



CIRCULATION AND MOBILITY

Final

PURPOSE

The Circulation and Mobility Element outlines a plan for efficient and safe transportation of people and goods in Amador County. The Element contains goals, policies, and implementation programs that establish the county's circulation system to accommodate pedestrians, bicycles, motor vehicles, public transit, and other means of travel. Together, the policies, implementation programs, and diagrams are intended to ensure transportation connectivity between incorporated cities, within existing and new development in unincorporated areas, within the Town Centers, Martell Regional Service Center, and Special Planning Areas, and to places outside the county.

SCOPE AND CONTENT

The Circulation and Mobility Element provides a brief introduction to the county's transportation infrastructure, methods, and patterns as context for circulation and mobility policy. The goals, policies, and implementation programs establish the County's transportation strategy through 2030. Specific topics that will be covered by this element include:

- Roadway circulation;
- Complete streets;
- Public transit systems, use, and needs; and
- Bicycle and pedestrian transportation.

The Vehicular Circulation Diagram (**Figure CM-1**) graphically depicts major highways and streets, including both existing and planned facilities. This information was used to inform the preparation of the Land Use Diagram.

The Circulation and Mobility Element is one of seven general plan elements required by Government Code Section 65302, which has established guidelines for the content of general plans in California. The information found in this element is supported by the Transportation and Traffic Section of the Environmental Impact Report (EIR) prepared as part of the General Plan Update process.

The topics discussed in the Circulation and Mobility Element are related to the contents of many other elements in the General Plan, particularly the Land Use Element. The circulation and mobility needs of Amador County are largely determined by the type and distribution of land uses in the county. Relationships between circulation and infrastructure,



economic development, safety, noise, and natural resources are also important since transportation systems connect these uses, create noise, contribute to air pollution and greenhouse gas emissions, carry people and goods to different places, and extend into inhabited and uninhabited areas.

ROADWAY CIRCULATION

There are nearly 670 miles of roads in Amador County, including roads in the incorporated cities, county roads in unincorporated areas, state highways, and federal and state roads. Within the unincorporated county, there are approximately 410 miles of county roads. Of the 126 miles of state highways in the County, 115 miles traverse the unincorporated areas. The goals and policies of the Amador County General Plan apply to all roadways in unincorporated areas.

As of 2010, approximately 19 percent of the vehicle miles of travel (VMT) within Amador County are served by County roadways. Over 77 percent of the daily VMT are served by the state highway system, with the ~~remaining fraction being~~ remainder served by roads operated by the U.S. Forest Service, California State Park Service, or the U.S. Bureau of Indian Affairs.

Roadway Classifications

Roads are assigned classifications in the Circulation and Mobility Element that describe their functions and primary uses. These classifications reflect how roadways serve the surrounding land uses. **Table CM-1** below defines roadway classifications in Amador County. These classifications are for purposes of the Circulation Element only. The definitions are not intended to reflect other regulatory roadway classification systems such as the County Code, County Standard Plans or the Federal Highway Administration Functional Classification definitions. **Table CM-2** illustrates the roadway classifications for major roadways in the County.

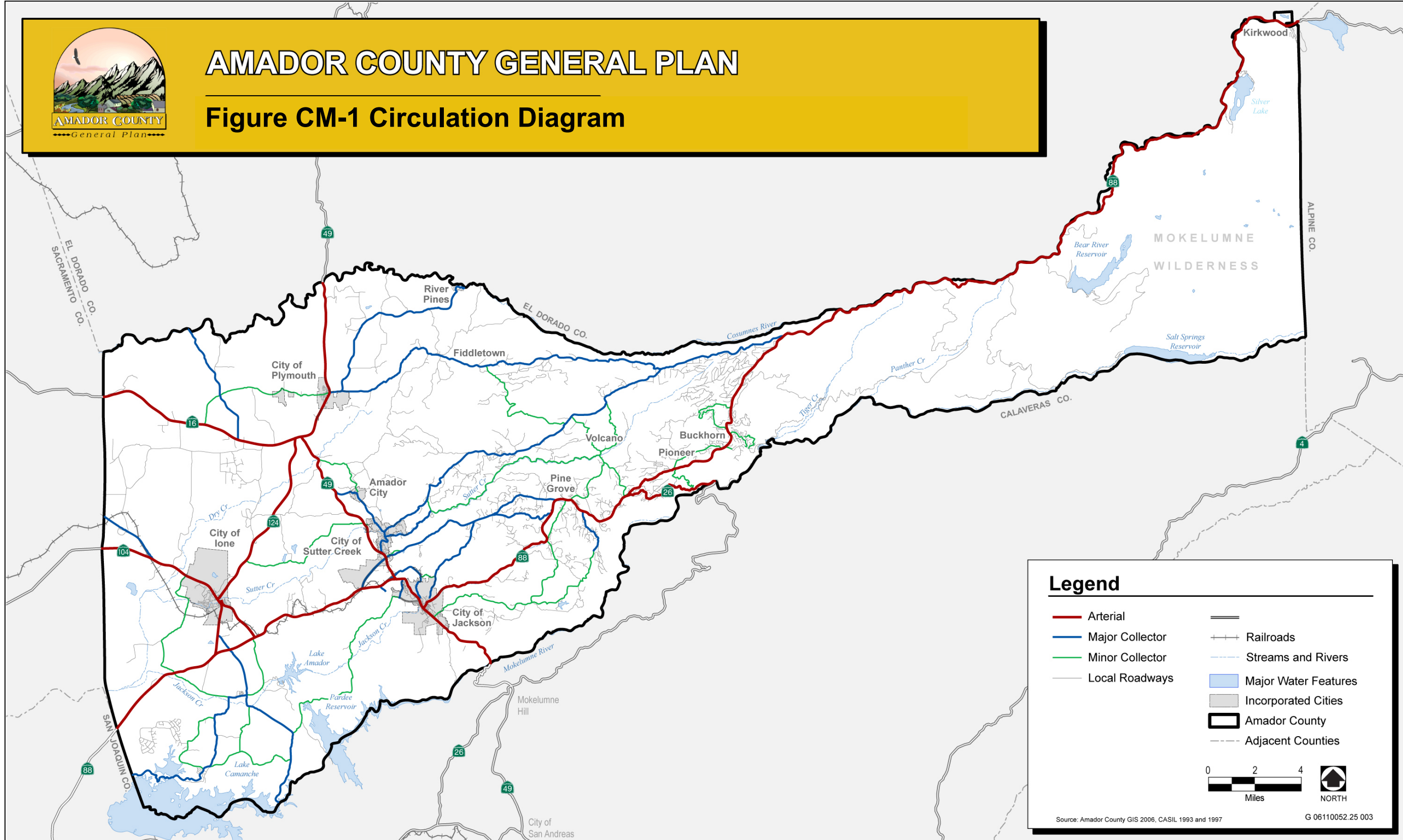
Major Routes and Roadways

Several major transportation routes and roadways provide connections between the County's communities, and also connect to other counties and cities. These major routes are listed below in **Table CM-2**.



AMADOR COUNTY GENERAL PLAN

Figure CM-1 Circulation Diagram





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**Table CM-1
Roadway Classifications**

Classification	Function
Arterials	Link cities and larger towns (and other traffic generators, such as major resort areas) and form an integrated network of arterial highways providing interstate and intercounty service.
Major Collectors	Generally serve intracounty travel rather than statewide travel with shorter routes and travel distances than arterials.
Minor Collectors	Serve adjacent and nearby communities with shorter routes and travel distances than major collectors.
Local Roads	Provide access to adjacent properties. Provide service to travel over relatively short distances as compared to higher order facilities.

**Table CM-2
Major Routes and Roadways**

Arterials	Major Collectors	Minor Collectors
State Route 16	Argonaut Lane	Buckhorn Ridge Road
State Route 26	Buena Vista Road	Bunker Hill Road (<i>portion</i>)
State Route 49	Camanche Road	Camanche Parkway North (<i>portion</i>)
State Route 88	Climax Road	Cedar Heights Drive (<i>off Silver Drive</i>)
State Route 104 (<i>from SR 88 to County line</i>)	Fiddletown Road	Charleston Road
State Route 124	Industry Blvd.	China Graveyard Road
	Jackson Gate Road	Clinton Road
	Jackson Valley Road (<i>From Camanche Rd to Buena Vista</i>)	Coal Mine Road
	Latrobe Road	Consolation Street (<i>Volcano</i>)
	Martell Road	Curran Road
	Michigan Bar Road	Defender Grade
	New York Ranch Road	East School Street (<i>Amador City</i>)
	Old Highway 49	Five Mile Drive
	Prospect Drive	Hale Road
	Ridge Road	Irishtown Road
	Shakeridge Road	Jackson Valley Road (<i>portions</i>)
	Shenandoah Road	Kennedy Flat Road
	Sutter Creek Road (<i>from Sutter Creek city limits to Pine Gulch Road</i>)	Main Street (<i>portion</i>)- Volcano
	Tabeaud Road (<i>from Clinton Bar Rd. to SR 88</i>)	Mc Kenzie Drive (<i>portion</i>)
	Wicklow Way	Meadow Drive
		New Chicago Road (<i>portion</i>)
		Old Ridge Road
		Old Sacramento Road
		Old Stockton Road
		Pine Grove – Volcano Road
		Pine Gulch Road
		Pioneer Creek Road (<i>portion</i>)
		Pioneer Volcano Road (<i>portion</i>)
		Rams Horn Grade
		Silver Drive (<i>portion</i>)
		Stony Creek Road
		Sugar Pine Drive
		Sutter Creek Road (<i>east of Pine Gulch Rd</i>)
		Sutter – lone Road
		Tabeaud Rd (<i>Clinton Rd to Clinton Bar Rd</i>)
		Tiger Creek Road (<i>portion</i>)



Level of Service

Level of service (LOS) is a method to measure traffic congestion. LOS standards range from A (representing free flow of traffic) to LOS F (representing a breakdown in traffic flow, with long delays). **Table CM-3** describes the different LOS categories for rural roadways.

**Table CM-3
Level of Service Categories**

LOS	Average Travel Speed (mph)	Percent of Time Delayed	Number of Cars Traveling Together	Description
A	55-60	Less than 30%	1 to 2	Vehicles don't need to pass to maintain desired speeds.
B	52-55	30 to 45%	2 to 4	Vehicles need to pass to maintain desired speeds.
C	49-52	45 to 60%	4 to 6	Passing becomes difficult.
D	45-49	60 to 75%	5 to 10	Passing becomes very difficult, left turns across traffic delayed.
E	40-45	75 to 95%	10 to 15	Passing is virtually impossible. Left turns across traffic become very difficult.
F	Less than 40	95 to 100%	More than 15	Very low speeds, no passing, left turns become extremely difficult

Amador County's LOS standard is LOS C for roads in rural areas, and LOS D for roads in urban or developing areas, including Town Centers and the Regional Service Center.

The Traffic and Transportation Section of the EIR for the General Plan includes annual average daily traffic (AADT) counts from 2008. Overall, the highest AADT counts were found along SR 88 and SR 49, followed by SR 16 and SR 104. Traffic studies prepared for the General Plan determined that the County's average annual growth rate for traffic would be approximately 3.5%. This average was used to determine the future traffic levels anticipated to occur during the planning horizon of the General Plan.



Traffic Congestion

Traffic congestion is a problem in some areas of the County. Congested roadways in the County include:

- SR 16 at the Junction with SR-124,
- SR 88 from the San Joaquin County line to SR 49,
- SR 88 at East Junction SR 104,
- SR 88 at North Junction SR 49,
- SR 88 at Ridge Road,
- SR 88 at Pine Grove-Volcano Road,
- Ridge Road east of Old Ridge Road, and west of New York Ranch Road.

Generally, these areas lack adequate roadway capacity to carry the existing volume of traffic. Potential improvements could include road widening, addition of turn lanes, intersection signalizations, or creation of new bypass roadways to separate local traffic from through traffic. Improvements may not be feasible; limitations include funding, availability of right-of-way, topographic conditions, or constraints based on existing structures or uses.

Land use changes offer the potential to reduce traffic congestion, or avoid making congestion worse. Changes which reduce the number of long distance trips, or increase the potential for pedestrian, bicycle, or transit trips all have the potential to change traffic conditions in the County.

Capacity Needs

~~Amador County is currently committed to a Memorandum of Understanding (MOU), which pools the county's Statewide Transportation Improvement Program (STIP) funds with those of the Calaveras and Alpine Local Transportation Commissions for large projects. Following completion of the MOU, three projects are likely to be considered candidates for Amador County STIP funds: SR 88 Corridor Improvements in Pine Grove, SR 88 Corridor Improvements in Jackson, and the Lone Interim West Bypass.~~

Amador County's terrain conditions, relatively dispersed population, and funding constraints all limit the feasibility of roadway improvements to reduce congestion. Other congestion reduction programs, such as transportation demand management, transportation systems management, and alternative transportation improvements for bicycle/neighborhood electric vehicles (NEV), pedestrian, and transit users can help reduce congestion. Reducing the number and distance of automobile trips through land use changes and placing more residents in closer proximity to more services will also reduce congestion. Although all of these measures in the General Plan work to reduce congestion,



limitations on roadway improvements mean that congestion on County roadways is likely to increase as the County and its economy grow. Pass-through traffic and growth in surrounding communities will also contribute to increased congestion on County roadways.

Transportation Demand Management

Travel demand management programs are designed to reduce the existing demand on the roadway system by changing user behavior to reduce the number of single-occupant vehicles on the road during peak traffic hours. Encouraging use of alternative transportation modes can reduce vehicle demands on the existing transportation system, improve system efficiency, lower emissions from vehicles ~~vehicle emissions~~, and delay or eliminate the need for costly capacity improvements.

Typical strategies to promote the use of alternative transportation modes include:

- providing safe and efficient alternatives to driving alone such as commuter-oriented transit services;
- providing Class I and Class II bike lane facilities connecting residential areas to employment sites;
- providing park-and-ride lots to facilitate carpooling/ridesharing; and
- encouraging employer-based incentives for carpooling or using alternative forms of transportation to work and establishing rideshare programs (such as rideshare match lists) to help promote and facilitate ridesharing to work by interested individuals.

Land use patterns influence travel patterns within the county. Areas with mixed land uses offering both housing and employment opportunities generally require people to travel less, whereas housing areas which lack employment opportunities generally will require residents to travel longer distances from their homes to their jobs, which contributes to more intensive use of roads, traffic congestion, and air emissions.

As of 2000, approximately 26 percent of Amador County's workforce commutes outside the County for work. The primary destination is Sacramento County, where roughly 40 percent of the out-going commuters work. Fewer people from outside the County commute to Amador; the number of inbound commuters is about 80 percent of the outbound total. The primary county of origin for inbound non-resident workers is Calaveras County, which contributes approximately 43 percent of the inbound workers to Amador County.



Transportation System Management

Transportation System Management (TSM) aims to increase system capacity without constructing new roads or requiring major widening of existing roads or intersections. Operational strategies to accomplish this that are applicable to rural areas include:

- Traffic Signal Timing Management (synchronizing a series of closely spaced signals along a major roadway can enhance “progression” or the smooth movement of a group of vehicles without the need to fully stop)
- Pavement Management Systems (a process for cost-effective maintenance and repairs)
- Intelligent Transportation Systems (applying telecommunications technology and information processing to improve the efficiency of the existing transportation system); and
- Parking Management (including remote park-and-ride lots).

COMPLETE STREETS

Complete streets are those designed to support safe and comfortable access and travel for all users, whether in motor vehicles, on foot, on bicycle, or using public transit. The County will require complete streets in all new neighborhoods and will improve existing streets to be more complete in providing for bicycle and pedestrian movements, as funding is available.

State highways play an important role in the circulation system for Amador County. These arterials (State Routes 16, 26, 49, 88, 104, and 124) link cities and towns, but also serve as main streets as they intersect these communities. While it is important to maintain traffic flows of these state highways, it is also vital to ensure that a safe and comfortable environment is also provided for pedestrians and bicyclists.

The details of what comprises a “complete” street will depend on the development context. In new developments within or near unincorporated town centers, complete streets would typically include sidewalks and on-street bicycle routes. In other unincorporated areas, complete streets could include separated bicycle/pedestrian paths or trails on or adjacent to roadway shoulders. The design of such paths depends on the roadway function and speed limit, but the goal would be to safely accommodate vehicles, pedestrians, bicycles, and transit where feasible while respecting private property rights.



Improvements required for complete streets within unincorporated activity centers depend on the type of the street (see Figure CM-1 above). Pedestrian, bicycle, and public transit improvements should be focused in the mixed use areas and activity centers targeted for future growth, including Special Planning Areas (SPAs), Town Centers (TCs), and the Regional Service Center (RSC).

PUBLIC TRANSIT

Public transit in the county is provided by a single operator, Amador Transit. Amador Transit is administered by the Amador County Transportation Commission (ACTC) and was formed through a joint powers agreement with Amador County and each of the incorporated cities. Amador Transit provides the general public fixed-route service within the unincorporated areas of Amador County and the incorporated cities. Amador Transit also provides regional commuter service to Sacramento County, and dial-a-ride service for people with disabilities.

Primary activity centers served by Amador Transit include retail shopping centers; senior activity centers, medical facilities, government facilities, schools and recreation sites. Most of these activity centers are located within the incorporated cities as well as in the unincorporated communities of Martell, Pioneer, and Pine Grove.

BICYCLE AND PEDESTRIAN TRANSPORTATION

In 2000, the U.S. Census Bureau reported that just under 4% of county residents walked or rode bicycles to work. Amador County's communities are generally spread far apart from one another, and bicycle and pedestrian connectivity is limited, particularly in the unincorporated areas. Most bicycle routes are designated Class III bike lanes, which are on-street bike lanes marked by signs and shared by vehicles and pedestrians. Public input during the General Plan update process indicates a need for additional and improved bicycle infrastructure.

ACTC developed the Amador County Pedestrian and Bicycle Transportation Plan in partnership with its member agencies. This plan identifies a system of regionally significant bikeways within the County that links the major population centers; and within these centers, links major trip origins and destinations. The study also identified needs for bikeway and pedestrian improvements, including improvement costs by city and unincorporated area throughout Amador County. The plan currently serves as the County's pedestrian and bicycle master plan, ~~and allows the County to be eligible to compete for state Bicycle Transportation Account (BTA) funds.~~



The plan identifies a total of just over 82 miles of existing and proposed bike lanes, about 65 miles of which are in the unincorporated area. The plan also identifies bicycle and pedestrian improvements, including widening paved shoulders, constructing Class I bike paths, and adding bicycle racks.

RAIL TRANSPORTATION

Freight rail companies operate between Ione and the Central Valley, and a rail line used for recreational purposes extends to Martell. Existing and potential future freight rail connections represent an important resource for industrial land uses in the County. Amador County does not have passenger rail service. The closest passenger rail stations are located in Sacramento and Stockton.

AIR TRANSPORTATION

Westover Field, located near Martell, is the only public airport serving Amador County. Approximately 130 aircraft are based at the airport, which is permitted to accommodate up to 230 aircraft. The airport serves most small general aviation aircraft (i.e., those with less than 12,500 pounds gross weight and a 49 foot wingspan). The airport is situated at an elevation of 1,694 feet above sea level and includes a 3,400-foot-long, 60-foot-wide runway.

Four other private airports are located in the county, including Eagles Nest – located about halfway between SR 16 and SR 104 near the Sacramento County line; Horse Shoe A Ranch – located near the intersection of SR 16 and SR 124; Ranch Airstrip – located southwest of Ione; and Howard Airport and Camanche Skypark – both located northeast of Camanche Reservoir.

ISSUES, GOALS AND POLICIES

Roadway Circulation

The local and regional roadway system serves the community's primary needs for mobility and access, and consists of a hierarchy of streets to meet those needs, ranging from rural roads to state highways.

Goal CM-1: Maintain adequate regional and local transportation facilities.

Policy CM-1.1: The County's Level of Service (LOS) standard is LOS C for rural roadways, and LOS D for roadways in urban and



developing areas. For Caltrans facilities, the LOS standard shall be that established by Caltrans.

Policy CM-1.2: Work with Caltrans and regional and local transportation agencies to address regional issues and opportunities related to growth, transportation financing and infrastructure, and other planning issues.

Policy CM-1.3: Plan for future maintenance and expansion of roadway, trail, and other circulation infrastructure on an annual basis, factoring for changes in funding and project priority or feasibility.

Policy CM-1.4: Encourage greater connectivity on local roads and improve the connections between unincorporated communities. Ensure multiple routes are available between communities wherever possible.

Policy CM-1.5: Regional traffic should be directed around the historic centers of established communities where feasible.

Goal CM-2: Maintain a safe, efficient, and comprehensive traffic circulation system.

Policy CM-2.1: Plan, build, and maintain a multi-modal and hierarchical transportation system.

Policy CM-2.2: Identify key roads and intersections with historical or projected traffic congestion and/or safety problems and apply creative management measures to improve circulation.

Policy CM-2.3: Work with Caltrans, Amador County Transportation Commission (ACTC), cities and surrounding jurisdictions to improve regional roadways.

Policy CM-2.4: Maintain a Traffic Impact Fee program whereby ~~to encourage that~~ new transportation needs (including bicycle and pedestrian needs) generated by new development are paid for by the development on a fair-share basis. Increased roadway capacity should be funded through developer fees to the extent legally possible.

Alternative Transportation

The majority of future trips in Amador County are expected to be completed in automobiles. However, increasing alternative transportation offerings, including public transit, pedestrian, and bicycle/~~NEV~~ routes, can reduce the growth in automobile use and traffic congestion associated with future residential and commercial development within the county. Future development patterns and forms should be planned with an eye toward encouraging and maintaining a variety of transportation options.



Public transit offerings are primarily provided by Amador Transit. The rural development character of the county limits the scope of public transit available. The County will consider the mobility needs of residents and the availability of public transit in development decisions.

Pedestrian and bicycle transportation options are currently limited. Safety concerns related to walking or riding on roadways which serve busy automobile traffic keep many residents in their cars. Amador County will consider the needs of pedestrians and bicyclists in future development plans. In addition, development patterns which place dwellings within a short distance of essential services and activity areas offer increased opportunities for alternative transportation, including pedestrian and bicycle transportation.

Goal CM-3: Provide transportation alternatives to the automobile.

Policy CM-3.1: Identify priorities for the expansion of bicycle and pedestrian transportation that respect the rights of private property owners.

Policy CM-3.2: The County will seek funding for, and include pedestrian and bicycle facilities in Capital Improvements Planning, as feasible. Promote bicycle/NEV routes and pedestrian walkways. These improvements routes should connect residents to communities, activity centers, and adjacent developments, and offer an alternative to automobile transportation.

Policy CM-3.3: Coordinate with public agencies to connect trail facilities.

Policy CM-3.4: Consider transportation needs in the context of new development proposals. Promote land use patterns which place residents near activity centers and essential services to reduce the need for frequent automobile travel.

Policy CM-3.5: Coordinate with Amador Transit and other agencies to improve the availability of public transit connecting residents to services.

Policy CM-3.6: Coordinate with Amador Transit to continue to provide public transportation from Amador County to regional job and activity centers located outside the county.

Policy CM-3.7: The County will work cooperatively with Caltrans and local jurisdictions to identify priority alternative transportation improvements for bicycles, pedestrians, and transit users for state routes that intersect cities and towns and serve as main streets for these communities.



Scenic Highways

The County and Caltrans have designated a portion of SR 88 as a Scenic Highway, and the U.S. Forest Service has designated a portion of SR 88 as a National Forest Scenic Byway. SR 49 and SR 88 between SR 49 and Dew Drop are eligible for designation as Scenic Highways by the State of California. Protecting the visual character of these scenic corridors is a key consideration in future planning. The County's intent is to provide land use controls and regulatory safeguards to preserve and enhance an area of special and unique natural beauty and aesthetic interest in Amador County which has been identified as being a basic resource in the economy of the County.

Goal CM-4: Maintain and enhance the visual quality and scenic views along designated scenic corridors.

Policy CM-4.1: Maintain visual quality and scenic views along designated scenic corridors through project review and adoption of a scenic highway ordinance.