

Sierra County
2020
Regional Transportation Plan
Draft



Prepared for the
SIERRA COUNTY TRANSPORTATION COMMISSION



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2020
Regional Transportation Plan**

Draft

Prepared for the

Sierra County Transportation Commission

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As the Regional Transportation Planning Agency (RTPA) for the region, the Sierra County Transportation Commission (SCTC) is required by California law to adopt and submit an updated Regional Transportation Plan (RTP) to the California Transportation Commission (CTC) and to the California Department of Transportation (Caltrans) every five years. The region is defined as Sierra County including the City of Loyalton. Broad in scope, the purpose of the plan is to provide a transportation vision for the region, supported by goals, for 10- and 20-year planning horizons. This is accomplished by identifying transportation related needs and issues on a regional level, reaffirming the region's goals, objectives and policies, developing a list of improvements to the transportation system that meet the identified needs and prioritizing these improvements so as to create a financially constrained plan. The RTP for the Sierra County region was last updated in 2015.



The Sierra County regional transportation system includes many types of transportation modes: roadways, public transit, bicycle paths, pedestrian facilities, airports, and other strategies to improve the flow and safety of the regional transportation system. The improvement projects identified in the RTP are capital projects or long-term investment projects that develop, improve, or maintain physical elements of the transportation system. RTP projects can range in size and scope from bike paths to adding passing lanes or turnouts on a state highway to purchase of new transit buses to rehabilitating the runway at the airport. The RTP is only the first step in the actual construction of large capital transportation improvement projects in Sierra County. After a project has been identified in the RTP as a transportation need that is consistent with adopted goals and policies, additional engineering and environmental analysis, as well as public input, is required before the specific project is implemented.

This RTP document first presents an explanation of the regional transportation planning process, followed by information on the state of the region, including the local government entities as well as the Native American tribes. Regional issues, needs, and problems are identified within the existing conditions section and summarized in the policy element. Related goals, objectives, and policies are provided in the policy element along with performance indicators and measures. Appropriate solutions and actions are next discussed by transportation mode in the action element in the form of improvement project lists over the short- and long-term planning horizons. Finally, a discussion of finances is included that considers a comparison of costs and revenues.

The intent of this RTP is to provide the region with a coordinated transportation system and be a guideline for decision makers over the RTP plan period. This Draft RTP will be circulated for public review and comment along with an accompanying environmental document. All appendices in the RTP are incorporated herein by reference. Acronyms and terms used in this RTP are listed and defined in Appendix A.

PLAN DEVELOPMENT REQUIREMENTS AND PROCESS

State Planning Requirements

State regional transportation planning requirements have evolved over the years. A brief history of the laws that have shaped the RTP process and requirements is presented below:

- The Transportation Development Act of 1971 (SB 325) resulted in the formation of the SCTC as the RTPA to administer and allocate funds provided by the Act.
- Assembly Bill 69, enacted in 1972, created Caltrans and established requirements for preparation and administration of State and Regional Transportation Plans. Under this law, each RTPA is required to prepare and adopt an RTP with coordinated and balanced transportation systems consistent with regional needs and goals.
- In 1997, the Transportation Funding Act (SB 45) mandated major reforms impacting many areas of transportation planning, funding, and development. This sweeping legislation overhauled the State Transportation Improvement Program (STIP), providing for greater “regional choice,” with 75 percent of the program’s funds to be divided by formula among the regions. Periodically, each RTPA selects projects to be funded from its STIP share and lists them in its Regional Transportation Improvement Program (RTIP). Every RTIP adopted by a local agency must be consistent with its RTP.
- California Government Code 14522 requires that the CTC develop RTP Guidelines to facilitate the preparation, consistency, and utilization of RTPs throughout the state. The RTP guidelines were most recently updated in 2017.

PLAN DEVELOPMENT REQUIREMENTS AND PROCESS

The SCTC is responsible for the preparation of Sierra County’s RTP. As outlined in a Memorandum of Understanding, administrative support, planning services and staff are provided by Sierra County. The SCTC must ensure that all of the requirements of the RTP process are met (see Appendix B for RTP process). The SCTC then prepares a draft document that includes all of the required elements and solicits public comment from a wide variety of groups, including the general public, local Native American Tribes, natural resource agencies, private transportation providers, transportation advocacy groups and adjacent county RTPAs. Appropriate environmental documentation (in conformance with the CEQA and an Air Quality Conformity Finding, as applicable) is also prepared and distributed to the groups noted above. The comments solicited are responded to and/or included in the final document, as appropriate. The SCTC then adopts the RTP and environmental documentation in accordance with state and federal requirements.

After adoption, the SCTC will be responsive to changing conditions throughout the county on an ongoing basis. As new or redefined projects are needed, the action and financial sections will be amended. The SCTC considers funding only for those projects in the RTP that have been fully reviewed by all concerned agencies.

PARTICIPATION AND CONSULTATION PROCESS

The planning of the regional transportation system is accomplished through the coordination of various governmental agencies, advisory committees, and public input. The organizational structure and composition of the SCTC and its advisory groups are described below.

- The **SCTC**, serving as the RTPA since 1972, includes an executive director, executive secretary, three representatives appointed by the City of Loyalton, three representatives and one alternate appointed by Sierra County, and one representative of transit or transportation appointed by the commission.
- The **Technical Advisory Committee** consists of city and county engineering and planning department technical staff, US Forest Service representative, county social services representative, and the Caltrans District 3 Planning Division Chief. This committee has not been active recently and is only summoned on an as needed basis.
- **Caltrans** is responsible for the design, construction, maintenance, and operation of the State Highway System, and that portion of the Interstate Highway System within California. Enacted in 1972, Assembly Bill 69 defines the basic framework for Caltrans. Headquartered in Sacramento, Caltrans has 12 district offices throughout the state. Sierra County is located in District 3, with offices in Marysville. Different District 3 staff members serve as liaisons to the SCTC, depending upon the activity or project.

The SCTC plans for the regional transportation system in consultation and coordination with regional stakeholders. During the development of this RTP, among others, the entities listed below were contacted for information and solicited for input:

- | | |
|---|--|
| • Tribal Entities | • Public Transit Operators |
| • Adjacent County RTPAs | • Private Transportation Operators |
| • Local, State, and Federal Resource Agencies | • Human Service Agencies |
| • Northern Sierra Air Quality Management District | • Transportation Related Advocacy Groups |
| • Truck Traffic Generators | |

Appendix C presents agencies/stakeholders contacted while Appendix D presents copies of correspondence. Table 1 below lists specific events in the participation/consultation process pertaining to this RTP.

TABLE 1: Participation Process During RTP Development

Participant	Activity	Date
Study Steering Committee Meeting	Project Kickoff Meeting	4/24/2019
Adjacent RTPAs	Sent Notification Letters Requesting Input	July 2019
Native American Heritage Commission	Sent Notification Letter Requesting Tribal Contact List	July 2019
Tribal Governments	Sent Notification Letters Requesting Input	July 2019
Natural Resource Agencies	Sent Notification Letters Requesting Input and Consultation	July 2019
Loyalton Senior Center	Public Workshop	8/6/2019
Downieville Senior Center	Public Workshop	8/29/2019
Sierra County Transportation Commission	Draft Presentation	11/20/2019

Adjacent County Regional Transportation Planning Agencies

Correspondence was sent to the neighboring RTPAs which share transportation facilities with Sierra County. This correspondence notified the RTPAs of the Sierra County RTP preparation and requested written or verbal responses to a series of six questions. All adjacent RTPAs were contacted via e-mail. The following summarizes each RTPA's response.

Lassen County Transportation Commission (LCTC) – A small portion of US 395 travels through the eastern portion of Sierra County between Nevada and Lassen County. LCTC staff indicated that transportation conditions in Sierra County do not have an impact on Lassen County but there are several transportation-related efforts Sierra County should be aware of. The Lassen Economic Development Council is trying to promote tourism to the region by marketing a series of new bike trails. The Honey Lake Expressway long-term financially unconstrained project would widen US 395 to four lanes between Reno and Susanville. In terms of transportation needs, transit dependent Lassen County residents, similar to Sierra County residents, require transportation to urban areas such as Reno.

Plumas County Transportation Commission staff has indicated that Sierra and Plumas Counties are relatively similar with respect to transportation conditions. Both include numerous recreation and tourist destinations, are located in mountainous terrain and have limited public transportation. Staff cites that the limited capacity of east-west routes in Sierra County may create additional transportation demand on east-west routes in Plumas and Nevada Counties. The greatest demand for travel between the two counties over the next 20 years will stem from tourism, recreation, and employment opportunities or deficiencies. Staff feels that mobility in Plumas County could be enhanced by increased coordination with Sierra County on the topics of public transportation, non-motorized transportation, and Intelligent Transportation Systems (ITS). Additionally, improvements to recreational trails and increased access to recreational opportunities would be beneficial to both counties. Much like Sierra

County, Plumas County focuses on maintaining the transportation system rather than expanding it, therefore, there are no transportation improvement projects planned in Plumas County which will have an impact on Sierra County. Roadway rehabilitation priorities include: Sierra Valley Road, Harriet Lane, Gold Lake Forest Highway and Beckwourth-Calpine Road.

The **Nevada County Transportation Commission (NCTC)** stated that transportation conditions in Sierra County do not directly impact Nevada County significantly as both the western and eastern roadway links between the two counties, State Route 49 (SR 49) and SR 89, have low traffic volumes. NCTC staff did indicate that there have been requests made by avid cyclists for shoulder improvements on SR 49 within Sierra County and for Caltrans to place rumble strips directly on the fog line. Bicyclists have complained that with the existing limited shoulders that rumble strips that are placed a couple of feet beyond the fog line reduce the rideable area of the shoulder and create hazards. Road shoulder improvements including signage are desired on these highway/roadway segments to the extent possible given constraints.

Tribal Governments

In an effort to include in the RTP process those Tribal Governments that have sacred lands within Sierra County, the Native American Heritage Commission (NAHC) was contacted to obtain the “SB 18 Consultation List.” The study team contacted the following tribal entities, through 12 separate contact addresses, as suggested by the NAHC and Sierra County:

- Maidu Cultural and Development Group
- Tsi-Akim Maidu Corporation
- Greenville Rancheria of Maidu Indians
- Washoe Tribe of Nevada

These entities were contacted via mail/email with a notification letter that defined the RTP, referenced an internet link to the 2015 RTP, requested their input in the RTP process, included a copy of the public input survey and requested they make contact for a meeting or discussion of tribal transportation issues. To date, none of the tribal governments have provided input.

Environmental Agency Consultation

The 2017 RTP Guidelines state that *“the RTP shall reflect consultation with resource and permit agencies to ensure early coordination with environmental resource protection and management plans.”* The following natural resource agencies were contacted and input and relevant resource maps or plans were requested. Copies of all correspondence can be found in Appendix D.

- | | |
|-----------------------------|--|
| • Tahoe National Forest | • California Department of Fish and Game |
| • Plumas National Forest | • Central Valley Water Resources Control Board |
| • Sierra Valley Watershed | • Lahonton Water Quality Control Board |
| • Truckee Donner Land Trust | |
| • Sierra County Land Trust | |

Comments pertinent to this RTP received to date are summarized below.

USDA Forest Service

A large portion of Sierra County lies within the National Forest system, specifically the Tahoe National Forest and Plumas National Forest. Several popular year-round recreation sites are located within Sierra County, including the Gold Lakes Basin accessed by Gold Lake Road near Bassetts, the Sierra Buttes off of SR 49, the Yuba Pass Winter Recreation area on SR 49 and Independence Lake/Jackson Meadows area. Although the majority of Plumas National Forest is located in Plumas County, a large proportion of visitors to the area live in the Central Valley or the Bay Area and therefore travel via I-80 and SR 89 through Sierra County to access Plumas National Forest. Plumas County Forest Service staff have indicated that the continued construction of second homes in the communities of Clio, Graeagle, and Whitehawk will increase weekend visitor travel on SR 89 between Truckee and Plumas County. It is therefore important to maintain view corridors in these areas as well as the appropriate ingress and egress from the state highways to recreation sites. Plumas National Forest staff also noted that Gold Lake Road should remain unmaintained (not plowed) during the winter season, as the road provides abundant winter recreation opportunities. Other suggestions included a partnership between the National Forest and Caltrans to develop rest stop facilities on SR 89 between Prosser and SR 70.

The Tahoe National Forest recently updated their Travel Management Rule which provides guidance on over the snow travel through the national forest. Tahoe National Forest is planning to expand the OHV parking area at Little Truckee Summit off of SR 89. Tahoe National Forest staff have indicated a desire to partner with Sierra County for roadway maintenance as maintenance funding is tight. Forest Service roadway maintenance is particularly important for timber sales and forest fuels reductions projects.

The US Forest Service has developed a *Sierra Nevada Forest Plan (SNFP)* to ensure that Forest Service plans, programs, and activities will not have a significant impact on the environment. The 2001 SNFP and 2013 Supplemental Final Environmental Impact Statement reviews several “Forest Service Sensitive Species” which should be provided particular consideration so that these species will not become endangered or threatened. The document performs a Biological Evaluation of each sensitive species including the species’ habitat and risk factors which can have a negative impact on the survival of the species. The following Forest Service Sensitive species may be found in Sierra County: Wolverine, Snowshoe Hare, California Spotted Owl, Northern Goshawk, and the Yosemite Toad. Transportation related environmental documents will evaluate the impact on Forest Service Sensitive Species.

Sierra Valley Resource Conservation District

A portion of Sierra County lies within the Sierra Valley Resource Conservation District (RCD). The *Final Sierra Valley RCD Watershed Action Plan* was reviewed and the goals and objectives listed in the RTP are consistent with the objectives listed in the Watershed Action Plan.

Sierra Valley Groundwater Management District

The Sierra Valley Groundwater Management District responded in 2010 that the agency only manages underground water sources, which would not be affected by regional transportation planning.

Water Quality Control Boards

Both the Lahonton Water Quality Control Board and the Central Valley Water Quality Control Board were contacted for input. Additionally, the Basin Plans for each region were reviewed. As part of

previous RTP updates, the State Water Control Board provided guidance for determining potential impacts of projects on state water bodies.

In the previous RTP outreach period, the Lahonton Water Quality Control Board indicated that they are more of a permitting agency. One project that the agency may have some concern over is a new bridge on USFS Road 350 near Independence Lake. Currently the crossing is a ford. This is a long-term project for Sierra County and will undergo environmental review prior to implementation. However, the Lahonton Water Quality Board did not respond during the 2020 RTP outreach period.

Federal Emergency Management Agency

Local Sierra County maps were viewed on the Federal Emergency Management Agency's (FEMA's) map service center website. From these maps the following sections of roadways were determined to be located in 100 year flood plains:

- ♦ In the City of Loyalton – SR 49 between Hill Street and 3rd Street, Taylor Avenue north of Granite Avenue, and most of South Railroad Avenue between Mill Street and Cemetery Road.
- ♦ South of Loyalton – About 3.5 miles south of Loyalton small portions of Smithneck Road, Longhorn Drive, and Bear Valley Road.
- ♦ In Sierraville – 2 miles of SR 89 starting 0.3 miles east of town and continuing south of town, SR 49 from the junction with SR 89 to 0.5 miles northeast, and 0.25 miles of Lemon Canyon Road near the airstrip.
- ♦ Many roadways cross flood plains which have bridges over the waterway and flood plain area. These locations are not listed above.

California Department of Fish and Wildlife

As part of the consultation process, the California Department of Fish and Wildlife was contacted for input. To date, no input has been provided, however, the *California Wildlife Action Plan* was reviewed, as discussed below.

As a requirement for receiving funding under the State Wildlife Grants Program, states must develop a Wildlife Action Plan. In California the California Wildlife: Conservation Legacy for Californians was developed in 2015. This document along with the Transportation Planning Companion Plan was reviewed as part of the RTP process. There are three conservation challenges listed in the document which pertain to a discussion of regional transportation planning: growth and land use management, recreational pressures, and climate change.

New housing and commercial development is quite limited in Sierra County as the majority of the region is public land. Therefore, there is limited pressure on wildlife from development and expansion. Much of Sierra County is subject to recreational pressures such as climbing, hiking, fishing, biking camping, and off-road vehicle use. All these activities can disturb wildlife. The *California Wildlife Action Plan* cites information kiosks and the management of garbage and sewage at visitor information centers as a method for managing recreational use and educating the public about wildlife.

Climate change has far reaching consequences on wildlife and wildlife habitat in Sierra County, ranging from above normal temperatures to changes in water/rainfall patterns to increased wildfires. As vehicle emissions have been linked to climate change, an increase in vehicle traffic will increase the negative effects of climate change. As discussed later in the Action Element, this RTP does not include projects that will significantly increase vehicle traffic (and associated greenhouse gases) in Sierra County. Additionally, Caltrans data shows that overall traffic volumes along many roadways Sierra County have decreased over the last ten years.

Northern Sierra Air Quality Management District (NSAQMD)

As part of this 2020 RTP update, the Study Team contacted the NSAQMD to obtain their input. The Air Pollution Control Specialist indicated that air quality conditions and the effect of transportation on air quality has not changed since the previous update. A summary of correspondence to and from the NSAQMD is included in the Air Quality Section of Chapter 2.

Private Sector

An important user of the regional transportation system is the private sector. In Sierra County, this includes businesses which generate a significant amount of truck traffic on Sierra County highways as well as private transportation providers.

Truck Traffic Generators

Goods movement is an important part of the regional transportation system as well as the economic vitality of the region. Trucking activity in Sierra County generally includes the transport of timber and agricultural products, including the seasonal transport of cattle from summer to winter pastures. Overall, the opinion of the regional transportation system in Sierra County among truck traffic generating businesses over the last several years is good. The level of trucking varies per season. During the early spring and late fall (cattle transporting season) three to four trucks per day are generated on Sierra County roadways by cattle and other agriculture companies, and an average of eight to ten trucks per day are generated from the timber industry during the summer season. County roadways that are primary travel routes for Sierra County trucks include Westside Road/Beckwourth Calpine Road (A23), Heriot Lane, West Willow, Ridge Road to Alleghany, Brandy City Road, and Henness Pass Road. SR 49 and SR 89 are also used by local truck traffic.

Several truck traffic generating companies were contacted for input on the regional transportation system. Specific comments from those who responded are summarized below:

American Renewable Power

American Renewable Power (ARP) is a California-based company that acquires, owns and operates renewable energy power facilities in the US. Their main biomass plant began operating in 1987 and is located at 100 Railroad Avenue in Loyalton. An operational representative estimated a daily average of 25 trucks coming to and from the Loyalton location. When asked about the regional transportation challenges their company faces, he responded that the biggest issue is slow communication amongst agencies regarding road closures and conditions along Highways 395, 89, 49, 20. While they currently use Caltrans information, he indicated that there can often be a lag in communication of up to 4-6 hours. In efforts to increase their operations efficiency, long term logistic improvements have recently

been implemented to increase their haul tons per mile. This has required increased communication amongst operations and drivers to coordinate hauling to and from the site in a single trip rather than making separate trips for each task.

Sierra Pacific Industries

Sierra Pacific Industries is a California-based lumber company with sawmills located just adjacent of Sierra County in the towns of Quincy, Oroville, and Lincoln. In the movement of timber, truck travel along 89 and 49 is frequent; however an estimate of the average daily truck traffic was not available.

Public Transit Operators

Sierra County is currently served by two local transit programs: Golden Rays operating out of Downieville and Incorporated Senior Citizens operating out of Loyalton. Both public transit operators were contacted to obtain their input on regional transportation in Sierra County as it pertains to transit. Overall, the transit operators feel that existing transit services in Sierra County provide essential transportation to medical services for the transit dependent population and those who choose not to drive. Both non-profit operators seem to make the best use they can of the limited resources available.

Communities on both sides of the county have indicated a need for public transit in Sierra County as well as appreciation and satisfaction with current services provided. One quarter of Sierra County residents are over the age of 65 and there are very limited health care facilities within the county. Public transit also offers residents the option of not driving over mountain passes to reach their destination. This can be a less stressful option, particularly during inclement weather. The two transit operators seem to coordinate well with each other and don't see a need to consolidate services into one system at this time. As Sierra County has such a low population, public transit is very specialized to meet the needs of each passenger. This is deemed as very important to meet the mobility needs of Sierra County residents. The only improvement voiced by Downieville residents was to have a local transportation service within town.

The *Coordinated Public Transit Human Services Transportation Plan* was last updated in 2015. This RTP is consistent with the current *Coordinated Public Transit Human Service Transportation Plan*.

Citizen and Advocacy Group Participation

Public involvement is a major component of the RTP process. A public involvement program is required for each RTP. The SCTC makes a concerted effort to solicit public input in many aspects of transportation planning within the county. Specific examples are listed below.

- Citizens are encouraged to attend and speak at SCTC meetings on any matter included for discussion at that meeting, or any other matter of public interest.
- Each year, public notification is sent out to encourage participation in the unmet transit needs hearings that are held by the SCTC.
- All studies conducted by the SCTC are either adopted or accepted following an advertised public review period and a public hearing. This process will be undertaken by the SCTC in conjunction with this RTP update.

- Social Service Transportation Advisory Council (SSTAC), formed to meet the requirements of PUC Section 99238, consists of appointed citizens representing a wide range of transit dependent groups. They represent primarily potential transit passengers including the elderly, people with disabilities, and others with limited mobility. The SSTAC conducts periodic meetings, including the annual transit needs assessment.

Community Input

Online Survey

An important objective for this RTP update is to obtain input on the transportation planning process from a wide variety of Sierra County residents. For this reason, a public outreach program was conducted starting early in the RTP process. An 11 question community survey was developed and posted online. A direct link to the survey was emailed to a wide variety of groups for further distribution including: representatives from the USFS, local jurisdictions, public transit operators and members of the community. Additionally, notice of availability of the survey was advertised in the Mountain Messenger and Sierra Booster. A total of 44 responses were received. Appendix E presents detailed results of the survey along with advertising materials. Below is a summary of input:

- The majority of respondents lived in Sierra County with only 3 people living outside of the county. Of these, most Sierra County respondents lived in Loyalton (41 percent), followed by Sierra City (20.5 percent), Downieville (16 percent), Calpine (4.5 percent), and Pike (1 percent). Another 16 percent stated “other” which included places such as Reno, Alleghany.
- When asked where community respondents work, 38 percent stated “Other”, followed by 28.6 percent in Loyalton, 23.8 percent in Downieville, and 4.8 percent in both Sierraville and Sierra City. Those who stated “Other” work in communities such as Tahoe City, Reno, Truckee, Alleghany, Nevada City, and Grass Valley. Many also stated that they are currently retired.
- Respondents were asked how long they spend traveling to school or work one-way. Nearly 83 percent stated 15 to 45 minutes, followed by 14.3 percent traveling 1 hour, and 2.9 percent traveling 1 hour 30 minutes daily.
- When asked how old respondents were, 59 percent were between 55 to 74 years old, followed by 26 to 54 years old (20.5 percent), 75 and older (15.9 percent), and 16 to 25 years older (4.6 percent).
- A majority of respondents had at least one registered vehicle at home with only two respondents having no vehicle.
- Respondents were provided a list of various transportation modes and asked what percentage of trips they made by each mode during an average week.
 - Nearly 40 percent of respondents use their personal vehicle 100 percent of the time.
 - On average, roughly one-quarter of respondents’ trips are made on foot. This is representative of the fact that Sierra County communities are quite small and walkable
 - On average, around 12 percent of respondent trips are made by bicycle and another 9 percent by carpool.

- On average, 10 percent of respondents' trips were made on public transit. This is likely due to the fact that nearly 60 percent of respondents were age 55 or older.
- Respondents were provided a list of transportation improvement project types and asked if \$100 were allotted to spend on transportation projects, how they would divide the money. The following lists transportation improvement projects in order of the proportion of total money allocated to that type of project:
 - Maintain/reconstruct existing streets/roads (36 percent)
 - Improve/expand bicycle routes/paths (19.7 percent)
 - Improve overall public transit system (18 percent)
 - Widen the state highway for safer bicycle travel (15.3 percent)
 - Improve/expand sidewalks, crosswalks, other pedestrian facilities (9.4 percent)
 - The lowest priority type of projects included the following:
 - Build new local roads (1.1 percent)
 - Improve local airport facilities (0.6 percent)
 - Increase capacity of state highways (0 percent).
- Respondents were provided a list of common transportation issues and asked about their level of concern for each issue. Those issues which ranked the highest as “very concerning” or “somewhat concerning” in order of concern were:
 - Conflicts between vehicle and bicycles on roadways with no shoulder
 - Pavement conditions on local streets and roads
 - High vehicle speeds through communities
 - Sufficient emergency evacuation options
 - Not enough separated bicycle paths
 - Seasonal traffic congestion on State Highways
 - Not enough public transit options
 - Conflicts with wildlife on roadways
- Issues which were more commonly marked as “Not at all concerning” included “not enough truck climbing lanes” and “Not enough advisory signage for hazards on State Highways or local roads”.
- The public was asked what they would fix about transportation in Sierra County. The following is a summarized list of their responses:
 - Provide more affordable public transit.
 - Increase access for people with disabilities
 - Improve road conditions
 - Add more bicycle paths between communities, including Sierra Brooks and Loyalton.
 - Decrease speed limits along certain sections of highway.
 - Create community carpool programs.
 - Create and educate the community regarding an emergency evacuation plan.
 - Increase senior van options
 - Widen the shoulder of HWY 89 and 70 to accommodate a bicycle lane.
 - Connect Pike to Nevada City/Grass Valley via public transit
 - Eastside transportation needs more drivers.

- The survey requested additional comments that have been included in this document under Appendix E.

Community Outreach

Two community outreach meetings were held as part of this process: A senior lunch program in Loyalton on August 6th and a senior lunch program in Downieville on August 29th. Both meetings were noticed in the local paper and senior newsletter. Roughly 20 residents attended the meetings. After a brief presentation of the RTP process, the attendees were asked to rank particular issues as “very concerning”, “somewhat concerning”, and “not at all concerning”. This was the same list as that provided in the survey. Some of the least concerning issues were conflicts with wildlife and not enough advisory signs on roads. Of the issues presented, the following were found to be the most concerning.

- Narrow shoulders on state highways (in regards to the safety of cyclists and pedestrians).
- Not enough separated bicycle paths.
- Pavement conditions on local roads.
- Safe routes to schools.
- Sufficient evacuation routes.

Comments and sign-in sheets from the meetings are also included in Appendix E.

REPORT ORGANIZATION

Regional Transportation Plans are long-range documents that guide the organized development of all modes of transportation within the area. State and federal requirements prescribe that, for approval, RTPs must include the following elements:

- The **Modal Discussion** addresses the needs and future vision for each transportation mode separately. In Sierra County this includes: state highways, local streets and roads, public transit, active transportation facilities, goods movement, aviation facilities and recreational trail facilities.
- The **Policy Element** describes the transportation issues in the region, identifies and quantifies regional needs expressed within both a short- and long-range framework, and maintains internal consistency with the financial element fund estimates.
- The **Action Element** identifies plans to address the needs and issues for each transportation mode in accordance with the goals, objectives, and policies set forth in the policy element.
- The **Financial Element** identifies the current and anticipated revenue sources and financing techniques available to fund the planned transportation investments described in the action element. The intent is to define realistic financing constraints and opportunities.

SOCIAL EQUITY AND ENVIRONMENTAL JUSTICE CONSIDERATIONS

Both state and federal laws require that regions plan for and implement transportation system improvements that will benefit all residents. Transportation improvements should not have a disproportionate adverse impact on low income or other under-represented groups. Examples relevant to the RTP include access to transportation, displacement and gentrification, transportation affordability, and jobs/housing fit.

Approximately 12.2 percent of Sierra County residents were living in poverty for at least a 12-month period, according to the U.S. Census 2013 – 2017 American Community Survey. This is less than the statewide poverty rate of 15.1 percent during that period. Approximately 10.1 percent of the Sierra County population is Hispanic, 1 percent is Native American, and less than one percent are African American. The median household income for Sierra County is currently \$44,190 which is 65 percent of the statewide median income.

The Action Element of this RTP does not include new roadways or bypass projects that would displace underrepresented groups or decrease access to transportation. The Action Element includes capital improvement projects which will increase mobility for residents with no vehicle available to them such as maintaining a safe and reliable public transit fleet and expanding the bicycle and pedestrian facilities network. Public outreach for the RTP considered social equity factors. Direct links and notification of the community survey were sent to leaders of social service programs. Additionally, the 2015 Sierra County Coordinated Public Transit Human Services Transportation Plan was reviewed in development of this RTP to ensure that this document addresses the mobility needs of the low income and elderly population.

COORDINATION WITH OTHER PLANS AND STUDIES

The RTP Guidelines recommend that the circulation elements of the general plans within a region are consistent with the RTPs in the region. The general plans of the region include the *City of Loyalton General Plan* (2008) and the *Sierra County General Plan* (2012). The RTPs should also be consistent with regional transportation plans in adjacent regions, including Washoe County in Nevada, Plumas, Yuba, Lassen, and Nevada Counties in California. The primary goals and objectives of other important documents will be incorporated into the RTP including: the *Sierra County Short Range Transit Plan* (2003), the *Sierra County Coordinated Public Transit Human Services Transportation Plan* (2015), and the *Sierraville Dearwater Airport Capital Improvement Plans (2019-2028)*.

The RTP goes beyond just roadway planning and serves as the basis for future non-motorized transportation improvements such as Active Transportation Planning projects and Complete Streets projects.

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REGIONAL CHARACTERISTICS

Sierra County is located in the heart of the northern section of the Sierra Nevada in northern California. Elevation ranges from 1,800 feet in the western foothills to over 8,000 feet in the eastern portion of the county. As shown in Figure 1, the county extends from the Nevada - California border west to Yuba County and is bordered by Plumas and Lassen Counties to the north and Nevada County to the south. The county is located roughly 100 miles northeast of Sacramento, California and 50 miles west of Reno, Nevada. Two major highways traverse the county: SR 49, running generally east-west and SR 89 running generally north-south. In addition, a 1.6-mile section of I-80 passes through the southeastern tip of the county and a 3.1-mile segment of US 395 crosses the county's northeastern corner. While Loyalton is the only incorporated city in the county, other community centers consist of Sierra Brooks, a portion of Verdi, Sierraville, Calpine, Sattley, Alleghany, Sierra City, Downieville, Goodyears Bar, Pike, Indian Valley and Forest City.



Sierra County is primarily mountainous and heavily forested, with the exception of Sierra Valley in the eastern portion of the county. Sierra Valley is the largest alpine valley in North America. The Plumas, Tahoe, and Toiyabe National Forests as well as the Lakes Basin Recreation area are located in Sierra County and offer year-round recreation and scenic opportunities to residents and visitors. At the higher elevations, summers are cool and mild, while winters bring cold weather and heavy snow. Low temperatures in January average 28 degrees Fahrenheit, while the high temperatures in July average 88 degrees Fahrenheit. Average annual precipitation in Downieville is over 60 inches.

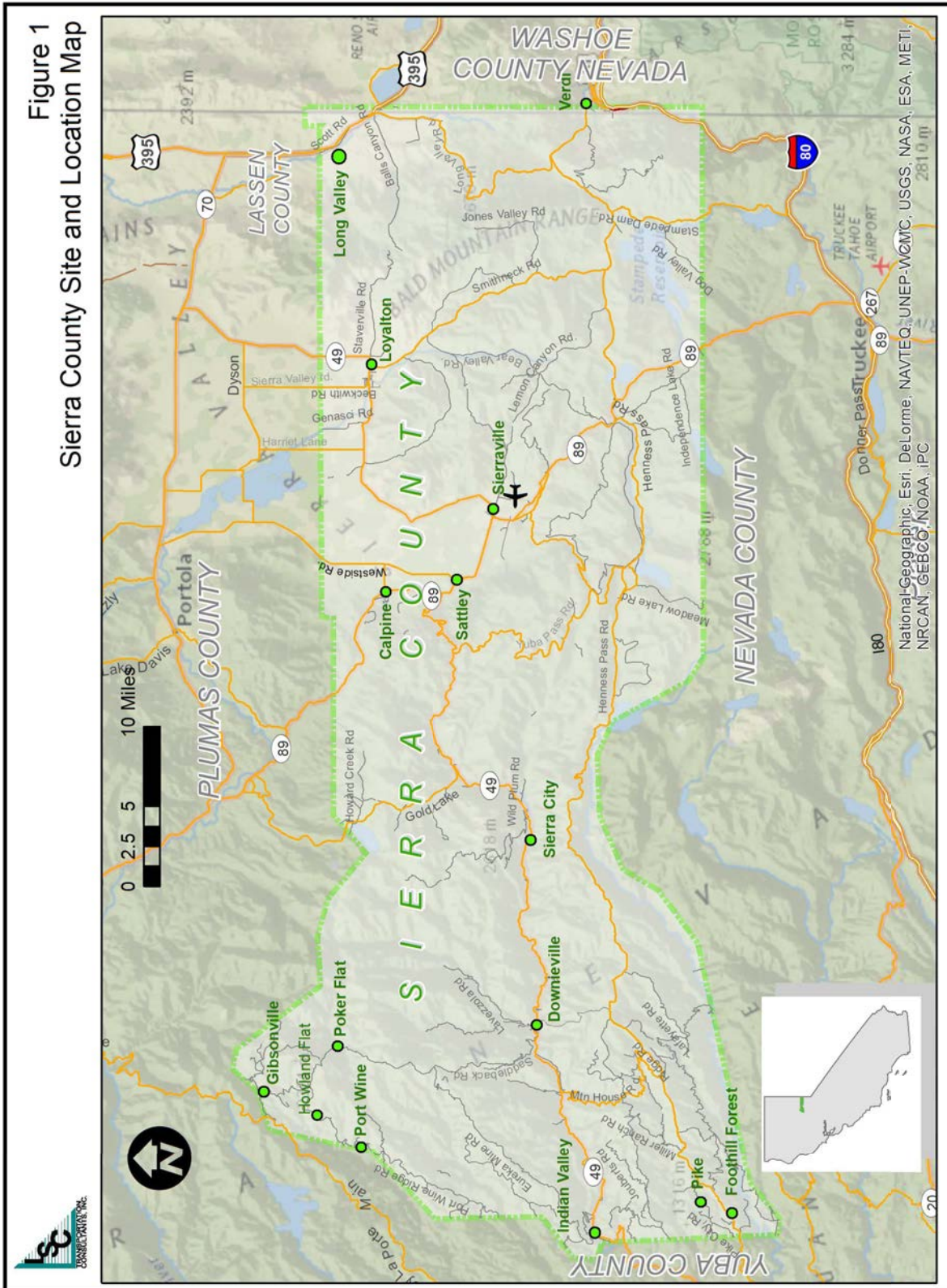
Land Use

Sierra County encompasses approximately 959 square miles of land. Predominant geographic features of the county include the Sierra Buttes, Sierra Valley, the North Yuba River, the Middle Yuba River, the Truckee River watershed, Upper Feather River watershed and over 45 alpine lakes. Of the total land use area, 91 percent of the land in Sierra County (excluding the City of Loyalton) falls under forest use, largely within the Tahoe National Forest. Approximately 7 percent is used for agriculture and 1 percent is used for open space and water resources, the remaining 1 percent is used for community purposes (smaller lot residential, industrial, commercial, etc.)

Population

US Census figures indicate the estimated total population of Sierra County to be 3,240 persons in the year 2010, of which 769 resided in Loyalton. As shown in Table 2, from 2000 to 2010 the population in Sierra County, as estimated by the US Census, decreased by 9 percent, with the decrease occurring in both the unincorporated portions of the county as well as the City of Loyalton. Over the past 9 years, from 2010 to 2019, Sierra County's population has decreased slightly by approximately 20 people (1 percent). According to the California Department of Finance, the county will see a decrease of 7 percent (approximately 227 people) over the next 20 years.

Figure 1
Sierra County Site and Location Map



Concurrently the State of California's population has increased over the past 10 years by about 7.5 percent. Countywide population density in 2019 was estimated to equal 3.4 persons per square mile, compared to the State of California average of approximately 251 persons per square mile.

TABLE 2: Sierra County Population

	2000 ⁽¹⁾	2010 ⁽²⁾	Total Population				Total Change 2000-2010		Total Change 2010-2019		Total Change 2019-2040	
			2018 ⁽²⁾	2020 ⁽³⁾	2030 ⁽³⁾	2040 ⁽³⁾	#	%	#	%	#	%
City of Loyalton	862	769	669	704	691	670	-93	-11%	-100	-13%	1	0%
Unincorporated Area	2,693	2,471	2,318	2,438	2,396	2,323	-222	-8%	-153	-6%	5	0%
<i>Total Countywide</i>	<i>3,555</i>	<i>3,240</i>	<i>2,987</i>	<i>3,142</i>	<i>3,087</i>	<i>2,993</i>	<i>-315</i>	<i>-9%</i>	<i>-253</i>	<i>-8%</i>	<i>6</i>	<i>0%</i>
<i>Note 1: Source - US Census</i> <i>Note 2: Source - US Census Population Estimates.</i> <i>Note 3: CA Department of Finance</i>												

Table 3 shows the slight population reduction (0.6 percent) in Sierra County between 2010 and 2019, as well as figures for adjacent counties. The populations of Washoe County and Yuba County have increased at an average annual rate of 0.9 and 0.8 percent respectively. Lassen County has seen a negative growth rate of about 1.2 percent annually.

TABLE 3: Population of Adjacent Counties

	Total Population		Total Change 2010 - 2019	Average Annual Change 2010 - 2019
	2010	2019		
Sierra County	3,240	3,220	-0.6%	-0.1%
Lassen County	34,895	30,560	-12.4%	-1.2%
Nevada County	98,764	99,133	0.4%	0.0%
Plumas County	20,007	19,496	-2.6%	-0.3%
Washoe County, Nevada	421,407	459,210	9.0%	0.9%
Yuba County	72,155	78,240	8.4%	0.8%
<i>Total Adjacent Counties</i>	<i>647,228</i>	<i>686,639</i>	<i>6.1%</i>	<i>0.6%</i>
<i>Source: California Department of Finance, Demographic Research Unit; U.S. Census Bureau, Census 2000; Nevada State Demographer ASRHO Estimates 2000-2037</i>				

Table 4 presents an overview of general age and race estimates for Sierra County, using American Community Survey 2013-2017 Five Year Estimates. According to this data, predominate ethnicities are White (87 percent), Hispanic (10.1 percent), and Native American Indian (1 percent). Just less than 7.9 percent of the population in Sierra County primarily speaks another language than English. Approximately 12.2 percent is living below the poverty level, 13.6 percent is considered disabled, and 26 percent of the population in Sierra County was age 65 and older in 2017.

TABLE 4 : Sierra County 2013-2017 American Community Survey Demographic Characteristics

	Total	Race					Language Other Than English	Low Income	Disabled	Age 65 and Above
		White	Hispanic	African American	American Indian	Other/ Multiracial				
Number of Persons	2,885	2,509	290	4	28	54	227	351	393	746
Percent of Population	--	87.0%	10.1%	0.1%	1.0%	1.9%	7.9%	12.2%	13.6%	25.9%

Source: US Census American Community Survey 2013-2017 Five Year Estimates

Population Trends and Projections

Table 5 presents the future population estimates for Sierra County and neighboring counties based on the State of California's Department of Finance projections (2019) and the Nevada State Demographer (2019). As shown, the population in Sierra County is expected to decrease by 302 people or 7 percent by 2040. This represents an annual percentage decrease of 0.6 percent for the first half of the planning period and 0.05 percent decrease for the second half. Given recent trends it is likely that the population could decrease more than these projections. Plumas County and Lassen will also see a decline in population over the planning period, while the other nearby counties are expected to increase in population. This is much in part due to limited employment opportunities, large amount of publicly owned land and lack of development in these counties.

TABLE 5: County Population Forecasts

County	Existing Population	Population Projections					Annual Percent Change		Total Change 2019-2040	
	2019	2020	2025	2030	2035	2040	2019-2030	2030-2040	#	%
Sierra	3,220	3,174	3,091	3,008	2,918	2,993	-0.6%	-0.05%	-227 0	-7.0%
Lassen	30,560	30,561	30,427	30,129	29,705	29,256	-0.1%	-0.3%	-1,304	-4.3%
Nevada	99,133	99,578	102,163	105,214	108,248	110,640	0.5%	0.5%	11,507	11.6%
Plumas	19,496	19,480	19,395	19,217	18,914	18,495	-0.1%	-0.4%	-1,001	-5.1%
Washoe, Nevada	459,210	466,582	489,276	498,629	505,614	-	0.7%	-	-	-
Yuba	78,240	79,001	82,699	86,183	89,506	92,542	0.8%	0.7%	14,302	18.3%
<i>Total Adjacent Counties</i>	<i>686,639</i>	<i>695,202</i>	<i>723,960</i>	<i>739,372</i>	<i>751,987</i>	<i>250,933</i>	<i>0.6%</i>	<i>-10.2%</i>	<i>65,348</i>	<i>-63.5%</i>

Source: State of California, Department of Finance, Population Projections for California and Its Counties 2010-2060 Accessed 7/5/2019, and the Nevada State Demographer Nevada State Demographer ASRHO Estimates 2000-2037

Commute Patterns

The US Census Bureau, Center for Economic Studies, Longitudinal Employer Household Dynamics offers the most recent commute pattern data statistics (2017). It should be noted that this data reflects all persons reporting their work location, regardless if they telecommute. As such this data source can be misleading and has not always proven to be accurate. However, it is the best commute data available for Sierra County.

As shown in Table 6, the Census Place which is the location of the employment for the greatest proportion of Sierra County employed residents is Reno (57 persons or 9.8 percent), followed by

Truckee (with 41 persons or 7.1 percent). Routes potentially used by these commuters include SR 89 and SR 49 in the eastern portion of the county.

TABLE 6: Sierra County Commute Pattern Data

	# Persons	% of Total
Where Sierra County Residents Work and Commute To		
Reno city, NV	57	9.8%
Truckee town, CA	41	7.1%
Loyalton city, CA	33	5.7%
San Francisco city, CA	19	3.3%
Sacramento city, CA	16	2.8%
Downieville CDP, CA	15	2.6%
Sunnyside-Tahoe City CDP, CA	15	2.6%
Sparks city, NV	15	2.6%
All Other Locations	369	63.6%
<i>Total Number of Persons</i>	<i>580</i>	<i>100.0%</i>
Where Sierra County Workers Live and Commute From		
Loyalton city, CA	16	8.8%
Sierra Brooks CDP, CA	16	8.8%
Reno city, NV	11	6.0%
Downieville CDP, CA	10	5.5%
Sierra City CDP, CA	9	4.9%
Sierraville CDP, CA	6	3.3%
Pike CDP, CA	5	2.7%
Sparks city, NV	5	2.7%
All Other Locations	104	57.1%
<i>Total Number of Persons</i>	<i>182</i>	<i>100.0%</i>
<i>Source: U.S. Census Bureau, Longitudinal Employer Household Dynamics, 2017</i>		

The Census Place which is the residence of the greatest proportion of Sierra County employees is Loyalton (16 persons, 8.8 percent), followed by Sierra Brooks (16 persons, 8.8 percent), and Reno, Nevada (11 persons, 6.0 percent). A handful of Sierra County workers travel from both western and eastern Nevada County as well as the greater Reno area. On a more broad level, roughly 85 percent of Sierra County workers commute outside of the county for work

Housing

The average annual percent growth in the total number of housing units in Sierra County from 2010 to 2018 was 0.6 percent. In 2017, the most recent estimate available, the total number of housing units in Sierra County was 2,388 (US Census, 2017 American Community Survey). Of these, 2,040 were single family units, 134 were multiple family units, and 214 were mobile homes.

Economic Base

The median household income for the Census Tract which encompasses all of Sierra County was \$44,190 in 2017. This represents approximately 62 percent of the statewide median household income in 2017. This classifies the entire county as a disadvantaged community in terms of Active Transportation Planning. An estimated 12.3 percent of the population in Sierra County is living below poverty per the US Census, which is above the statewide poverty rate of 15.1 percent.

Employment

As of May 2019, the Sierra County labor force included 1,290 persons, representing a 7.8 percent decrease from the 2015 figure of 1,400. The Employment Development Department (EDD) reports that there are 60 unemployed residents in Sierra County. This equates to an unemployment rate of 4.9 percent and represents a decrease from the 2015 unemployment rate of 7.3 percent. Sierra County's unemployment rate is higher than statewide unemployment of 4.1 percent.

LAND USE CHANGES AND GROWTH

Expansion of the Sierraville Hot Springs Resort is the only significant development currently proposed over the short-term in Sierra County. Located 1.5 miles outside of Sierraville, the project includes a new lodge with 60 guest rooms, a restaurant, a campground with 50 campsites and associated facilities, 2 homes for onsite managers, 11 guest cabins, 40 residential units to serve as staff housing. Over the years there have been continuing efforts to redevelopment of the old mill site in Loyaltown; however plans have not been finalized for a specific project at this time. Instead, a low level of development is expected to occur within existing developed areas, along with redevelopment and renovation of properties within communities. Recently the Big Springs Retreat Center in Sierra City was given approval to expand their resort by 17 rooms along with a restaurant, camping and meeting facilities.

It is assumed for purposes of this plan that natural resource based land uses (such as agriculture and timber) will remain roughly at current levels. There is the potential for mining expansion in Sierra City and Forest City. It is also the desire of many residents to not alter the rural historic character of the county with large developments or traffic capacity increasing projects.

PUBLIC HEALTH AND HEALTH EQUITY

Appropriate transportation improvement projects can have a positive impact on overall public health. As such, public health and health equity should be factored into regional transportation improvement decision making. Improvements to existing bicycle paths and sidewalks will increase the safety and appeal of the facility, thereby encouraging more users. New facilities provide a safe active transportation alternative to driving. Roadway or streetscape improvements which slow down vehicle traffic will also make residents feel more comfortable walking or biking. In a modern society with computers and cell phones, providing opportunities for people to walk or bike is becoming increasingly important for public health.

According to kidsdata.org, about 33 percent of middle school students in Sierra County are considered overweight or obese. This is slightly below the statewide average of 39 percent. When making transportation funding decisions, decision makers should consider how each project impacts public health and include public health organizations in public outreach efforts.

TRANSPORTATION LAND USE INTEGRATION

Coordinating land use changes and growth with transportation planning is one of the most important considerations in modern planning. A new transportation facility to an outlying area can have the effect of increasing land uses by providing convenient transportation. This can have negative effects on the environment and the regional transportation system. Additionally, it is important to consider transportation needs (roadways, bicycle paths and public transit) prior to approving and constructing a new development.

The County's primary goal stated in the General Plan Circulation Element is to: provide a comprehensive, efficient, and safe transportation system within the existing roadway network. The General Plan and this RTP are consistent in setting the top priority as maintaining existing transportation infrastructure instead of building new infrastructure. In Sierra County, development is generally limited to areas within the borders of already developed communities, as a high proportion of other land in Sierra County is owned by public agencies. At this time there is no significant growth expected in the county over the next 20 years that would have an impact on regional transportation.

Over the short-term, the Sierra Hot Springs Development project will be constructed at the existing Sierra Hot Springs Resort off of Campbell Road roughly 1.5 miles from Sierraville. If traffic on roadways (Lemon Canyon Road and Campbell Hot Springs Road) accessing the hot springs exceed adopted Sierra County Level of Service policies, the roadways will be paved but no new roadways will be constructed.

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ROADWAY TRANSPORTATION SYSTEM DESCRIPTION

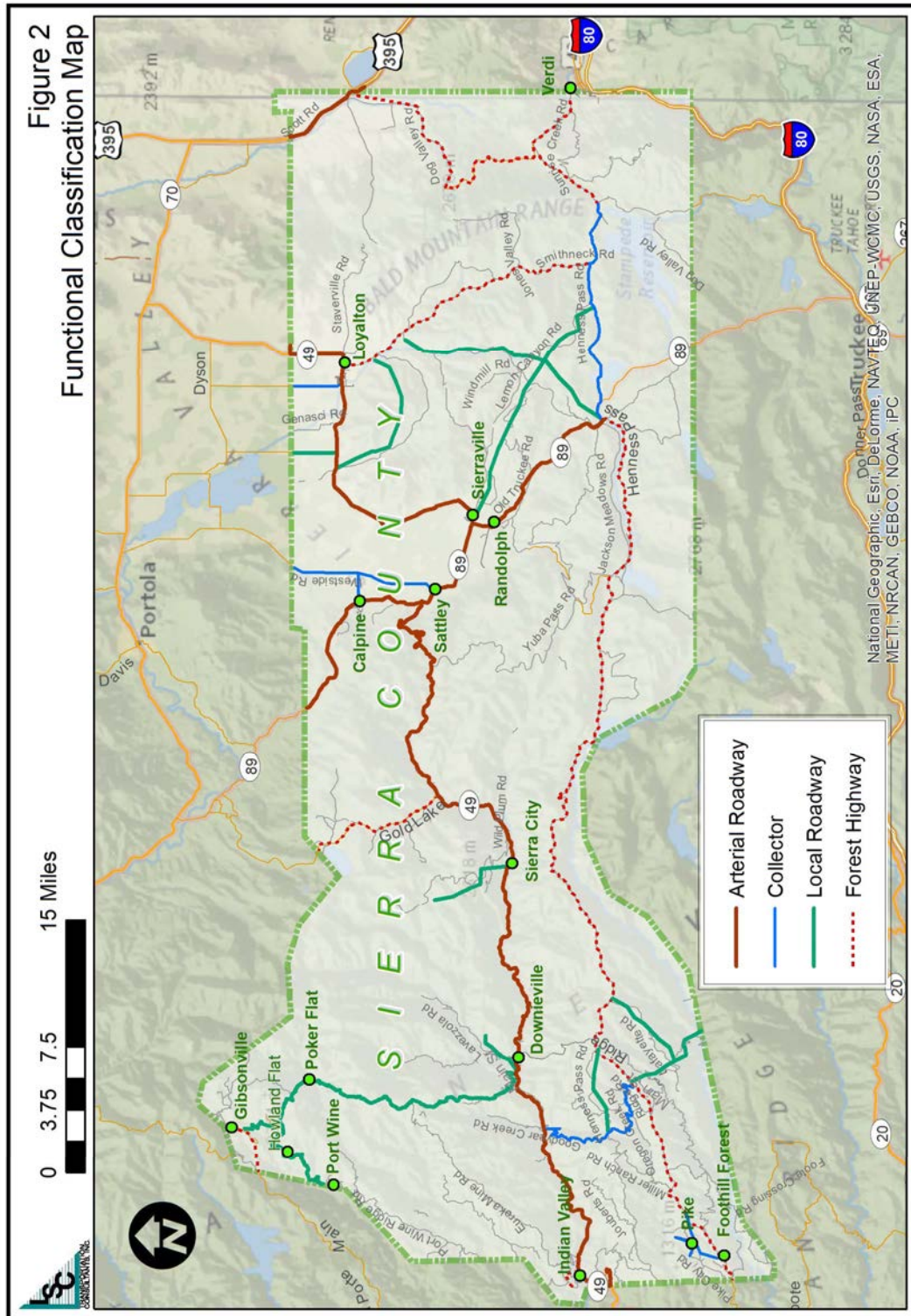
The roadway system in Sierra County totals approximately 760 maintained miles. In addition to private roadways, the public road system consists of 102 miles in the state highway system, 545 miles in the county roadway system, 7 miles of city streets in Loyalton, and 107 miles maintained by federal agencies (US Forest Service) (*2017 California Public Road Data, Division of Transportation System Information*).



Road Classification

Figure 2 depicts the county's main roadway system, along with their functional classification as per the Sierra County General Plan. The following provides the definition of each functional classification in the county.

- **Arterials** constitute routes of interregional significance whose design provides for relatively high overall travel speeds, with minimum interference to through movement. These routes provide for travel in to, out of, and through the county. In Sierra County, the major arterials consist of I-80, US 395, SR 49, and SR 89
- **Collectors** are paved, year round roadways providing connections between major regional destinations or arterials. An example is Westside Road.
- **Resource** collectors are paved or unpaved roadways with the primary purpose of providing access to recreation uses and mining and forest product sites. These roads can be seasonal or year round. Residential areas should not have direct access to these roads. Gold Lake Road is an example of a resource collector.
- **Unpaved local collectors** are unpaved roads providing connectors within sub-areas of the county. Unpaved status is desired to limit regional use and growth inducement due to cost concerns, or to limit vehicle speed. Examples are Henness Pass Road (unpaved sections), Smithneck Road, Lavezzola Road, and Mountain House Road.
- **Local** roads are paved, gravel, or dirt roads providing access to residential areas. The roads can be either seasonal or year round. The *City of Loyalton General Plan* designates two types of street designs:
 - The traditional local street includes two twelve-foot wide traffic lanes, with parking, curb, gutter and sidewalk areas in addition to the traffic lanes within a sixty-foot wide right-of-way.



- The special local street will be used in areas designated for planned development and to implement smart growth concepts. These streets may be narrow and have rights-of-way as small as forty-eight feet wide. The travel ways (including parking) may be twenty-four to twenty-eight feet wide. Typically trees or landscaping will separate the vehicle travel-way from the pedestrian sidewalk.
- **Forest** roads are roads serving within National Forest areas.

Major Roadway Network

State Route 49

SR 49 serves much of California's "Gold Country" between Nevada County to the south and Plumas County to the north. Within Sierra County, 64 miles of highway runs east-west, entering at the Yuba County line east of Camptonville and crossing into Plumas County 7.5 miles south of Vinton. SR 49 passes over Yuba Pass (elevation 6,708 ft.) and through Indian Valley, Goodyears Bar, Downieville, Sierra City, Bassett's, Sattley, Sierraville, and Loyalton. SR 49 carries local (intra-county) traffic, recreational and commercial traffic, and is the alternate trans-Sierra route when I-80 is closed. The capacity of SR 49 is limited by horizontal and vertical curves and by limited passing opportunities.

State Route 89

As part of the full regional route, the 30 miles of SR 89 within Sierra County begin where SR 89 crosses from Nevada County 10 miles north of Truckee. SR 89 continues north to the Plumas County line located 6.6 miles north of Calpine. Other than sections passing through the communities of Sierraville, Sattley, and Calpine, SR 89 largely carries local, commercial, and recreational traffic through undeveloped forest land with restricted access.

US Highway 395

A 3.1 mile-long segment of US 395 runs through the northeastern corner of the county. This highway is the primary US Highway along the eastern side of the Sierra and Cascade mountain ranges.

Interstate 80

A 1.6 mile-long section of I-80 passes through the southeastern corner of Sierra County, as a small part of the route across the nation between the New York City and San Francisco Bay metropolitan areas.

Other Trans-Sierra Nevada Connections

Although SR 70 lies in Plumas County and is not part of the Sierra County state highway network, it is an important link to more urban destinations east and west when I-80 is closed due to winter conditions.

Scenic Roadways

Sierra County's natural beauty is often cited as a contributing factor in the high quality of life expressed by residents of the county, recreationists visiting the county and small businesses seeking to relocate to the county. A significant percentage of residents and non-residents alike experience some, if not most, of their scenic experience from roads and highways. Figure 3 shows the county's Scenic Highways and Byway. The Yuba River Scenic Byway runs along SR 49 from the Yuba County line to Yuba Pass. The US Forest Service developed a Corridor Management Plan for the Yuba River Scenic Byway and identified the following goals:

- Enhance tourism and local businesses by improving and advertising the
- byway as a destination rather than a corridor
- Preserve the scenic beauty and history of the area
- Enhance residents and visitor experiences as they drive the scenic byway and enjoy the outdoor recreation and heritage opportunities along the route through enhanced signage, interpretation, environmental education
- Increase cooperation between all interested parties and maintain high levels of local input and decision-making in the management of the Yuba River Scenic Byway
- Protect, conserve and enhance the resources found along the scenic byway corridor for present and future generations

A small portion of SR 49 from Yuba Pass to its intersection with SR 89 and SR 89 throughout Sierra County are candidates for the State Scenic Highway designation. Designated County Scenic Roadways include: Gold Lake Road, SR 89, and SR 49 from Yuba Summit to Sierraville.

Interregional Transportation Strategic Plan

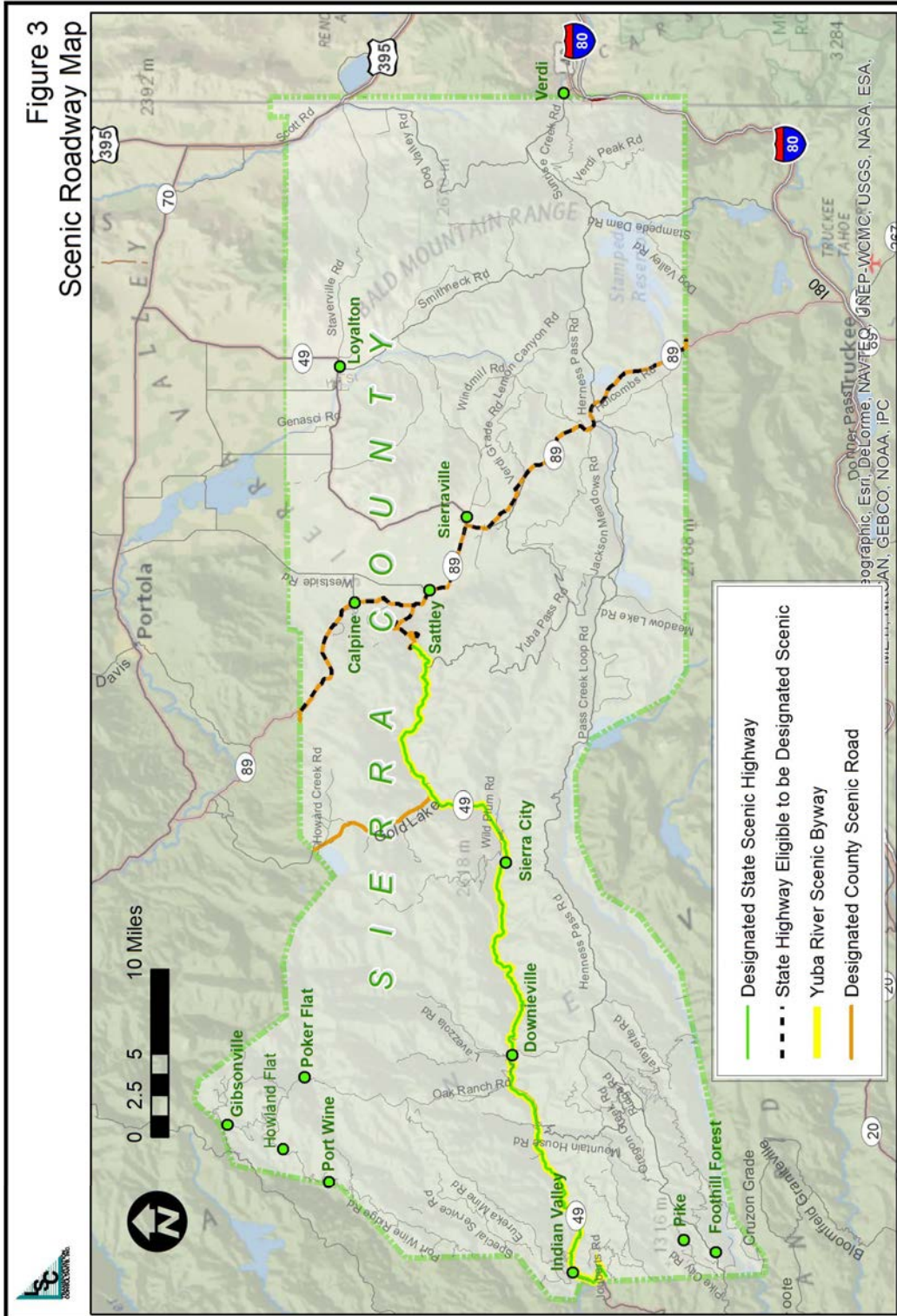
The 2015 Interregional Transportation Strategic Plan identifies 11 Strategic Interregional Corridors throughout California, which have a high volume of freight movement and significant recreation tourism. US 395, including the 3.1 mile segment in the northeast portion of the county, is classified as a Focus Route in the ITSP. Interregional Transportation Improvement Program (ITIP) funding is utilized to bring these routes to minimum facility standards within the next 20 years.

The 2018 ITIP has three simple objectives:

- Improve state highways.
- Improve the intercity passenger rail system.
- Improve interregional movement of people, vehicles and goods.

There are currently no planned projects along the US 395 Focus Route segment and thus, this 2020 RTP update is consistent with the 2018 ITIP.

Figure 3
Scenic Roadway Map



Traffic Volumes

Annual Average Daily Traffic (AADT) volume is defined as the total volume over the year divided by 365 days. The Caltrans traffic count year is from October 1st through September 30th. Traffic counting is generally performed by electronic counting instruments, moved to consistent locations throughout the state in a program of continuous traffic count sampling. The resulting counts are adjusted to reflect an estimate of annual average daily traffic by compensating for seasonal fluctuation, weekly variation, and other variables that may be present. The recordation of AADT is used to present a statewide picture of traffic flow, evaluating traffic trends, computing accident rates, planning and designing highways, and other purposes.

As shown in Table 7 and Figure 4, the highest AADT volumes on the Sierra County “local” highway network in 2017 (excluding the small portions of I-80 and US 395 in Sierra County) was observed at the Sierra-Nevada County line (1,850) and in Loyalton on SR 49 at Smithneck Creek (1,200).

Table 7 also presents historic AADT data for roadways in the county from 2006 to 2017. In the last eleven years, SR 49 and 89 have generally seen traffic volumes decrease, with decreases reaching as much as 53 percent. The exceptions along this roadway are on SR 89 at the Sierra-Plumas line (34 percent increase) and SR 49 at the Yuba County line (31 percent increase). Although in Plumas County, the count station along Gold Lake Road has seen a 5 percent annual increase in ADT over the eleven year period. Gold Lake Road is an important roadway for recreation users. Volumes along the small stretch of I 80 increased by 4,900 (approximately 8 percent) during this period.

Also shown in Table 7 are the peak month Average Daily Traffic (ADT) volumes on the state routes in the county between 2006 and 2017. This data is reflective of traffic activity in the peak month of the year (typically July), which is impacted to a relatively high degree by recreational traffic. Again most roadway volumes have decreased in the last eleven years, on the order of 30 to 40 percent in most locations. Similar to annual traffic volume trends, there are areas on both SR 49 and SR 89 where an increase in peak month ADT occurred. Peak month traffic volumes increased on SR 89 near Gold Lake Road and SR 89 from the Nevada County line to Sierraville. This is likely the result of increased visitor/recreational travel. On average in 2017, peak month ADT volumes were approximately 34 percent and 60 percent higher than AADT volumes on SR 49 and SR 89, respectively.

Traffic Conditions

Level of Service (LOS) is used to rate a roadway segment’s traffic flow characteristics (see Appendix F for descriptions of Levels of Service). LOS serves as an indicator of roadway performance, assisting in determining when roadway capacity needs to be improved. LOS for rural highways is largely determined by roadway geometry factors, such as grades, vertical and horizontal curves, and the presence of passing opportunities. In mountainous topography and particularly through canyons, roadway LOS can be relatively low, even absent substantial traffic volumes.

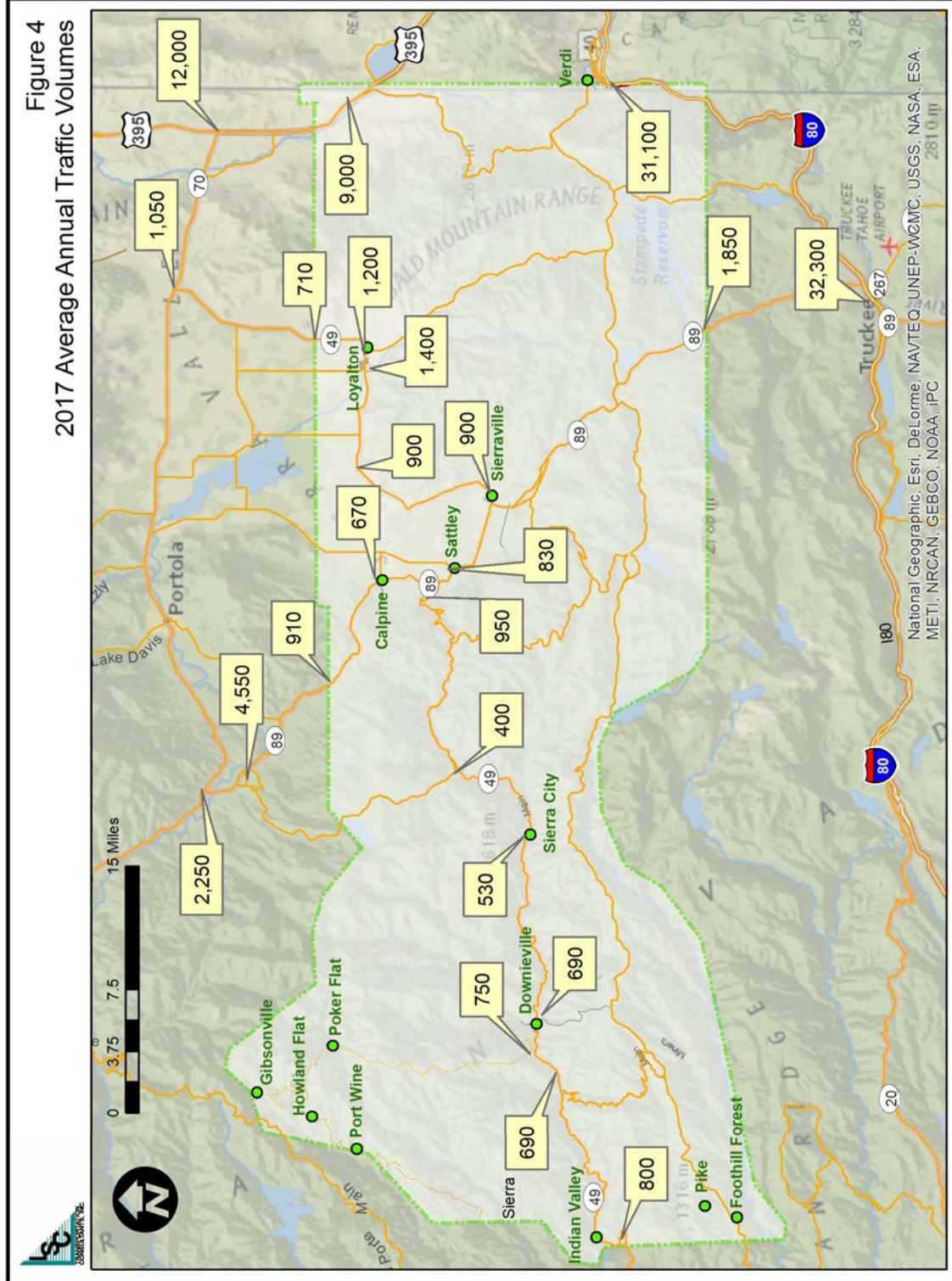
Due to relatively low population levels, the study area is generally free of traffic congestion problems, with the exception of congestion caused by seasonal peaks in traffic on I-80. Rather than traffic levels, much of the level of service provided by roadways in Sierra County is a factor of topography and associated limited roadway geometry.

TABLE 7: Sierra County Daily Traffic Volumes on State Highways, 2006 - 2017

Highway / Counter Location	2006	2008	2011	2013	2015	2017	Change: 2006 - 2017		
							#	%	Annual %
Average Annual Daily Traffic Volumes									
SR 49 at:									
Sierra-Yuba County Line	610	610	550	550	750	800	190	31%	2.5%
Goodyear Creek Road	610	610	1,125	1,125	650	690	80	13%	1.1%
Saddleback Road	--	--	1,100	1,100	700	750	-350	-32%	-6.2%
Downieville, Main Street/County Road P-16	1,100	1,100	1,100	1,100	650	690	-410	-37%	-4.2%
Sierra City, West City Limits	--	--	720	720	500	530	-190	-26%	-5.0%
Gold Lake Road	720	720	330	330	380	400	-320	-46%	-5.5%
Sattley, Jct. Rte 89	--	--	950	950	950	950	0	0%	0.0%
Sierraville, Lemon Canyon Road	--	--	1,400	1,400	900	900	-500	-36%	-7.1%
Antelope Valley Road	1,750	1,750	1,750	1,750	900	900	-850	-49%	-5.9%
Loyalton, Smithneck Creek	1,750	1,750	1,900	1,900	1,200	1,200	-550	-31%	-3.4%
Smithneck Road (Sierra Brooks)	--	--	1,500	1,500	950	950	-550	-37%	-7.3%
Sierra-Plumas County Line	1,500	1,500	880	640	880	710	-790	-53%	-6.6%
Jct. Rte. 70 (in Plumas County)	1,100	1,150	1,100	920	920	1,050	-50	-5%	-0.4%
Interstate 80 at:									
Jct. Rte. 89 North, Jct. Rte. 267 South, Truckee, East (in Nevada County)	30,000	30,000	27,000	26,800	30,500	32,300	2,300	8%	0.7%
California-Nevada State Line	28,500	26,000	27,000	25,000	29,000	31,100	2,600	9%	0.8%
SR 89 at:									
Sierra-Nevada County Line	2,050	1,850	1,850	1,850	1,850	1,850	-200	-10%	-0.9%
Sierraville, Jct. Rte. 49 North	2,050	1,850	1,200	1,200	1,000	1,050	-1,000	-49%	-5.9%
Jct. Rte. 49 West; Sattley, North	1,100	980	980	980	800	830	-270	-25%	-2.5%
Calpine Road	680	600	520	500	650	670	-10	-1%	-0.1%
Sierra-Plumas County Line	680	600	680	720	720	910	230	34%	2.7%
Gold Lake Road (in Plumas County)	2,650	1,550	1,450	3,600	3,600	4,550	1,900	72%	5.0%
Blairsden, South Jct. Rte. 70 (in Plumas County)	2,600	2,500	2,050	1,950	1,950	2,250	-350	-13%	-1.3%
SR 395 at:									
California-Nevada State Line (Northwest of Reno)	9,700	9,200	8,200	7,800	8,000	8,000	-1,100	-11%	-1.1%
Jct. Rte. 70 West, Hallelujah Junction (in Lassen County)	9,500	9,200	5,200	7,800	9,000	9,000	-100	-1%	-0.1%
Peak Month Average Daily Traffic Volumes									
SR 49 at:									
Sierra-Yuba County Line	940	940	830	830	1,050	1,150	-450	-48%	-5.8%
Goodyear Creek Road	940	940	1,650	1,650	900	960	-140	-15%	-1.5%
Saddleback Road	--	--	1,550	1,550	1,000	1,050	-500	-32%	-6.3%
Downieville, Main Street/County Road P-16	1,550	1,550	1,500	1,500	960	1,000	-550	-35%	-3.9%
Sierra City, West City Limits	--	--	980	980	790	800	-180	-18%	-3.3%
Gold Lake Road	980	980	470	470	640	670	-270	-28%	-2.9%
Sattley, Jct. Rte 89	--	--	1,200	1,200	1,200	1,200	0	0%	0.0%
Sierraville, Lemon Canyon Road	--	--	1,850	1,850	1,100	1,100	-750	-41%	-8.3%
Antelope Valley Road	2,000	2,000	2,000	2,000	1,100	1,100	-750	-38%	-4.2%
Loyalton, Smithneck Creek	2,000	2,000	2,100	2,100	1,400	1,400	-900	-45%	-5.3%
Smithneck Road (Sierra Brooks)	--	--	1,800	1,800	1,300	1,300	-500	-28%	-5.3%
Sierra-Plumas County Line	1,800	1,800	1,200	1,000	1,250	890	-710	-39%	-4.5%
Jct. Route 70 (in Plumas County)	1,200	1,250	1,350	1,100	1,100	1,050	-1,300	-108%	-179.8%
Interstate 80 at:									
Jct. Route 89 North, Jct. Route 267 South, Truckee, East (in Nevada County)	42,000	37,500	33,000	34,000	36,000	38,000	-3,000	-7%	-0.7%
California-Nevada State Line	38,000	29,000	33,000	34,000	34,000	38,000	0	0%	0.0%
SR 89 at:									
Sierra-Nevada County Line	3,050	3,150	3150	3,150	3,150	3,150	500	19%	1.6%
Sierraville, Jct. Route 49 North	3,050	3,150	2150	2,150	1,800	1,800	-1,400	-44%	-5.1%
Jct. Rte. 49 West; Sattley, North	1,700	1,750	1750	1,750	1,400	1,450	-1,000	-41%	-4.7%
Calpine Road	1,200	1,250	820	800	1,100	1,150	-700	-38%	-4.2%
Sierra-Plumas County Line	1,200	1,250	1,050	1,200	1,200	1,500	350	30%	2.4%
Gold Lake Road (in Plumas County)	4,100	3,350	2,250	5,100	5,100	6,300	4,100	186%	10.0%
Blairsden, South Jct. Route 70 (in Plumas County)	4,000	3,750	2,750	2,600	2,600	2,900	-900	-24%	-2.4%
SR 395 at:									
California-Nevada State Line (Northwest of Reno)	12,100	11,200	9,700	11,700	12,000	12,000	500	4%	0.4%
Jct. Rte. 70 West, Hallelujah Junction (in Lassen County)	11,800	11,200	6,500	11,700	10,900	10,900	-500	-4%	-0.4%
Source: Caltrans Traffic Census Program Website, Traffic Volumes Data									

Source: Caltrans Traffic Census Program Website, Traffic Volumes Data

Figure 4
2017 Average Annual Traffic Volumes



The following are Caltrans' estimates of LOS on primary state highway roadway segments as presented in the most recent *Transportation Concept Reports* and estimates on local roadways presented in the *General Plan*, for peak traffic conditions:

State Route 49

- Concept LOS is D
- Yuba County Line to SR 89 near Sattley – LOS D (Speeds begin to decline with increasing flow).
- SR 89 Junction to Plumas County Line – LOS D
- Caltrans projects that LOS D will continue through horizon year 2035

State Route 89

- Concept LOS is D
- Nevada County Line to Plumas County line – LOS B (speeds at or near free-flow speed, but presence of other users begins to be noticeable)
- Caltrans projects that LOS will decline to C by 2030

Local Roadways

- Old Truckee Road, SR 89 to end – LOS B
- W. Willow Road, SR 89 to end – LOS A
- Heriot Lane, SR 49 to Plumas County Line – LOS B
- Westside Road, SR 89 to Plumas County Line – LOS B
- Calpine Road, SR 89 to Westside Road – LOS A
- Smithneck Road, SR 49 to Sierra Brooks – LOS C
- Smithneck Road, South of Sierra Brooks – LOS A
- Jackson Meadows Road, West of SR 89 (USFS road) – LOS C
- Gold Lake Road, North of SR 49 – LOS B
- Main Street, North of SR 49 (Downieville) – LOS A
- Goodyears Creek Road, North of SR 49 – LOS A
- Mountain House Road, South of SR 49 – LOS A
- Ridge Road, SR 49 to Pike – LOS A
- Ridge Road, East to Pike – LOS A

Most of the roadway system in the county operates at a LOS B or better. This RTP sets forth a LOS policy of "C".

Vehicle-Miles of Travel

The most recent estimate prepared for 2017 indicates a total of 428,000 daily vehicle vehicle-miles were traveled on all roadways in Sierra County (Caltrans Public Road Data). Of this total, it is estimated that 55 percent of the vehicle miles traveled were on state highways, 41 percent on county roadways, 2 percent of US Forest Service Roads and less than one percent on City of Loyaltown streets. This represents over a 50 percent increase from 2012 estimates of 276,860 daily vehicle miles travelled. As the population has

decreased during this period, there has been no development and traffic volume counts have not increased significantly, this change is likely due to changes in analysis methodology.

Traffic Crashes

California Highway Patrol Statewide Integrated Traffic Record System (SWITRS) crash data was reviewed for the period from January 2015 to December 2018. Automobile, motorcycle, bicycle and pedestrian collisions are displayed in Figure 5. Roughly half of all collisions were a result of hitting an object and another 34 percent resulted in overturned vehicles. The majority of primary collision factors were due to unsafe speed (47 percent) and improper turning (31 percent).

Concentrations of collisions occurred on SR 49 near the Yuba county line and on SR 89 near Sierraville and near Henness Pass Road. Clusters of solo auto or motorcycle accidents occurred along SR 49 near Downieville, around Sierraville and on US 395 near the Nevada state line. Multiple collisions with wildlife occurred near Sierra City, Calpine and Loyalton. There were six fatalities. These occurred on SR 49 west of Downieville near the county line, on SR 89 between Sierraville and the Nevada County line and on Highway 80 between Verdi and Floriston. Alcohol or drugs was known to have been involved in 12 of the accidents.

Four bicycle collisions have occurred during the period between 2012 and 2018. Two of these occurred on SR 49 between Sierraville and Sierra City and one occurred in Loyalton (Figure 6).

Registered Vehicles

In 2018, there were 5,535 vehicles registered in Sierra County according to the Department of Motor Vehicles. This represents an increase of 1,330 vehicles from the prior RTP period. Of these, 2,486 were automobiles, 1,631 were trucks, and 179 were motorcycles. Based on the 2018 county population, there were 1.8 motor vehicles per capita – a slight increase from the previous RTP period.

Sierra County Roadway Areas of Concern

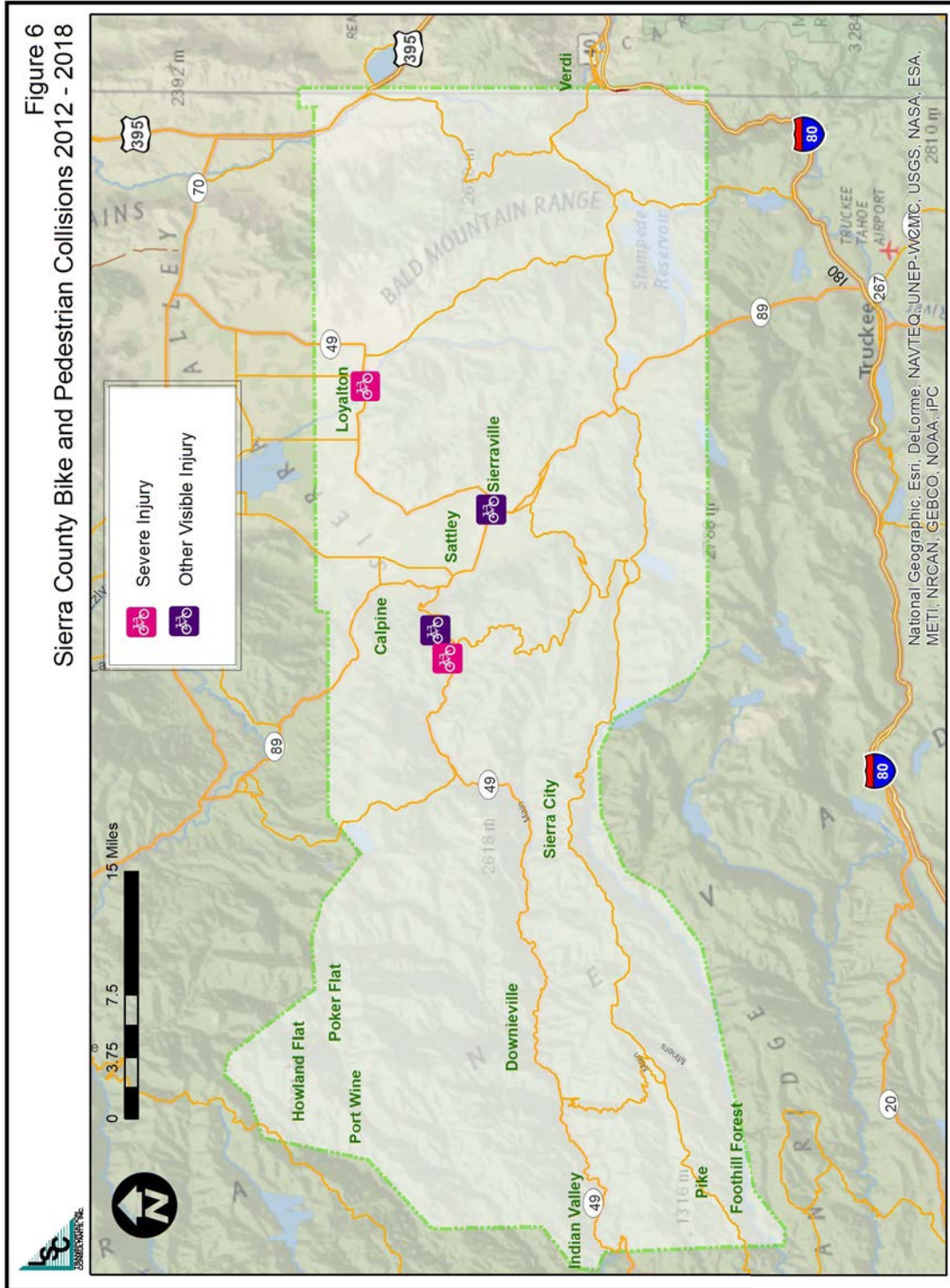
The *Sierra County 2012 General Plan* identifies several special study areas or roadways of concern which may require improvements in the future to address future development and land use changes resulting in higher traffic volumes. The following lists these roadways of concern and the recommended improvements:

Sierra County State Highway Recreation Traffic Areas of Concern

- SR 49, Yuba County Line to Sierra City – Limited passing lanes, shoulder widening, etc.
- SR 49, Sierraville to Loyalton – Limited passing lanes, shoulder widening, etc. If the Garbage Pit Road Industrial area were developed, additional turn lanes and access roads would be required.
- SR 89, Sierraville to Calpine – Limited passing lanes, shoulder widening, left turn lanes at intersections as residential development occurs etc. Could be funded by developer.
- SR 89, south of Sierraville – Limited passing lanes, shoulder widening, etc.



Figure 6
Sierra County Bike and Pedestrian Collisions 2012 - 2018



Sierra County Local Roadway Areas of Concern

- Smithneck Road, SR 49 to Sierra Brooks – Turn lanes at intersections, shoulder widening. Traffic should be no more than 1,800 vehicles per day to maintain LOS C.
- Smithneck Road, south of Sierra Brooks – Increased maintenance
- Jackson Meadows Road – Shoulder widening
- Gold Lake Road – Shoulder widening, passing lanes, and turnouts. Potential funding from future development.
- Ridge Road – Shoulder widening and turnouts
- Gold Bluff Road – Install turnouts on the one-lane road in Downieville as residential development increases
- Goodyears Bar Bridge – Reconstruct north and south approaches, construct two-lane versus one-lane bridge if development increases

Special Study Areas

- Old Truckee Road – Secondary access to SR 89 if Canyon Ranch area develops out completely
- Sattley Area – Redevelopment of the mill site should prompt internal access roads to SR 89 with no direct residential driveway access to SR 89
- Bassetts Area (SR 49) – Turn lanes at intersections, passing lanes, limiting driveway/highway access, and improvements to Gold Lake Road would be required if development expands or recreation activities are increased
- SR 89 Corridor – Wildlife under crossings.

Public input indicated another roadway of concern: Mountain House Road which provides a direct connection between the small community of Alleghany and Downieville. This dirt road is not plowed in the winter. Continued maintenance and potential plowing of the roadway would provide greater mobility for Sierra County residents.

Bridges

The Caltrans District 3 Log of Bridges on State Highways and the Local Agency (Sierra County) Bridge Inventories and are presented in Appendix G. As shown, there are a total of 32 local roadway bridges and 19 state highway bridges. There are currently six local bridges that are structurally deficient and eight that are functionally obsolete. “Structural deficiencies” indicate that a bridge has a loading limit and a permit is required prior to crossing with loads exceeding the limit, while “functionally obsolete” refers to bridges with access limits such as the presence of only one travel lane, the lack of proper bridge rails or lack of appropriate clearances. Sufficiency ratings for state highway bridges are no longer available to the public.

Four single lane bridges in Sierra County are part of a Historical Bridge District and have been entered into the National Register of Historical Places: Hansen Bridge (East River Street), Hospital Bridge (Upper Main Street), Jersey Bridge (SR 49) and Durgan Bridge (Nevada Street) in Downieville. Residents and the SCTC are supportive of this effort and feel that the single lane bridges are important to the historic and quaint character of the town and add to the esthetics of the community. Under the historical designation, the bridges will not be replaced with a higher capacity bridge even though they may be considered functionally obsolete.

Traffic Forecasts

Traffic volumes on SR 49 and SR 89 are the most reflective of conditions in Sierra County. Traffic forecasts for Sierra County roads are limited. As development pressures are low, no traffic models of Sierra County or its individual jurisdictions have been developed to date. It is therefore necessary to combine available traffic counts and trends with traffic volume forecasts to assess traffic conditions over the 20-year planning horizon of this RTP. The most recent Caltrans *Transportation Concept Reports* for Sierra County highways were produced in 2019 (SR 49) and 2012 (SR 89). The *Transportation Concept Reports* assume traffic growth of 1 percent annually for SR 89 and 0.5 percent annually for SR 49 in Sierra County. The most recent population projections developed by the California Department of Finance forecast that the population in Sierra County will stay very stable between 2020 and 2040. Additionally, traffic volumes on Sierra County state highways have generally decreased in the last ten years with the exception of near the Plumas and Yuba county lines. AADT on SR 89 at Gold Lake Road in Plumas County has increased by five percent annually over the past ten years, due to an increase in recreation activity in that area. Peak month traffic trends show a similar pattern with growth only occurring at the Plumas County line, reaffirming that traffic in that area is generated from visitor recreation activity.

With these factors in mind and the lack of any major foreseeable traffic generating developments, annual average traffic volumes were forecast for Sierra County's state highways for the 20-year RTP planning period in Table 8. The forecast traffic growth rate in the TCR's was reduced by half to account for historical trends and future population projections. The exception is at the Yuba and Plumas County lines where the TCR growth rate is assumed to account for an increase in visitor activity over the next 20 years.

As I-80 and US 395 only cross a very small portion of Sierra County, traffic volumes on these roadways are more directly affected by factors in Nevada County, Washoe County, Lassen County, Placer County, and the Sacramento Valley (and beyond). Sierra County has little control over decision making regarding transportation improvement projects on these highways (and associated impacts on traffic levels), as most improvement projects on these highways are located in other counties. Nevertheless, as small segments of these highways do cross Sierra County, traffic volumes were forecast for these segments. The Caltrans' *I-80 Transportation Concept Report (2017)* and the *Caltrans US 395 Transportation Concept Report (2017)* project annual average increases in AADT of 1.5 percent on I-80 and roughly 0.2 percent on US 395 over the next 20 years or so. Existing traffic volumes over that previous six or seven years show a stable to slightly decreasing pattern on both highways. Therefore the traffic growth rates in the TCRs of 1.5 percent on I-80 and 0.17 percent on US 395 were assumed in Table 8.

TABLE 8: Forecast Annual Average Daily Traffic Volumes

Location	Existing 2017	Forecasted ADT Volumes		Annual % Change	Net % Change
		2027	2037	2017-2037	
SR 49 at:					
Sierra-Yuba County Line	800	840	880	0.5%	10.0%
Goodyear Creek Road	690	710	730	0.3%	5.8%
Saddleback Road	750	770	790	0.3%	5.3%
Downieville, Main Street/County Road P-16	690	710	730	0.3%	5.8%
Sierra City, West City Limits	530	540	550	0.2%	3.8%
Gold Lake Road	400	410	420	0.3%	5.0%
Sattley, Jct. Rte 89	950	970	1000	0.3%	5.3%
Sierraville, Lemon Canyon Road	900	920	940	0.2%	4.4%
Antelope Valley Road	900	920	940	0.2%	4.4%
Loyalton, Smithneck Creek	1,200	1230	1260	0.3%	5.0%
Smithneck Road (Sierra Brooks)	950	970	1000	0.3%	5.3%
Sierra-Plumas County Line	710	730	750	0.3%	5.6%
Jct. Rte. 70 (in Plumas County)	1,050	1080	1110	0.3%	5.7%
Interstate 80 at:					
Jct. Rte. 89 North, Jct. Rte. 267 South, Truckee, East (in Nevada County)	32,300	37,310	43,090	1.7%	33.4%
California-Nevada State Line	31,100	35,920	41,490	1.7%	33.4%
SR 89 at:					
Sierra-Nevada County Line	1,850	1,940	2,040	0.5%	10.3%
Sierraville, Jct. Rte. 49 North	1,050	1,100	1,160	0.5%	10.5%
Jct. Rte. 49 West; Sattley, North	830	870	910	0.5%	9.6%
Calpine Road	670	700	740	0.5%	10.4%
Sierra-Plumas County Line	910	960	1,010	0.5%	11.0%
Gold Lake Road (in Plumas County)	4,550	5,030	5,560	1.1%	22.2%
Blairsden, South Jct. Rte. 70 (in Plumas County)	2,250	2,490	2,750	1.1%	22.2%
SR 395 at:					
California-Nevada State Line (Northwest of Reno)	8,000	8,130	8,270	0.2%	3.4%
Jct. Rte. 70 West, Hallelujah Junction (in Lassen County)	9,000	9,150	9,300	0.2%	3.3%
Source: LSC, Caltrans Transportation Concept Reports					

Parking

During peak recreation seasons, limited parking can be an issue, particularly in the communities of Sierra City and Downieville. Recently a new US Forest Service trailhead parking area was constructed in Downieville to help alleviate parking congestion in downtown. More recreation trailhead parking areas may be needed in the future. One example is skier and snowmobile parking at Yuba Pass.

Roadway Transportation Needs and Issues

The review of state highway and local roadway transportation conditions combined with stakeholder input indicates the following:

- The City of Loyalton streets are in need of repair – Pavement conditions on local roadways was the second most concerning issue for RTP survey respondents. Practically every street in the City

of Loyalton needs to be re-slurried.

- Narrow to no shoulders are dangerous for both motorized and non-motorized travel as cars passing a cyclist on the highway must cross into on-coming traffic to avoid the cyclist. This is particularly dangerous on curves where they is limited sight distance.
- Sierra County has a significant amount of recreational (visitor) traffic. Many visitors may be unaware of black ice, sharp curves and livestock on open ranges. Increased warning signage throughout the county is needed.
- Forest Service roadways are an important part of the roadway system in Sierra County. Roadway maintenance funding is tight for both local jurisdictions and forest highways. There is a potential for shared road maintenance agreements between the county and the forest service. Logging is still an important part of the Sierra County economy and as such forest service roadways must maintain the quality of road bed needed to accommodate these trucks. Chip vans are also a frequent user of roadways for forest restoration projects. These vehicles require a different turn radius than for what the road was originally built. Lastly, many forest service roadways require larger culverts for fish passage.
- Providing sufficient parking for recreational visitors so that recreation does not conflict with local residents has always been an issue for Sierra County. The communities of Sierra City and Downieville are popular with mountain bikers but the natural topography limits parking expansion.
- Off Highway Vehicle (OHV) activity is another popular recreation for both residents and visitors. There is a need to provide a network of OHV legal roadways which connect recreation areas to communities. This would increase the convenience for recreation users, have a positive economic impact on communities as well as potentially reduce VMT by allowing OHV users to access trails without having to trailer their vehicle.
- Wildlife protection on state highways will always be a concern. Wildlife undercrossings have been constructed on SR 89. SR 49 near Sattley is another area of focus for this issue.

TRANSIT SERVICES

Sierra County offers an alternative transportation option for residents and visitors. There is no fixed-route transit service or taxi service; however demand-response public transportation for the west and east sides of the county is provided by two non-profit contractors both to Sierra County and the City of Loyalton. These specialized transit services are open to the general public with priority for the elderly and disabled. Golden Rays of Sierra County, Inc. operates in the western portion of the county and Incorporated Senior Citizens of Sierra County operates in the eastern portion of the county. The following is a brief description of the services:

- Golden Rays provides general public transit service weekdays and weekends with visits out of Sierra County for doctor's appointments, shopping, airport etc. by request. Fares depend on distance travelled and efforts are made to group trips. Golden Rays operates a minivan and a small cutaway which are owned by Sierra County.

- Incorporated Seniors provides transportation services through the Loyalton Senior Center; however service is available to all Sierra County residents. The program is funded with Transportation Development Act and Northern Sierra Air Quality Management District funds. Regularly scheduled transportation is available on Fridays to Reno as well as as-needed transportation to anywhere in Sierra County, Portola, Quincy, Truckee, Reno and surrounding area and the Sacramento area. Monthly recreational trips are planned throughout the year and are announced in the Senior Center's monthly newsletter. Fares depend on distance travelled. Incorporated Seniors operate a small bus and van which are owned by Sierra County.

Service to transport students to and from school is provided by contractors to the Sierra-Plumas Joint Unified School District, which serves all of Sierra County and the eastern portion of Plumas County.

Currently, there is no intercity bus service available to county residents. The nearest Greyhound service is provided along the I-80 corridor with a stop in Truckee, while the Sage Stage service operates along the US 395 corridor.

Summary of Transit Capital Needs

- The primary concern in Sierra County with respect to public transit is to maintain a safe vehicle fleet by replacing vehicles at the recommended intervals.
- Currently there is not a secure location to park the transit vehicles on the west side of the county and are simply parked on local roadways. In the future, it would be beneficial to have a secure designated transit parking area.

NON-MOTORIZED FACILITIES

Currently, there are no designated local or interregional bicycle routes in Sierra County; however, Sierra County highways as well as Gold Lakes Road are quite popular with cyclists. There is one small bicycle path in Loyalton between the park and the railroad tracks. As many of the county roads and the state highways have little to no shoulders, there is potential for conflict between cyclists and motorists.

Mountain biking has been expanding in Sierra County and neighboring Plumas County in recent years. During summer months the communities of Sierra City and Downieville experience a heavy influx of mountain bikers who travel to the area by motorized vehicles. Local shuttle services have developed providing transport services to and from mountain bike trails. In recent years, the Sierra Buttes Trail Stewardship has been responsible for developing new mountain bike trails on USFS land with volunteer assistance. Sierra County recently conducted a bicycle planning effort (2012) to determine the areas of the county with the greatest need for bicycle facilities, awareness and education. The Action Element of this RTP includes potential bicycle projects listed in the Bicycle Plan. The County will continue partnerships with the Sierra Buttes Trail Stewardship and Pyramid Bikeway group to develop regional bicycle trails.

In terms of pedestrian circulation, there are limited sidewalks in the communities of Loyalton and Downieville. Sierra County has many trails, both primitive and maintained, scattered throughout the National Forests. One interregional trail of significance is the Pacific Crest Trail, which extends from Mexico to Canada. This trail passes through Sierra County and is maintained locally by the USFS.

Mechanized vehicles are not allowed on the trail. Another significant trail is the North Yuba Trail running along the south banks and reaches of the Yuba River between Indian Valley and Downieville. There are plans to extend the North Yuba Trail as far west as Bullard's Bar Reservoir.

Non-Motorized Facility Needs

- The most concerning regional transportation issue for RTP survey respondents was “conflict between vehicles and cyclists on roadways with no shoulder”. As Sierra County grows as a recreation destination, it will become increasingly important to increase shoulder width for Sierra County state highways and local roadways.
- Sierra County does not have a congestion issue and therefore does not need more roadways; however, Sierra County which is known for good cycling and mountain biking essentially has no separated bicycle paths. The Smithneck Creek bicycle path project which will connect a residential area to Loyalton is the top priority project for the region.
- Communities such as Sierraville see a need for safer pedestrian crossings of SR 89

AVIATION

The Sierraville Dearwater Field Airport, located one mile east of Sierraville, is the only designated airport in Sierra County (Figure 1 above). The airport is classified as a Basic Utility airfield and not listed on the National Plan of Integrated Airport Systems (NPIAS). There are no services, no fixed base operations, no snow removal and no hangars. The Airport has six improved tie-downs, an overnight camping facility, and a helipad. In 2017, the airport averages roughly 23 aircraft operations per week.

Owned by Sierra County, the function of the airport is to serve community needs and the needs of the general aviation public. The airport provides a link for local and regional aviation uses. The field is used for recreation, ingress and egress for regional events, business courier services, commuters, occasional charter services, touch and go uses, training, and most importantly for emergency services including patient transport and fire suppression operations. Air freight in the county is limited to occasional service by private aircraft.

Sierra County residents in need of commercial airline service generally use the airports in Reno, Sacramento and San Francisco. California Highway Patrol (CHP) helicopters use emergency landing facilities near Downieville and Sierra City to transport emergency medical cases to Reno or Chico. The county also has six heliport loading zones, which are utilized by lumber companies and for emergencies, and are not open for general public use. In addition, there is one helipad, at the Sierra Valley District Hospital in Loyalton.

Aviation Needs

In terms of aviation needs, the runway is in need of reconstruction. The recent slurry seal project improved the condition of the runway but complete rehabilitation and widening of the runway is needed for safety reasons. The Sierraville Hot Springs is expanding and many users arrive by airplane as the properties lie adjacent to one another. Therefore, there is an interest for the County to work with Sierraville Hot Springs to improve roadway access between the airport and the Hot Springs.

Air Passenger Forecasts and Trends

Sierraville Dearwater Airport does not have a fixed base operator and does not provide commercial airline passenger service. The Reno/Tahoe International Airport, 58 miles from Sierraville, provides commercial passenger airline services within a reasonable driving distance. The Tahoe-Truckee Airport (35 miles south) and Nervino Airport (25 miles north) both provide fixed base operator and fueling services. Currently, cargo and package delivery at Sierraville Dearwater Airport is only incidental. The airport is not a hub for cargo services. While it is anticipated that general aviation will continue to play an important role in mountainous regions over the next 10 to 20 years, activity at the Sierraville Dearwater Airport is expected to be relatively stable over this period. The airport could be affected by growth trends in the Reno, Sacramento and San Francisco areas as recreation and tourism increase in Sierra County, although this is not anticipated to significantly impact the need to expand capacity of the airport.

GOODS MOVEMENT

Sierra County Truck Network

Caltrans has designated legal routes for truck tractor trailers on the state highway system. There are two categories of truck tractor-semitrailers in California: interstate "STAA" trucks and California Legal trucks. A truck is classified based on the overall length and length from the kingpin to the rear most axle. In Sierra County, SR 89 from the Nevada County line to Sattley is part of the Terminal Access STAA network, as is SR 49 between Sattley and Plumas County and the small section of US 395 which lies within Sierra County. The section of 89 between Sattley and Calpine Road is STAA in the northbound direction and "advisory" in the southbound direction. The remainder of SR 89 and SR 49 in Sierra County are California Legal Advisory Truck Routes. The STAA designation is important for goods movement as trucks transporting cattle or other goods often exceed the California Legal Advisory length.

SR 89 near Sierraville is a good example of an area of concern with respect to goods movement. Roughly 22 percent of traffic consists of trucks, and there are limited passing opportunities. This often has the result of vehicles attempting to pass in unsafe locations. One solution being considered is to construct turnouts at the top of hills/summits. This option is less expensive and has less impact than passing lanes. As recreation tourism (mainly cycling) continues to grow in Sierra County, widening roadways to create Class II or III bicycle lanes will become increasingly important. Education is also an important element. This involves making motorists aware of cyclists and encouraging cyclists to ride single file so as to limit conflict.

Large scale goods movement in Sierra County is generally limited to the very short section of Interstate 80 which overall has a very little impact on Sierra County. State Routes 49 and 89 and Ridge Road are the roadways which see the greatest amount of goods movement. Additionally County Road A23 (Westside Road) and A24 (Beckwith Street) are often used as transfer roads connecting to SR 70 and SR 89/49 within Sierra County. Agricultural and livestock commerce are common reasons for trucking activity on the east side of the county and forestry products throughout the county. Ridge Road is a major collector and is the only access to the Pike and Alleghany communities for commercial traffic, making it a strategic roadway for Sierra County.

Truck Traffic Volumes

Table 9 presents the most recent available data regarding truck activity on the state highways (*Caltrans Annual Average Daily Truck Traffic on the California State Highway System, 2006-2017*). The highest truck traffic volumes in 2017 were observed on I-80 at the Nevada state line (5,773 trucks per day), followed by US 395 at the Sierra/Lassen County line (753 trucks per day). Truck traffic average daily volumes are much lower on SR 89 (1,050 ADT) and SR 49 (950). Although truck volumes are lower on SR 89 and SR 49, the proportion of vehicles representing trucks for these highways is 22 percent and 9 percent, respectively. A review of historical truck traffic on Sierra County state highways shows that truck traffic has decreased on SR 89 and US 395 while increases have occurred on SR 49 and SR 80.

TABLE 9: Truck Traffic on Sierra County State Highways

Highway	Truck Average Annual Daily Traffic ⁽¹⁾							Total Change:	Average Annual Change	Total Annual Avg. Daily Traffic Volume	Percent Trucks
	2006	2007	2010	2012	2014	2016	2017	2006-2017	2006-2017	2017	2017
SR 49 at: Sattley, Jct. SR 89	31	31	90	90	90	90	90	59	10.2%	950	9%
SR 80 at: Nevada State Line	5,290	5,197	5,011	5,011	4,734	5,773	5,773	483	0.8%	31,100	19%
SR 89 at: Sierraville, Jct. Route 49 North	260	260	235	235	235	235	235	-25	-0.9%	1,050	22%
SR 395 at: Sierra/Lassen County Line	880	880	834	1,433	726	753	753	-127	-1.4%	9,400	8%

Note 1: Truck traffic includes all vehicles in the two-axle class (including 1 1/2 ton trucks with dual rear tire and excludes pickups and vans with only four tires) and above.
Source: California Department of Transportation.

Goods Movement Issues and Related Projects

- There is potential for serious conflicts on Sierra County state highways, when trucks and cyclists are travelling on the same roadway. On highways with narrow shoulders, limited roadway width makes it often necessary to for drivers of larger trucks to cross over the double yellow line to avoid the cyclist, if there is not insufficient sight distance to slow down. If a truck or even a car is travelling in the opposite direction, there is potential for an accident.
- Logging is crucial to economy; the quality of roadbed, particularly forest service roads is a key factor.
- Providing parking for delivery trucks in communities that doesn't conflict with local roadway use is a challenging issue, as there is little area to expand.

RAIL FACILITIES

Rail facilities in Sierra County are limited to the following:

- **The Loyalton Branch of the Union Pacific Railroad** served Sierra County directly in the past, connecting Loyalton with the Feather River mainline route to the north in Plumas County. After the closure of the mill in Loyalton, this branch of railroad became inactive.

- The **Reno Branch of the Union Pacific Railroad** passes through the northeastern tip of Sierra County, but it does not directly serve the county. This line is classified as a storage line and may be reactivated in the future.
- The **Union Pacific Transportation Company's** double mainline track passes through the southeastern tip of Sierra County. Team tracks are available for general public use in both Truckee and Reno.
- **Amtrak's** *California Zephyr* passenger service operates once daily in each direction over the Union Pacific mainline tracks, with stops in Truckee and Reno. There are no stations in Sierra County.

Sierra County had a much more extensive rail network in the past, with tracks owned by the Verdi Lumber Company, the Boca and Loyalton Railroad, Western Pacific Railroad, the Clover Valley Lumber Company, Marsh Logging Company (Loyalton), Davis Johnson Lumber Company (Calpine), Feather River Lumber Company (Loyalton), and Hobart Estate Company (Hobart Mills). It is doubtful that railroad service will ever again play a major role in Sierra County due to the absence of heavy industry, the decline of the lumber industry, the regulation of the railroad industry, the competitiveness of trucks on highways and the mountainous terrain in the county.

TRANSPORTATION SYSTEM MANAGEMENT

Ridesharing

A centralized carpool organization providing carpools for county residents has not been established. Sierra County has both a low density of population and a lack of significant commute traffic. There are no Park-and-Ride lots constructed on state highways within the county. Commute patterns displayed in Table 6 may warrant future consideration of organized ridesharing in particular as surrounding population centers continue to grow.

AIR QUALITY

Air quality is a significant consideration in planning for and evaluation of transportation systems. Both state and federal law contain significant regulations concerning the impact of transportation projects on air quality. Under state law, local and regional air pollution control districts have the primary responsibility for controlling air pollutant emissions from all sources other than vehicular sources. Control of vehicular air pollution is the responsibility of the California Air Resources Board (CARB). The CARB divides the state into air basins and adopts standards of quality for each air basin. Sierra County is part of the Mountain Counties Air Basin, with air quality managed by the Northern Sierra Air Quality Management District (NSAQMD). The low population density, limited number of industrial and agricultural installations, and minimal problems with traffic congestion all contribute to Sierra County's generally good air quality.

The United States Environmental Protection Agency (EPA) established standards for air pollutants that affect public health and welfare. Likewise, CARB established state standards, which are higher than the federal standards. Overall, Sierra County is considered "in attainment" or unclassified for every state and federal air quality standard, except the state PM₁₀ (particulate matter 10 microns in diameter or less) standard as of 2017. Notably, almost every California county exceeds the state standards for airborne particulates.

Particulate Matter 10 (PM10) is caused by a combination of sources including fugitive dust, combustion from automobiles and heating, road salt, conifers, and others. Constituents that comprise suspended particulates include organic, sulfate, and nitrate aerosols that are formed in the air from emitted hydrocarbons, chloride, sulfur oxides, and oxides of nitrogen. Particulates reduce visibility and pose a health hazard by causing respiratory and related problems.

The primary sources of pollutants contributing to the non-attainment designation for PM10 are wild land fires, woodstoves, wind-blown dust from dirt roads and agriculture, and open burning such as backyard burns and prescribed burning. There appears to be no discernible pattern in air quality violations in Sierra County with some violations occurring in winter and some in summer. There is the potential for a small increase in ambient PM10 levels in the future if Loyalton increasingly becomes a bedroom community for Reno and Truckee.

Some dirt roads which cross ultramafic areas or serpentinized fault zones have naturally occurring asbestos which can become airborne after disturbance from vehicles. When this asbestos is released it can be a health concern for motor bikes or quads driving on the roads and for daycares, schools, residences and workplaces near the roads. NSAQMD provided a geologic map of the region displaying the areas which are most likely to have naturally occurring asbestos. Some of these geologic areas of concern cross SR 49 west of Downieville. Lavezzola Road just northeast of Downieville and Mountain House Road south of Goodyears Bar is unpaved ultramafic area. Paving or covering the roads with at least 3 inches of “clean” non-ultramafic rock significantly reduces the potential for asbestos to become airborne.

Global climate change or “global warming” is an important air quality issue which is closely related to transportation. Climate change is caused by the release of greenhouse gases (GHG’s) such as carbon dioxide, methane, nitrous oxide, hydro fluorocarbons, perfluorocarbons, and sulfur hexafluoride into the atmosphere that traps heat and increases temperatures near the earth’s surface. Motorized vehicles emit carbon dioxide and are large contributors to GHG emissions. In fact, according to the CARB GHG Inventory for 2019, transportation accounts for roughly 40 percent of total GHG emissions in California. Forecasted, long-term consequences of climate change range from a rise in the sea level to a significant loss of the Sierra snow pack. Despite potentially devastating long term affects, climate change does not have immediately visible effects such as smog. However, GHG emissions are an important air quality issue which needs to be addressed in regional transportation planning documents. Over the last ten years, GHG emissions generated by Sierra County residents have likely been reduced as a result of the decline in population. State climate change policies and strategies to further reduce GHG emissions locally in Sierra County are discussed further in Chapters 4 and 5.

PROGRESS REPORT

Table 10 provides detailed information for recently completed projects and in-progress projects. Completed projects include: Sierraville-Dearwater runway slurry seal and parking rehabilitation, bridge replacement and truck pullouts on SR 89. Three more bridge replacement/rehabilitation projects are slated for construction in the next few years.

TABLE 10: Recently Completed and In-Progress Transportation Improvement Projects in Sierra

Lead Agency	Street/Road No.	Specific Location	Project Description	Construct Year	Cost Estimate	Funding Source
County	Jim Crow Bridge #13C0027	Jim Crow Road Bridge - at North Fork Yuba River near Downieville	Rehabilitation or replacement existing structure to meet or exceed 3R standards.	Completed	\$850	HBP
Caltrans	SR 89	South of Sierraville	Truck pullouts	Completed	\$750	SHOPP
County	Sierrville-Dearwater Airport	Sierraville	Slurry seal runway	Completed	NA	CAAP
County	Sierrville-Dearwater Airport	Sierraville	Reconstruct Parking	Completed	NA	CAAP
Caltrans	SR 89	Various	Wildlife Undercrossings	Completed	NA	SHOPP
County	SR 89, 49, Ridge Rd	Various	Speed feedback signs	Completed	\$175	HSIP
County	Plumbago Road Bridge #13C0051	Plumbago Road Bridge	Bridge Replacement	2021	\$1,752	HBP
County	Packer Lake Road Bridge #13C0029	Packer Lake Rd. Bridge at Salmon Creek off Gold Lake Road near Sierra City	Rehabilitation of existing structure to meet or exceed 3R standards.	2020	\$1,632	HBP
County	Salmon Lake Lodge Bridge #13C0053	Salmon Lake Lodge Road Bridge at Salmon Creek - 0.5 mi. west of Gold Lake Road	Replacement of existing structure with new bridge that meets or exceeds 3R standards.	2020	\$1,184	HBP
Total Cost					\$6,343	
Source: SCTC						

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The purpose of the Policy Element of the RTP is to provide guidance to regional transportation decision makers and promote consistency among state, regional, and local agencies. California statutes, Government Code Section 65080 (b), states that the Policy Element must:

- Describe transportation issues in the region
- Identify and quantify regional needs expressed within both short- and long-range planning horizons
- Maintain internal consistency with the Financial Element and fund estimates



This chapter summarizes the transportation issues in the Sierra County region and provides goals, objectives, and policies to assist in setting transportation priorities.

LOCAL AND REGIONAL ISSUES

The limited funds available for roadway operations and maintenance and insufficient facilities for pedestrian/bicycle access and safety are among the most important regional transportation-related issues. The following list summarizes the region's most important issues in more detail:

- There is a shortage of revenues to carry out an adequate rehabilitation program, needed road and bridge improvements and maintenance needs for local roads and state highways. The problem is exacerbated by the high repair costs of deferred maintenance. In Sierra County, roadway rehabilitation is important for both paved and unpaved roadways, as a significant number of locally important roads which connect residents to the state highways are dirt.
- Bicycle and pedestrian facilities need to be upgraded and expanded to provide a safe environment for non-motorized modes of transportation. Sierra County attracts a large number of outdoor recreation enthusiasts, in particular bicyclists. The majority of state highways in Sierra County do not have a wide enough shoulder for a vehicle to provide cyclists a safe three foot radius without crossing the centerline. This is particularly a problem for trucks and other wide vehicles. In terms of pedestrian circulation, non-continuous sidewalks within the communities can inhibit safe travel for residents, school children and visitors.
- Excessive vehicular speeds create potential safety issues and impact communities, particularly where highways enter developed areas. In particular, Sierraville is experiencing this problem as through traffic between Truckee and resort communities in Plumas County increases over time. Speeding is also an issue for the communities of Downieville, Sierra City, and Loyalton where the state highways act as "main street." Although speed feedback signs have helped, an increase in recreational traffic over the next twenty years will make this problem worse.
- Sections of multi-jurisdictional roads and state highways near county lines and in between Caltrans districts often receive low priority for improvement projects. Examples include Heriot Lane, A-23, A-

24 and SR 49 at the Plumas County line.

- Providing sufficient parking facilities for recreation users so as not to conflict with local residents' daily life is a need that will increase over the 20 year planning period.
- A significant portion of Sierra County is not developed and will remain public land. As such, Sierra County communities (particularly some of the more remote communities) are subject to forest fires. Maintaining feasible evacuation routes is important for Sierra County. In many cases, secondary access routes are traversable by four wheel drive vehicles only.
- At the Sierraville – Dearwater Airport, the runway is beginning to fail. An important aviation need is to reconstruct the runway.
- The Sierra Valley is a major wildlife migration path. As SR 89 cuts through the middle of the valley, there are a large number of vehicle/wildlife accidents. Efforts should be made to assist wildlife crossing of the state highways. Some wildlife undercrossings have already been completed on SR 89.
- In terms of goods movement, there are limited passing opportunities on Sierra County state highways. The topography of the region also limits locations for truck climbing lanes. Turnouts at select locations could improve efficiency for all users.
- Off-highway vehicle (OHV) use is common in Sierra County. The OHV network on forest service roads is disconnected in some places and requires travel on county maintained roads in between OHV legal sections. When OHV vehicles are not “street legal”, they are unable to make the connection or travel to/from communities.
- Although currently there are no plans for local utility companies to implement new underground facilities, another issue that should be considered in transportation planning is the potential future installation of underground fiber-optic cable. This should be coordinated with road rehabilitation projects.

SELECTION CRITERIA

As a basis for the development of goals, objectives, performance measures and policies, as well as for future project-level decision-making, a series of selection criteria were ranked by the Sierra County Transportation Commission. These selection criteria are useful, in that they:

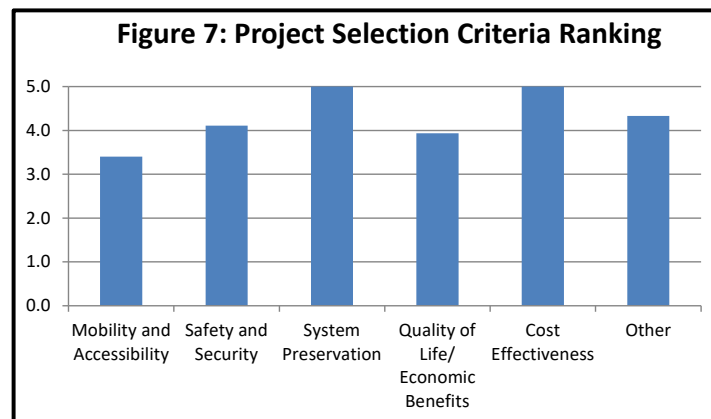
- ♦ Assist the SCTC in comparing outcomes of different alternative strategies;
- ♦ Facilitate comparisons across modes and among strategies focused on different modes; and
- ♦ Facilitate assessment of priorities in the action element of the RTP, which would link to plan implementation through the RTIP.

The criteria in Table 11 can be used as a guide by SCTC when prioritizing projects to be included in the next RTIP. SCTC criteria rankings are also displayed in Figure 7.

TABLE 11: Sierra County Transportation Project Selection Criteria for 2020 Update

Rank each criteria on a scale of 1 to 5 (1 = Not very important to the region, 5 = Top priority for the region)

Selection Criteria/Performance Measures	Average Score
Mobility and Accessibility	
Enhance public transit systems within the county and the region	2.7
Provide new facilities for bicycle and pedestrian travel	3.7
Reduce traffic congestion and improve safety without increasing capacity	3.3
Provide equal access for person with disabilities	3.7
Maintain/enhance public airport within the county	3.7
Safety and Security	
Facilitate effective ingress and egress for emergency services and increase evacuation routes	4.0
Provide solutions to prevent animal related accidents	3.0
Provide safe routes for school children including bus stops and pedestrian ways	4.3
Enhance travel safety for bicyclists and pedestrians	4.0
Maximize implementation of safety improvements that do not increase traffic capacity	5.0
Replace/rehabilitate bridges at the end of their useful life	4.3
System Preservation	
Improve pavement conditions on local roadways	5.0
Improve pavement conditions on state highways	5.0
Quality of Life/Economic Well Being	
Avoid negative impacts to environmental quality or natural environment	4.0
Preserve environmental aspects protecting rural lifestyle	4.3
Improve attractiveness of the existing community areas	4.3
Reduce dust pollution and improve air quality	3.7
Sustain/improve transportation systems to enhance local economic vitality	3.3
Cost Effectiveness	
Maximize use of non-local funds and financial resources	5.0
Direct majority of local funds to serving community areas	5.0
Other	
Maintain consistency with County General Plan and related Transportation Plans	4.3



GOALS, OBJECTIVES, PERFORMANCE MEASURES, AND POLICIES

An important element of the Regional Transportation Planning process is the development of valid and appropriate goals, objectives, and policies. The RTP guidelines define goals, objectives, and policies as follows:

- ♦ A **goal** is general in nature and characterized by a sense of timelessness. It is something desirable to work toward, the end result for which effort is directed.
- ♦ An **objective** is a measurable point to be attained. They are capable of being quantified and realistically attained considering probable funding and political constraints. Objectives represent levels of achievement in movement toward a goal.
- ♦ The scale by which the attainment of an objective is measured is defined as a **performance measure**. Performance measurement involves examining the performance of the existing system, as well as forecasting the performance of the future (planned) system. By examining the performance of the existing system over time, the SCTC can monitor trends and identify regional transportation needs that may be considered when updating the RTP. The purpose of performance measurements is to clarify the link between transportation decisions and eventual outcomes, thereby improving the discussion of planning options and communication with the general public. In addition, they can assist in determining which improvements provide the best means for maximizing the system's performance within the given budget and other constraints.
- ♦ A **policy** is a direction statement that guides decisions with specific actions. For each policy, an **implementation measure** is identified.

Goal 1 – It is the goal of the SCTC to provide a comprehensive, efficient, and safe intermodal transportation system.

Objective 1.1.1 – Coordinate plans, programs, and projects for the county, state, and federal transportation systems. ***Performance Measure: level of contact between entities to coordinate transportation system improvements and services, and recognition of state and federal plans, programs, and projects in county transportation planning documents.***

Policy – Provide input to the RTP and recommend that Caltrans utilize the RTP to prioritize maintenance and improvements. **Implementation – Letters to and coordination with Caltrans.**

Policy – The SCTC should coordinate all transportation proposals, both within Sierra County as well as regional connections, and gain maximum benefits for the residents of the region. **Implementation – Adoption of the General Plan and Regional Transportation Plan.**

Objective 1.1.2 – To the extent practicable and financially sustainable, ensure access of Sierra County residents to vital employment, medical, commercial, and recreational activities. ***Performance Measure: conformity with unmet public transit needs process.***

Policy – The highest priority for regional public transportation is to serve the handicapped, elderly, and reduce traffic impacts. **Implementation – Continued support of the public transit program.**

Policy – The County should encourage non-profit and/or private organizations to operate public transportation services, rather than provide services directly. **Implementation** – **Continued support of Golden Rays and Incorporated Senior Citizens of Senior County transit programs.**

Policy – Encourage application of non-profit and private enterprise for available transit grant funds. **Implementation** – **Grant writing assistance for Golden Rays and Incorporated Senior Citizens of Sierra County transit programs.**

Policy – Provide transportation services that enhance the provision of public services, such as education, job training, medical, and cultural activities. **Implementation** – **Continued support of the public transit program. Explore new transit funding sources.**

Policy – Participate in the study and potential operations of regional recreational passenger rail transportation services. **Implementation** – **Continued participation in the study process.**

Policy – Consider including broadband infrastructure as part of roadway projects to allow future job creation as well as increased opportunities for telecommuting. **Implementation** – **Consider as part of roadway projects.**

Objective 1.1.3 – Maintain or improve existing general aviation airports to meet federal standards and state airport licensing criteria. **Performance Measure: compliance with federal and state aviation standards.**

Policy – Retain Dearwater Airport in Sierraville as a public airport for use by local residents and the general public. **Implementation** – **Implement and update a master plan.**

Policy – The County shall support legislation to increase the state and federal allocation for small airport funding and seek viable state or federal grants to correct deficiencies. **Implementation** – **Support as proposed.**

Objective 1.1.4 – Improve parking conditions within Sierra County’s activity centers and for visitor rest/information centers. **Performance Measure: improvement in public parking availability.**

Policy – Work towards creation of new parking opportunities, focusing on congested areas (tourist, recreation and other), visitor rest areas, and visitor information areas. **Implementation** – **Parking Studies, Capital Improvements Plan and adoption of parking development standards.**

Objective 1.1.5 – Identify and secure additional funding sources to support transportation. **Performance Measure: Calculate amount of required funding and percentage obtained.**

Policy – Seek funding sources that will support transportation improvements and maintenance. **Implementation** – **Coordination with state and federal agencies.**

Policy – Establish a development fee program to collect funds to pay for roadway improvements necessitated by new development. **Implementation** – **Adoption of a development fee program.**

Policy – Proactively pursue available discretionary state and federal funding programs available for safety improvements and rehabilitation. **Implementation** – **Inclusion of discretionary funds in RTP and OWP.**

Policy – Participate in efforts to expand federal and state funding for road maintenance funding in rural and recreational areas. **Implementation** – **Participation in state and nationwide coalitions.**

Objective 1.1.6 – Increase the total mileage of safe bike routes, trails, and pedestrian walkways.
Performance Measure: Regional multi-use route mileage.

Policy – Support creation of new trails and sidewalks and encourage linkages to public trails and Community Areas as new development is proposed. **Implementation** – **Review of individual projects and acceptance of trail easements when appropriate. Adopt a street improvement standard that includes sidewalk, bicycle and pedestrian facilities.**

Policy – Provide long-range plans for bicycle use. **Implementation** – **Update the Bicycle Master Plan.**

Policy – Study the provision, where warranted, of new multi-purpose non-motorized trails within and between communities, such as along levees and old right-of-way segments.
Implementation – **Develop specific study of potential facilities.**

Policy – Where warranted by bicycle activity and where feasible given financial and physical constraints, provide paved shoulders along roadways for bicycle use as part of roadway reconstruction or new construction projects. **Implementation** – **Ongoing consideration as part of roadway design processes.**

Policy – Reduce conflicts generated by bicycle events on county and state routes.
Implementation – **Coordination with Sheriff’s Department, CHP, Emergency Response Agencies, and bicycle interests. Construction of “trailhead to downtown” connector trail in Downieville.**

Objective 1.1.7 – Achieve and maintain scenic roadway designation for appropriate state and county highways/roads. **Performance Measure: Miles of roadway with Scenic Highway or Scenic Byway designation.**

Policy – In conformance with the Visual Element of the General Plan, prohibit offsite outdoor advertising along scenic highways and byways. **Implementation** – **Conformity with Visual Element and with Scenic Highway/Byway Guidelines.**

Objective 1.1.8 – Provide for safe, efficient distribution of goods and services to Sierra County communities. **Performance Measure: Vehicle and truck counts and crash rates at state highway entrances to Sierra County.**

Policy – Maintain state highways to a level that is safe for truck traffic. **Implementation** – **State highway rehabilitation projects.**

Policy – Promote use of railroads as a method of goods movement. **Implementation** – Encourage coordination between Union Pacific and businesses.

Goal 2 – It is the goal of the SCTC to maintain a system of safe rural roads, within the existing roadway network, that preserves the rural quality of life of county residents.

Policy – SCTC’s highest priorities for all road improvements are: driver, bicyclist and pedestrian safety, increasing safety on curves and narrow roads, and improving access to existing development areas. **Implementation** – Yearly budget process.

Objective 2.1.1 – Program improvements to the transportation system which improve traffic, bicyclist, and pedestrian safety at locations with high rates of accidents, through elimination of hazards or potential hazards. **Performance Measure: Countywide accident rate per million vehicle miles of travel. Strategic Highway Safety Plan goals.**

Policy – Develop a continuing program to install guardrails to improve curve safety on State highways. **Implementation** – Capital Improvement Program and annual interface with Caltrans at General Plan progress report session.

Policy – Provide road widening and turnout areas on all existing one-lane roads to improve safety and traffic flow as new development is proposed. **Implementation** – Review of individual projects.

Policy – Ensure adequate access to existing or proposed developed areas by conforming to the Public Resources Code 4290 Fire Safety Requirements. **Implementation** – Conformity with Fire Safety Requirements.

Policy – Provide improvements to existing roads when needed to ensure safety. **Implementation** – Capital Improvements Program on a five-year cycle.

Policy – Consider the need for rail crossing improvements when development projects are proposed within the vicinity of a rail corridor. **Implementation** – Development approval process.

Policy – Actively ensure that hazardous waste management is current with State and Federal laws. **Implementation** – Annual review of county Hazardous Waste Management Plan, adoption of the General Plan and coordination with the California Highway Patrol and Caltrans.

Objective 2.1.2 – Maximize the level of year round access on the county roadway system. **Performance Measure: Minimize mileage of county roadways not maintained in winter.**

Policy – Maintain as many roads for year-round travel as budget will allow and which are not in conflict with winter recreational plans. **Implementation** – Annual budget process.

Objective 2.1.3 – Identify anticipated street and road congestion/capacity problems before they become critical in order to program preventative measures and reduce the cost of correction. **Performance Measure: Roadway and intersection LOS.**

Policy – LOS C as defined in the *2000 Highway Capacity Manual* shall be the target on all roadways (state and county). **Implementation** – Ongoing. **Development Review, adoption of appropriate development fees, capital improvement program, annual General Plan progress report.**

Policy – Proactively review and comment on development projects in adjacent counties with potential traffic and air quality impacts to Sierra County, and coordinate with other counties regarding equitable mitigation of impacts in the county. **Implementation** – **Participation in environmental review and permitting process for applicable development proposals.**

Policy – Cooperate with the USFS to reduce traffic impacts which would impact either jurisdiction, and to resolve differences in USFS and county road management objectives. **Implementation** – **Respond as proposals are made.**

Policy – Require and expect property owners to maintain new residential roads; the county is generally not interested in accepting new residential roads for maintenance due to funding restrictions. Evaluate road maintenance agreement (including those in CC & Rs) to ensure that Homeowners Associations or other appropriate entities will be funded adequately to maintain private roads. Consider acceptance of private road offers of easement dedication. **Implementation** – **Review of individual projects.**

Objective 2.1.4 – Program improvements to the transportation system which prevent further deterioration of the existing system and provide priority to preventative maintenance, rehabilitation, and reconstruction projects over enhancement projects. **Performance Measure:** **Countywide road pavement condition.**

Policy – Maintenance of the existing system should be assured prior to considering the construction of new county maintained roadways. New major roadways are not desired. **Implementation** – **Adoption of the General Plan and ongoing development review.**

Policy – The County shall provide the maintenance and minor improvements needed to perpetuate its system of safe rural roads. **Implementation** – **Annual budget process.**

Policy – Bridge structures should be repaired, reinforced, or replaced as needed on a basis compatible with existing roadway widths and architecture. Upgraded standards should be used only if necessary for safety reasons or if needed to obtain state or federal funding. **Implementation** – **Oversight of proposals by other agencies and internal use of this policy by Public Works Department.**

Policy – Encourage the Forest Service to adequately maintain National Forest roads which are utilized by recreationalists, logging trucks, and other traffic. **Implementation** – **Yearly progress report session at annual General Plan review, and subsequent correspondence if needed.**

Objective 2.1.5 – Develop road systems that are compatible with the areas they serve. **Performance Measure:** **Roadway/intersection LOS and consistency with adopted roadway standards.**

Policy – Develop policy on speed limit control, reduction, and enforcement on state roads which pass through communities. **Implementation** – **Review of individual projects.**

Policy – Develop public and private roadway standards consistent with the Roadway Classifications chart in the General Plan Circulation Element that ensures safety balanced with environmental concerns. **Implementation** – **Develop County Road Standards.**

Policy – Designate commercial hauling routes through developed areas. **Implementation** – **Review and adopt a county ordinance setting specific performance standards for commercial traffic through existing communities.**

Objective 2.1.6 – Maintain the natural and historic characteristics of the region that make Sierra County attractive to both residents and visitors. **Performance Measure: Impact of roadway system on countywide quality of life.**

Policy – Transportation improvements for recreation travel should be directed toward development and protection of scenic routes and support the local economy. **Implementation** – **Consistency of Capital Improvements Plan.**

Policy – Ensure that new roadway development and circulation improvements are designed with the goals of the “least possible” impact in mind. For example, special standards should be used in the following areas:

- along waterways
- adjacent to steep slopes which would require extensive cut/fill
- adjacent to wetlands
- where visually important specimen trees of tree standards exist
- at existing bridges, especially to preserve historical one lane bridges of Downieville
- along scenic highways

Implementation – **Consistency of Capital Improvements Plan.**

Policy – Recognize that California Department of Forestry (CDF) road design standards for fire safety will result in unwanted environmental impacts in many instances, restrict land uses to areas where road development to these standards will result in least impact. **Implementation** – **Ongoing development review and adoption of Land Use Diagram consistent with this concern.**

Policy – Develop standards that require erosion control plans, including use of Best Management Practices for runoff control, be prepared for all new roadway designs and circulation improvement projects. **Implementation** – **Creation of new Development Standards along with updated Zoning Ordinance.**

Policy – Develop special roadway standards for steep slopes and environmentally sensitive areas. **Implementation** – **Creation of new Development Standards along with updated Zoning Ordinance.**

Policy – Support efforts of federal and state government to reduce conditions on transportation funding which would require the county to use design standards higher than county standards.
Implementation – Respond as proposals are made.

Policy – Actively oppose USFS road management objectives which are in conflict with county goals. **Implementation** – Respond as proposals are made.

Goal 3 – It is the goal of the county to prevent growth inducement along transportation corridors that is inconsistent with existing land use patterns.

Objective 3.1.1 – Avoid the provision of roadway capacity (such as through road corridor expansion) over that required to safely accommodate existing and planned land uses identified in the General Plan. **Performance Measure: Existing or forecast LOS and VMT along roadway corridors.**

Policy – Oppose the development of high-speed thoroughfares on new or existing federal, state, or county maintained roads. **Implementation** – Ongoing oversight of proposals by other agencies.

Policy – Oppose the development of major new roads (other than local roads to serve residential development) or major improvements to existing state, federal, or county roads which would be required by higher standards, higher design speeds, or expanded capacity over those normally acceptable to the county. **Implementation** – Ongoing oversight of proposals by other agencies.

Goal 4 – Consider all types of environmental impacts as part of the transportation project selection process. Ensure that transportation projects will meet environmental quality standards set by Federal, State and Local Resource agencies.

Objective 4.1.1 – Reduce GHG emissions from transportation related sources in Sierra County from 2020 levels by 2030 to support the state’s efforts under AB-32 and to mitigate the impact of climate change.

Policy – Consider VMT and corresponding GHG emissions as part of every transportation capital improvement project decision.

Policy – Establish a baseline inventory of GHG emissions from all transportation related sources.

Policy – Establish a Climate Action Plan that includes measures to reduce GHG emissions to target levels.

Policy – Aggressively pursue projects with positive GHG impacts and that are realistic given the very rural nature of Sierra County, including transit programs, ridesharing programs, bicycle and pedestrian improvements, Intelligent Transportation Systems strategies, and maintenance of existing roadways to reduce vehicle emissions.

Objective 4.1.2 – Fund transportation related projects which avoid, minimize or mitigate impacts to the environment.

Policy – Determine the impact of the project on biological resources, hydrology, geology, cultural resources, climate change and air quality prior to construction. If necessary, mitigate the impacts according to natural resource agency standards.

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This chapter presents a plan to address the needs and issues for all transportation modes, in accordance with the goals, objectives, and policies set forth in the Policy Element. It is within the Action Element that projects and programs are prioritized as short- or long-term improvements, consistent with the identified needs and policies. These plans are based on the existing conditions, forecasts for future conditions and transportation needs discussed in the Background Conditions Section, Modal Element and Policy Element and are consistent with the Financial Element.



PLAN ASSUMPTIONS

In addition to the data discussed above, it is necessary to base the Action Element on a series of planning assumptions, as presented below:

- **County Ambiance** – Transportation improvements will be sensitive to county and community history, culture and customs, and land use patterns. Priority will be given to the retention of history and environmental protection.
- **Environmental Conditions** – No change is assumed in attainment status for air or water quality affecting transportation projects. High priority will be placed on transportation projects which reduce wildlife-vehicle collisions and reduce VMT. As all of SR 49 and SR 89 are designated county scenic highways and the portion of SR 49 in the western portion of the county is a State scenic route, priority will be placed on projects which retain scenic values.
- **Travel Mode** – The private automobile will remain the primary mode of transportation for residents and visitors. Public transportation will remain a vital service for the elderly, low-income, and for persons with mobility limitations. Bicycle and pedestrian travel will increase modestly, for both recreational and utility purposes.
- **Changes in Truck Traffic** – Although goods movement levels are anticipated to increase at the state level, only a small increase in trucking activity might be seen in Sierra County with most of the increase focused on I-80.
- **Recreational Travel** – Recreation-oriented local travel will continue to have a major impact on state highways in the county and likely be the cause of any increase in traffic volumes on Sierra County roadways.
- **Transit Service** – Though future planning efforts may lead to expansion of services in Sierra County, any expansion will not significantly impact overall traffic levels.

- **Population Growth** – Sierra County will not be subject to the same development pressures as neighboring Nevada County. The Sierra County population will decrease at a rate consistent with California Department of Finance Projections.
- **Planning Requirements** – New state and federal requirements with respect to climate change and greenhouse gas emissions will continue to shape the planning process in the future. This RTP is a dynamic document which will be updated as requirements change.

TRANSPORTATION SAFETY

Addressing transportation safety in a regional planning document puts the region on a path to improve health, financial, and quality of life issues for travelers. In the past, transportation safety has been addressed in a reactionary mode. There is a need to establish methods to proactively improve the safety of the transportation network. In response to this, California developed a Strategic Highway Safety Plan (SHSP) in 2006 and was last updated in 2014. The Goal of the plan is “Toward Zero Deaths” by using the 4E approach of: engineering, enforcement, education and emergency medical services. Between 2012 and 2020 the SHSP aims to reduce fatalities by 3 percent per year and severe injuries by 1.5 percent per year. The latest update of the SHSP identifies the following Challenge Areas:

- Roadway Departure and Head-On Collisions
- Intersections, Interchanges, and Other Roadway Access
- Work Zones
- Alcohol and Drug Impairment
- Occupant Protection
- Speeding and Aggressive Driving
- Distracted Driving
- Driver Licensing and Competency
- Pedestrians
- Bicycling
- Young Drivers
- Aging Road Users
- Motorcycles
- Commercial Vehicles
- Emergency Medical Services

The policy element of this RTP includes safety goals and objectives that comply with the California Strategic Highway Safety Plan. Transportation improvement projects that specifically address safety for all types of transportation modes are included in the project list tables in this chapter. Transportation safety is a main concern for roadways and non-motorized transportation facilities in the Sierra region.

TRANSPORTATION SECURITY/EMERGENCY PREPAREDNESS

Transportation security is another important element in the RTP. Separate from “transportation safety,” transportation security/emergency preparedness addresses issues associated with large-scale evacuation due to a natural disaster or terrorist attack. Emergency preparedness involves many aspects including training/education, planning appropriate responses to possible emergencies, and communication between fire protection and city and county government staff.

As this region is rather remote and not densely populated, it is not likely that Sierra County would be the focus of a terrorist attack or become a refuge for persons displaced by an attack or natural disaster elsewhere in the state. In the Sierra County region, forced evacuation due to wildfire, flood or landslide is the most likely emergency scenario.

The Sierra County region has several transportation security/emergency preparedness documents in place. A *Sierra County Emergency Operations Plan* was adopted in 1996. The plan provides a basis for coordination of operations and resources necessary to meet the requirements of an emergency, but does not include details such as a description of evacuation routes or coordination with public transit. The plan outlines the process for setting up the Emergency Operations Center (EOC) in the event of a disaster. With a countywide population of less than 3,500 people, the majority of the population within each community is on a first name basis and emergency responders know which individuals would require special needs in the event of a disaster. In this case, a detailed emergency operations plan is not as crucial as it may be for a larger county. Nevertheless, Sierra County Emergency Services Department is in the process of updating the Emergency Operations Plan to include a more thorough guidance for emergency preparedness. According to Sierra County staff, the most recent natural disasters which affected Sierra County were the floods of 1997 in Sierraville and Loyalton and the "Cottonwood Fire" in 1994 near Sierra Brooks.

As Sierra County is approximately 960 square miles with small pockets of population centers, identifying evacuation routes and other methods of evacuation is pertinent to the scope of the RTP. Two state highways traverse Sierra County and act as the primary evacuation routes for many Sierra County communities, such as Downieville, Sierra City, Sierraville, Goodyears Bar, Bassetts, Sattley, and Loyalton. Evacuation routes should follow SR 49/89 north to SR 70 in Plumas County, SR 89 south to Truckee or SR 49 southwest to Nevada City. The implementation of ITS projects such as Road Weather and Information Systems (RWIS), Changeable Message Signs (CMS), and Closed Circuit Television (CCT) could assist with maintaining a steady flow of traffic on these state highways while keeping evacuees informed.

Although state highways connect the larger communities in the county, some Sierra County residents live in very rural areas not directly accessed by state highways and would depend on local roadways as evacuation routes. Additionally, in the event that a portion of a state highway is blocked due to a disaster, certain local roadways could provide alternate evacuation routes. Examples of regionally important local roadways include County Roads A23, A24, Gold Lake Road, Mountain House Road and Ridge Road to Alleghany.

In the event of a natural disaster, the Golden Rays and Incorporated Seniors vans should be made available to transport evacuees. Additionally, ambulances stationed in the various communities could be called upon for assistance in the transportation of special needs residents. The one publicly operated airport in Sierra County is available for emergency evacuation.

The best preventative measures with respect to this document for an emergency evacuation would be to continue to implement projects in the RTP which upgrade roadways, airport facilities and public transit. Additionally, SCTC and the public transit operators should work with the County Office of Emergency Services to establish an active role in disaster preparedness.

ACTIVE TRANSPORTATION

It is becoming increasingly important for public health, environmental and financial reasons to build transportation infrastructure that encourages residents to use alternative transportation to the automobile. This includes bicycling or walking to work, school, errands, social engagements etc. Overall public health and childhood obesity could be improved if residents made smarter transportation choices. A reduction in automobile trips is also in line with statewide goals to reduce greenhouse gas emissions. In today's auto dominated society, walking and biking can be unsafe and is often perceived as the least attractive option. Mobility for members of disadvantaged communities, with no vehicle or only one vehicle available in their household, could also be improved if biking/walking were an easier choice. Therefore, the State of California includes an Active Transportation Program (ATP) grant program which is funded through federal legislation.

People are most likely to get out of their cars and walk or bike for short trips. In Sierra County, there is the potential for increased active transportation within the communities of Loyalton, Sierraville, Sierra City and Downieville. The proposed bicycle path between the residential community of Sierra Brooks (2.5 miles south of Loyalton) and Main Street in Loyalton is a good example of an RTP project which will increase the proportion of trips made by active modes. Increasing safety for existing and potential non-motorized transportation users is an important part of the ATP program. Widening shoulders and or providing bicycle lanes along SR 89 and SR 49 would be in line with ATP goals.

TRANSPORTATION SYSTEM IMPROVEMENTS

As a method of developing responses to the transportation needs and issues discussed in the earlier portions of this document, this RTP includes a list of transportation system improvements for each mode of transportation applicable to Sierra County. This RTP lists both financially constrained and financially unconstrained improvements. Financially constrained projects are funded over the short- and long-term periods as demonstrated in the Financial Element. The unconstrained project list is considered a "wish list" of projects that would provide benefit to the region, but will unlikely receive funding over the next 20 years unless new funding sources become available.

Project Specific Performance Measurement Development

With diminishing transportation funding at the state level, it is becoming increasingly important to establish a method of comparing the benefits of various transportation projects and considering the cost effectiveness of proposed projects. According to the RTP guidelines, performance measures outlined in the RTP should set the context for judging the effectiveness of the Regional Transportation Improvement Program (RTIP) as a program. More detailed project specific performance measures used to quantitatively evaluate the benefit of a transportation improvement project should be addressed every two years in the region's RTIP.

This section of the Action Element discusses performance measures used to evaluate regional transportation improvement projects in Sierra County. The performance measures listed in Table 12 are used in the development of short-term capital improvement plans to prioritize improvement projects and to determine each project's cost-effectiveness. The RTP performance measures are amended as necessary to reflect future changes in regional needs, goals, and policies.

TABLE 12: RTP Program Level Performance Measures			
Performance Measure	Data Source	RTP Measure	RTP Objective
Safety and Security (S)	Caltrans, California Highway Patrol, County and City Department of Public Works	Collision rate per 1,000,000 vehicle miles of travel # of bicycle and pedestrian crashes	Reduce the number of collisions in the county to below 2018 levels (Total collisions = 33)
System Preservation (SP)	County and City Department of Public Works	Pavement Conditions/ % of Distressed Lane Miles/ # of Structurally Deficient Bridges	Maintain city and county roadways at an average PCI of 50 or better/ Reduce Distressed State Highway Miles to below 7% Reduce the number of Structurally Deficient Local Bridges to Below 6
Equity (E)	STIP estimates from CTC	Ratio of STIP allocations to County revenue shortfall for highway projects	Make the distribution of transportation funds more consistent with transportation needs, rather than population
Economic Well Being (EW)	County and City	Increased sales tax revenues	Provide acceptable LOS on all State highways, provide safe and attractive transportation facilities for both residents and visitors
Environmental Quality (EQ)	Environmental thresholds or significance criteria adopted in General Plans and/or independently for application in CEQA documents	Avoid or minimize significant impacts	Analyze the potential short-term and long-term environmental impacts of transportation decisions and mitigate adverse impacts to "less than significant"
Mobility and Accessibility (M/A)	Caltrans traffic volumes, Project Study Reports, Transportation Concept Reports and Special Studies	Minimum acceptable LOS on average daily basis Increased alternative transportation options in/out of county	Provide acceptable LOS on all regionally significant roadways Improve non-motorized facilities, transit and airport
Complete Streets/Active Transportation (A)	Census, County, City	Increase non-motorized modes of transportation	Increase County Bike Mode Split from 0.7% Increase County Walk Mode Split from 3.4%

Safety and Security (S) – Safety plays a large role in the consideration of transportation projects in the Sierra County region. A reduction in the number of vehicle accidents per VMT is a good quantitative measure of the impact of a project on regional safety. Most RTP projects will increase safety. For example constructing a separated path for pedestrians and bicyclists between Sierra Brooks and Loyalton will reduce vehicle/bicycle/pedestrian conflicts. Bridge replacement projects also address safety concerns.

System Preservation (SP) – Maintaining regional roadways in satisfactory condition is a top priority for the region as well as the number one priority in the California Vehicle Code. According to a 2013 – 2015 pavement survey, roughly seven percent of state highway miles in Sierra County are considered distressed. By performing routine roadway maintenance, Sierra County will reduce the need for larger roadway rehabilitation projects in the future.

Equity (E) – An equitable transportation system applies funding to where it is most needed as opposed to simply allocating funding to the largest populations. This measure will ensure that all transportation types and jurisdictions are considered equally including state highways, county roads, city streets and tribal roads.

Economic Well Being (EW) – Improving the transportation infrastructure is an important part of boosting the economic wellbeing of Sierra County. All types of capital transportation improvements

ranging from local roadway rehabilitation to bicycle/pedestrian paths to trailhead facilities encourage tourism and attract new businesses.

Environmental Quality (EQ) – As RTP projects are constructed, they must comply with environmental criteria identified in the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

Mobility/Accessibility (M/A) – The Performance Measures for Rural Transportation Systems Guidebook defines mobility as “the ease or difficulty of traveling from an origin to a destination.” Accessibility is defined as “the opportunity and ease of reaching desired destinations.” For more populated regions, mobility refers to delay and travel time. As indicated in the existing conditions section, Sierra County is relatively free of traffic congestion and any poor LOS is primarily due to steep grades, sharp curves, and limited passing opportunities. An example of a project which improves mobility in Sierra County would be the recently completed truck pullouts on SR 89.

Accessibility refers to the number of options available to travel from point A to point B or the number of travel options to a state highway for a resident of an outlying community. The Performance Measures for Rural Transportation Systems Guidebook cites several relatively easy methods of quantitatively measuring accessibility such as evaluating travel time between key points. In Sierra County, there are no projects proposed that will construct new roadways to or from outlying communities. Non-motorized facility RTP projects propose new trails or options between two points. Accessibility is also appropriate when measuring transit projects. Public transit provides a crucial link for Sierra County residents to other Sierra County communities or urban areas with medical and commercial services. Any expansion of public transit would improve accessibility for Sierra County residents.

Complete Streets/ Active Transportation (CS) - “Complete Streets” refers to a transportation network that is planned, designed, constructed, operated and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit riders, commercial vehicles and motorists appropriate to the function and context of the facility. Designing roadways to safely accommodate all users while minimizing conflict between motorized and non-motorized uses meets safety as well as state climate change goals. Encouraging more active transportation through transportation improvement projects also meets states public health objectives.

Proposed Capital Improvements to Meet Transportation Needs

Proposed transportation improvement projects are listed in Tables 13-23. Projects are categorized by transportation element and funding source. Each project is linked to one of the performance measures described above. The following improvement projects are consistent with those included in the Interregional Transportation Improvement Program (ITIP), Federal Transportation Improvement Program (FTIP) and the 2018 Regional Transportation Improvement Program (RTIP).

Improvements to address both short-term (10 years) and long-term (20 years) transportation needs are included in this RTP. Transportation improvement projects are also classified into one of the following priority categories:

Tier 1 projects are considered fully fundable during the 2018 State Transportation Improvement Plan four-year cycle.

Tier 2 projects are considered fully fundable over the first ten year period (by 2030).

Tier 3 projects are projected to be constructed over the latter half of the 20 year planning period.

U - The unconstrained project list is considered a “wish list” of projects that would provide benefit to the region, but will unlikely receive funding over the next 20 years unless new funding sources become available.

Determining exact construction costs of transportation projects is difficult, especially for long-term projects. Over recent years, construction prices have varied greatly, first increasing as the price of raw materials used for transportation projects rose before dropping as the recession reduced materials prices and increased competition. In an effort to produce a realistic view of the Sierra County region’s transportation improvement costs, the cost estimates in the ensuing tables have been adjusted for inflation. A projected annual rate of inflation of 2.9 percent was applied to RTP projects, reflecting the average annual rate of change of the Consumer Price Index from 1999 to 2019. Many of the projects in the following transportation improvement tables do not have construction years specified. Therefore, mid-term project costs with unknown construction dates were adjusted to represent 10 years of inflation and long-term projects were adjusted to represent 15 years of inflation. Estimated project costs cited in the text of this document represent “adjusted for inflation” costs.

Roadway and Bridge Improvement Projects

- **Caltrans State Highway SHOPP Projects** (Table 13) – The 2018 SHOPP includes three maintenance guardrail improvements at various locations along SR 49, shoulder widening in Sierraville and permanent bank restoration near Downieville. It also includes a slope stabilization project along I-80. These projects are anticipated to cost \$29 million.

TABLE 13: Sierra County 2018 Caltrans SHOPP Improvement Projects						
Route	Miles		Specific Location	Proposed Project Description	Funding Source	Total Cost (1,000s)
	Begin PM	End PM				
49	0	15.9	Various	Upgrade guardrail to standards	SHOPP	\$2,760
49	44.1	44.4	Near Sierraville, from 2.9 miles o 3.2 miles North of Yuba Pass Campground	Improve roadway cross slope and widen shoulders	SHOPP	\$3,335
49	--	--	Near Downieville at various locations	Permanent embankment restoration by reconstructing the existing lane adjacent to river as a side hill viaduct	SHOPP	\$15,625
80	1.3	1.6	Near Truckee and Floriston, 1.3 miles east of Nevada County Line to Nevada State Line	Stabilize cut-slope erosion and prevent rockfall by flattening the slope or installing a drapery system, concrete barrier and drainage gutter	SHOPP	\$7,520
Total Estimated Cost						\$29,240
Source: Caltrans 2018 SHOPP						

- **Sierra County's Top Priority Transportation Improvement Projects** (Table 14) – A county as small as Sierra County receives a small amount of STIP funding each period. Therefore, the Sierra County 2018 RTIP does not include any projects beyond Planning, Programming and Monitoring funds. SCTC's top priority project is the Smithneck Creek Bicycle Path and Roadway Rehabilitation project. Total cost of this project including design, environmental and construction is roughly \$8.7 million. A combination of Federal Lands Access Program (FLAP), STIP and ATP funds could be used for this project. The purpose and need of this project is described below:

- Smithneck Creek Bike Path and Roadway Rehabilitation – A 10 foot wide Class 1 facility is proposed to safely connect the residential neighborhood of Sierra Brooks to schools, stores and employment in Loyalton. This project, which was also identified in the Sierra County 2012 Bicycle Plan, not only addresses safety goals by separating cyclists and pedestrians from vehicles but will increase active modes of transportation along this roughly four mile stretch. The other component of the project is to rehabilitate and widen Smithneck Road from the current 26' to a 28' wide pavement section (two 12 foot wide lanes with two 2 foot shoulders) from SR-49 to Smithneck Creek County Park.

This project is a top priority for Sierra County as there is currently no shoulder on Smithneck Road so bicyclists must be in the travel lane causing traffic to move into the opposing travel lane in order to pass. This section of roadway connects the community of Sierra Brooks (around 480 residents) with services in the incorporated City of Loyalton. This project will also provide safer motorized and non-motorized access to Federal Lands (Tahoe National Forest and Humboldt Toiyabe National Forest). Specifically, Smithneck Road connects to the Loyalton/Boca Railroad trail, several campgrounds and Stampede Reservoir. Smithneck road continues beyond the project boundaries to provide connections through the Tahoe National Forest to Verdi and north Reno. Nevada County to the south is also proposing projects that will improve access to the Tahoe National Forest. The Smithneck Creek project will compliment those efforts by making a complete route from the north to the south through the Tahoe National Forest.

The roadway rehabilitation portion of the project is in line with system preservation goals, as the pavement is in poor condition with a Pavement Condition Index of 52.

- **Sierra County's Mid-Term and Long-Term Roadway Improvement Projects** (Table 15) – These will primarily address system preservation and safety. These projects are estimated to cost roughly \$12 million and will likely be completed over the next 10 to 20 years.
- **Financially Unconstrained STIP Improvement Projects** (Table 16) – This table lists Sierra County's wish list of improvements if additional funding sources become available. The majority of these projects are needed roadway rehabilitation or pavement overlay projects. As can be seen roughly \$97 million worth of roadway improvements are unfunded in Sierra County.
- **Long-Term, Financially Unconstrained Bridge Improvement Projects** (Table 17) – The projects are estimated to total more than \$12.7 million in project costs and will be funded with a combination of state and federal funds when they become available.

TABLE 14: Sierra County Top Priority Regional Transportation Projects

Priority ⁽¹⁾	Route	Specific Location	Proposed Project Description	Construct Year	Total Cost in (\$1,000's)	Funding Source	Performance Indicator
1	Smithneck Creek Rd	Smithneck Creek Road	Roadway Rehabilitation - Planning and Design	2025	\$500	STIP/FLAP	SP
1	Smithneck Creek Bike Path	Smithneck Creek between Sierra Brooks and Loyalton	Class I Bicycle Path - Planning and Design	2025	\$400	STIP/ATP/FLAP	S, EQ
2	Smithneck Roadway and Bicycle Project	Smithneck Creek between Sierra Brooks and Loyalton	Roadway Rehabilitation and Bicycle Path - Construction	2027	\$7,800	STIP/ATP/FLAP	SP, S, EQ
2	Sierra Brooks	Sierra Brooks	Roadway overlay	2027	\$1,012	STIP	SP
2	Campbell Hot Springs Rd.	Sierraville	Rehabilitate and construct road	2030	\$2,286	STIP	SP
2	SR 49	Sierra City	Downtown renovation project/traffic calming - enhancing pedestrian facilities, traffic calming, undergrounding utilities	2030	\$1,740	STIP	SP
Total Estimated Cost					\$13,738		

Source: SCTC
Note 1: Priority: 1 = Funded/construction 0 - 5 years, 2 = Unfunded/potential construction 0 - 10 years, 3 = Unfunded/potential construction 10 - 20 years

TABLE 15: Sierra County STIP Improvement Projects - Mid-term and Long-Term Projects
Financially Constrained Roadway Related Projects

Priority ⁽¹⁾	Route	Specific Location	Proposed Project Description	Construct Year	Total Cost (\$1,000's)	Funding Source	Performance Indicator	Corresponding Goal
Roadways								
2	Henness Pass Road	SR 89 at Little Truckee Summit for 1,600 ft (OHV grooming site)	Grind and overlay 1,600 feet	2025	\$533	USFS	SP	2,3
2	Hill Street	Near Loyalton	Pavement rehabilitation	2026	\$549	STIP	SP	2,3
2	SR 89/49	Sattley	Intersection Improvements	2027	\$1,209	STIP	S	1,2,3
2	Campbell Hot Springs Road	Sierraville	Rehabilitate and construct road	2028	\$2,161	STIP	SP	2,3
2	Gold Lake Road	Sierra City	Thin Overlay	2030	\$3,049	STIP	SP	2,3
Bridges								
2	Nevada Street Bridge #13C0006	Nevada Street Bridge at North Fork Yuba River - Br.No. 13C0006 at Downieville	Rehabilitation or replacement of existing structure with bridge meeting 3R standards for single-lane bridge.	2025	\$3,958	STIP/HBP	SP, S	2
Total Estimated Cost					\$11,459			

Source: SCTC.
Note 1: Priority: 1 = Funded/construction 0 - 5 years, 2 = Unfunded/potential construction 0 - 10 years, 3 = Unfunded/potential construction 10 - 20 years

- **Highway Safety Improvement Program Projects (Table 18)** – Costs for these projects total approximately \$6.8 million. Safety projects include guardrail installation, speed feedback signs, a comprehensive speed study and traffic control signs.
- **Forest Highway Projects (Table 18)** – These projects are estimated to cost \$38.3 million and consist of road rehabilitation and construction projects to be funded under the Federal Lands Access Program (FLAP) grant program. These projects are of particular importance to Sierra County as outdoor recreation and tourism play a major role in the region's economy. The Gold Lake Road

TABLE 16: Sierra County Future Roadway Improvement Projects
Long-term/Financially Unconstrained Roadway Improvement Projects

Priority ⁽¹⁾	Route	Specific Location	Lead Agency	Proposed Project Description	Total Cost (\$1,000)	Const Year	Funding Source	Performance Indicator	Corresponding Goals
3/U	Railroad Ave.	Loyalton	Sierra County	Construct segment Railroad Ave North from SR 49	\$ 1,142	TBD	STIP	SP	1.2.3
3/U	Various	Loyalton	Sierra County	Construct sidewalks on all Loyalton streets without sidewalks.	\$ 1,142	TBD	STIP	S	1.2.3
3/U	Various	Goodyears Bar	Sierra County	Rehabilitate and reconstruct streets.	\$ 1,827	TBD	STIP	SP	1.2.3
3/U	Lemon Canyon Rd.	Sierraville	Sierra County	Rehabilitate pavement	\$ 1,599	TBD	STIP	SP	1.2.3
3/U	Campbell Hot Springs Rd.	Sierraville	Sierra County	Rehabilitate and construct road	\$ 1,599	TBD	STIP	SP	1.2.3
3/U	Main St.	Downieville, SR 49	Sierra County	Downieville Main St. SR 49 reconstruct pad way and rehab	\$ 3,426	TBD	STIP	S, SP	1.2.3
3/U	Salmon Lake Road	Gold Lake Road to Salmon Lake	Sierra County	Rehabilitate	\$ 731	TBD	STIP	SP	1.2.3
3/U	Sardine Lake Road	Gold Lake Road to Sardine Lake	Sierra County	Rehabilitate	\$ 799	TBD	STIP	SP	1.2.3
3/U	Packer Lake Road	Gold Lake Road to Packer Lake	Sierra County	Rehabilitate	\$ 1,827	TBD	STIP	SP	1.2.3
3/U	Henness Pass Rd.	Pliocene Rd. to Cornish Camp	Sierra County	Rehabilitate	\$ 4,568	TBD	STIP	SP	1.2.3
3/U	Ridge Road	SR 49 to Pliocene	Sierra County	Overlay	\$ 5,710	TBD	STIP	SP	1.2.3
3/U	Forest City Road	Pliocene to Forest	Sierra County	Reconstruct and rehabilitate	\$ 17,131	TBD	STIP	SP	1.2.3
3/U	Mountain House Rd.	SR 49 to Forest	Sierra County	Reconstruct and rehabilitate	\$ 10,279	TBD	STIP	SP	1.2.3
3/U	Brandy City Road	SR 49 to Brandy City	Sierra County	Reconstruct and rehabilitate	\$ 5,710	TBD	STIP	SP	1.2.3
3/U	Streets of Capine	Various	Sierra County	Pavement overlay	\$ 2,284	TBD	STIP	SP	1.2.3
3/U	Streets of Sierraville	Various	Sierra County	Pavement overlay	\$ 2,284	TBD	STIP	SP	1.2.3
3/U	Streets of Downieville	Main St, School St, Sunnyside, Pearl Ave, Malden, Ponta Ranch, River St, East River, Nevada St, Commercial, Belle St	Sierra County	Pavement overlay	\$ 3,426	TBD	STIP	SP	1.2.3
3/U	Streets of Sierra City	Various	Sierra County	Pavement overlay	\$ 2,284	TBD	STIP	SP	1.2.3
3/U	Streets of Alleghany	Various	Sierra County	Pavement overlay	\$ 1,713	TBD	STIP	SP	1.2.3
3/U	Stampede Reservoir Road	SR 89 to Stampede Dam	Sierra County	Pavement overlay	\$ 799	TBD	STIP	SP	1.2.3
3/U	Long Valley Rd.	I-80 to US 395	Sierra County	Reconstruct and rehabilitate	\$ 5,710	TBD	STIP	SP	1.2.3
3/U	Lavezzola Rd.	East Main St. to Empire Ranch, Downieville	Sierra County	Reconstruct and rehabilitate	\$ 10,279	TBD	STIP	SP	1.2.3
3/U	Saddleback Rd.	SR 49 to Saddleback Lookout	Sierra County	Reconstruct and rehabilitate	\$ 10,279	TBD	STIP	SP	1.2.3
3/U	Sierraville Visitor Center	Sierraville	Sierra County	Construct visitor center including traveler's information kiosk, public restrooms, paved parking lot and enhancement including sidewalks/paths, picnic area, landscaping	\$ 505	TBD	STIP	EW, A	1.2.3
					Total Estimated Cost	\$	97,056		

Source: SCTC
 Note 1: Priority: 1 = Funded/construction 0 - 5 years, 2 = Unfunded/potential construction 0 - 10 years, 3 = Unfunded/potential construction 10 - 20 years

Overlay project is the top priority forest highway project for Sierra County due to the high level of recreation opportunities off of this roadway. The expansion of the OHV parking area at Little Truckee Summit on SR 89 is funded through a California Off-Highway Motor Vehicle (OHMV) grant.

- **Transportation Planning Feasibility Studies (Table 19)** – These include several feasibility studies for roadway improvement projects which are still in the visionary phase. The feasibility studies are estimated to cost \$99,000, with project costs estimated at over \$1.2 million.
- **City of Loyalton Transportation Improvement Projects (Table 20)** – The majority of the City of Loyalton’s roads are in need of repair. It is anticipated that the majority of the City of Loyalton’s list of local improvement projects will be funded by the STIP program. Estimated costs are unavailable for these long term projects. Projects are consistent with the policies and implementation programs listed in the *City of Loyalton 2028 General Plan* and will address regional transportation needs by increasing walkability of the city and preserving the city’s transportation system.

TABLE 17: Sierra County Unconstrained Bridge Improvement Projects
Long-term/Financially Unconstrained Bridge Improvement Projects

Lead Agency	Priority ⁽¹⁾	Specific Location	Bridge No.	Total Cost (\$1,000s)	Construct Year	Funding Source	Sufficiency Rating	Performance Indicator	Corresponding Goal
TBD	U	Pearl Street Bridge at Downieville River, at Downieville	13C0003	\$4,643	TBD	STIP/HBP	NA	SP, S	2
TBD	U	Port Wine Ridge Road Bridge at Cedar Grove Ravine	13C0052	\$1,310	TBD	STIP/HBP	61	SP, S	2
TBD	U	Port Wine Ridge Road at Rock Creek Tributary	13C0050	\$218	TBD	STIP/HBP	69	SP, S	2
TBD	U	Sierra City - Wild Plum Road Bridge at N. Fork Yuba River	13C0046	\$2,341	TBD	STIP/HBP	48.3	SP, S	2
TBD	U	Brandy City Road Bridge at Cherokee Creek	13C0054	\$2,033	TBD	STIP/HBP	72.8	SP, S	2
TBD	U	Mtn.House Rd. Br. At Rock Creek	13C0043	\$126	TBD	STIP/HBP	65.1	SP, S	2
TBD	U	Port Wine Ridge Road Bridge at Rock Creek	13C0019	\$228	TBD	STIP/HBP	78.5	SP, S	2
TBD	U	Post Office Spur at Goodyears Creek	13C0037	\$228	TBD	STIP/HBP	85.0	SP, S	2
TBD	U	Lavezzola Road Bridge at Lavezzola Creek	13C0045	\$228	TBD	STIP/HBP	75.4	SP, S	2
TBD	U	Main Street Cr S500 at Downie River	13C0055	\$228	TBD	STIP/HBP	76.6	SP, S	2
TBD	U	Independence Lake Road - New bridge on Independence Lake to replace existing low water crossing and revitalize Perazzo Meadows	--	\$1,200	TBD	STIP/HBP	--	M, S	2
Total Estimated Cost				\$12,784					

Source: SCTC
Note 1: Priority: 1 = Funded/construction 0 - 5 years, 2 = Unfunded/potential construction 0 - 10 years, 3 = Unfunded/potential construction 10 - 20 years

Transit

As noted in Chapter 2, transit services are very limited in Sierra County. Two van services provide specialized transportation services primarily for the elderly and disabled. Developing an intercity bus service to serve Sierra County is not feasible without a significant funding increase, given the rural nature of the region, also not necessary at this time.

TABLE 18: Sierra County Special Funding Program Improvement Projects - 20-Year Vision

Priority ⁽¹⁾	Route	Specific Location	Proposed Project Description	Const Year	Total Cost (\$1,000s)	Funding Source	Performance Indicator	Corresponding Goals
Highway Safety Improvement Program								
2	Countywide	Various	Install 75 traffic control and way finding signs	TBD	\$21	HSIP	S	2
3	Countywide	Various	Pavement striping	TBD	\$914	HSIP	S	2
3	Countywide	Various	Comprehensive speed study, ordinance changes, traffic control devices and directional signs	TBD	\$228	HSIP	S	2
3	Brandy City Road	SR 49 to Brandy City	Install guardrail various locations from SR 49 to Brandy City	TBD	\$2,284	HSIP	S	2
3	Lavezzola Road	Downieville town limit to road end	Install guardrail various locations from town limit to end of Lavezzola Rd.	TBD	\$3,426	HSIP	S	2
Total Estimated Cost					\$6,873			
Forest Highway Projects								
1	Gold Lake Highway	--	Thin Overlay	2020	\$2,286	FLAP	SP, E	2
1	Little Truckee Summit off of SR 89		Expand recreation parking area	2025	NA	CA OHMV	M,E	2
3	Stampede Dam Road	--	Rehabilitate and Reconstruct	TBD	\$3,426	FLAP	SP, E	2
3	Smithneck Road	--	Rehabilitate and Reconstruct	TBD	\$2,284	FLAP	SP, E	2
3	Henness Pass Road	--	Rehabilitate and Reconstruct	TBD	\$22,842	FLAP	SP, E	2
3	Ridge Road	--	Rehabilitate and Reconstruct	TBD	\$7,995	FLAP	SP, E	2
Total Estimated Cost					\$38,833			
Source: SCTC								
Note 1: Priority: 1 = Funded/construction 0 - 5 years, 2 = Unfunded/potential construction 0 - 10 years, 3 = Unfunded/potential construction 10 - 20 years								

TABLE 19: Transportation Planning Feasibility Studies (2020-2040)

Priority	Road	Specific Location	Project Description	Estimated Total Project Cost (1000's) Adjusted for Inflation
U	Downtown/trailhead	Downieville	Parking and Transportation Study	\$10
U	SR 49	Loyalton	Feasibility Study	N/A
U	Trealease and Sierra Lane (Private Road)	Verdi - Rehabilitate, Reconstruct, Pave	Feasibility Study	\$649
U	Meadow Ranch Road (Private Road)	Calpine - Rehabilitate, Reconstruct, Pave	Feasibility Study	\$649
U	Long Valley Road Realignment	Long Valley - Realign and Repave	Feasibility Study	NA
TOTAL				\$1,298
Source: Sierra County Road Department.				

**TABLE 20: City of Loyalton Street Improvement Priority List
Long-term Roadway Projects**

Street	Project Description	Construct Year	Funding Source	Performance Indicator	Corresponding Goals
Railroad	Slurry seal	TBD	STIP/RSTP	SP	2,3
Patterson Ave. and Patterson Circle	Slurry seal	TBD	STIP/RSTP	SP	2,3
Mill Street	Slurry seal	TBD	STIP/RSTP	SP	2,3
Alleghany Street	Slurry seal	TBD	STIP/RSTP	SP	2,3
Lewis Ave	Slurry seal	TBD	STIP/RSTP	SP	2,3
Taylor Ave	Slurry seal	TBD	STIP/RSTP	SP	2,3
Granite Ave	Slurry seal	TBD	STIP/RSTP	SP	2,3
Church Street	Slurry seal	TBD	STIP/RSTP	SP	2,3
Jones Street	Slurry seal	TBD	STIP/RSTP	SP	2,3
Zollinger Street	Slurry seal	TBD	STIP/RSTP	SP	2,3
Meeker Street	Slurry seal	TBD	STIP/RSTP	SP	2,3
White Street	Slurry seal	TBD	STIP/RSTP	SP	2,3
Pine Street	Slurry seal	TBD	STIP/RSTP	SP	2,3
Court Lane	Slurry seal	TBD	STIP/RSTP	SP	2,3
First Street	Slurry seal	TBD	STIP/RSTP	SP	2,3
Second Street	Slurry seal	TBD	STIP/RSTP	SP	2,3
Third Street	Slurry seal	TBD	STIP/RSTP	SP	2,3
Fourth Street	Slurry seal	TBD	STIP/RSTP	SP	2,3
Hill Street	Slurry seal	TBD	STIP/RSTP	SP	2,3

Source: City of Loyalton

The *Sierra County Coordinated Public Transit Human Services Transportation Plan* was last updated in 2015. This document recommends strategies to improve the mobility of Sierra County residents, primarily the disadvantaged population. These strategies along with other transit capital projects proposed by SCTC are presented in Table 21 and described below:

- Strengthen and maintain existing transportation
- Marketing Plan
- Mobility Manager – Transit in Sierra County could benefit by designating one half-time position to oversee and coordinate transit related projects for the region. The Mobility Manager could help to implement the other coordinated plan recommended strategies.
- Volunteer Driver Program – One method of providing flexible transportation to Sierra County residents is to establish a volunteer driver program where drivers would be recruited to transport residents in need to medical appointments and could be reimbursed for their mileage.

- Increase Private Vehicle Access
- Purchase Modified Minivan – This has been completed

It is also the goal of the SCTC to “encourage non-profit and/or private organizations to operate public transportation services, rather than provide services directly.” However, SCTC assists the transit operators with securing funding for transit capital projects. Vehicles should be replaced as they reach the end of their useful life to ensure a safe operating vehicle. SCTC has maintained a good vehicle replacement strategy by replacing vehicles every four years at the end of their useful life. Providing a sheltered storage area for the transit vans is a long-term RTP transit capital project. The FTA grant program offers several sources of funding for operations activities to transit systems which cater to the disadvantaged population as discussed in greater detail in Chapter 5.

TABLE 21: Transit Capital Improvement Projects

Priority ⁽¹⁾	Lead Agency	Proposed Project Description	Construct Year	Total Cost (\$1,000s)	Funding Source	Performance Indicator	Corresponding Goals
1	Sierra County	Purchase Two Vans	2019	\$112	STA / PTMISEA	A	1,2
1	Sierra County	Replace Public Transit Vehicles at end of Useful Life	2021	\$122	STA / PTMISEA	A	1,2
U	Sierra County	Sheltered Storage for Transit Buses	TBD	NA	STA	A	1,2
<u>Coordinated Public Transit Human Services Transportation Projects</u>							
U	Sierra County	Mobility Manager	TBD	\$43 per year	JARC, New Freedom, 5310/local	A	1,2
U	Sierra County	Volunteer Driver/ Transportation Reimbursement Program	TBD	\$26 per year	New Freedom, local	A	1,2

Note 1: Priority: 1 = Funded/construction 0 - 5 years, 2 = Unfunded/potential construction 0 - 10 years, 3 = Unfunded/potential construction 10 - 20 years
Source: Sierra County Transportation Commission, Sierra County Coordinated Plan.

Bikeway/Pedestrian Improvement Projects

Proposed RTP bicycle/pedestrian projects include construction of bike paths and pedestrian ways within and between Sierra County communities. Capital improvement projects are estimated to cost \$26 million and are all considered financially unconstrained (Table 22). Competitive Active Transportation Program (ATP) and recurring STIP funds will be the likely funding sources for these projects. The stakeholder/public input and transportation needs/issues discussion demonstrated a need for safer facilities for bicyclists and pedestrians in Sierra County.

Although Sierra County does not have an extensive paved or improved bike facility network, Downieville is renowned for its network of mountain biking trails. The Downieville Classic Mountain Bike Festival alone brings over 1,000 racers and spectators to the small community for one weekend. The influx of mountain biking visitors increases the potential for conflict between bikers and vehicles on narrow streets and highways. Long-term improvement projects to continue to improve trailhead facilities and reduce conflict with local residents will benefit regional bikeway and pedestrian transportation while remaining consistent with RTP goals and objectives.

TABLE 22: Sierra County Bicycle Facility Potential Improvements

Priority	Community Area	Description	Type	Mileage	Construct Year	Total Cost (\$1,000s)	Potential Funding Source	Performance Measure
2	Region	Update Bicycle Plan	Planning	--	TBD	\$ 20	ATP	M/A, CS
3	Sierra Valley	Sierraville Downtown Pathway to Old Truckee Road, Landscaping	Class II, Landscaping	1.06	TBD	\$ 558	ATP/STIP	M/A, CS
3	Sierra Valley	Beckwith Road (A-24)	Widen Shoulders/Signage	2.5	TBD	\$ 658	ATP/STIP	M/A, CS
3	Loyalton	SR 49 Loyalton Vicinity	Widen Shoulders/Signage	2	TBD	\$ 526	ATP/STIP	M/A, CS
3	Sierra Valley	SR 49 Sattley to Sierraville	Widen Shoulders/Signage	4	TBD	\$ 1,053	ATP/STIP	M/A, CS
3	Sierra Valley	Westside Road (A-23)	Widen Shoulders/Signage	7	TBD	\$ 1,842	ATP/STIP	M/A, CS
3	Sierra Valley	SR 49 Sierraville to Loyalton	Widen Shoulders/Signage	12.4	TBD	\$ 3,263	ATP/STIP	M/A, CS
3	Sierra Valley	SR 49 Loyalton to Plumas County Line	Widen Shoulders/Signage	2.3	TBD	\$ 605	ATP/STIP	M/A, CS
3	Sierra Valley	Calpine Road	Widen Shoulders/Signage	1.27	TBD	\$ 334	ATP/STIP	M/A, CS
3	Sierra Valley	SR 89 from Calpine Road to SR 49	Widen Shoulders/Signage	3	TBD	\$ 789	ATP/STIP	M/A, CS
3	Sierra Valley	SR 49/89 from SR 89 intersection to Sattley	Widen Shoulders/Signage	0.9	TBD	\$ 237	ATP/STIP	M/A, CS
3	West County	SR 49 from Yuba County line to Yuba Pass	Widen Shoulders/Signage	34	TBD	\$ 8,947	ATP/STIP	M/A, CS
3	Sierra Valley	SR 89 from Plumas County Line to Calpine	Widen Shoulders/Signage	6.8	TBD	\$ 1,789	ATP/STIP	M/A, CS
3	Yuba Pass	SR 49 from Bassets to SR 89 junction	Widen Shoulders/Signage	13	TBD	\$ 3,421	ATP/STIP	M/A, CS
3	Gold Lakes	Gold Lake Hwy from Bassetts to Plumas County line	Widen Shoulders/Signage	7.8	TBD	\$ 2,052	ATP/STIP	M/A, CS
3	Downieville	Downieville - Downhill trailhead to parking area	New Multi-Use	1	TBD	NA	ATP	M/A, CS
3	County	Countywide Wayfinding and informational signage	Signage	--	TBD	\$ 18	ATP	M/A, CS
3	Downieville	Downieville Visitors Center and Merchants	Bicycle Racks	--	TBD	\$ 11	ATP	M/A, CS
3	County	Schools	Bicycle Racks	--	TBD	\$ 11	ATP	M/A, CS
3	County	Bicycle Map	Marketing/Information	--	TBD	\$ 4	ATP	M/A, CS
Total						\$ 26,136		

Note 1: Priority: 1 = Funded/construction 0 - 5 years, 2 = Unfunded/potential construction 0 - 10 years, 3 = Unfunded/potential construction 10 - 20 years
Source: Sierra County Transportation Commission, Sierra County 2012 Bicycle Plan.

Airport Improvement Projects

The primary aviation goal of the county is to provide safe airports for general aviation users. The Capital Improvement Plan includes improvement projects that assist in overcoming deficiencies identified during airport inspections. Capital improvement projects are shown in Table 23, and are estimated to cost \$2 million.

TABLE 23 : Sierraville - Dearwater Airport Capital Improvement Projects, 20-Year Vision

Priority ⁽¹⁾	Proposed Project Description	Total Cost	Funding Source	Construct Year	Performance Indicator	Corresponding Goals
U	Runway Reconstruction	\$600	CAAP	TBD	SP	1
U	Reconstruct Apron	\$400	CAAP	TBD	SP	1
U	Construct turnaround: RW 3	\$30	CAAP	TBD	SP	1
U	Widen Runway to 60 Feet	\$210	CAAP	TBD	E, M	1
U	ALP Master Plan	\$18	CAAP	TBD	SP	1
U	New Parallel Taxiway-One Half Length	\$330	CAAP	TBD	E,M	1
U	New Parallel Taxiway-One Half Length	\$330	CAAP	TBD	E, M	1
U	Land Acquisition for Aviation Easement	\$180	CAAP	TBD	SP	1
Total Estimated Cost		\$2,098				

Note 1: Priority: 1 = Funded/construction 0 - 5 years, 2 = Unfunded/potential construction 0 - 10 years, 3 = Unfunded/potential construction 10 - 20 years, U = Financially unconstrained
Source: Sierra County Transportation Commission

Railroad System

The role of the railroad in Sierra County has diminished over recent years. Given that the rail lines are not used for passenger travel (other than the Union Pacific Donner Summit route in the southeast corner of the county, with no stations in Sierra County), there are no proposed public rail improvement projects. In addition, as these lines are basically inactive (other than the Union Pacific Donner Summit route, which includes no at-grade railroad crossings), there is little need for rail crossing safety improvements in the short term.

Goods Movement

Freight transportation is a crucial function of the Sierra County transportation system. Trucking generates substantial volumes of freight activity on the county roadway system. The predominant generator of freight movements is through traffic, particularly on the I-80 and US 395 corridors. Local freight generators in Sierra County largely consist of dispersed natural resource-based activities, particularly timber production and agriculture. Shoulder widening projects will increase safety for goods movement as there will be less potential for conflict between cyclists and trucks.

Intelligent Transportation Systems

The SCTC participated in the Tahoe Gateway Intelligent Transportation Systems (ITS) Strategic Deployment Plan (SDP) and regional ITS architecture in partnership with Caltrans and other stakeholders, to implement the Tahoe Gateway regional ITS architecture. Proposed ITS projects in Sierra County listed in the SDP Report #2 include the following:

- Changeable Message Signs/Radio Weather Information Systems to indicate traffic conditions, snow chain requirements, and other related warnings or road information. Proposed locations to place the signs include:
 - SR 49 at Yuba/Sierra County line (for eastbound travel between the county line and Bassetts)
 - SR 49 at Bassetts (for eastbound travel between Bassetts and Sattley-Yuba Pass)
 - SR 49/89 at Sattley (for westbound travel between Sattley and Sierra City)
 - SR 89 at Sierraville (for southbound travel between Sierraville and Truckee)
- Rock/Mudslide and Avalanche Detection and Warning System at appropriate locations on SR 49 and SR 89
- Ice Detection and Warning Systems at appropriate locations on SR 49 and SR 89
- Traveler Information Kiosk on US 395 northbound at Sierra/Washoe County line

Animal Vehicle Collision Avoidance System on SR 89

- AVI/AVL for Emergency Vehicles

Sierra County has also placed several speed feedback signs in the communities along the state highways in the county. Sierra County intends to continue the speed feedback sign program on local roads in the future.

ENVIRONMENTAL MITIGATION

As recommended in the 2017 *RTP Guidelines*, in addition to conducting environmental review as per CEQA, this document includes a discussion of potential environmental mitigation activities and areas, including those mitigation activities that might maintain or restore the environment that is affected by the plan. Most RTP projects are street or road rehabilitation and do not require disturbing or paving untouched land, nor are RTP projects generally located in wetlands, wildlife refuges, national monuments or historic sites.

Environmental mitigation for RTP projects are most applicable to RTP bridge rehabilitation projects where a river, stream or associated wetlands could be disturbed by reconstruction of a bridge. According to the Sierra County Planning Department, there are no adopted/standard mitigation measures for transportation projects except to require the implementation of Best Management Practices (BMPs) for stream protection, erosion, and sedimentation control. A transportation project must also comply with permitting requirements of any applicable jurisdiction, such as the California Department of Fish and Game and Regional Water Quality Control Board.

For transportation improvement projects which have the potential for erosion and sedimentation, the Sierra County Planning Department recommends employing BMPs obtained from the Erosion and Sediment Control Guidelines for Developing Areas in the Sierra Foothills (High Sierra RC&D Council, 1991). The following describes six principles for mitigating the impact of construction activity in the Sierra foothills:

- Plan the development to fit the particular topography, soils, waterways, and natural conditions at the site
- Expose the smallest practical area of land for the shortest possible time
- Retain natural vegetation where feasible
- Apply “soil erosion” practices as a first line of defense against on-site damage
- Apply “sediment control” as a perimeter protection to prevent off-site damage
- Implement a thorough maintenance and follow-up operation

The handbook further details BMPs for constructing temporary structures, permanent structures, vegetative practices, and protection of trees in urbanizing areas.

All RTP projects that will have a potential impact on natural resources in the region will undergo individual CEQA environmental review. When considering a transportation improvement project, the first course of action will be to consult with natural resource agencies to determine the potential impact

of the project. Any changes or reconfiguration to the project which will limit environmental impact will be pursued. BMP's will be followed and mitigation measures employed to reduce project impacts.

As part of the public participation process (described in Chapter 1 and documented in Appendix D), state and federal resource agencies were contacted and maps of natural resources under each agency's jurisdiction were requested. Multiple agencies were contacted at the beginning of the RTP update process and will be notified of the availability of the Draft RTP document. Natural resource agency maps and documents were compared to this RTP in an attempt to find potential conflicts between transportation improvement projects and natural resources. The details of these comparisons and natural resource agency input are summarized in the Public Consultation section of Chapter 1.

SIERRA COUNTY STRATEGIES TO REDUCE GHG EMISSIONS

Global climate change or "global warming" is an important issue which is closely related to transportation. Climate change is caused by the release of greenhouse gases (GHG's) such as carbon dioxide, methane, nitrous oxide, hydro fluorocarbons, perfluorocarbons, and sulfur hexafluoride into the atmosphere that traps heat and increases temperatures near the earth's surface. Motorized vehicles emit carbon dioxide and are large contributors to GHG emissions. In fact, according to the CARB GHG Inventory for 2016, transportation accounts for roughly 41 percent of total GHG emissions in California. Forecasted, long-term consequences of climate change range from a rise in the sea level to a significant loss of the Sierra snowpack. Despite potentially devastating long term affects, climate change does not have immediately visible effects such as smog. However, GHG emissions are an important air quality issue which needs to be addressed in regional transportation planning documents.

RTPAs that are not located within the boundaries of a metropolitan planning organization (which SCTC is not) are not subject to the provisions of SB 375 that require addressing regional GHG targets in the RTP and preparation of sustainable community strategies. Sierra County does not experience traffic congestion. As demonstrated in Chapter 2, overall traffic volumes on Sierra County state highways have decreased in the last ten years, with the exception of near the Plumas and Yuba County lines. As such, the Sierra County region is not a significant contributor to GHG emissions. Regardless, this RTP identifies improvements to bicycle and pedestrian facilities which will encourage residents and visitors to use alternatives to the private vehicle for transportation, thereby helping to reduce GHG emissions.

Given the importance of the consideration of climate change in transportation planning, this RTP outlines the following strategies to reduce GHG emissions:

- **Continue to Prioritize Regional Transportation System Maintenance over Expansion** - One GHG reduction strategy that is repeatedly identified in legislation and policy documents is to reduce VMT by implementing smart growth strategies which concentrate land use expansion in urbanized cores where public transportation is available and increase the "walkability" of communities. Sierra County has a few small population centers: Loyalton, Sierraville, Sierra City, and Downieville with some dispersed residential uses in between. Large scale development in the County is hindered by the rugged terrain and remoteness of the region. The Sierra County General Plan Circulation Element states that "It is the goal of the County to prevent growth inducement along transportation corridors that is inconsistent with existing land use patterns." Objective 2.1.4 in this RTP states, "Program improvements to the transportation system which prevent further deterioration of the existing system and provide priority to preventative maintenance, rehabilitation, and reconstruction projects over enhancement projects." Additionally, there is a general desire by residents of the

region to maintain the rural and historic character of the area.

To date, Sierra County has adhered to this goal. Sierra County decision makers should continue to follow this approach and approve transportation projects which focus on safety and system preservation. Land use growth should occur within established communities so that expanding the capacity of Sierra County state highways, county roads or city streets would not be necessary to accommodate increased traffic volumes. Higher priority should be placed on transportation improvement projects that reduce VMT, such as bicycle, pedestrian, and transit projects.

- **Implement Active Transportation Project Improvements** – The regional transportation issues discussion demonstrates a need to create a safer environment for pedestrians and bicyclists along the state highway corridors. The SCTC top priority bicycle path project between Sierra Brooks and Loyalton will make bicycle travel for residents and visitors both safer and more appealing, thereby reducing the number of vehicle trips.
- **Implement Transit System Improvements** – Although there is limited funding available for public transit in Sierra County, the need for transit has clearly been demonstrated. Continuing to improve public transit service by replacing aged vehicles and improvements to passenger facilities would make the transit system more visible and thereby encourage non-regular riders or visitors to utilize the bus system.
- **Rideshare Program** – According to US Census data, 85 percent of Sierra County residents commute to work in another county. Recent trends indicate that job growth within the county appears to be minimal. One option that SCTC staff can undertake to reduce VMT is to develop a rideshare program. This could be as simple as advertising the program in the local paper, maintaining a database of contact information in a spreadsheet for commuters, and distributing the contact list to interested commuters, if an appropriate match is found. There are also several established rideshare databases and matching services on the internet that are free to commuters. SCTC staff should promote the use of these websites by Sierra County residents and employees for both intra- and inter-county commute trips.
- **Improve Broadband Infrastructure** – Sierra County is very remote and somewhat isolated from urban employment centers. Cell phone service is patchy and high speed internet is not available countywide. As indicated above, 85 percent of Sierra County residents commute out of county for work. One way of reducing VMT and GHG emissions is to provide broadband infrastructure which allows Sierra County residents to telecommute. Access to high speed internet is also crucial to attract new employers to Sierra County and thereby reduce the need to travel intercounty for work. Roadway rehabilitation projects provide an opportunity to install broadband fiber optic cable and should be considered.

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The Financial Element is fundamental to the development and implementation of the Regional Transportation Plan. This chapter identifies the current and anticipated revenue resources and financing techniques available to fund the planned transportation investments that are described in the Action Element, as needed to address the goals, policies and objectives presented in the Policy Element. The intent is to define realistic financing constraints and opportunities. The following provides a summary of the federal, state, and local funding sources and programs available to the Sierra County region for roadway improvements. The next section examines future regional transportation revenues and compares anticipated transportation revenues with proposed transportation projects. The last section provides a brief summary and conclusions. From a practical perspective, finances and funding availability ultimately determine which projects are constructed.



It is important to note that there are different funding sources for different types of projects. The region is bound by strict rules in obtaining and using transportation funds. Some funding sources are “discretionary,” meaning they can be used for general operations and maintenance, not tied to a specific project or type of project. However, even these discretionary funds must be used to directly benefit the transportation system they are collected for. For example, funds derived from gasoline taxes can only be spent on roads, and aviation fuel taxes must be spent on airports. State and federal grant funding is even more specific. There are several sources of grant funds, each designated to a specific type of facility (e.g. bridges or state highways), and/or for a specific type of project (e.g. reconstruction or storm damage). This system makes it critical for the county to pursue various funding sources for various projects simultaneously, and to have the flexibility to implement projects as funding becomes available.

The majority of RTP Action Element projects will be funded by recurring or non-competitive federal or state grants. In addition to recurring money, many competitive grants are available for transportation projects but success in obtaining these types of funds is difficult to predict. A wide variety of funding sources which could be employed by Sierra County to complete the Action Element financially constrained and unconstrained projects are listed below. For reference, recurring funding sources are marked with an (R) and competitive grant sources are marked with a (C).

ROADWAY IMPROVEMENT FUNDING

Federal Sources

Fixing Americas Surface Transportation Act (FAST-Act)

Over the years, the federal government has provided guaranteed funding for surface transportation improvements through legislation. The FAST Act is the most recent version and replaces Moving Ahead for Progress (MAP-21) and was signed into law on December 4, 2015. The FAST Act funds surface

transportation programs—including, but not limited to, Federal-aid highways—at over \$305 billion for fiscal years (FY) 2016 through 2020. Traditionally, the federal transportation bill has been funded through federal gas taxes. As vehicles have become more efficient, there is less revenue to draw from and an increase in the tax is politically unpopular. FAST Act funds the Transportation Trust Fund authorizes around \$45 billion annually. The following programs are potential funding sources for Sierra County transportation improvement projects:

- **National Highway Performance Program (C)**—This core program will focus on repairing and improving the National Highway System. The Highway Bridge Program (HBP), which provides funding for highway bridges in need of repair according to federal safety standards, falls under this core program. State and local bridge replacement projects are funded through Caltrans with HBP grants. The goal of the program is to rehabilitate or replace public highway bridges when it has been determined that the bridge is significantly important and unsafe. The federal share of a HBP project is 80 percent. To be eligible for rehabilitation a bridge must be rated Structurally Deficient with a sufficiency rate of less than 80. To be eligible for replacement, the sufficiency rating must be 50 or less. As of 2017, a functionally obsolete bridge is no longer considered eligible for HBP funding. Twelve bridges in Sierra County are considered in poor condition
- **Surface Transportation Block Grant Program (STBGP) (R)**—Generally, the Surface Transportation Program (STP) provides flexible funding that may be used by States and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. Roughly \$11.6 billion in flexible funding will be available annually nationwide. This program includes a set aside for the Transportation Alternatives (non-motorized improvements and traffic calming techniques) and Recreational Trails.
- **Highway Safety Improvement Program (HSIP) (C)**—This program authorizes roughly \$2.3 million in annual funding for projects with the purpose of achieving a significant reduction in traffic fatalities and serious injuries on all public roads and pedestrian and bicycle facilities. Safety projects include railway-highway crossing and infrastructure safety needs, in addition to safety programs such as education, enforcement, and emergency medical services. California's Local HSIP focuses on infrastructure projects with nationally recognized crash reduction factors (CRFs). Local HSIP projects must be identified on the basis of crash experience, crash potential, crash rate, or other data-supported means. Fatality rates on rural roads must be tracked in order to determine allocation to the High Risk Rural Road Program.
- **Federal Lands Transportation Program**—Provides \$355 million annually for projects that improve access in national forests, national recreation areas or other infrastructure owned by the federal government. This program combines the former Park Roads and Refuge Roads programs. The majority of funding, 284 million is allocated to the National Park Service, another \$30 million to US Fish and Wildlife, \$17 million to the Forest Service and the remaining \$24 million is allocated competitively using a performance management model.
- **Federal Lands Access Program (FLAP)**—This program replaces and expands the Forest Highways program by providing \$260 million for projects that improve access to all Federal Lands. Funds are distributed to each state by formula based on recreational visitation, land area, public road mileage and number of public bridges. States must provide a non-federal match.

- **Tribal Transportation Program**—This program continues the Indian Reservation Roads program and adds set asides for tribal bridge projects and tribal safety projects. It continues to provide set asides for program management and oversight and tribal transportation planning. Roughly \$485 million will be available annually.
- **Nationally Significant Federal Lands and Tribal Projects**—A new discretionary grant for large federal land or tribal land projects.

In addition, Federal funds are available for transit operations and capital assistance through the Federal Transit Administration discussed below.

State Sources

Transportation funding in California is both complex and full of uncertainty. Generally, revenue sources for transportation improvements are generated from fuel excise taxes, fuel sales taxes, and the statewide sales tax. In recent years, California transportation funding has become dependent on motor fuel sales tax. Since 2001, proceeds from these taxes have been diverted from the transportation program in an effort to address the general fund deficit, despite legislation prohibiting these actions except in the case of severe state fiscal hardship. As a result, the STIP and SHOPP funds (primary funding programs for the state highway system) as well as transit funding sources have been raided for general fund purposes.

The struggle to balance the state budget and adequately fund transportation projects in California is ongoing. Various state legislation and ballot propositions in recent years have changed revenue flows for state transportation sources. The “gas tax swap” eliminated the sales tax on gasoline and implemented the price-based excise tax on gasoline to fund transportation improvements. As part of the legislation an increase in the diesel fuel sales tax was offset by a decrease in the diesel fuel excise tax. The objective of the gas tax swap was to provide a mechanism to fund transportation bond debt service (gasoline sales tax revenues have more stringent restrictions on uses). At the same time voters passed Proposition 22 which restricted diversions of fuel excise tax revenues in the State Highway Account for non-transportation purposes. Therefore new legislation was passed which swapped weight fees, previously used for Caltrans operations to be used for bond debt service. The end result is that STIP roadway projects (State Highway Account) will be funded through fuel excise taxes. STIP Transit and transportation planning projects (Public Transportation Account) and public transit operations are funded primarily through sales tax on diesel fuel. State excise fuel taxes flow through the Motor Vehicle Fuel Account to fund the STIP, SHOPP, Active Transportation Program, and City and County Road Funds.

The following section lists the transportation funding sources available through the State of California.

- State Transportation Improvement Program (STIP) (R)—consists of two broad transportation improvement programs: (1) the regional program funded by 75 percent of new STIP funding, and (2) the interregional program funded by 25 percent of new STIP funding. Brief summaries of these funds are provided below along with other state funding sources:
 - *Regional Improvement Program (RIP)*—RIP funds account for 75 percent of STIP funding. The 75 percent portion is subdivided by formula into county shares. The SCTC programs funds which are apportioned to the region. These funds may be used to finance projects

that are both “on” and “off” the state highway system. This “regional share” must be relied on to fund capacity increasing projects on much of the state highway system. Critical to rural California counties, regional STIP funding may be used for local rehabilitation projects.

- *Interregional Improvement Program (IIP)*—The IIP receives the remaining 25 percent of the STIP funding. The IIP funds taken collectively form the Interregional Transportation Improvement Program (ITIP). This program is controlled and programmed by Caltrans, although regional agencies provide input on the specific ITIP projects for their region. One of the goals of the program is to encourage regional agencies and the state to establish partnerships to conduct certain projects. For the rural California counties, a challenge to use IIP funding is the very limited availability of “local match” for IIP-funded programs. (However, RIP funds can be used as match for the ITIP program.) In actuality, Caltrans receives 15 percent for state highway projects on the interregional system; potential projects must compete statewide for the remaining funds. Much of the state highway system is not eligible for interregional funding and must rely on the regional share to fund capacity improvement projects.
- *Planning Programming and Monitoring Funds*—Programming of these funds comes from county shares and can be programmed for each year of the STIP. The CTC STIP Guidelines define eligible PPM activities as regional transportation planning (including the development and preparation of the regional transportation plan), project planning (including the development of project study reports or major investment studies, conducted by regional agencies or by local agencies in cooperation with regional agencies), program development (including the preparation of RTIPs and studies supporting them), and monitoring the implementation of STIP projects (including project delivery, timely use of funds, and compliance with State law and the CTC guidelines).

Caltrans estimates the amount of funding available for the STIP program for a five-year period every two years. The most recent STIP Fund Estimate was developed in 2018. Based on that fund estimate and the STIP Guidelines, the SCTC develops a program of projects for the five-year period. The SCTC submits this program of projects called the Regional Transportation Improvement Program (RTIP) to the California Transportation Commission (CTC). The RTIP specifies cost per project component and fiscal year over a five-year period. When the CTC approves the RTIP, it becomes part of the STIP.

- State Highway Operations and Protection Program (SHOPP) (R)—The purpose of the SHOPP is to maintain the integrity of the state highway system. Funding for this program is provided through gas tax revenues. Projects are nominated within each Caltrans District office. Proposed projects are sent to Caltrans Headquarters for programming on a competitive basis statewide. Final project funding determinations are subject to the CTC review. Individual districts are not guaranteed a minimum level of funding. SHOPP projects are based on statewide priorities within each program category (i.e. safety, rehabilitation, operations, etc.) within each Caltrans district. SHOPP funds cannot be used for capacity-enhancing projects.
- SHOPP Minor Programs (R)—The “Minor A” Program is a Caltrans discretionary funding program based on annual statewide allocations by district. This program allows some level of discretion to Caltrans district offices in funding projects up to \$1,250,000. The “Minor B” Program funds are used for projects up to \$291,000. The advantage of the program is its streamlined funding

process and the local district discretion for decision-making. Funding is locally competitive within each district and limited to the extent of its allocation.

- California Senate Bill 1 – the Road Repair and Accountability Act of 2017 (R)—provides additional funding for existing transportation programs such as State Transit Assistance (STA) and funding for local streets and roads, while creating new initiatives. Effective November 1, 2017, and adjusted for inflation starting 2020, SB 1 increases the excise motor fuel rate by:
 - Increasing the gasoline excise tax by an additional \$0.12 per gallon
 - Increasing the diesel fuel excise tax by \$0.20 per gallon
 - Increasing the sales tax on diesel fuel by 4 percent

In addition to the excise tax increases, SB 1 created a new vehicle registration fee and a Road Improvement Fee for new zero-emission vehicle owners beginning in 2020. SB 1 will provide additional revenue for the STIP, SHOPP, ATP programs, local roadway projects, bridge maintenance as well as public transit.

- Regional Surface Transportation Program (RSTP) (R)—Rural counties can currently exchange federal Surface Transportation dollars for State Highway Account (SHA) funds (a process known as “RSTP Exchange”). This is advantageous to RTPAs as federal funds have more stringent requirements such as a 20 percent local match, while state funds do not require any local match. The state also provides additional state funds to the county, as a match to the exchanged federal dollars. Eligible RSTP projects include:

Construction, reconstruction, rehabilitation, resurfacing, restoration and operational improvements on Federal Aid Highways (any highways which are not classified as local or rural minor collectors) and bridges (on public roads of all functional classifications).

- Environmental mitigation for an RSTP project
 - Capital transit projects
 - Carpool projects
 - Highway and transit safety projects
 - Capital and operating costs for traffic monitoring
 - Surface transportation planning programs
 - Transportation enhancement activities
 - Transportation control measures
 - Highway and transit R&D and technology transfer programs
- Environmental Enhancement and Mitigation (EEM) Program (C)—The purpose of the EEM was to offer state-level funding to remedy environmental impacts of new or improved transportation facilities. Mitigation can include highway landscapes and urban forestry or development of roadside recreational facilities such as roadside rest stops, trails, scenic overlooks, trailheads, parks, and snow parks. The bill appropriates \$7 million annually from the Highway Users Tax Account for these purposes. The program is administered by the California Natural Resources Agency.

- The Active Transportation Program (ATP) (C)—(Senate Bill 99, Chapter 359 and Assembly Bill 101, Chapter 354) was signed in to law on September 26, 2013. The ATP consolidated existing federal and state transportation programs, including Transportation Alternatives Program, Bicycle Transportation Account (BTA), and State Safe Routes to School (SR2S), into a single program with a focus to make California a national leader in active transportation. Furthermore, disadvantaged communities must receive at least 25 percent of the program’s funding.

The purpose of ATP is to encourage increased use of active modes of transportation by achieving the following goals:

- Increase the proportion of trips accomplished by biking and walking,
- Increase safety and mobility for non-motorized users,
- Advance the active transportation efforts of regional agencies to achieve greenhouse gas (GHG) reduction goals,
- Enhance public health, including reduction of childhood obesity through the use of programs including, but not limited to, projects eligible for Safe Routes to School Program funding,
- Ensure that disadvantaged communities fully share in the benefits of the program, and
- Provide a broad spectrum of projects to benefit many types of active transportation users.

There is a local match of 11.47 percent except for projects predominately benefiting a disadvantaged community. The program is very competitive but is the primary funding source for bicycle and pedestrian projects.

- Rural Planning Assistance (RPA) (R)—This recurring state grant program provides funds to rural RTPAs – on a reimbursement basis – specifically for purposes of transportation planning. Activities and products developed using these funds are governed by an annual Overall Work Program, prepared by the region and approved by Caltrans.
- Sustainable Transportation Planning Grant Program (C)—This grant program was created to support Caltrans’ current Mission: Provide a safe, sustainable, integrated and efficient transportation system to enhance California’s economy and livability. Overarching objectives of this grant program are to ensure consideration of these major efforts in transportation planning, including: Sustainability, Preservation, Mobility, Safety, Innovation, Economy, Health, and Equity. There are two separate grant programs: Strategic Partnerships and Sustainable Communities which effectively replace former Environmental Justice, Community-Based Transportation Planning, and Transit Planning grant programs.
- Strategic Partnerships—Funded through the FHWA, for transportation planning studies of interregional and statewide significance in partnership with Caltrans. Minimum grant award is \$100,000 with a maximum award of \$500,000. RTPAs and MPOs are eligible primary applicants with transit agencies, local governments, tribal governments, universities, and non-profit

organizations eligible to apply as a sub-applicant. There is a 20 percent minimum local match. Example transportation planning studies include: corridor studies, transportation demand management strategies, system investment prioritization plans, and studies which identify interregional or statewide mobility and access needs.

- Sustainable Communities—Funded through FTA Section 5304 and the SHA, to study multimodal transportation issues which assist in achieving Caltrans’ mission and overarching objectives. Primary eligible applicants include: RTPAs, MPOs, transit agencies, local governments, and tribal governments. Non-profit organizations and other public entities are eligible to apply as sub-applicants. Grants are available in amounts of \$50,000 to \$500,000 with a local match of 11.47 percent. Example projects include:
 - Studies that advances a community’s effort to reduce transportation related greenhouse gases
 - Studies that assist transportation agencies in creating sustainable communities
 - Studies that advances a community’s effort to address the impacts of climate change and sea level rise
 - Community to school studies or safe routes to school studies or plans
 - Jobs and affordable housing proximity studies
 - Context-sensitive streetscapes or town center plans
 - Complete street plans
 - Bike and pedestrian safety enhancement plans
 - Traffic calming and safety enhancement plans
 - Corridor enhancement studies
 - Health equity transportation studies
 - Climate change adaptation plans for transportation facilities
 - Transit planning surveys and research
 - Identification of policies, strategies, and programs to preserve transit facilities and optimize transit infrastructure
 - Studies that evaluate accessibility and connectivity of the multimodal transportation network
 - Short-range transit development plans
 - Transit marketing plans
 - Social service improvement studies
 - Student Internships (Only for Rural Agencies)
 - Studies that address environmental justice issues in a transportation related context
- Fuel Excise Tax Revenues, Highway Users Tax Account (R)—Roughly 36 percent of the state base excise tax and 44 percent of the price-based fuel excise tax, gas tax swap, (after revenue used to backfill weight fees which have been diverted) are allocated to cities and counties for road projects. Allocation formulas are complex and based on population, proportion of registered vehicles, and proportion of maintained county road miles. These funds can be used for maintenance, new construction, engineering, administration, right of way and other uses.
- Vehicle License Fees—Revenue from motor vehicle license fees are allocated back to local jurisdictions for any purpose.

Local Sources

At present, there are no local dedicated sources available for ongoing transportation costs other than those “passed through” from state or federal programs. The following sources of funding for transportation projects are available to local governments through various means:

- *Traffic Mitigation Fees* – Traffic mitigation fees are one-time charges on new developments to pay for required public facilities and to mitigate impacts created by or reasonably related to development. There are a number of approaches to charging developers for the provision of public facilities. In all cases, however, the fees must be clearly related to the costs incurred as a result of the development. Passed to govern the imposition of development fees, AB 1600 requires that a rational connection be made between a fee and the type of development on which the fee is based. Furthermore, fees cannot be used to correct existing problems or pay for improvements needed for existing development. A county may only levy such fees in the unincorporated area over which it has jurisdiction, while a city must levy fees within the city limits. Any fee program to pay for regional facilities must have the cooperation of all jurisdictions in which future growth is expected to take place. Traffic mitigation fees would be difficult to implement in Sierra County, due to (1) the dispersion of development over a wide area, which makes it difficult to allocate specific improvements to a range of developments, and (2) the desire to avoid discouraging development through the imposition of additional fees. In any case, the extreme low level of new development in Sierra County would generate minimal fee revenues.
- *Development Mitigation Measures/Agreements* – Development mitigation measures are imposed whenever development requires approval by a local entity. Generally, mitigation measures are imposed as conditions on tentative maps. These conditions reflect on- and off-site project mitigation that must be completed in order to be able to develop. Development agreements are also used to gain cooperation of developers in constructing off-site infrastructure improvements, or dedicating rights-of-way needed as a result of the proposed development. As with impact fees, developer mitigations are not generally available to fund on-going transportation maintenance and operations costs. Further, this funding source is improbable and insignificant in Sierra County.

TRANSIT IMPROVEMENT FUNDING

A wide range of potential transit funding sources is available, particularly within California. The following discussion provides an overview of these programs.

Federal Funding Sources

The following are discussions of federal transit funding programs available to rural areas:

- FTA Capital Program Section 5339 Bus and Bus Facilities Grants (C)—Capital projects to replace, rehabilitate and purchase buses, vans, and related equipment, and to construct bus-related facilities. A sub-program provides competitive grants for bus and bus facility projects that support low and zero-emission vehicles.
- FTA Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities (C)—This program is intended to enhance mobility for seniors and persons with disabilities by providing funds for programs to serve the special needs of transit-dependent populations beyond

traditional public transportation services and Americans with Disabilities Act (ADA) complementary paratransit services. This program consolidates the old New Freedom Program with the Elderly and Disabled Program. Grants are available for both capital (20 percent local match) and operating purposes (50% local match) to areas with less than 200,000 in population. Projects to be funded with FTA 5310 funds must be derived from a Coordinated Public Transit Human Services Transportation Plan.

- FTA Section 5311 Public Transportation for Rural Areas (R)—Federal transit funding for rural areas (population of less than 50,000) is currently provided through the FTA Section 5311 Non-urbanized Area Formula Program. In California, an 11.47 percent local match is required for capital programs and a 44.67 percent match for operating expenditures. These funds, administered by Caltrans, are segmented into “apportioned” and “discretionary” programs. The bulk of the funds are apportioned directly to rural counties based on population levels. The remaining funds are distributed by Caltrans on a discretionary basis and are typically used for capital purposes. Statewide, around \$31 million is available.
- Rural Transit Assistance Program (RTAP) (C) – The RTAP (49 USC. 5311(b)(3)) provides a source of funding to assist in the design and implementation of training and technical assistance projects and other support services tailored to meet the needs of transit operators in non-urbanized areas. RTAP has both state and national program components. The state program provides an annual allocation to each state to develop and implement training and technical assistance programs in conjunction with the state’s administration of the Section 5311 formula assistance program. The national program provides for the development of information and materials for use by local operators and state administering agencies and supports research and technical assistance projects of national interest. There is no federal requirement for a local match.

State Funding Sources

A mainstay of funding for transit programs in California is provided by the Transportation Development Act (TDA). The TDA provides two major sources of funding for public transportation: the Local Transportation Fund (LTF), which began in 1972, and the State Transit Assistance (STA) fund, established in 1980.

- Local Transportation Fund (R)—The major portion of TDA funds are provided through the LTF. These funds are generated by a one-fourth cent statewide sales tax and returned to the county of origin. Consequently, LTF funds are based on local population and spending. The LTF may be allocated by the SCTC for the following prioritized purposes:
 - A reasonable amount is needed by the SCTC for TDA administration. This amount varies between RTPAs.
 - Up to 3 percent of annual LTF revenues may be allocated to the RTPA for the conduct of the transportation planning and programming process
 - Two percent of the remaining amount may be provided for pedestrian and/or bicycle facilities.

- Up to five percent of remaining funds may be allocated for coordinated community transit services.
 - The remaining funds must be spent for transit and paratransit purposes, unless the Transportation Commission finds that either no unmet transit needs, or that unmet needs cannot be reasonably met.
 - If there are no reasonable-to-meet unmet transit needs, remaining funds may be allocated to local streets and roads to jurisdictions based on population.
- State Transit Assistance—In addition to LTF funding, the TDA includes a STA funding mechanism. The sales tax on diesel fuel is used to fund public transit operations and capital improvements. This amount was recently augmented by the diesel fuel sales tax increase from SB1.
 - The Low Carbon Transit Operations Program (LCTOP)—This is one of several programs that are part of the Transit, Affordable Housing, and Sustainable Communities Program established by the California Legislature in 2014 by Senate Bill 862. The LCTOP was created to provide operating and capital assistance for transit agencies to reduce greenhouse gas emission and improve mobility, with a priority on serving disadvantaged communities. Eligible projects include new or expanded bus or rail services, expanded intermodal transit facilities, and may include equipment acquisition, fueling, maintenance and other costs to operate those services or facilities, as long as each project reduces greenhouse gas emissions. For agencies whose service area includes disadvantaged communities, at least 50 percent of the total moneys received shall be expended on projects that will benefit disadvantaged communities. This relatively new program is administered by Caltrans in coordination with Air Resource Board (ARB) and the State Controller’s Office (SCO).
 - Transit and Intercity Rail Capital Program (C)—Also created by SB 862, this program provides funding from the Greenhouse Gas Reduction Fund, for rail or intercity rail feeder bus projects which reducing greenhouse gas emissions. Eligible applicants must be public agencies, including joint powers agencies, that operate or have planning responsibility for existing or planned regularly scheduled intercity or commuter passenger rail service (and associated feeder bus service to intercity rail services), urban rail transit service, or bus or ferry transit service (including commuter bus services and vanpool services).

AVIATION

Funding Sources

- **Federal Airport Improvement Program (AIP)** – The AIP provides 90 percent federal funding (requiring a 10 percent local and state match) for public use airports that are part of the National Plan of Integrated Airport Systems (NPIAS). Available for most capital expenditures, this funding program must be approved annually by Congress. In recent years it has experienced major funding reductions. AIP funds are derived from user charges such as aviation fuel tax, civil aircraft tax, and air passenger fare surcharges. The Sierraville-Dearwater Airport is not currently listed on the NPIAS system and therefore not eligible for AIP funds.

- **State of California Airport Grants** – The California Division of Aeronautics makes grant funds available for airport development and operations. Three types of state financial aid to publicly owned airports are available.
 - Annual grants for up to \$10,000 per airport per year. These funds can be used for a variety of purposes from runway reconstruction, obstruction removal to radios.
 - Acquisition and Development (A&D) Grants provide funds for the cost of qualified airport developments on a matching basis, to the extent that state funds are available. Grant amounts can range from a minimum of \$20,000 to a maximum of \$500,000. The local match requirement is set annually by the CTC and can vary from 10 to 50 percent of total project costs. A&D grants cannot be used as a local match for FAA grants. A&D projects must be listed in the CIP and A&D grants are available to both NPIAS and non NPIAS airports. The amount available for A&D grants is what is left in the Aeronautics Account after funding State Operations, Annual Grants and AIP Matching.
 - Local Airport Loan Program This program provides discretionary low interest State loans to eligible airports for projects that enhance an airport's ability to provide general aviation services (hangars, terminals, utilities, fueling facilities, A&D-eligible projects, etc.). A loan may also provide the local share for an AIP grant. Such a loan can be used in conjunction with a State-funded AIP Matching grant. The maximum term of a loan is 17 years.

Funding for airport improvements is limited. At the state level excise taxes on AVGAS and General Aviation jet fuel are the only source of revenue for the Division of Aeronautics. Funding currently available represents a 25 percent decrease from historical levels. There is no revenue from aircraft fees in Sierra County to fund all maintenance needs and necessary improvements for substandard airport facilities, which makes state and federal grants and loans difficult to obtain.

PROJECTED REVENUES

Projecting revenues and expenditures over a 20-year horizon is difficult, in that funding levels can dramatically fluctuate or be eliminated by legislation and policy changes. In addition, many projects are eligible for discretionary funds, which are nearly impossible to forecast as discretionary funds are allocated through a competitive grant process.

The 2018 STIP Fund Estimate projects new programming STIP capacity of \$2.2 billion over the five year period. It should be noted that programming capacity does not represent cash. It represents the level of programming commitments that the California Transportation Commission (CTC) may make to projects for each year within the STIP period. This is an improvement over the prior 2016 STIP Fund Estimate which identified negative programming capacity.

Roughly \$6.9 billion in new SHOPP programming capacity is estimated for the two year fund estimate. This is also a significant improvement over the prior STIP Fund Estimate and is due to the implementation of SB1.

Recurring regional transportation revenues were projected over the next 20 years, as shown in Table 24. As referenced in the *RTP Guidelines* and required in Government Code Section 65080(b)(4)(A), STIP

revenues projections over the first four years of the planning period are consistent with the 2018 STIP Fund Estimate. Although the base excise tax on motor fuel has remained the same over the past 20 years or so, vehicles have become more fuel efficient. Adding inflation in to the equation, fuel tax revenues have been slowly decreasing over time. Therefore, transportation funding sources which are dependent on fuel tax revenues such as STIP and SHOPP are only projected to increase by one percent annually over the long term planning period. On a federal level, this RTP assumes that the FAST Act will be authorized at apportionment levels similar to previous years.

TABLE 24: RTP Forecast Revenue Summary

All Figures in 1000s, adjusted annually for inflation

Funding Source/Program	Fiscal Years				Total
	20/21 - 24/25	25/26 - 29/30	30/31 - 34/35	35/36 - 39/40	
<u>Recurring Roadway and Bridge Capital Revenues</u>					
STIP ⁽¹⁾	\$4,210	\$4,372	\$4,595	\$4,830	\$18,007
SHOPP/Minor ⁽²⁾	\$14,620	\$14,620	\$15,064	\$15,833	\$60,137
HBP/Toll Credits ⁽³⁾	\$3,958	\$4,038	\$4,244	\$4,460	\$16,700
Special Funding Projects ⁽⁴⁾	\$2,286	--	--	--	\$2,286
Subtotal	\$25,074	\$23,030	\$23,904	\$25,123	\$97,131
<u>Transportation Planning, Operations and Maintenance Revenues</u>					
STIP PPM ⁽¹⁾	\$171	\$187	\$197	\$207	\$762
Highway Users Tax (Gas) ⁽⁵⁾	\$4,605	\$4,745	\$4,987	\$5,241	\$19,578
Road Fund Exchange \$ ⁽⁵⁾	\$984	\$1,014	\$1,066	\$1,120	\$4,184
Road Maintenance and Rehabilitation (SB 1) ⁽⁵⁾	\$1,569	\$1,617	\$1,699	\$1,786	\$6,671
Other State Aid ⁽⁵⁾	\$1,609	\$1,792	\$2,062	\$2,373	\$7,836
S1608/HR2389 (Forest Reserves) ⁽⁵⁾	\$1,511	\$1,511	\$1,511	\$1,511	\$6,043
Subtotal	\$10,449	\$10,866	\$11,522	\$12,238	\$45,075
<u>Bicycle and Pedestrian Revenues</u>					
ATP	Discretionary and competitive. Difficult to project				
<u>Aviation Capital Revenues</u>					
State CAAP ⁽⁶⁾	\$50	\$50	\$50	\$50	\$200
Subtotal	\$50	\$50	\$50	\$50	\$200
<u>Transit Capital and Operating Revenues ⁽⁷⁾</u>					
STA and State of Good Repair	\$125	\$133	\$147	\$162	\$566
LTF	\$325	\$345	\$381	\$421	\$1,472
FTA Sec. 5311	\$240	\$255	\$281	\$311	\$1,087
Subtotal	\$690	\$733	\$809	\$893	\$3,124
TOTAL	\$36,263	\$34,678	\$36,284	\$38,304	\$145,530
Note 1: Based on CTC 2018 STIP Fund Estimate. A 1.0 percent growth rate is assumed from FY 24/25 forward.					
Note 2: Based on District 3 SHOPP Plan. FY 24/25 forward based on average anticipated funding from previous 10 years and increased by 1.0 percent annually.					
Note 3: Based on short-term project lists. Long-term projections assume a 1 percent growth rate.					
Note 4: Assumes top priority projects will be funded over the next five years.					
Note 5: Based on Sierra County FY 17-18 Budget. Long-term projections assume a 1 percent annual growth rate.					
Note 6: Assumed annual CAAP grant of \$10K per year.					
Note 7: Short-term projections based on SCO report for FY 2017-18 and long term assume 2 percent annual growth rate.					
Source: Sierra County, SCTC.					

A total of \$97 million in recurring transportation revenue is anticipated to be available over the 20 year planning period for roadway, bridge, bicycle pedestrian, safety and forest highway projects. A combination of the revenues could be used to finance improvement projects. Aviation capital revenues over the planning period total to approximately \$200,000. Roughly \$2.6 million in total transit capital

and operating revenue is projected. As available funding sources for bicycle and pedestrian projects, primarily ATP funds, are discretionary and difficult to obtain, these are not included in the projections.

Roadway and Bridge Revenue to Expenditure Comparison

Table 25 compares regional roadway and bridge capital improvement projected recurring revenues to expenditures over the 20 year planning period. For competitive special funding program projects, only top priority projects are assumed to be funded. As can be seen in the table, the first five years of RTP projects are fiscally constrained. However, for the mid-term and long-term periods, there is a significant shortfall in recurring revenues, roughly \$112 million. Additionally, this figure does not include City of Loyalton project list or other long-term projects with unknown project costs. Specific implementation dates for projects will depend on actual revenue available.

TABLE 25: Roadway and Bridge Capital Improvement Revenue to Expenditure Comparison					
<i>All Figures in 1000s, adjusted annually for inflation</i>					
Program	Fiscal Years				Total
	20/21 - 24/25	25/26 - 29/30	30/31 - 34/35	35/36 - 39/40	
Total Recurring Roadway and Bridge Revenues	\$25,074	\$23,030	\$23,904	\$25,123	\$97,131
Estimated Expenditures⁽¹⁾					
SHOPP Projects	\$14,620	\$14,620	--	--	\$29,240
County STIP/HBP Projects	\$900	\$24,297	\$54,920	\$54,920	\$135,038
Special Funding Program Projects	\$2,286	\$14,473	\$14,473	\$14,473	\$45,706
Total Expenditures	\$17,806	\$53,391	\$69,394	\$69,394	\$209,984
Balance	\$7,268	-\$23,093	-\$68,583	-\$112,854	-\$112,854
Note 1: Does not include City of Loyalton long-term and some future bridge projects with undetermined construction costs.					
Note 2: For unknown construction dates, project costs were averaged over later half of planning period.					

SCTC has applied for competitive grant funding which may add to the revenue sources. Table 25 clearly demonstrates that obtaining funding through discretionary grants will be key to implementing all the regional transportation capital improvement projects required to meet the needs identified in this RTP. The Sierra County region will continue to plan and program transportation projects which are consistent with the goals, policies and objectives in the Policy Element.

Operations and Maintenance Costs

In addition to ensuring that the implementation of new or reconstructed transportation facilities identified in this RTP are financially constrained, it is also important to consider if there will be sufficient funds over the planning period to operate and maintain the facilities once constructed. Funds for roadway operation and maintenance stem from a variety of sources depending on the operator of the facility. SHOPP funds can be used to maintain the state highways. Gas tax funds are used to maintain roadways at the county and city level. Table 24 shows projections for transportation planning, operations and maintenance. These revenue projections are based on historical funding levels. As the majority of roadway projects in this RTP represents reconstruction of existing facilities and therefore will

not increase the roadways operations and maintenance budgets significantly, it is estimated that there will be sufficient revenue over the RTP planning period to operate and maintain roadways.

Transit Revenue Expenditure Comparison

In terms of transit capital projects, two vans are being replaced this year. The other two vehicles in the Sierra County transit fleet will be replaced in 2021. It is anticipated that all vehicle replacements will be funded with a combination of STA and state bond funds (PTMISEA). The remaining transit projects do not have secured funding.

Aviation Revenue Expenditure Comparison

The only revenues available for aviation capital improvements are the annual CAAP grants of \$10,000 per year. For the entire planning period, aviation capital revenues will only total \$200,000, therefore all airport improvements are considered financially unconstrained. Projects will be implemented as funding becomes available.