 0 |
| Santa Barbara | Caltrans | rail | 2087 | Siding upgrade and extension, Santa Barbara County | | | | 11,450 | 0 | 0 | 0 | 1,000 | 1,000 | 9,450 | 0 | 9,450 | 1,000 | 1,000 | 0 | 0 |
| Santa Barb/Ven | Caltrans | rail | 2089 | Sidings in Santa Barbara and Ventura Counties | | | | -6,870 | 0 | -2,000 | -4,870 | 0 | 0 | 0 | 0 | 0 | -2,000 | -4,870 | 0 | 0 |
| Santa Barb/Ven | Caltrans | rail | 2089 | Sidings in Santa Barbara and Ventura Counties | | | | 6,870 | 0 | 0 | 0 | 2,000 | 4,870 | 0 | 0 | 0 | 2,000 | 4,870 | 0 | 0 |
| Yolo | Caltrans | rail | 2080 | Yolo Causeway crossover (ARRA) | | | delete | -3,340 | 0 | -3,340 | 0 | 0 | 0 | 0 | 0 | -3,340 | 0 | 0 | 0 | 0 |
| Ala/San Mateo | Caltrans | rail | 2090 | Oakland to San Jose double track (ph 2) | | | NEW | 3,350 | 0 | 0 | 3,350 | 0 | 0 | 0 | 0 | 0 | 0 | 3,350 | 0 | 0 |
| Placer | CCJPA | rail | 9879 | Sac-Roseville track improvements (IIP) | | | | -3,530 | 0 | 0 | -3,530 | 0 | 0 | 0 | 0 | -3,530 | 0 | 0 | 0 | 0 |
| Placer | CCJPA | rail | 9879 | Sac-Roseville track improvements (IIP) | | | | 3,530 | 0 | 3,530 | 0 | 0 | 0 | 0 | 0 | 0 | 1,830 | 1,700 | 0 | 0 |
| | | | | **Subtotal, PTA Projects, Intercity Rail** | | | | 10 | -2,750 | -60 | -6,050 | -6,450 | 5,870 | 9,450 | 0 | -6,870 | 1,830 | 5,050 | 0 | 0 |

## Shasta County 2010 RTIP (Proposed)

Note - Values are in thousands

| | FY10-11 | FY 11-12 | FY 12-13 | FY 13-14 | FY 14-15 | 2010 RTIP/STIP Total | Beyond * | Total |
|---|---|---|---|---|---|---|---|---|
| **RTIP Program** | | | | | | | | |
| S.Redding Interstate 5 Widening (Env. (08-09), (Design and Con) | $174 | | | | | $174 | $ 10,853 | $11,027 |
| (ROW) | $50 | | | | | $50 | | $50 |
| Dana to Downtown Landscaping (TE) (Con) | $560 | | | | | $560 | | $560 |
| E. Redding Bike Lanes Phase 2 (TE) (Con) | | $2,294 | | | | $2,294 | | $2,294 |
| Planning Programming and Monitoring (PPM) | $245 | $245 | $244 | $244 | $244 | $1,222 | | $1,222 |
| **Total** | **$1,029** | **$2,539** | **$244** | **$244** | **$244** | **$4,300** | **$10,853** | **$15,153** |
| **ITIP Program** | | | | | | | | |
| S.Redding Interstate 5 Widening (Con) ** | $336 | | | | | $336 | $ 13,898 | $14,234 |
| **Total** | **$336** | | | | | **$336** | **$ 13,898** | **$ 14,234** |

* Insufficient funds are available in this RTIP cycle and are placed outside of five year program. Funds may be brought forward in 2012 RTIP cycle.

** SCRTPA intent is that ITIP funds 50% of total project.

# APPENDIX C

# REGIONAL TRANSPORTATION PLAN CHECKLIST (2007 RTP GUIDELINES)

# Regional Transportation Plan Checklist

*(Revised September 2007)*

*(To be completed electronically in Microsoft Word format by the MPO/RTPA and submitted along with draft RTP to the Calif. Department of Transportation)*

***Name of MPO/RTPA:*** Shasta County Regional Transportation Planning Agency

***Date Draft RTP Completed:*** May 4, 2010

***RTP Adoption Date:*** Scheduled for July 27, 2010

***What is the Certification Date of the Environmental Document (ED)?*** Scheduled for July 27, 2010

***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

| | Yes/No | Page# |
|---|---|---|
| **General** | | |
| 1. Does the RTP address no less than a 20-year planning horizon? (Title 23 CFR 450.322(a)) | Yes | 1-1, 2-10, 5-11 |
| 2. Does the RTP include both long-range and short-range strategies/actions? (Title 23 CFR 450.322(b)) | Yes | End of chapters 4 to 14 |
| 3. Does the RTP address issues specified in the policy, action and financial elements identified in California Government Code Section 65080? | Yes | End of chapters 4 to 14 |
| 4. Does the RTP include Project Intent i.e. Plan Level Purpose and Need Statements? | Yes | 5-43 to 5-51 |
| **Consultation/Cooperation** | | |
| 1. Does the MPO have a public participation plan that meets the requirements of Title 23, CFR 450.316(1)(i-x)? | Yes | Under separate cover |
| 2. Did the MPO/RTPA consult with the appropriate State and local officials responsible for airport, transit, and freight operations, environmental protection, and economic development during the preparation of the RTP? (Title 23 CFR 450.316(b)) | Yes | 2-4 |

| Yes/No | Page# |
|---|---|
| Yes | 2-4 |
| Yes | 2-4 |
| Yes | 12-2 |
| Yes | 2-5, 5-30 |
| Yes | 2-4 |
| Yes | 2-4 |
| N/A | |
| Yes | 4-8 |
| Yes | 2-5 |

3. Did the MPO/RTPA who has Federal lands within its jurisdiction boundary involve the Federal land management agencies during the preparation of the RTP?

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 were consulted? (Title 23 CFR 450.322(g))

5. Did the RTP include a comparison with the California State Wildlife Action Plan and (if available) inventories of natural and historic resources? (Title 23 CFR 450.322(g))

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 450.316(c))

7. Does the RTP address how the public and various specified groups, including the nonmotorized community, were given reasonable opportunity to comment on the plan using the participation plan developed under Title 23 CFR 450.316(a) and (a)(1)(i)?

8. Does the RTP contain a discussion describing the private sector involvement efforts that were used during the development of the participation plan? (Title 23 CFR 450.316(a))

9. Does the RTP contain a discussion describing the coordination efforts with regional air quality planning authorities? (Title 23 CFR 450.316(3)(b)) (MPO nonattainment and maintenance areas only)

10. Is the RTP coordinated and consistent with the Public Transit-Human Services Transportation Plan?

11. Were the draft and adopted RTP posted on the Internet? (Title 23 CFR 450.322(j))

## Modal Discussion

| Yes | Page list to left |
|---|---|
| Yes | 5-1 (Ch. 5) |
| Yes | 4-1 (Ch. 4) |
| Yes | 7-1 (Ch. 7) |
| Yes | 9-1 (Ch. 9) |
| Yes | 9-1 (Ch. 9) |
| Yes | 8-1 (Ch. 8) |

1. Does the RTP discuss intermodal connectivity issues?
(See pages 4-5, 4-6, 4-12, 4-13, 9-5, and 9-14)

2. Does the RTP include a discussion of highways?

3. Does the RTP include a discussion of mass transportation?

4. Does the RTP include a discussion of the regional airport system and its ground access improvement program?

5. Does the RTP include a discussion of regional pedestrian needs?

6. Does the RTP include a discussion of regional bicycle needs?

7. Does the RTP include a discussion of rail transportation?

| Yes/No | Page# |
|---|---|
| N/A | |
| Yes | 6-1 (Ch. 6) |

8. Does the RTP include a discussion of maritime transportation (if appropriate)?

9. Does the RTP include a discussion of goods movement?

## Programming/Operations

| | |
|---|---|
| N/A | |
| Yes | 5-13 |
| Yes | 5-6, 5-14 |
| Yes | 2-8 |
| Yes | 5-43 to 5-53 |

1. Is a congestion management process discussed in the RTP? (MPOs designated as TMAs only) (Title 23 CFR 450.320(b))

2. Is the RTP consistent (to the maximum extent practicable) with the development of the regional ITS architecture?

3. Does the RTP address both safety and security issues?

4. Does the RTP identify the objective criteria used for measuring the performance of the transportation system?

5. Does the RTP contain a list of un-constrained projects?

## Financial

| | |
|---|---|
| Yes | 13-1 Ch. 13 |
| Yes | 13-12 |
| Yes | 13-12 |
| Yes | 5-32, 5-41, 13-12 |
| Yes | 13-12 |
| Yes | 13-12 |
| Yes | 13-12 |
| Yes | 13-12 Appdx. B |

1. Does the RTP include a financial plan that meets the requirements identified in Title 23 CFR 450.322(f)(10)?

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)

3. Do the projected revenues in the RTP reflect Fiscal Constraint? (Title 23 CFR 450.322(f)(10)(ii))

4. Does the RTP contain a list of financially constrained projects? Any regionally significant projects should be identified. (Government Code 65808(3)(A))

5. Do the cost estimates for implementing projects identified in the RTP reflect "year of expenditure dollars" to reflect inflation rates? (Title 23 CFR 450.322(f)(10)(iv))

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? (Title 23 CFR 450.322(f)(10)(i))

7. Does the RTP contain a Statement regarding the consistency between the projects in the RTP and the ITIP? (2006 STIP Guidelines, Section 33)

8. Does the RTP contain a Statement regarding the consistency between the projects in the RTP and the FTIP? (2006 STIP Guidelines, Section 19)

| Yes/No | Page # |
|---|---|
| N/A | |

9. Does the RTP address the specific financial strategies required to ensure the identified TCMs from the SIP can be implemented? (nonattainment and maintenance MPOs only) (Title 23 CFR 450.322(f)(10)(vi))

## Environmental

| | |
|---|---|
| Yes, a Master EIR | Under separate cover |
| N/A | |
| N/A | |
| Yes | 12-1 |
| Yes | Separate cover |
| No (Prepared EIR) | |
| N/A | |

1. Did the MPO/RTPA prepare an EIR or a program EIR for the RTP in accordance with CEQA guidelines?
2. Does the RTP contain a list of projects specifically identified as TCMs, if applicable?
3. Does the RTP contain a discussion of SIP conformity, if applicable? **(MPOs only)**
4. Does the RTP specify mitigation activities? (Title 23 CFR 450.322(f)(7))
5. Where does the EIR address mitigation activities?
6. Did the MPO/RTPA prepare a Negative Declaration or a Mitigated Negative Declaration for the RTP in accordance with CEQA guidelines?
7. Does the RTP specify the TCMs to be implemented in the region? **(Federal nonattainment and maintenance areas only)**

**I have reviewed the above information and concur that it is correct and complete.**

(Must be signed by MPO/RTPA Executive Director or designated representative)

5-7-2010

Date

Daniel Little

Print Name

Executive Director

Title

# APPENDIX D

# COMMENTS RECEIVED ON THE DRAFT RTP AND RESPONSES

## Appendix D: Comments Received on the Draft RTP and Responses

The RTPA received two letters commenting on the Draft 2010 RTP. The letters were received from:

1. Northstate Women's Health Network
2. U.S Environmental Protection Agency

Copies of the letters received are included in the following pages. The RTPA's responses to the comments received follow each letter. No substantial changes were made to the Draft RTP in response to comments received.

6-15-08

John Strahan

Dan Little

Thank-you for the letters and copies of your draft plan and E.I.R.

Please consider and integrate input from the Northstate Women's Health Network (501(c)3)

P.O. Box 720327
Redding, CA
96001

Please send final copies to:

% Joy Newcom R.N. F.N.P. - P.A.-C.
3702 Fujiyama Way
Redding, CA
96001

Public Input

Re: "Demand Response" "vans" i.e. small buses
Re: 0-14

Please change "consolidation" and centralization. Decentralizing by coordinating done by neighborhood reservation clerks on individual personal pic.'s computers of neighbood electric or hybrid minivans would be more efficient and less polluting of noise, air, time and traffic as well as create more jobs. Expand hours and boundaries.

Re: 4.4 and 5.0

Please change existing vehicles to natural gas (as did Austin, TX "Special Transit" (They have wider hours and boundaries) to be less polluting. And please require any future purchases of vehicles to be electric or hybrid.

Response to letter received from the Northstate Women's Network (Joy Newcom):

The commenter makes reference to Demand Response vans and Long-Range (2020-2030) Objective O-14 (on page 4-12 in Chapter 4 - Public Transportation). Objective O-14 states: Consolidation of operations and services into one mobility-management center or centralized dispatch center.

1. The commenter states:
   "Please change 'consolidation' and centralization. Decentralizing by coordinating done by neighborhood reservation clerks on individual personal computers of neighborhood electric or hybrid minivans would be more efficient and less polluting of noise, air, time and traffic as well as create more jobs. Expand hours and boundaries."

   **RTPA Response:** Policy O-14 was added in response to the RTPA's Shasta County Coordinated Human Transportation Plan, adopted in 2007. (The plan is available for review at www.scrtpa.org; click on Public Transportation.) This plan prioritizes transportation services for funding and implementation, with an emphasis on the transportation needs of individuals with disabilities, older-adults, and people with low incomes. Development of this plan included the participation of the Social Services Transportation Advisory Council, which is a committee of social service and transit providers representing the elderly, the handicapped, and persons of limited means. One of the long-range strategies in the plan (Priority 3 on page 21) is "Consolidation of operations and service delivery into one system." The plan states "A centralized dispatch system…provides better service within communities while connecting neighborhoods to other destinations." The comment letter was referred to RABA for their consideration.

2. The commenter also states:
   "Please change existing vehicles to natural gas (as did Austin, TX 'Special Transit'; they have wider hours and boundaries) to be less polluting. And please require any future purchases of vehicles to be electric or hybrid."

   **RTPA Response:** In April 2009, the Redding Area Bus Authority considered vehicle purchase alternatives using federal stimulus funds. The staff report discusses hydrogen fuel cell vehicles, compressed natural gas vehicles, diesel-electric (hybrid) vehicles. The report concluded:

   > At this time, it is recommended that RABA continue with procurement of conventional diesel coaches. The cost per vehicle is significantly lower than all other vehicle types, there is no need to add infrastructure, the emissions are roughly identical to hybrids, and the efficiencies realized by having a standardized fleet with like parts supply and technician training are all contributing factors in this recommendation. The hybrid market continues to evolve and as this technology improves and costs come down, RABA should consider future purchases.

   In general, the RTPA provides funding, but does not get involved in operational issues. Hence, the regarding the types of vehicles to purchase are the responsibility of RABA.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION IX**
**75 Hawthorne Street**
**San Francisco, CA 94105**

Dan Little, AICP, Executive Director
Shasta County RTPA
1855 Placer Street
Redding, CA 96001

Subject: U.S. EPA Comments on the Shasta County Regional Transportation Plan and Environmental Impact Report

Dear Mr. Little:

The U.S. Environmental Protection Agency (EPA) appreciates the opportunity to provide comments on the Shasta County Agency Regional Transportation Plan (RTP) and Draft Environmental Impact Report (DEIR). EPA is committed to the goal of incorporating environmental considerations early in the transportation planning process. Early coordination results in greater opportunities to avoid sensitive resources and minimize impacts associated with future transportation projects.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) directs consultation with resource agencies while developing long-range transportation plans. It also requires such plans to discuss potential environmental mitigation activities and potential locations for these activities to restore and maintain environmental functions that could be affected by the plan. We provide the following comments in support of compliance with these requirements. While we understand some of the provided recommendations below may not be able to be incorporated into this RTP revision, we hope that the concepts and principles identified can be incorporated into the next RTP revision.

EPA participated in the kick-off meeting for Shasta FORWARD, Shasta County's Blueprint planning process in June 2007. At that time, we encouraged the Shasta County Regional Transportation Planning Agency (SCRTPA) to contact local resource agencies to obtain resource data and other expertise to consider during the planning process. We also provided comments on the Notice of Preparation for the EIR for this RTP, in which we made specific suggestions for the RTP and DEIR to discuss, among other issues, 1) opportunities for using smart growth and transit investment to achieve air quality improvements and GHG reductions, and 2) growth related impacts and induced growth.

**Use the RTP Process to Spur Transportation Efficient Growth That Accomplishes Multiple Objectives**

A regional transportation planning process provides an opportunity to focus growth and activity where it most benefits the region. Compact development built in infill locations shortens trip distances; transit-oriented development leads to a greater share of transit use; and mixing of uses accomplishes both and also creates opportunities for active transportation modes. Such development patterns, and the transportation patterns they help create, in turn can create environmental and livability benefits. These concepts and others are included in Caltrans' recently completed *Smart Mobility 2010: A Call to Action for the New Decade.* In particular, EPA would like to call attention to its discussion of performance measures aimed at quantifying the benefits of integrated planning:

> Transportation performance measures forecast, evaluate, and monitor the degree to which the transportation system accomplishes adopted public goals and mobility objectives. Smart Mobility Performance Measures demonstrate the relationship between integrated transportation and land use decisions and the consequent effects on the full range of economic, social, and environmental conditions. (p. 50)

EPA recommends incorporation of carefully chosen performance measures to inform and guide planning efforts, as detailed in the document. In particular, we recommend the inclusion of metrics which capture greenhouse gas emissions and air quality benefits and disbenefits.

The RTP lists as a guiding principle for selection for RTIP funding regional congestion-relief benefit (Ch. 5, p. 12). EPA recommends that induced demand effects from roadway expansion projects be considered in calculating this, as these effects have been shown to significantly reduce congestion-reduction benefits of roadway expansion projects.

EPA, the US Department of Housing and Urban Development (HUD) and the US Department of Transportation (DOT) recently joined in a partnership to support measures to improve livability and sustainability. We encourage you to consider the principles identified through this partnership when working to integrate the regional blueprint concept into regional planning. More information on this partnership, including grant opportunities, can be found at http://www.epa.gov/smartgrowth/partnership/. Programs offered by the partnership, including funding opportunities, can be found at http://www.epa.gov/smartgrowth/pdf/2010_0506_leveraging_partnership.pdf (and enclosed).

**Discuss Greenhouse Gas Implications and Preparation for a Carbon Constrained Future Transportation Network.**

EPA commends SCRTPA for including discussion of both near-term transportation demand management strategies and long run solutions, including land use strategies. While we recognize there may not be an opportunity to include a comprehensive discussion and analysis of these measures in this RTP update, we recommend expanding this discussion as feasible in this RTP with an eye toward the next RTP cycle.

In the next RTP cycle, SB 375 will require the preparation of a Sustainable Communities Strategy (SCS). In Shasta County, the SCS provides an excellent opportunity to consider land

use and environmental implications of transportation network improvements and integrate smart growth opportunities into the RTP. In its SCS, EPA recommends supplementing its greenhouse gas emissions analysis with discussion (and where possible quantification) of other environmental and livability goals and metrics, and describing how each relates to and/or influences the RTP. We also encourage providing support and resources to local jurisdictions to make their general plans and proposed projects consistent with the RTP. Finally, we commend SCRTPA for its early start in considering land use planning and focus on the upcoming SCS requirement.

**Discuss Impacts to Critical Habitat Areas and Connect It to a Broader Regional Mitigation Strategy in the RTP.**

The DEIR repeatedly states that because the RTP is a planning document and further environmental review will take place at the project implementation stage, mitigation need not receive focused discussion in the present document (for example, on page 3.4-29, the DEIR states, "Because the proposed project is a planning document and thus, no physical changes will occur to the environment, adoption of the proposed project would not directly impact the environment.") However, policies regarding the development of the roadway network, which impacts and influences land use development, are determined by the regional transportation planning process and can have large implications for biologically sensitive areas. Applicable open space plans, conservation areas, mitigation banks, and conservation plans conservation plans (if any exist) should be consulted and high value resource areas should be identified and avoided at the regional transportation planning phase, rather than waiting until project implementation.

EPA recognizes SCRTPA's efforts towards developing a regional GIS platform, and commends the development of this useful tool. We expect its implementation to be a great step towards the inclusion of multiple datasets to inform decision-making, and recommend it be used to help guide future regional transportation planning efforts.

The following are EPA's general recommendations for biological and sensitive habitat mitigation:

- Use resource data to inform transportation decision-making.
- Use watershed, conservation, and recovery plans to identify important environmental considerations for the region, such as critical wildlife corridors, the most important areas to protect for sensitive species, and areas with a high concentration of resources.
- Give conservation plans as much weight as General Plans when planning transportation investments.
- Incorporate concepts such as 100 to 200 foot buffers for stream corridors, and identification and improvement of priority culverts that currently restrict wildlife corridors and natural processes of stream and river systems.
- Use parcel maps to identify larger, undivided parcels for ease of acquisition and preservation, and designate areas as potential future mitigation sites.

- Consider the resource, "Eco-logical: An Ecosystem Approach to Developing Infrastructure Projects" (2006)[1] which encourages Federal, State, Tribal and Local partners involved in infrastructure planning, design, review, and construction to use flexibility in regulatory processes. Specifically, Eco-Logical puts forth the conceptual groundwork for integrating plans across agency boundaries, and endorses ecosystem-based mitigation - an innovative method of mitigating infrastructure impacts that cannot be avoided.

The Regional Mitigation Strategy contained in the RTP should also establish the foundation for innovative regional mitigation solutions:

- Identify financial mechanisms to fund mitigation, such as development fees, sales tax, or the use of funds from alternative methods to identify and protect critical resource areas.
- Establish conservation easements that connect to and expand existing conservation areas.
- Describe locally-developed measures such as county/city designation of open-space, measures requiring development set-backs near streams, etc.

EPA values the opportunity to be involved in the regional transportation planning process. When the final RTP and EIR are available, please send a copy of each to the address above (mail code CED-2). If you have any questions about our comments, please contact me at 415-947-4121 or ganson.chris@epa.gov.

Sincerely,

Chris Ganson
Environmental Review Office

Enclosure: Leveraging the Partnership: DOT, HUD, and EPA Programs for Sustainable Communities

cc: Garth Hopkins, Caltrans Headquarters
Sandra Rivera, Caltrans District 2
Aimee Kratovil, Federal Highway Administration
Eric Eidlin, Federal Transit Administration
Roberta Gerson, US Fish and Wildlife Service

[1] Eco-logical is available on-line at: http://www.environment.fhwa.dot.gov/ecological/eco_index.asp. Information on pilots using Eco-logical principals is available on-line at: http://www.trb.org/StrategicHighwayResearchProgram2SHRP2/Public/Pages/capacitypilottests_334.aspx .

Response to letter received from the U.S. Environmental Protection Agency (Chris Ganson):

1. The commenter states that the Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA-LU) directs agencies to: (1) consult with resource agencies while developing long-range transportation plans, and (2) discuss environmental mitigation activities and potential restoration locations for impacts caused by transportation planning efforts.

   **RTPA Response:** This comment is noted. SCRTPA made a considerable effort throughout the transportation planning and environmental review process to consult with, involve, and inform resources agencies while developing the 2010 Regional Transportation Plan for Shasta County. This effort involved outreach to public agencies and the general public. SCRTPA has maintained a positive working relationship with all interested agencies and individuals and they maintain a distribution list for any individual, agency or private company wishing to be involved on its various planning, programming and project development activities.

2. The commenter notes that the EPA participated in the kick-off meeting for Shasta FORWARD, Shasta County's Blueprint planning process, and that they encouraged the SCRTPA to contact local resource agencies during the planning process. The commenter also notes that the EPA provided a comment letter on the NOP, in which they made suggestions concerning the use of smart growth and transit investment to achieve air quality and GHG improvements, as well as growth related impacts.

   **RTPA Response:** This comment is noted, and the commenter is referred to the response to comment #1 for additional information.

3. The commenter notes that the regional transportation planning process is an opportunity to focus growth and activity where it most benefits the region. EPA recommends that performance measures to inform and guide planning efforts are incorporated, and that such measures should include metrics that capture greenhouse gas emissions and air quality benefits and disbenefits. The commenter further recommends that induced demand effects from roadway expansion projects be considered in calculating congestion-reduction benefits of roadway expansion. Lastly, the commenter encourages the SCRTPA to consider the principals to improve livability and sustainability when working to integrate the Shasta FORWARD blueprint concept into regional planning.

   **RTPA Response:** SCRTPA acknowledges EPA's recommendations and encouragement for accomplishing smart growth within the County, regional reductions in greenhouse gas emissions, and overall improvements to air quality. The most important step SCRTPA can take to reduce GHGs at this point is to implement the "ShastaFORWARD>>" blueprint and to develop a sustainable communities strategy (SCS), as required by SB 375. The SCRTPA has taken concrete steps to initiate and advance these regional planning efforts, including securing grant funding, initiating extensive public outreach, land use planning coordination with the incorporated cities and Shasta County, the development of a regional growth model, selection of a preferred growth scenario, and the preparation of a final report. The SCRTPA is committed to the continued development of the sustainable communities strategy, and will continue to work with the Regional Target Advisory Committee (RTAC) to identify regional GHG reduction goals specific to Shasta County and the SCRTPA. The sustainable communities strategy process is scheduled to be completed prior to adoption of the next (2015) RTP.

SCRTPA will continue to consult with the EPA for advice and recommendations throughout the coordinated regional planning efforts that are currently underway in Shasta County, and that will ultimately result in a SCS. Because the SCS that is discussed in the RTP is in the early process of being developed, it is premature to define the strategy in more detail in the RTP at this time.

4. The commenter commends the SCRTPA for discussing short-term and long-term transportation management strategies, including land use strategies, but recommends an expanded discussion with "an eye toward the next RTP cycle" as feasible. The commenter acknowledges that the next RTP cycle will require a sustainable communities strategy (SCS), which provides an opportunity to consider land use and environmental implications of transportation improvements, as well as the integration of smart growth principals. The commenter recommends that the SCS supplement the greenhouse gas emission analysis with a discussion of environmental and livability goals and metrics, and how each relates to the RTP. The commenter encourages the SCRTPA to provide support and resources to local jurisdictions to make their general plans consistent with the RTP. Lastly, the commenter commends the SCRTPA for its early start in considering land use planning and focusing on the upcoming SCS.

   **RTPA Response:** SCRTPA acknowledges EPA's recommendations and commendations for its efforts to integrate regional transportation planning with regional land use planning. The SCRTPA has been pursuing a multi-faceted planning process to help provide for a more informed land use and transportation decision-making process, and provide an improved environmental permitting process for future transportation and land use projects in the region. The SCRTPA started a regional blueprint planning program, called "ShastaFORWARD>>" in 2007. The program has involved an unprecedented public outreach effort to solicit input from as many residents of Shasta County as possible. The purpose of a Blueprint is to explore planning options to create communities or nodes of development that are less dependent on the automobile. Air quality, traffic congestion, fiscal constraints, and quality of life concerns have all stimulated these efforts. The SCRTPA is exploring pedestrian and transit-oriented designs with mixed-use development.

   Many of the issues identified by the public in the ShastaFORWARD>> process coincided with land use/transportation link concepts, such as compact urban form and pedestrian- and transit-oriented design. In terms of raw survey responses, Scenario B (Urban Core & Corridors) was selected by nearly one-half (48.7%) of all survey participants. Scenario C (Distinct Cities & Towns) was nearly as popular, garnering over 40.5% of the vote. Based on a combined analysis of survey responses and open-ended comments, a melding of Scenario B and Scenario C was recommended by the SCRTPA to inform future implementation efforts. The Final Report was approved by the SCRTPA Board in February 2010. The SCRTPA will present the Final Report to the city councils and Board of Supervisors in Shasta County.

   Although an adopted Sustainable Communities Strategy (SCS) is not required until the 2015 RTP update, SCRTPA is pursuing SCS development at this time to capitalize on the momentum generated by ShastaFORWARD>> and to allow the region to build and test an SCS under real-world conditions for several years prior to the requirement. Experience gained and lessons learned during this time will be utilized to address potential issues and to allow desired modifications prior to the SCS element's formal inclusion in the 2015 RTP.

   Development of an SCS will involve; (1) the development of a Map-based 'Mobility Assessment Tool' (MAT) in order to objectively identify high priority locations for new development, and (2) the

development of a community-driven 'Regional Priorities Compact' for uniform local agency consideration. This process will develop a strategy that has the highest degree of transportation system connectivity and the greatest potential for reducing vehicle miles traveled (VMT).

As recommended by the EPA commenter, it is the intent of the SCRTPA to consider land use and environmental implications of transportation improvements, as well as the integration of smart growth. The SCRTPA will supplement the greenhouse gas emission analysis with a discussion of environmental and livability goals and metrics, and how each relates to the RTP.

The SCRTPA will continue to consult with, and seek the advice and recommendations from federal, state, and local agencies during our regional planning efforts.

5. The commenter indicates that the Draft EIR (DEIR) states that mitigation need not receive focused discussion because the RTP is a planning document and further environmental review will take place at the implementation stage. The commenter provides an example on page 3.4-29 of the DEIR, and then states that roadway network policies can have large implications for biologically sensitive areas.

   The commenter's understanding that "mitigation need not receive focused discussion because the RTP is a planning document and further environmental review will take place at the implementation stage," is not the intent of the SCRTPA, nor do we believe that the DEIR articulates this understanding.

   It should be noted that the commenter's example on page 3.4-29 of the DEIR, does state that "The proposed project is a planning document and thus, no physical changes will occur to the environment from adoption of the proposed project..."; however, the same paragraph on page 3.4-29 of the DEIR continues with the following statement, " There is a reasonable chance that native wildlife or wildlife corridors, including the migratory deer, will be impacted throughout the buildout of linear transportation improvements identified in the proposed project. The individual RTP projects have not been designed or approved. Each project will be designed consistent with the applicable County and City policies to ensure that appropriate design measures are incorporated into the design of each improvement project. Implementation of the following mitigation measure would ensure that any potential for impacts to wildlife or wildlife corridors, including the migratory deer, are reduced to a less than significant level." The DEIR goes on to list three mitigation measures that direct: 1) detailed biological studies for individual RTP projects as they are designed; 2) avoidance of biological resources through design; and 3) minimization of impacts to biological resources through design. It is important to note that the RTP projects are not designed, and are very conceptual at this planning stage. The intent of the mitigation measures are for the SCRTPA to ensure that the implementing agencies consider biological resources as more facts and details are available about each improvement project identified in the 2010 RTP. It is the intent of the SCRTPA, through these mitigation measures, to ensure that the conceptual RTP projects are designed to protect sensitive biological resources. Furthermore, the DEIR provides a broad discussion of sensitive biological resources within the region including: 1) documented occurrences of 155 special status species; 2) sensitive deer habitat and migration corridors; 3) sensitive fisheries (steelhead and salmon); and 4) sensitive natural communities (including wetlands).

6. The commenter states that applicable plans should be consulted, and high value resource areas should be identified and avoided at the regional transportation planning phase, rather than waiting until project implementation.

**RTPA Response:** The SCRTPA concurs with the commenter that roadway network policies can have implications on biologically sensitive areas, and that applicable conservation plans should be consulted. As such, the draft EIR performed a biological study, regional in scope, to understand the biologically sensitive resources within Shasta County. There are no Habitat Conservation Plans or Natural Community Conservation Plans in effect in Shasta County. The biological study did indicate that there are numerous sensitive biological resources within the region including: 1) documented occurrences of 155 special status species; 2) sensitive deer habitat and migration corridors; 3) sensitive fisheries (steelhead and salmon); and 4) sensitive natural communities (including wetlands).

Each jurisdiction within the region has various policies and ordinances that protect biological resources. As specific RTP projects are designed, they will require a review of the project for consistency with the policies and ordinances for which the project is located. The implementing agency will be required to make findings of consistency prior to the approval of any future transportation projects. The DEIR also acknowledges the extensive federal and state laws and regulations that protect these sensitive biological resources.

7. The commenter commends the SCRTPA's efforts toward developing a regional GIS platform and recommends that it be used to help guide future regional transportation planning efforts. The commenter provides a list of general recommendations for biological and sensitive habitat mitigation.

   **RTPA Response:** The list of general recommendations has been incorporated into the Final EIR as Mitigation Measure 3.4-3 on page 3.4-30.

8. The commenter requests that a copy of the final RTP and EIR be provided to the EPA once completed.

   **RTPA Response:** This comment is noted. A copy of these documents will be provided to the EPA.