

ALPINE COUNTY GENERAL PLAN



IV. CIRCULATION ELEMENT

REVISIONS TO THIS SECTION:

ENTIRE ELEMENT

BOARD OF SUPERVISORS RESOLUTION NO. R2012-26, JUNE 19, 2012

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1. INTRODUCTION

This General Plan Element identifies goal and policies related to circulation and infrastructure needs in Alpine County. The Circulation Element focuses on transportation issues related to roadways, bicycle/pedestrian facilities, transit, goods movement, and airports. The document is organized into the following sections:

- Introduction: Includes demographic information, a summary of the existing transportation setting, and information on other related planning documents.
- Goals & Polices: Includes goals and policies related to circulation and infrastructure needs to support the General Plan Land Use Element. In addition, implementation strategies for each policy and responsibility for each policy is provided.
- Needs Assessment: Evaluates existing and future transportation conditions based on the goals, polices, and implementation strategies. Roadway functional classification and existing and future level of service is discussed.

ALPINE COUNTY DEMOGRAPHICS

Historically, Alpine County has experienced a slow rate of population growth due to the County's rural nature and absence of expanding employment opportunities. **Table 1** shows the historical population growth from 2000 through 2009. The population in Alpine County has increased and decreased as much as 2% from year-to-year over the last 10 years; however, some may consider the population change insignificant, considering the overall fluctuation is only 60 people (from highest year to the lowest year).

TABLE 1 HISTORICAL POPULATION GROWTH IN ALPINE COUNTY		
Year	Population	Growth from Previous Year
2000	1,208	NA
2001	1,222	1.2%
2002	1,246	2.0%
2003	1,252	0.5%
2004	1,261	0.7%
2005	1,242	-1.5%
2006	1,237	-0.4%
2007	1,255	1.5%
2008	1,227	-2.2%
2009	1,201	-2.1%

Source: California State Department of Finance (DOF) E-4 Population Estimates 2001-2007

The California State Department of Finance projects Alpine County to have a population of 1,462 by year 2030.

In addition to permanent residents, Alpine County has many second home residents, particularly in the Bear Valley and Kirkwood areas. During peak winter weekends, when the resorts at Bear Valley and Kirkwood are near capacity, the Alpine County population is likely upwards of 10,000.

The 2000 US Census data indicated that approximately 64% of the Alpine County working population is employed in Alpine County, 11% is employed outside of Alpine County in California, and 25% is employed in Nevada. Approximately, 71% travel to work via private automobile and 26% walk. The percentage of walking trips is substantial and individuals likely walk to work in Markleeville and the resort communities of Bear Valley and Kirkwood.

EXISTING TRANSPORTATION SETTING

In addition to the residential population in the County, visitors and tourists utilize the County's transportation systems. The County offers numerous outdoor recreation activities from skiing in winter months to hiking, camping, and fishing in summer months. Alpine County is home to special events such as the annual "Death Ride" which attracts hundreds of bicyclists each year. In addition, several bike clubs utilize Alpine County roads for race events or weekend rides. Regional traffic peaks during summer months, when all roadways are open. During winter months, regional travel in Alpine County is limited due to winter road closures because of snowy conditions. However, as discussed, the county population increases on peak winter weekends in the resort communities when Bear Valley and Kirkwood resorts are near capacity. During these times, there is localized traffic congestion on SR 88 and SR 4 in the resort vicinities. The traffic congestion is usually limited to a few hours on a few peak days a year, and does not significantly affect the rural nature of the county.

Roadway System

Travel in Alpine County is primarily automobile-oriented due to the rural nature of the local communities, low development densities, and limited options for using alternative modes of travel.

Three state highways traverse Alpine County: State Route (SR) 4, SR 88, and SR 89. These routes are functionally classified by Caltrans as Rural Minor Arterials. In addition, SR 207 (Mount Reba Road) connects to SR 4 in Bear Valley. Mount Reba Road is approximately 1.5 miles long and provides access to the Mount Reba ski area. Alpine County also has a network of county roadways. Significant county roadways include Diamond Valley Road, Montgomery Street/Hot Springs Road, Bear Valley Road, Blue Lakes Road, Emigrant Trail, and Foothill Road. The majority of travel throughout the County occurs on the state highway system, which is described in more detail below.

Caltrans has jurisdiction over the State Highways in Alpine County. Caltrans prepares Transportation Concept Reports (TCRs), which are a twenty-year consensus-based transportation planning document that provides a comprehensive analysis of facility conditions, demographics, local economies, land use, and environmental issues. Caltrans has recently prepared TCR's for SR 4 (2002) and SR 89 (2002) within Alpine County.

State Route (SR) 4

SR 4 is a two-lane road that extends from the southwest corner of Alpine County (near Bear Valley) to the junction with SR 89 south of Markleeville. It is classified by Caltrans as a Minor Arterial. SR 4 originates in Contra Costa County at Interstate 80 (I-80) near Hercules. The route heads east through San Joaquin County, Stanislaus County, and Calaveras County, before entering Alpine County. The segment of SR 4 in Alpine County is



a State Scenic Highway and a National Scenic Byway. SR 4 is closed during the winter, between Mount Reba Road and SR 89, due to unsafe road conditions from inclement weather. The Caltrans Concept Level of Service for SR 4 in Alpine County is LOS C.



State Route 88

SR 88 is an east-west roadway that begins in Stockton in the west and ends at US 395 in Douglas County, Nevada. SR 88 is generally a two-lane roadway with occasional passing lanes and is classified by Caltrans as a Minor Arterial. The segment of SR 88 in Alpine County is a State Scenic Highway and a US Forest Service Scenic Byway. Unlike other state facilities in Alpine County, SR 88 remains open during the winter and is closed only for temporary, extreme weather conditions.

State Route 89

In Alpine County, SR 89 traverses the north half of the county for 24 miles between the El Dorado County and Mono County lines. The two-lane route is classified by Caltrans as a Minor Arterial and serves the communities of Markleeville and Woodfords. SR 89 shares a route with SR 88 from Woodfords to Picketts Junction. The segment of SR 89 in Alpine County is a State Scenic Highway. The eastern segment of SR 89, from the Mono County-Alpine County line to the junction at SR 4, is closed during the snow season, usually from November until May.

Historical Traffic Volumes on State Highways

Traffic volumes on the state roadways throughout Alpine County have fluctuated throughout the last ten years, some showing an overall increase, and a few showing an overall decrease. Caltrans collects traffic volume data on state roadways in Alpine County and provided annual average daily traffic volumes (AADT) and peak month daily traffic volumes. In Alpine County, the peak month traffic volumes generally occur during the summer months because all of the roadways are open for regional travel. The traffic volumes on segments of SR 4 and SR 88 near Bear Valley and Kirkwood ski resorts peak during the winter months. Historical peak month daily traffic volumes on state highways are shown in **Table 2**.

**TABLE 2
HISTORICAL PEAK MONTH DAILY TRAFFIC VOLUMES ON STATE FACILITIES**

Route and Location	Average Daily Traffic Volumes by Year										% Growth per Year
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	
SR 4 at Calaveras/Alpine County Line	1,800	1,900	1,950	1,950	1,950	1,900	1,650	1,650	1,650	1,650	-0.93%
SR 4 at Mount Reba Road	1,800	1,900	1,950	1,950	1,950	1,900	1,650	1,650	1,650	1,650	-0.93%
SR 4 at Lake Alpine	1,350	1,350	1,350	1,350	1,350	1,350	1,600	1,600	1,600	1,600	1.74%
SR 4 at Ebbetts Pass Summit	680	680	680	700	700	700	710	710	710	710	-0.49%
SR 4 at Bullion, Jct. Rte. 89	800	800	800	800	800	800	830	830	830	830	-0.42%
SR 88 at Amador/Alpine County Line	4,250	4,250	4,250	4,700	4,700	4,700	4,700	4,700	3,750	3,600	-1.70 %
SR 88 at Caples Lake	4,350	4,350	4,350	4,800	4,800	4,800	4,700	4,700	3,950	3,750	-1.53%
SR 88 at Carson Pass Summit	4,100	4,100	4,100	4,600	4,600	4,600	4,700	4,700	3,950	3,750	-0.95%
SR 88 at Picketts, W Jct. Rte 89	3,550	3,550	4,050	4,500	4,500	4,250	4,250	4,250	3,600	3,800	-0.78%
SR 88 at Woodfords, E Jct. Rte. 89	3,200	3,200	4,150	4,600	4,600	4,100	4,600	4,600	3,900	4,000	2.78%
SR 88 at Nevada State Line	3,250	3,250	4,750	5,300	5,300	5,200	4,900	4,900	4,200	4,350	3.76%
SR 89 at Mono/Alpine County Line	650	650	600	600	640	730	730	730	770	770	2.05%
SR 89 at Bullion, W Jct. Rte. 4	1,100	1,100	1,100	1,100	1,100	1,200	1,200	1,200	960	960	-1.41%
SR 89 at Laramie Street	1,700	1,700	1,700	1,700	1,700	1,750	1,750	1,750	1,400	1,400	-1.96%
SR 89 at Markleeville, Webster Street	3,100	3,100	3,100	3,100	3,100	3,200	3,200	3,200	2,550	2,550	-1.97%
SR 89 at Woodfords, E Jct. Rte. 88	3,100	3,100	3,100	3,100	3,100	3,200	3,200	3,200	2,650	2,650	-1.61%
SR 89 at Picketts, Jct. Rte. 88	4,200	3,750	3,750	3,750	3,350	3,300	3,300	3,400	3,100	3,100	-2.91%
SR 89 at Alpine/El Dorado County Line, Luther Pass	4,200	3,750	3,750	3,750	3,350	3,300	3,300	3,400	3,100	3,100	-2.91%
SR 207 (Mount Reba Road) at Mount Reba Ski Resort	1,800	1,800	1,800	1,800	1,800	1,800	1,800	--	1,100	1,100	-4.32%

Notes: -- Data not available

Source: Caltrans Traffic and Vehicle Data Systems Unit

Truck Traffic

Caltrans also collects truck traffic volumes on state highways. Due to the mountainous terrain and the winter closure of SR 4 and SR 89, Alpine County does not serve a major interregional trucking route; however, truck traffic is present on the state highways. **Table 3** displays the Caltrans truck traffic data for 2007.

TABLE 3 2007 TRUCK TRAFFIC VOLUMES ON STATE FACILITIES			
Route and Location	Average Daily Traffic Volumes by Year		
	Total AADT	Total Truck Traffic	% Trucks
SR 4 at Calaveras/Alpine County Line	1,150	23	2.0%
SR 4 at Bullion, Jct. Rte. 89	500	21	4.2%
SR 88 at Picketts, W Jct. Rte 89	3,100	239	7.7%
SR 88 at Nevada State Line	3,800	281	7.4%
SR 89 at Mono/Alpine County Line	350	17	4.9%
SR 89 at Bullion, W Jct. Rte. 4	570	31	5.4%
SR 89 at Picketts, Jct. Rte. 88	2450	327	13.3%
Notes: AADT = Annual Average Daily Traffic			
Source: Caltrans Traffic and Vehicle Data Systems Unit			

Vehicle Miles of Travel

Vehicle Miles of Travel (VMT) is a computed value, which correlates to the extent of an area's reliance on private automobile for trip-making. VMT is calculated by adding together the length of each trip made in the County, typically over a set period of time, commonly one year. VMT is often used to estimate vehicle emissions (i.e. green house gas emissions) and effects on air quality.

Table 4 displays the yearly VMT in Alpine County on the state facilities. Alpine County has the fewest vehicle miles of travel on state highways of all counties in California.

TABLE 4 VMT ON STATE HIGHWAYS IN ALPINE COUNTY	
Year	VMT (in millions)
1995	38.5
1996	42.9
1997	45.7
1998	44.9
1999	45
2000	45
2001	46
2002	50
2003	50
2004	48.1
2005	52.1
2006	53
2007	46.6
2008	47

Source: Caltrans Traffic and Vehicle Data Systems Unit

OTHER RELATED PLANNING DOCUMENTS

This General Plan Circulation Element is intended to provide goal and policies consistent with other General Plan elements to paint a picture of the County’s future development. The Circulation Element provides guidance to other focused transportation planning documents and must be consistent with these documents. A general discussion of Alpine County’s transportation planning documents is provided as follows:

Regional Transportation Plan

In general, a Regional Transportation Plan (RTP) is developed to clearly present regional transportation goals, objectives, and policies complemented by short-term and long-term strategies for implementation. These goals, objectives, and policies must be both realistic and fiscally constrained. The RTP is designed to be a blueprint for the systematic development of a balanced, comprehensive, multi-modal transportation system, taking into consideration the conditions of current transportation resources and areas of needed improvement. The planning process must be flexible enough to be updated as conditions and needs change. The California Transportation Commission (CTC) requires that rural RTPs be updated every four years. The current Alpine County RTP was updated in 2005 and will be updated in the near term.

Bicycle and Pedestrian Plan

Bicycle and Pedestrian plans focus on bicycle and pedestrian travel including existing facilities, focused goals and policies, needs assessment, and prioritized bicycle/pedestrian projects. Adopting a Bicycle and Pedestrian Plan provides additional funding opportunities for projects such as the Bicycle Transportation Account funds, administered by Caltrans. Alpine County is currently preparing a Bicycle and Pedestrian Plan.

Short Range Transit Plan

A short range transit plan provides guidance on the development of a transit system for an area. Plans for the transit system should provide an effective and efficient solution that meets the needs of the users. The plan must also take into account the economic requirements set forth by state transit funding sources.

The Alpine County Short Range Transit Plan presents a five year outlook on the operations and financial impacts of a public transit system in the County, based on an assessment of existing transportation and transit studies, existing transit settings and facilities, and the need for transit services in the County. A comprehensive analysis of various alternatives was performed as part of the document.

Pavement Management System

A pavement management system (PMS) is a tool used to estimate local roadway maintenance needs for programming and for updates of the Regional Transportation Plan (RTP). The Alpine County PMS is limited to paved local roadways under the jurisdiction of Alpine County and the National Forest Service roadways maintained by Alpine County. State highways, bridges and other transportation infrastructure such as bike and pedestrian facilities are not addressed. The PMS is a tool for planning purposes only and is not intended to set policy or provide design recommendations. Roadway projects are prioritized (typically in the Regional Transportation Plan) on a case-by-case basis utilizing such factors as preference, traffic volume, truck traffic, pavement condition, and budget constraints.

GOALS & POLICIES

Alpine County Circulation Element goals and policies were developed by coordinating with adopted planning documents such as the Regional Transportation Plan and the General Plan Land Use Element.

STREETS & HIGHWAYS

Goal 29: Develop and maintain an efficient, safe, and effective road system.

Policy 29a Support/Encourage actions at the local, state, and federal level that ensure roadways are adequate and improved to accommodate present and future traffic.

Policy 29b Implement and maintain level of service C on roadways (evaluated for average daily traffic conditions based on **Table 5**) and at intersections (evaluated for peak hour conditions using the current Highway Capacity Manual methodology) to ensure travel delays and congestion do not cause impacts to drivers. New development must comply with the Road Capacity policy and procedures outlined in the *General Plan Land Use Element: Public Services and Facilities*.

TABLE 5 ROADWAY SEGMENT AVERAGE DAILY TRAFFIC LEVEL OF SERVICE THRESHOLDS						
Functional Class	Lanes	Level of Service				
		A	B	C	D	E
County Collectors	2	900	2,000	6,800	14,100	17,400
	4	2,300	5,000	17,500	27,400	28,900
State Highway (Rural Minor Arterial)	2	1,200	2,900	7,900	16,000	20,500
	4*	10,700	17,600	25,300	32,800	36,500

Notes: * The thresholds are provided for a multi-lane highway; this threshold should not be applied to two lane highway with passing lanes. Currently, Alpine County does not have any four lane facilities. The thresholds for four lane facilities are provided for informational purposes.
Source: HCM 2000 and Fehr & Peers, 2009

Policy 29c Establish and maintain a functional classification system that identifies the 20-year function and lane requirements for the existing and proposed county and state road system.

Policy 29d Limit access to state highways consistent with their primary function as carriers of through traffic.

Policy 29e Utilize a road improvement project priority system based on traffic volumes, congestion, and safety characteristics to increase capacity or enhance safety on existing roadways and intersections.

Policy 29f Implement and maintain the pavement management system to protect the investment in existing roads.

Policy 29g Support a high level of state maintenance for State Highways.

Policy 29h Periodically monitor accident records to identify high-accident locations and to recommend appropriate mitigation measures.

Policy 29i Maintain existing transportation facilities and support efforts to improve Alpine County's highway system to support economic development and tourism within the County.

Time Frame: Ongoing

Responsibility: Alpine County Department of Public Works

Desired Outcome: Maintain transportation facilities at acceptable levels of service

TRANSIT

Goal 30: Establish alternative transportation modes consistent with demand and available resources.

Policy 30a Support improvements in specialized transportation services (including the acquisitions of new transit vehicles) provided by public and private entities.

Policy 30b Utilize industry accepted cost-efficiency guidelines in making decisions about new or existing public transit services.

Policy 30c Develop operating procedures for operators of public transit systems to ensure safety of passengers.

Time Frame: Short-term

Responsibility: ACLTC

Desired Outcome: Make transit available for residents in populated areas of Alpine County.

NON-MOTORIZED TRANSPORTATION

Goal 31: Encourage bicycling and walking in Alpine County.

Policy 31a Develop and periodically update a bicycle and pedestrian master plan that can be incorporated into the planning and construction activities for all County departments.

Policy 31b Subdivision layouts should accommodate pedestrians where appropriate, and facilities should be designed in accordance with best practices including the Americans with Disabilities Act provisions.

Policy 31c Accommodate bicyclists where feasible along roadways. Incorporate standard signage and traffic controls as established by Caltrans to ensure a high level of safety for bicyclists and motorists.

Policy 31d Accommodate walking and bicycling to and from schools consistent with demand and available resources.

Policy 31e Implement education and encouragement programs to promote safe use of Alpine County bicycle and pedestrian facilities.

Time Frame: Long-term

Responsibility: Alpine County Department of Public Works

Desired Outcome: Provide efficient alternatives to the automobile for travel.

AVIATION

Goal 32: Maintain the Alpine County Airport in a safe and operable condition.

Policy 32a Airports shall be designed, maintained, and improved in compliance with the FAA Airport Design Advisory Circular (150/5300-most current issue).

Policy 32b Airport Land Use Plans shall be developed and periodically updated for each county airport facility.

Time Frame: Ongoing

Responsibility: Alpine County Department of Public Works; Caltrans

Desired Outcome: Alpine County airports are maintained at a safe level and are promoted to attract economic development to the County.

NEEDS ASSESSMENT

STREETS AND HIGHWAYS

Functional Classification

Roadways within Alpine County fall into the following three classifications:

State Highway: State Highways in Alpine County are under Caltrans District 10 jurisdiction. Caltrans further classifies the State Highways in Alpine County as “Rural Minor Arterials.” The primary function of the State Highways is regional travel. These roadways are generally characterized by moderate travel speeds (greater than 45 mph). These roadways are primarily two-lane facilities (one lane in each direction) with passing lanes or dashed center-line striping to allow passing (where appropriate).

County Collector: County Collector roadways connect to the State Highways and provide access to businesses, residential neighborhoods, and recreational opportunities within the County. The primary function of the County Collector is to provide access. They are typically two lane facilities (one-lane in each direction) and are characterized by having access driveways at regular intervals. Typical travel speeds range from 20 mph to 45 mph.

Local Streets: Local Streets connect to County Collectors or State Highways and serve local access needs. These are neighborhood streets with maximum travel speeds of 25 mph. These roadways are one or two lanes and may be paved or unpaved.

Figure 1 displays the Alpine County roadway functional classification system.

Figure 1: Functional Classification

Level of Service

Level of service (LOS) is a term used to discuss the operating performance of an intersection or roadway segment. LOS is measured on a scale from A to F, with A representing the best performance and F the worst. Alpine County State Highway and County Collector roadway segment LOS is analyzed using the Roadway Segment Average Daily Traffic Level of Service Thresholds Table. State Highway volumes were collected by Caltrans in 2008 during the summer months. Volumes on County Collector roadways were collected in July 2009 and represent typical summer conditions.

Table 6 and **Figure 2** display the existing roadway levels of service on roadways throughout Alpine County.

Figure 2: Existing Level of Service

**TABLE 6
ROADWAY SEGMENT EXISTING DAILY LEVEL OF SERVICE ON STATE FACILITIES**

Route and Description	Daily Volume (two-way)	Truck Percentage	Policy LOS	LOS
SR 4 between Calaveras County Line and Mount Reba Road	1,650	2%	C	B
SR 4 between Mount Reba Road and Lake Alpine	1,600	NA	C	B
SR 4 at Ebbetts Pass Summit	710	NA	C	A
SR 4 at Junction with SR 89	830	4%	C	A
SR 88 at Amador County Line	3,600	NA	C	C
SR 88 between Caples Lake and Carson Pass Summit	3,750	NA	C	C
SR 88 at West Junction with SR 89	3,800	8%	C	C
SR 88 at East Junction with SR 89	4,000	8%	C	C
SR 88 at Nevada State Line	4,350	7%	C	C
SR 89 at Mono County Line	770	5%	C	A
SR 89 at West Junction with SR 4	960	5%	C	A
SR 89 at Laramie Street	1,400	NA	C	B
SR 89 at Webster Street	2,550	NA	C	B
SR 89 at East Junction with SR 88	2,650	13%	C	B
SR 89 between West Junction with SR 88 and El Dorado County Line	3,100	13%	C	C
SR 207 between Junction with SR 4 and Mount Reba Ski Resort	1,100	5%	C	A
Montgomery Street West of SR 89	890	NA	C	A
Diamond Valley Road East of SR 89	200	NA	C	A
Emigrant Trail West of SR 88	260	NA	C	A
Foothill Road West of SR 88	190	NA	C	A
Blue Lakes Road East of SR 88	760	NA	C	A

Source: Caltrans Traffic and Vehicle Data Systems Unit and Fehr & Peers, 2009

As shown in **Table 6**, all of the roadway segments studied are anticipated to operate at or better than the Policy LOS C.

Roadway segment LOS for estimated 2030 conditions are presented in **Table 7**. The historical traffic volume data indicates that traffic growth throughout Alpine County ranges from negative rates (on portions of SR 88 and SR 89) to positive rates (on SR 4 and portions of SR 88 and SR 89). Overall the average growth rate is approximately 0.4% per year. This rate was applied to the existing (2008/2009) traffic volumes for a 22 year period. This level of growth is consistent with the land use and population projections presented in the *General Plan Land Use Element* (February 2009).

Figure 3: 2030 Level of Service

**TABLE 7
ROADWAY SEGMENT 2030 DAILY LEVEL OF SERVICE ON STATE FACILITIES**

Route and Description	2030 Daily Volume (two-way)	Truck Percentage	Policy LOS	LOS
SR 4 between Calaveras County Line and Mount Reba Road	1,795	2%	C	B
SR 4 between Mount Reba Road and Lake Alpine	1,740	NA	C	B
SR 4 at Ebbetts Pass Summit	770	NA	C	A
SR 4 at Junction with SR 89	905	4%	C	A
SR 88 at Amador County Line	3,915	NA	C	C
SR 88 between Caples Lake and Carson Pass Summit	4,080	NA	C	C
SR 88 at West Junction with SR 89	4,135	8%	C	C
SR 88 at East Junction with SR 89	4,350	8%	C	C
SR 88 at Nevada State Line	4,730	7%	C	C
SR 89 at Mono County Line	840	5%	C	A
SR 89 at West Junction with SR 4	1,045	5%	C	A
SR 89 at Laramie Street	1,525	NA	C	B
SR 89 at Webster Street	2,775	NA	C	B
SR 89 East Junction with SR 88	2,885	13%	C	C
SR 89 between West Junction with SR 88 and El Dorado County Line	3,370	13%	C	C
SR 207 between Junction with SR 4 and Mount Reba Ski Resort	1,195	5%	C	A
Montgomery Street West of SR 89	970	NA	C	B
Diamond Valley Road East of SR 89	215	NA	C	A
Emigrant Trail West of SR 88	280	NA	C	A
Foothill Road West of SR 88	205	NA	C	A
Blue Lakes Road East of SR 88	825	NA	C	A

Note: **Bold** indicates that the LOS does not meet the Concept LOS

* Four lane segment. All other segments are 2-lanes.

Source: Caltrans Traffic and Vehicle Data Systems Unit and Fehr & Peers, 2008

As with existing conditions, all of the roadway segments studied operate at or better than the Policy LOS C in 2030 assuming an average rate of volume growth consistent with population and land use growth.

The level of service results indicate that no major roadway capacity improvements are necessary to accommodate future growth. Localized transportation improvements may be necessary to enhance safety. These projects should be identified in the Regional Transportation Plan.

TRANSIT

Alpine County currently provides a dial-a-ride transit service to all county residents. The transport runs on Tuesdays and Wednesdays, weather permitting, and 24 hours notice is required. Service areas include Gardnerville, Minden, Dresslerville, Lake Tahoe, Carson City, Reno, and Sacramento. A two week notice is required for trips to Reno or Sacramento.

This level of transit service is consistent with resources and demand and provides basic service to residents in Alpine County. This service meets the basic transit needs of Alpine County.

NON-MOTORIZED TRANSPORTATION

Bicycle and Pedestrian Facilities

Bicycle and pedestrian travel are the two primary modes of non-motorized travel in Alpine County. Walking and bicycling are mostly the result of recreational activity rather than commuting; however, the 2000 Census data does indicate that many Alpine County residents walk to work (approximately 26%). There are three classifications of bicycle facilities including:

- Class I: Shared use, off-street paths (not sidewalks)
- Class II: On-street marked bicycle lanes
- Class II: On-street "share-the-road" facilities

Existing bicycle facilities in Alpine County are mostly limited to Class III facilities. A Class II bike lane does exist on SR 89 between Woodfords and Markleeville, as well as an off-road bike trail in the Mount Reba area. Although the 2000 Census found that 0% of the Alpine County population travels to work by bicycle, it still remains a popular form of recreation.

Due to the rural nature of Alpine County, limited pedestrian facilities exist throughout the county and are limited to the small communities and ski resorts found in the county.

Many factors influence the decision to walk or bicycle as a means of transportation, and studies show that safety is a principal concern. In order for non-motorized transportation to be a viable transportation option, it must be safe, attractive, and easy to use. Generally this includes use of pathway design techniques that promote safety and eliminate barriers. It is important for paths to be attentively located to connect with important activity centers such as schools, parks, shopping centers, and residential areas.

The Alpine County Bicycle and Pedestrian Plan provides a comprehensive needs assessment of bicycle and pedestrian facilities.

AVIATION

Alpine County has one public aviation facility. The Caltrans Division of Aeronautics classifies the airport as a Limited Use Airport. Limited Use Airports serve recreational, training, military, and emergency uses and accommodate predominately single engine aircraft under 12,500 pounds. Alpine County Airport currently serves approximately 650 users annually.

The Alpine County Airport has one asphalt runway (17/35) that is 4,443 feet long by 50 feet wide. There are no runway lights.

AirNav.com provides airport users with FAA information about airport conditions. The AirNav report for the Alpine County airport provides the following alerts for users:

- There are large stones along the edge of the runway off of the graded surface.
- There is no snow removal, the airport is closed when snow is present on the runway
- There are trees penetrating the transitional surfaces east and west of the runway
- Soil conditions off of the runway are poor in wet weather.
- The runway is limited to aircraft with 4,800 pounds for a single wheel and 9,600 pounds for a dual wheel.

The California Aviation System Plan (CASP) examines the state's overall aviation systems. The State Aeronautics Act (Act) requires that the CASP include as one of its elements, the Capital Improvement Plan (CIP). The CIP is a ten-year compiled listing of capital projects submitted to the Department for inclusion in the CASP, predominantly based on general aviation airport master plans or other comparable long-range planning documents. Biennial updates to the CIP provide the basis for the development of the funding program, which consists of airport development and land use compatibility plan projects selected by the Department based on a priority matrix. The California Transportation Commission adopts the Aeronautics Program from the projects listed in the CIP, so projects must be in the CIP to obtain State funding.

The 2010-2019 California Aviation System Plan Capital Improvement Plan includes the following projects for the Alpine County Airport:

- Reconstruct Runway; Program Year 2012
- Install Runway Lighting; Program Year 2013

The National Plan of Integrated Airport Systems (NPIAS) is a federal document that identifies airports that are significant to national air transportation and are eligible to receive grants under the Federal Aviation Administration (FAA) Airport Improvement Program (AIP). Currently, the Alpine County Airport is not part of the NPIAS; therefore is not eligible to receive grants under the AIP.

The CASP Capital Improvement Plan addresses the future needs at Alpine County Airport.

COMPLETE STREETS ACT (AB 1538)

On September 30, 2008 Governor Arnold Schwarzenegger signed Assembly Bill 1358, the California Complete Streets Act. The Act states: "In order to fulfill the commitment to reduce greenhouse gas emissions, make the most efficient use of urban land and transportation infrastructure, and improve public health by encouraging physical activity, transportation planners must find innovative ways to reduce vehicle miles traveled (VMT) and to shift from short trips in the automobile to biking, walking and use of public transit."

The legislation impacts local general plans by adding the following language to Government Code Section 65302(b)(2)(A) and (B):

(A) Commencing January 1, 2011, upon any substantial revision of the circulation element, the legislative body shall modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of the streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan.

(B) For the purposes of this paragraph, "users of streets, roads, and highways" means bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors.

The following is a review and analysis of the Circulation Element as it relates to the Complete Streets Act. The purpose of the discussion is to demonstrate that the Alpine County Circulation Element update meets the intent of the Complete Streets Act.

Major Thoroughfares

Streets, Roads, and Highways

The Circulation Element identifies goals and policies which plan for a efficient, safe, and effective road system. The key policy is implementation of roadway level of service standards. The Circulation Element also recognizes non-motorized transportation and a goal to encourage bicycling and walking in Alpine County. Policy 3.1 of the Circulation Element notes that the County should develop a Bicycle and Pedestrian Master Plan. The Alpine County Local Transportation Commission adopted the Alpine County Bicycle and Pedestrian Transportation Plan in May of 2010. The Bicycle and Pedestrian Transportation Plan (BPTP) recommends projects which improve street and highway design to accommodate a diverse group of pedestrians and bicyclists. The BPTP identifies physical barriers to access and problem locations. The BPTP is specific to the rural nature of Alpine County's roadways.

Transit and Railroads

Alpine County does not have any railroads. The LTC adopted the Paratransit Plan which makes specific recommendations which plan for a transit system that meets the accessibility and accommodations of all transit users in Alpine County. The Circulation Element includes goals and policies for the establishment of alternative modes of transportation that are consistent with demand and available resources. Alpine County Community Development currently operates a Dial-A-Ride system which regularly analyzes and assesses the demand for and adequacy of the service.

Navigable Waterways

There are no navigable waterways within Alpine County.

Transportation Operations Management

Alpine County's road network has very low traffic volumes and minimal operations management beyond regular maintenance. The BPTP recommends some projects which could reduce speeds or separate vehicle from pedestrian or bicycle traffic.

Transportation Routes

Truck Routes:

The majority of Alpine County's agricultural land is along the State Route 88 corridor with access to markets via local roads and state highways.

Pedestrian and Bicycle Routes

Alpine County adopted the BPTP and is currently implementing projects identified in the Plan.

Transit Routes

Transit routes in Alpine County area primarily along existing local roads and State Highways.

Emergency Routes

The Alpine County Fire Safe Council in coordination with local law enforcement and volunteer fire agencies has determined emergency egress routes and evacuation locations for the County.

Terminals

General and Commercial Airports

The Alpine County Airport does not have facilities beyond the runway and taxi areas. The County has an adopted Airport Land Use Compatibility Plan.

Ports and Harbors

There are no ports or harbors within Alpine County.

Railroad Depots:

There are no railroad depots within Alpine County.

Public and Private Transit Terminals

There are no public or private transit terminals in Alpine County. Ski resort bus systems? Private?

Freight Truck Terminals and Warehouses

There are no Freight Truck Terminals or Warehouses in Alpine County.

Military Facilities

There are no Military Facilities within Alpine County.

Utilities

Utility infrastructure was considered in the BPTP for possible obstruction in walking and bicycle areas in the downtown Markleeville and Bear Valley areas.

Land Use and Transportation Integration

The Circulation Element and Bicycle and Pedestrian Plan promote a mix of transportation options. The BPTP includes design standards for facilities in new development. The Commercial (C) and Planned Development (PD) zoning designations allow for mixed uses that typically plan for pedestrian, bicycle, and transit oriented design.

Parking Facilities

The BPTP includes recommendations for improvement of bicycle parking Countywide. Several projects to improve bike parking were identified in the Plan and will be implemented by Alpine County.

Air Pollution

Alpine County has created community wide and local government operations greenhouse gas (GHG) inventories through the Green Communities project sponsored by the Sierra Business Council and Pacific Gas and Electric utility company. The next step in the process will be the adoption of a Climate Action Plan which will recommend implementation measures to reduce emissions.

Electric and Non Carbon Emitting Vehicles

Alpine County has a very small population with an unknown demand for electric vehicles.

Green Streets

The BPTP includes design standards for landscaping of bicycle and pedestrian facilities.