Modoc County
2008
Regional Transportation Plan

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Executive Summary

The Modoc County 2008 Regional Transportation Plan (RTP) provides a coordinated, twenty-year vision of the regionally significant transportation improvements and policies needed to efficiently move goods and people in the region. As the Regional Transportation Planning Agency (RTPA), the Modoc County Transportation Commission (MCTC) is required by California law to adopt and submit an approved RTP to the California Transportation Commission (CTC) every five years. The California Department of Transportation (Caltrans) assists with plan preparation and reviews draft documents for compliance and consistency.

This dynamic working document was developed with extensive stakeholder input through a specific process. The agency announced its intent to develop an RTP and solicited input from all stakeholders. After data were gathered and organized, the Commission prepared a draft plan, including all required elements, and then solicited comments from stakeholders. To comply with the California Environmental Quality Act, relevant documentation was prepared and distributed with the draft RTP.

PUBLIC INVOLVEMENT AND CONSULTATION PROCESS

The MCTC solicited public comment from a wide variety of groups, including the general public, its committees, agencies, organizations and governments. Copies of draft RTP documents were available at the county library, chamber of commerce, County of Modoc Road and City of Alturas Public Works Departments. Throughout the development process, potentially affected public agencies and governments were contacted repeatedly for input and coordination, among others the County of Modoc, City of Alturas, Caltrans, Alturas Rancheria, Cedarville Rancheria, Fort Bidwell Reservation, Pit River Tribe, agencies administering various public lands, social service agencies, truck traffic generators, railroads, and all surrounding counties.

REGIONAL TRANSPORTATION GOALS

In coordination with stakeholders, the MCTC adopted the following regional transportation goals:

- ***Reliability*** Develop a reliable transportation system, implementing only projects that can be maintained, operated and sustained through identified funding sources.
- ***Safety and Security*** Provide for optimum safety and security during movements of people and goods.
- ***Mobility*** Provide transportation services and facilities, equitably distributed among all ethnic, age and income groups, that best facilitate mobility and support accessibility.

- ***Quality of Life*** Develop transportation services and facilities for all transportation modes, to enhance enjoyment of increased mobility and to minimize adverse impacts on the natural, social, cultural, and historical environments.

- ***Financial*** Construct, operate, and maintain the regional transportation system to maximize return on investments, meet adequate standards, and serve as an integrated, coordinated whole.

- ***Livable Communities*** Maintain and improve the regional transportation system to support livable communities, access to locally-operated businesses, and economic vitality.

- ***Advanced Technologies*** Deploy advanced technologies within the regional transportation system to enhance traveler information, safety, mobility, accessibility, and economic vitality.

REGIONAL TRANSPORTATION NEEDS AND ISSUES

The regional transportation network is impacted by harsh climatic conditions, isolation from major urban center, short periods for road construction and maintenance due to weather restrictions, and scarce financial resources. The limited amount of funds available is *the* most significant regional transportation issue, particularly funding to support roadway operations and maintenance, lifeline transit services, and safe bicycle and pedestrian travel access. The list below briefly summarizes the major issues:

- Shortfall in revenues to implement an adequate pavement rehabilitation program and to make needed improvements to local roads, State highways and regional bridges.

- Impact of substandard roads on local maintenance funds, when added to the maintained roadway inventory.

- Need for transportation services – to ensure mobility and reasonable access for all ethnic, age and income groups – in comparison with limited funding sources, extensive travel distances and higher regional operating and fuel costs.

- Need for traveler safety and security.

- Desire to improve local economic vitality, supporting livable communities and individual well-being.

- Need for bicycle and pedestrian facilities to provide safer environments and better connectivity for non-motorized travel.

- Importance of maintaining and improving regional airports for emergency response and general aviation.

- Need to preserve the rail system, maintain existing rail service and protect potential for long-term expansion, which are all economically important to the region.

REGIONAL TRANSPORTATION SYSTEM

The maintained public roads system in Modoc County includes 1,699.4 miles of two-lane roads, either paved or graveled. This figure does not include private roadways or roads that are not maintained by public entities. Distance mileage of maintained public roads system by jurisdiction includes the following:

- State of California 177.6 miles
- County of Modoc 987.4 miles
- City of Alturas 33.12 miles
- U.S. Forest Service 466.34 miles
- U.S. Fish and Wildlife Service 5.89 miles
- U.S. National Park Service 9.46 miles
- U.S. Bureau of Indian Affairs 16.6 miles

The highest annual average daily traffic volumes in the County occur on US 395 (Main Street) near First Street in Alturas (6,900). Other relatively high AADT volumes in 2004 were observed on US 395 south of SR 299 junction in Alturas (6,800), on SR 299 west of US 395 Junction in Alturas (4,500) and on SR 139 near Newell (2,450). Variations in traffic depend on time of year and local driving conditions. Traffic volumes are higher during summer months with added recreational travelers. Over the last eleven years, traffic volumes on the state highways generally declined in the outlying portions of the County, and increased around Alturas and Cedarville. However, because of its sparse population, the region is generally free of traffic congestion.

In addition to roadway networks, other important elements of the regional transportation system include six airports (located in Adin, Alturas, California Pines, Cedarville, Fort Bidwell, and Tulelake), three rail lines (owned by the Burlington Northern Santa Fe and Modoc Northern), the Sage Stage public transit, and bicycle and pedestrian facilities. Modoc County is also beginning to unfold a Regional Intelligent Transportation Systems (ITS) Architecture.

ACTION ELEMENT

Transportation plans typically focus on alternatives that vary by travel mode, such as highway versus transit improvements. Such comparison-by-modes approach is not relevant in Modoc County due to: (1) limited changes in population and travel demand, (2) very limited funding available for public transit purposes, and (3) funding shortfalls for maintenance of existing roadways. Instead of comparing alternatives according to travel modes, discussion focuses on roadway maintenance versus roadway improvements.

- ***Status Quo Alternative*** – Under this "make do" alternative, the state and regional entities would continue to prioritize programs and to receive/use revenues consistent with past practices. STIP regional shares would be used to the maximum extent possible for regional road rehabilitation projects, for state matching funds with federal programs, and for inter-regional projects where justifiable. However, under this alternative, roadways would continue to deteriorate unless additional funding sources were identified to support proper maintenance of the regional system.

- ***Capital Improvement Emphasis Alternative*** – This "build new" alternative would focus on new capital improvement projects throughout the region. In addition to capital-restricted programs, a portion of any discretionary funding would be accessible to bolster capital projects. While this alternative would allow additional system improvements, it would further decrease available funding for critical maintenance. Accordingly, more local funding would be needed compared to the Status Quo Alternative and/or the level of financially feasible maintenance activities would be reduced. Relatively good traffic conditions (lack of significant congestion) throughout Modoc County indicate only limited and localized capital improvement needs.

- ***Maintenance Emphasis Alternative*** – This "fix up" alternative would focus funding on maintenance of the existing system – roadway, transit, non-motorized and aviation facilities and programs. New capital projects would be initiated only if justified by their merit and/or financing did not significantly deflect funding for maintenance and rehabilitation projects. Specialized capital projects would be implemented according to need and/or availability of new funding sources.

Considering the substantial backlog of roadway maintenance projects, the Maintenance Emphasis Alternative is the only prudent course of action for Modoc County.

Chapter 4 of this document, the Action Element, includes a series of tables listing both financially constrained and financially unconstrained roadway, bridge, transit, aviation, bicycle/ pedestrian and ITS improvement projects. In coordination with local jurisdictions, MCTC has developed project level performance measures and quantified current system baseline performance for each measure. Prior to implementation/after-completion of each RTP transportation improvement project, the impact of that project on current system baseline performance will be evaluated. This strategy will maximize limited funding opportunities for transportation improvement projects.

TRANSPORTATION FUNDING

The following federal, State and local funding sources and programs are available to fund transportation improvements in the Modoc County region:

Federal Sources

- Surface Transportation Program
- Transportation Enhancement
- Highway Bridge Program
- Highway Safety Improvement Program
- Federal Lands Highway Program
- Section 130/Highway Safety Improvement Program
- Emergency Relief Program
- FTA Section 5310 Capital for Elderly and Disabled Transportation
- FTA Section 5311 Public Transportation for Rural Areas
- FTA Section 5311f Intercity Bus for Rural Areas
- Federal Airport Improvement Program
- Jobs Access Reverse Commute
- New Freedom Program

State Sources

- State Transportation Improvement Program
- Traffic Congestion Relief Program
- State Highway Operations and Protection Program
- Minor Programs
- California Aid to Airports Program
- Environment Enhancement and Mitigation
- AB1475 - Safe Routes to School (SR2S)
- Bicycle Transportation Account
- Pedestrian Safety Program
- Transportation Development Act Funds

Local Sources

- State Gas Taxes
- Motor Vehicle In-Lieu Fees

Over the twenty-year plan period, $41 million in STIP regional projects are funded. There is a shortfall of $12.8 million in funding for local County roadway projects over the long-term. The City of Alturas has developed a financial constrained local street improvement program over the entire RTP planning period; however, there are significantly more local street improvement needs than funding available, as there are $35.9 million in unconstrained local road improvement projects.

RECOMMENDED ACTIONS FOR RTP IMPLEMENTATION

The following strategies are required to successfully implement this RTP:

- Transportation investments will be evaluated based on performance and need assessments.
- "Bottom up" planning and coordination, so that the policy vision and projects meet local needs, and consider the regional system as an integrated whole.
- Greater involvement between stakeholders in the early stages of the planning process and subsequent phases of project implementation will ensure solutions to problems experienced by local and interregional customers of the system.
- Emphasize maintenance and preservation of the system, and provide for mobility and access, job opportunities, safety in vehicle and non-motorized travel, reliability of the transportation system, efficient movement of freight, protection of the environment, satisfaction of customers, and equitable distribution of benefits.
- Attempt to ensure that the mobility, economic and "quality of life" needs of the region's scattered population are met. Emphasis is given to providing the elderly, disadvantaged, and mobility-impaired portions of the population with better transportation choices.
- Support livable and economically vital communities by improving access to locally operated businesses. Also, encourage programs that promote greater transit usage, bicycle, and pedestrian activities.

- Confirm that partnerships and coordination are the foundations of cooperative problem solving with emphasis on developing and sustaining mutual respect and cooperation among stakeholders to solve transportation problem.

AIR QUALITY COMPLIANCE

Modoc County is part of the Northeast Plateau Air Basin. The Modoc County Air Pollution Control District maintains one monitoring site in Alturas, where levels for one air pollutant are followed. The County is considered "in attainment" for every State and Federal air quality standard, except the State PM_{10} standard. The primary sources of PM_{10} pollution include wood stoves, open and prescribed burning, and wind-blown dust from unpaved roads and agriculture. Typically, the highest levels of PM_{10} occur during fall and winter, because of increased open burning and wood stove use. Overall, Modoc County has good air quality because of its low density population, limited industry, and extensive undeveloped public lands. Unlike many urban areas in California, where congestion, traffic volume and environmental conditions cause unhealthful ozone pollution, transportation has no significant impact on air quality in Modoc County. This Plan does not significantly encourage additional vehicle travel or lead to generation of air pollutant emissions. Thus, this RTP can be considered to comply with air quality plans.

OVERALL ENVIRONMENTAL IMPACT

In compliance with California Environmental Quality Act guidelines, an Initial Study/Proposed Negative Declaration was prepared and circulated with this RTP. This document provides environmental analyses and a general overview of the potential impacts of proposed RTP projects.

This Plan is a programmatic document containing general policies, guidelines and lists of projects. Preparation and adoption of the RTP represents long-term transportation planning for the Modoc County region, and by definition does not examine individual projects that may have individual impacts. Specific environmental impacts of proposed projects will be addressed on an individual basis at the time of project review and selection. Therefore, there is no potential for significant environmental impact resulting from this Plan.

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Chapter 1
Introduction

As the Regional Transportation Planning Agency (RTPA) for Modoc County, the Modoc County Transportation Commission (MCTC) 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 addressed in this plan is defined as Modoc County, which includes two local government entities, the County of Modoc and the City of Alturas. The purpose of the Plan is to provide the region a vision of transportation conditions, supported by goals, for ten and twenty-year planning horizons. The RTP documents the policy direction, actions, and funding strategies designed to maintain and improve the regional transportation system.

This RTP is a programmatic document containing general policies, guidelines, and lists of projects. The document includes an explanation of the regional transportation planning process, followed by information on the state of the region, including the two local government entities as well as three sovereign Native American tribes. Regional issues, needs, and problems are identified within descriptions of existing conditions. Related goals, objectives, and policies are provided, along with preliminary performance indicators. Appropriate solutions and actions are discussed by transportation mode. Improvement projects are proposed and priorities are identified for each regional project in accordance with short- and long-term planning horizons and current status. Finally, a discussion of finances is included that considers costs and revenues.

The MCTC has preliminarily determined that this updated RTP will not have significant effects on the environment, and therefore, will not require an Environmental Impact Report under the requirements of the California Environmental Quality Act (CEQA). A Regional Transportation Plan is considered to be a "project" under CEQA. CEQA defines significant effects as "a substantial or potentially substantial adverse change in the environment." Under CEQA guidelines, public agencies are charged with the duty to minimize or avoid environmental damage where feasible. Agencies must balance a variety of objectives including social, economic, and environmental concerns to comply with CEQA obligations. Therefore, the Negative Declaration prepared for this RTP provides environmental analyses and a general overview of the potential impacts of projects proposed in this RTP.

A select bibliography of documents and publications referenced is provided following Chapter 5. An extensive glossary of terms is provided as Appendix A for reference and to aid in understanding of transportation issues. Additionally, agencies and persons contacted are listed in Appendix B.

PLAN DEVELOPMENT REQUIREMENTS AND PROCESSES

State Planning Requirements

The state laws that guide the development of this RTP are described below:

- The Transportation Development Act of 1971 (SB 325) resulted in the formation of the Modoc County Transportation Commission, as the Regional Transportation Planning Agency, established in 1972 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.

- Assembly Bill 402, enacted in 1977, revised the guidelines for RTP development and required the Plan be updated in 1978 and biennially thereafter. It continued to be the RTPA's responsibility.

- 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 *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. Currently, rural RTPAs may resolve to adopt and submit an RTP once every five years.

California Government Code 14522 requires that the California Transportation Commission develop RTP Guidelines to facilitate the preparation, consistency and utilization of RTPs throughout the State. The purpose of the current *RTP Guidelines* (December 1999) is to:

- *"Promote an integrated, statewide, multimodal, regional transportation planning process;*

- *Set forth a uniform transportation planning framework throughout California;*

- *Promote a transportation planning process that facilitates decision-making;*

- *Promote a continuous, comprehensive, and cooperative transportation planning process that facilitates the rapid and efficient development and implementation of projects while maintaining California's commitment to public health and environmental quality; and*

- *Promote a planning process that considers the views of all stakeholders in the decision-making process."*

A *Supplement to the 1999 Regional Transportation Plan Guidelines* was prepared based on the *2003 RTP Evaluation Report* prepared by Caltrans for the CTC. The *Supplement* does not replace the 1999 *Guidelines*, but rather provides clarification of items not addressed in the 2001/2002 RTP process as specified in the 1999 *Guidelines*. Specifically, the 2003 *Report* indicated that, "Not one RTP from the last cycle addressed every item identified in the RTP checklist." As such, the *Supplement* provides a revised *Regional Transportation Plan Checklist* that was completed and attached to the draft document.

In 2007 a revision of the *RTP Guidelines* was prepared in order to address changes in the planning process resulting from Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). This 2008 RTP update will incorporate new SAFETEA-LU requirements.

RTP PROCESS

The MCTC is responsible for preparation of Modoc County's RTP. Specifically, the agency must ensure that all requirements within the RTP process are met. The RTP development process follows a specified sequence. First, the agency announces its intent to develop an RTP and solicits input from a variety of stakeholders. After data are gathered and organized, the RTPA prepares a draft document that includes all required elements and then solicits public comments from the general public, its policy advisory and technical advisory committees and local Indian Tribal Governments, among other groups. (Composition of both advisory committees is described below.) To comply with the California Environmental Quality Act and applicable Air Quality Conformity Finding, relevant environmental documentation is prepared and distributed to Caltrans District staff, appropriate local agencies and groups with the draft RTP. Comments received on the draft RTP are responded to and/or included in the final document, as appropriate. The MCTC then adopts the final RTP, environmental documentation, and Air Quality Conformity Finding, in accordance with state and federal laws and regulations. Finally, the adopted RTP and accompanying documentation are submitted to the CTC.

After adoption of the RTP, the MCTC will continue to be responsive to changing conditions throughout the region on an ongoing basis. As new or redefined projects are needed, the Action and Financial Elements of this RTP will be amended. The MCTC may consider funding only for those projects listed in the adopted RTP that have been fully reviewed by all concerned agencies.

Public Participation Process

This RTP was updated in accordance with the *MCTC Public Participation Plan* (2002) which is included in this RTP as part of Appendix B. This section describes the participation process in more detail.

Government Participation

Planning for the regional transportation system is accomplished by the MCTC through coordination with various governmental agencies, advisory committees, and the public. The organizational structure and composition of the MCTC and its advisory groups are shown in Appendix C and are described below:

- The **Modoc County Transportation Commission**, serving as the Regional Transportation Planning Agency since 1972, includes three representatives and one alternate appointed by the City of Alturas, and three representatives and one alternate appointed by the County of Modoc. The MCTC staff includes an Executive Director and two staff persons, who also administer the Modoc Transportation Agency and oversee public transit operations.

- **Social Service Transportation Advisory Council (SSTAC)** is an advisory group appointed by the MCTC, which is required by statute. The Council is instrumental in soliciting public participation during the planning process. More details about this group are given in the next section.

- The **Policy Advisory Committee** consists of the Transportation Commission members mentioned above, and the Caltrans District 2 Director or his/her representatives.

- The **Technical Advisory Committee** consists of City and County Road, Public Works and Planning Departments' technical staff members, and the Caltrans District 2 Planning Division Chief or his representatives.

- **California Department of Transportation (Caltrans)** is responsible for the design, construction, maintenance, and operation of the State Highway System and the portion of the Interstate Highway System within California. Enacted in 1972, Assembly Bill 69 defined the basic framework for Caltrans. Headquartered in Sacramento, Caltrans has twelve district offices throughout the state. Modoc County is part of Caltrans District 2, with offices in Redding. Different District 2 staff members serve as liaisons to the MCTC, depending upon the activity or project.

In terms of transportation planning and programming, the relationship between Caltrans and the MCTC is clarified through three documents that work together: 1) the Memorandum of Understanding (MOU) between Caltrans and the MCTC, 2) an annual Overall Work Program, and 3) an annual Fund Transfer Agreement covering Rural Planning Assistance funds. The MOU outlines the legal foundations of the MCTC's continuous transportation planning process, partnering agency obligations and responsibilities, organizational structure, and Rural Planning Assistance (RPA) funding process. The MOU is revised and executed as deemed necessary to reflect significant legislative, policy, and procedure changes. Both the Policy Advisory and Technical Advisory Committees were formed through the MOU. The current, complete MOU was executed on June 19, 1996. Amendments and master agreements with program supplements occur periodically.

Public Entity Participation

The MCTC 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.

- Adjacent County Regional Transportation Planning Agencies (RTPAs)
- State and Federal Resource Agencies
- Tribal Governments
- Modoc County Air Pollution and Control District

For a comprehensive listing of entities and persons contacted, see Appendix B. In compliance with the 2007 *RTP Guidelines*, the following provides details of correspondence to specific agencies. Correspondence associated with this RTP are provided in Appendix D.

Tribal Governments

In an effort to include those Tribal Governments having sacred lands within Modoc County in the RTP process, Tribal Governments and the Bureau of Indian Affairs (BIA) Northern California Agency were contacted on several occasions through various media (see Appendix D for detailed correspondence).

- On December 26, 2007, the Native American Heritage Commission was contacted to obtain the "SB 18 Consultation List" for Tribal Governments in the Modoc County region.

- BIA staff was consulted for RTP input. BIA staff also provided tribal contact phone numbers and emails.

- Representatives of the Alturas Rancheria, Cedarville Rancheria, Fort Bidwell, and Pit River tribes were personally contacted on several occasions and input was requested. With the exception of the Alturas Rancheria all tribes have responded.

- Updated transportation plans were also requested. Although the actual plans were not obtained, tribal representatives relayed any new information that would be relevant to the RTP.

- All tribes were invited to the public workshop on March 6, 2008, and the public meeting on May 1, 2008. BIA staff and a representative from the Fort Bidwell tribe attended the public workshop.

Adjacent County Regional Transportation Planning Agencies

Correspondence was sent to each of the RTPAs in the six counties adjacent to Modoc County as well as nearby RTPAs which coordinate with Modoc County for some transit operations. This correspondence notified the RTPAs of the Modoc County RTP preparation and requested written responses to a series of six questions. Except for Klamath County and Lake County in Oregon,

all counties were contacted by mail. The Oregon counties were reached by telephone. Shasta, Siskiyou, and Washoe counties responded by mail, whereas the other responses occurred by phone. The following summarizes each RTPAs response.

- **Lassen County Transportation Commission** stated that roadway conditions in either county do not significantly affect each other. Transit is a transportation issue on which both counties work closely together. LCTC staff expressed the importance of maintaining transit service along US 395 from Alturas to Reno and perhaps increasing service to 7 days a week as long as economically feasible. In order to improve transit service in the US 395 corridor, LCTC staff suggested a funding sharing arrangement. As the population in Modoc County grows older, there is an increased need for non-emergency medical transportation services between Modoc County and Susanville in Lassen County where additional medical services are available. Additionally, the Bieber/Nubieber area (Lassen County) represents a region for potential population growth that may require services in Modoc County. Aviation is another transportation issue where Lassen and Modoc Counties can coordinate. The Bieber airport located in Lassen County and the Adin airport located in Modoc County are very close to each other geographically, and Lassen County staff see little need for both airports to remain in operation.

  The future Dyer Mountain Resort may affect traffic in Modoc County. This resort development includes ski facilities and a golf course along the SR 36 corridor near Lake Almanor. The project will have the greatest impact on the areas around Chester and Susanville. Potential development in Herlong may impact Sage Stage's Reno intercity route.

- **Shasta County Regional Transportation Planning Agency (SCRTPA)** noted that SR 299 is the only highway connection between Shasta County and Modoc County. This section of highway travels through very rural areas of both counties. Additionally, SCRTPA noted that population increases are not expected within Modoc County, and the major employment center in Shasta County (Redding) is a long distance from Modoc County, making it impractical to commute between the two. Therefore, there does not appear to be a need to expand the capacity of this segment of SR 299 in the near future. Maintaining SR 299 in good condition through the SHOPP program, however, may be an important improvement project. Shasta County is expected to grow at a rate of approximately 2 percent per year, mostly due to baby boomers seeking a quiet rural lifestyle for retirement. This influx of people to Northern California could increase recreational travel to areas such as Modoc County. Otherwise, Shasta County has not planned any transportation improvement projects which might affect Modoc County, nor are there any transportation improvement projects which could be jointly pursued by both counties.

- **Siskiyou County Department of Public Works** responded that transit is the most important link between the two counties and will continue to be as both counties expand. The Modoc County Transit (MCT) route between the Tule Lake area and Alturas has proved beneficial for Siskiyou County residents as Siskiyou Transit and General Express (STAGE) has not expanded service to that area. Siskiyou County staff noted that future population growth in Siskiyou County could have an economic impact on Modoc County. Additionally the rising

cost of gasoline may have a negative impact on travel between the two counties. Siskiyou County has future plans to implement a GPS system into their transit system. This is a potential area for coordination with Modoc County.

- As there are few county road connections between **Klamath County, Oregon** and Modoc County, regional transportation between the two counties is not a major issue and is largely limited to the state highway. According to a conversation with the Director of Public Works in Klamath County, certain agricultural businesses located in Merrill and Malin, Oregon, could be affected by Modoc County transportation systems as these farms tend to do business on both sides of the border. For example, a hay farmer in Modoc County could be delayed in delivering his product to Klamath County if a bridge on a "crops to market" road was in disrepair.

- According to the Road Department in **Lake County, Oregon,** snow plowing is the main issue which requires coordination with Modoc County. There are several roads (particularly in the town of New Pine Creek) which cross the Oregon/California border. On occasion heavy snowfall can close the Oregon portion of the road, but not the portion in California. In these cases, communication of snow removal status is important between the two counties. It is also known that some people commute between Lakeview, Oregon, and Alturas, a distance of 55 miles. According to discussions with road department staff, some Modoc County residents find the grocery shopping in Lakeview, Oregon, more attractive than in Alturas. Both of these factors could impact transportation demands in Modoc County, albeit minimally.

- Relatively uninhabited portions of Washoe County, Nevada border Modoc County to the east. It is the opinion of the **Washoe County Regional Transportation Commission (RTC)** that interaction between the two counties is and will be limited in the foreseeable future. Population and employment in Washoe County is centered around the Reno/Sparks Metropolitan area (190 miles south of Alturas). It is unknown and unlikely that increases in population and employment in Washoe County would affect Modoc County residents.

State and Federal Resource Agencies

On January 21, 2008, the following state and federal resource agencies were contacted to obtain input and request maps and materials that would be useful in determining the effect of RTP projects on natural resources in the region:

- Bureau of Land Management
- California Department of Fish and Game
- US Fish and Wildlife
- California Office of Historic Preservation
- Lava Beds National Monument
- US Bureau of Reclamation
- California State Water Resources Control Board

On April 7, 2008, these same agencies were sent a second letter requesting input if none had been provided along with instructions on how to view the Draft RTP electronically. To date only the Bureau of Land Management (BLM) and the Bureau of Reclamation have responded. How RTP projects will affect natural resources in the Modoc County region is discussed in Chapter 4.

Private Sector Participation

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 Modoc County generally includes the transport of wood chips, livestock, construction materials, and agriculture. Four businesses that generate truck traffic on roadways within Modoc County were contacted via phone seeking opinions on issues relating to the Modoc County regional transportation system. To date, three have responded. In total these businesses generate on average 100 trucks per week transporting refuse, construction material, and agriculture products within Modoc County, to Lassen County, Reno, and the Bay Area. The largest amount of locally generated truck traffic travels between Alturas and a rock quarry near Cedar Pass and between Alturas and southern portions of the County from May to November. Agriculture products such as hay, alfalfa, and rice account for a significant portion of locally generated trucking activity as well. In November and December, an additional four trucks per day are generated in order to transport cattle to their winter pastures outside Sacramento. Common trucking routes include US 395 south of Alturas and SR 299 between Canby and Cedarville. Most truck traffic generators do not see any major deficiencies in the regional transportation system as it relates to business operations although one business commented that SR 139 south of Adin is quite narrow. Another business was appreciative of the roadway widening projects on US 395 near Sage Hen Pass.

Goods Movement by Rail

The Modoc Northern Railroad Company was contacted to obtain their input on regional transportation. Although Modoc Northern has not responded, previous conversations Lake County Railroad (recently acquired by Modoc Northern) provide some background information on rail transportation in the region. Generally rail freight includes lumber products and perlite, most of which is "just passing through" Modoc County as opposed to generated locally. Staff at Lake County Railroad stressed the importance of preserving the railroad as many Lake County jobs are dependent on perlite mining and transportation of those products.

Citizen Participation

Public involvement is a major component of the RTP process. A public transportation planning process, including a public involvement program, is required for each RTP. The MCTC makes a concerted effort to solicit public input in many aspects of transportation planning within the region. Below are several examples of ongoing efforts:

- Citizens are encouraged to attend and speak at MCTC 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 MCTC.

- All studies conducted by the MCTC are either adopted or accepted following advertised public notification and a public hearing.

Human Service Transportation Providers

In an effort to reach out to low-income, disabled or senior members of the community, the following human service transportation providers were contacted, asked for input, and invited to the public workshop on March 6, 2008:

- Alturas Headstart
- Canby Family Practice Clinic
- Far Northern Regional Center
- Modoc County – CalWORKS
- Modoc County – Department of Social Services
- Modoc County – Veterans Services
- Strong Family Health Center
- T.E.A.C.H. Inc.

Table 1-1 below lists specific events in the public involvement process pertaining to this RTP. As per the MCTC Public Participation Plan, a Public Hearing will be held prior to the adoption of the 2008 RTP.

Transportation Programming Process

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

- The **Policy Element** describes the transportation issues in the region, identifies and quantifies regional needs expressed within both short- and long-range frameworks, 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. Within this element, projects and programs are prioritized consistent with the identified needs and policies.

- 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.

TABLE 1-1: Participation Process During RTP Development

Participant	Activity	Date
TAC	Project Kickoff Meeting	June 2007
Adjacent RTPAs	Sent Notification Letters Requesting Input	December 2007
Tribal Governments and BIA	Contacts Concerning Input and Notification of Public Workshop	January - March 2008
Human Service Transportation Providers	Contacts Concerning Input and Notification of Public Workshop	February 2008
Natural Resource Agencies	Sent Notification Letters Requesting Input	December 2007
Truck Traffic Generators	Contacted via Phone Requesting Input	January 2008
Railroads	Contacted via Phone Requesting Input	January 2008
MCTC and General Public Meeting	Public Workshop	3/6/2008
MCTC and General Public Meeting	Public Meeting	5/1/2008
MCTC and RTP Adoption	Public Hearing	August 2008

Required Documentation

The *Air Quality Conformity Determination* provides an analysis of the emission of pollutants from transportation sources that can be expected to result from the implementation of this Plan. This analysis must document that the projects included in the RTP, when constructed, will not lead to the emission of more pollutants than allowed in the emissions budget in the State Implementation Plan (SIP). The extent of required documentation is based on the current federal nonattainment designation and requirements applicable to Modoc County. Modoc County is included in the Northeast Plateau Air Basin and is unclassified or in attainment with ozone, 8 hour ozone, and PM_{10} Federal air quality standards. However, Modoc County is in nonattainment with the higher state PM_{10} standard. As discussed in Chapter 2 of this document, air quality is not generally attributed to transportation conditions in Modoc County.

Environmental documentation, required under the California Environmental Quality Act, states whether an environmental impact will result from implementation of the Plan and if so, what that impact will be. Depending on the scope of the Plan and local environment, the required documentation may take the form of a Negative Declaration, a Mitigated Negative Declaration, or a full Environmental Impact Report (EIR). CEQA defines significant effects as "a substantial, or potentially substantial, adverse change in the environment." Under CEQA guidelines, public agencies are responsible to minimize or avoid environmental damage, where feasible. Agencies must balance a variety of objectives, including social, economic and environmental concerns, to comply with CEQA obligations.

For the *Modoc County 2005 Regional Transportation Plan* (adopted in February of 2005), a negative declaration was adopted based on findings of no significant effect on the environment. The MCTC has preliminarily determined that the *Modoc County 2008 RTP* will not have significant effects on the environment and therefore expects to adopt a negative declaration, based on the Environmental Initial Study which finds no significant effect on the environment.

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 RTP. The general plans of this region include the *City of Alturas General Plan* (1985) and the *Modoc County General Plan* (1988). In this rural region, the RTP is the circulation element in both general plans. The RTP should also acknowledge and reflect external consistency with the California Transportation Plan and regional transportation plans in adjacent regions, including Washoe County in Nevada, Klamath and Lake Counties in Oregon, and Lassen, Shasta, and Siskiyou Counties in California. In addition, the primary goals and objectives of the following important documents will be incorporated into this RTP: the *Modoc County Transit Development Plan: Short Range Transit Plan* (1996), the *Modoc County Technical Assistance Project* (1997), the *Draft Modoc County Regional Bikeway Plan* (2000), the *Tri-County Public Transportation Integration Study* (2000), *Sage Stage Facility Plan* (2006) and *Sage Stage Fleet Study Report* (2006).

Appendix E presents a diagram of the effects and interactions between environmental regulations, various federal and State transportation plans, and this regional document.

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Chapter 2
Existing Conditions

REGIONAL CHARACTERISTICS

Modoc County is a pristine region with sparse population, abundant wildlife, and wide-open spaces. Native Americans called the area "The Smiles of God." The County is located in the northeastern corner of California, covering a portion of the Shasta Cascade geologic region. Elevation ranges from 3,500 feet on the Day Bench to 9,934 feet at Eagle Peak in the Warner Mountains. As shown in Figure 2-1, Modoc County is bounded by Siskiyou County to the west, Lassen and Shasta Counties to the south, Klamath and Lake Counties in Oregon to the north, and Washoe County in Nevada to the east. Two major highways traverse the County: State Route (SR) 299, running generally east-west, and US 395 running north-south. In addition, SR 139 extends to the northwest from its junction with SR 299 at Canby, providing access to Tionesta, Newell, and the Klamath Basin.

Located near the center of the region, the City of Alturas hosts the County seat. Alturas is located 143 miles northeast of Redding, California, 189 miles northwest of Reno, Nevada, and 100 miles southeast of Klamath Falls, Oregon. While Alturas is the only incorporated city in Modoc County, other communities with populations greater than 200 persons include the towns of Adin, Canby, Cedarville, Eagleville, Fort Bidwell, Lake City, Likely, Lookout, and Newell, and the subdivisions of California Pines and Modoc Estates.

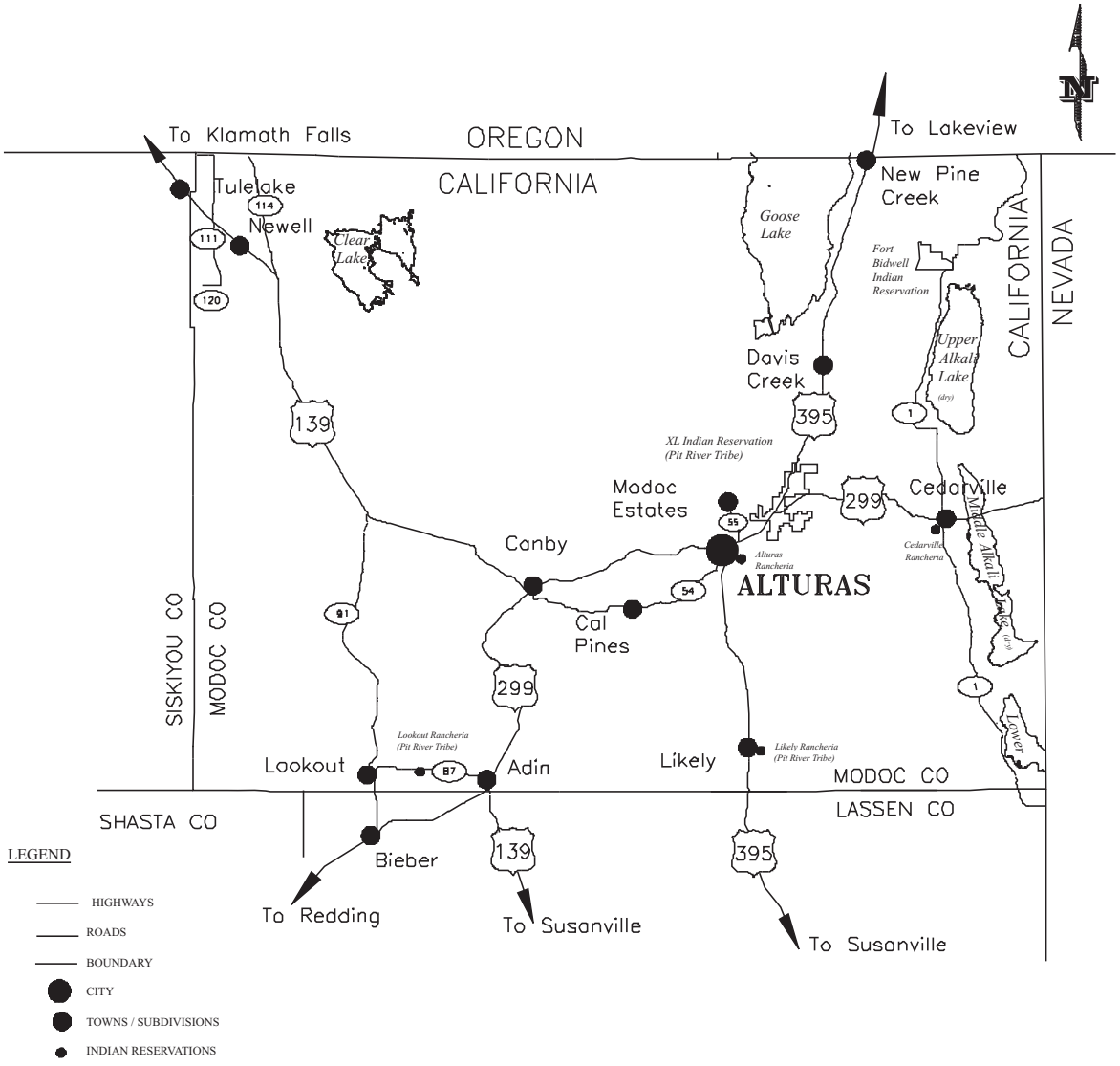
Modoc County's climate has warm, dry summers and cold, moderately wet winters. Low temperatures in January average 16 degrees Fahrenheit, while the high temperatures in August average 88 degrees Fahrenheit. Annual precipitation levels range from 9 to 18 inches in the valley areas and up to 35 inches in the southwest mountain areas. Most of the precipitation is snow during winter, with occasional warm rains during springtime. Summer precipitation is rare and limited to occasional scattered thunderstorms.

Land Use

Modoc County is a land of rugged lava plateaus, fertile valleys, and towering mountains. It encompasses approximately 4,100 square miles in area (or roughly 2.5 million acres). The terrain is mountainous with high-desert vegetation and timber; numerous valleys or basins are suited for agricultural use. Predominant geographic features include the Modoc Plateau, Warner Mountains, Surprise Valley with three often dry, alkaline lakes, Tulelake Basin, Goose Lake, and the Pit River Valley.

Modoc County is a "frontier" county. On average there are only about 2.3 persons per square mile, limited medical services are available, and there is no college or university. Although the "frontier" aspect is appealing to most residents, the dispersed nature of the County poses significant challenges to providing sufficient transportation infrastructure and human services.

FIGURE 2-1



MODOC COUNTY
SITE AND LOCATION MAP

SCALE IN MILES

10 5 0 10 20 30

Approximately 70 percent of the region is public land, managed by state and federal governments. These public holdings are discussed later in this chapter. The *Modoc County General Plan* (Mintier Harnish & Associates, 1985) identifies five land-use categories: residential, commercial, industrial, agricultural, and public/quasi-public. Roughly, 30 percent of the region is privately owned: about 26 percent is used for agriculture, while the remaining 4 percent supports residential, commercial, and industrial uses.

The primary land uses within the City of Alturas are residential and retail services. The city encompasses about one square mile surrounding the intersection of two State highways. The commercial areas in the city are located within the "downtown" corridor along Main Street (US 395), with additional commercial and institutional developments along 12th Street (SR 299). Lodging is dispersed throughout the community, offering a variety of accommodation styles and price ranges.

Population

The population of Modoc County is one of the smallest in the state, ranking 56th among the 58 California counties. The 2000 Census reported 9,449 persons in Modoc County with about one-third (2,892) residing within the City of Alturas (U.S. Census Bureau 2000). The California Department of Finance estimates the 2007 County population at 9,747 persons. Between 1990 and 2000, the Countywide population declined about 2.4 percent overall, although the actual figures fluctuated from year to year. Moderate population increases occurred between 1990 and 1994, and between 1996 and 1997. The County experienced decreases in population between 1994 and 1996, and between 1997 and 2000.

This downward population growth trend is not expected to continue into the future. The California Department of Finance (2007) projects a 154.9 percent increase in population in 2050 over year 2000 levels. As shown in Table 2-1, the 0-19 age group will increase at an annual rate of 1.4 percent per year from 2000 to 2050. The 20–64 age group will increase slightly faster at an annual rate of 1.9 percent per year. The 65+ age category is projected to increase from 1,663 in 2000 to 5,726 or a total increase of 244.3 percent over the fifty year period.

TABLE 2-1: Modoc County Population Estimates and Forecasts by Age Group

Age Group	Population By Decade						Annual Percent Change			Total Change 2000-2050	
	2000[1]	2010	2020	2030	2040	2050	2000-2010	2010-2020	2000-2050	#	%
0 to 19 yrs.	2,609	2,410	2,836	3,678	4,419	5,248	*-0.8%*	*1.6%*	*1.4%*	*2,639*	*101.1%*
20 to 64	5,177	6,382	7,420	8,782	11,094	13,111	*2.1%*	*1.5%*	*1.9%*	*7,934*	*153.3%*
65 yrs. +	1,663	2,017	2,878	3,790	4,551	5,726	*1.9%*	*3.6%*	*2.5%*	*4,063*	*244.3%*
Total	**9,449**	**10,809**	**13,134**	**16,250**	**20,064**	**24,085**	***1.4%***	***2.0%***	***1.9%***	***14,636***	***154.9%***

Note 1: US Census 2000 Data

Source: California Department of Finance 2007, Demographic Research Unit, U.S. Census 2000.

Proportionately, more elderly persons live in Modoc County than elsewhere in California. In 2000, nearly 18 percent of the population in Modoc County was age 65 years and older, while the comparable statewide portion was 10.6 percent. There were 479 householders in Modoc County who are 65 or older. Younger people and families with children are reported to leave the County (at least for a period of time) for education and greater economic opportunities. Conversely, retirees are moving to Modoc County apparently to take advantage of less costly real estate, abundant natural attractions, cleaner air, and leisurely rural lifestyles. With fewer young families, the percentage of persons under 20 years has declined from 36.1 percent in 1970 to 27.6 percent in 2000 (U.S. Census Bureau 2001b). As for the racial/ethnic population breakdown of the County, 398 American Indians live in Modoc County according to the 2000 Census, while there are 1,088 Hispanic or Latino, and 8,374 White.

The average population density in 1999 was estimated to equal 2.3 persons per square mile, compared to California's average of 212.5 (U.S. Census Bureau 2001a). In Modoc County, settlement is generally in small communities separated by 10 to 30 miles along the state highways (Figure 2-1). This pattern and very low population density have significant implications for transportation planning and pose many challenges for transit operations.

Registered Vehicles

At the end of 1998, there were 10,869 fee-paid registrations for vehicles in Modoc County (Travel and Related Factors, Caltrans 1998). In 2003, there were 12,223 registered vehicles. The number of autos has increased from 4,480 to 4,962 between 1998 and 2003, trucks grew from 3,729 to 3,917, trailers from 2,562 to 3,233 and motorcycles grew from 98 motorcycles 121. Manufactured or mobile homes are classified as trailers, which accounts for their relatively large proportion of vehicle registrations; roughly one-quarter of the housing units in the County are manufactured homes.

Commute Patterns

Regional commute patterns reflect the County's remoteness and isolation. In 1990, 81.2 percent of the employed persons that lived in Modoc County worked in the County, while in 2000 that number increased to 83.9 percent or 2,966 workers (U.S. Census Bureau 1990, 2000). Table 2-2 shows that residents from adjacent counties who work in Modoc County, represent approximately 8.5 percent (277 persons) of the County employment. Approximately 211 Modoc County residents worked in Siskiyou County, 89 persons worked in Lassen County, and 62 residents worked in Shasta County in 2000. Another 80 Modoc County persons work in Klamath County, Oregon, which reflects the proximity of Modoc County to Oregon state. However, the majority of workers live within less than ten minutes driving distance of their employment sites. Approximately 31 percent of the total employed Modoc residents commuted ten to nineteen minutes. Travel time to work is not an issue, compared to other regions, but the scarcity of employment opportunities is.

TABLE 2-2: Modoc County Inter-County Commute Pattern Data

County of Employment for Modoc County Residents	# Persons	% of Total
Klamath (Oregon)	80	2.3%
Lake (Oregon)	27	0.8%
Lassen	89	2.5%
Modoc	2,966	83.9%
Shasta	62	1.8%
Siskiyou	211	6.0%
Tehama	11	0.3%
Yakima (Washington)	15	0.4%
Other (Within California)	37	1.0%
Other (Outside of State)	36	1.0%
Total Number of Persons	**3,534**	**100.0%**
County of Residence for Modoc County Workers	# Persons	% of Total
Klamath (Oregon)	21	0.6%
Lake (Oregon)	9	0.3%
Lassen	71	2.2%
Modoc	2,966	91.5%
Shasta	61	1.9%
Siskiyou	38	1.2%
Tehama	7	0.2%
Yakima (Washington)	0	0.0%
Other (Within California)	39	1.2%
Other (Outside of State)	31	1.0%
Total Number of Persons	**3,243**	**100.0%**

Source: U.S. Census Bureau, Census 2000, Journey-To-Work Data.

Housing

The 2000 Census reported 4,807 housing units in Modoc County, while the *Modoc County Profile* reports 5,010 units in 2004. Of these, 3,504 are reported as single family, 256 are multi-family, and 1,250 are mobile homes. Mobile homes represent the greatest increase, increasing 27 percent between 1990 and 2004. The U.S. Census reported that in 2000, 3,784 housing units were occupied (78.7 percent) and the remaining 1,023 were vacant at least six months of the year (21.3 percent). The portion of vacant housing units in Modoc County is nearly four times greater than that for California (5.8 percent). The relatively greater use for seasonal and recreational purposes, 4.8 percent in Modoc County compared to 1.9 percent statewide, accounts for some vacant units; other vacancies reflect the overall housing surplus in the region. In terms of housing tenure, about 71 percent were owner-occupied compared to nearly 57 percent statewide. The housing profile in Modoc County is expected to remain consistent over the next two decades.

Economic Base

Historically, the local economy has been based on agriculture, forestry, recreation, and tourism. There has been a modest recovery in agriculture/forestry since the drought of the early 2000's. In addition, the opening of a new state prison in Lakeview to the north created additional employment opportunities for Modoc County residents.

Trends in personal income reflect the growing economic importance of retirees, as reflected in Table 2-3. According to the U.S. Census 2000, mean or average retirement income in Modoc County is $33,424, and the average retirement income in the State of California is only $18,826. The mean earnings in Modoc County were $39,328 in 1999, while the total mean earnings in California was $64,725.

TABLE 2-3: Personal Income in 1999

Source	Mean Income, Modoc County	Mean Income, California
With Earnings	$39,328	$64,725
With Retirement	$33,424	$18,826

Source: Profile of Selected Economic Characteristics: 2000, US Census Bureau.

Modoc County per capita median (half-way point) household income was $27,522 in 1999, compared with California's at $47,493. Further, an estimated 416 families live below the poverty level, or 16 percent of the families in Modoc County. This is above the California level, where 10.6 percent are under the poverty level. Income figures are consistent with Modoc's population, which reflects more elderly and retired persons. Overall, the economy and economic development are very important regional issues.

Employment

The 2005 Modoc County labor force in November 2005 was 4,110, representing a 3 percent increase over the November 2001 figure of 3,990. The number of employed persons has also increased by 3 percent over the last four years: 3,820 were employed in 2005, compared with 3,710 in 2001. The November 2005 unemployment rate for Modoc County was 7.2 percent. Of the total employed workers, the largest sector is service providing, with 2,420 employees. Government workers totaled 1,370, while there were 440 in trade/transportation/utilities, and 420 employed in farming (broadly defined). Comparing 2001 with 2005 figures, the greatest increase was in "farming" with an increase of 190, followed by service providing with an increase of 120, and government with an increase of 110 (Labor Market Information Division, EDD).

Native Americans

For centuries, the region was home to Native Americans who hunted in the valleys and mountains, fished in rivers and lakes, and crafted their homes, boats, and gear from tules (reeds) growing along the waters edge. Archeological evidence suggests that Indian habitation dates back more than 10,000 years. The Indian way of life changed forever in the 19th century, as emigrant parties blazed trails across the region. The first Euro-American settlers arrived in Surprise Valley in 1864. During the next several years, emigrants continued to settle in most local valleys. Hostilities with Native Americans, defending their land and lifestyle, were frequent. These conflicts climaxed with the Modoc Indian War of 1872-73.

Three different Native American groups inhabit the region: the Modoc, Achomawi (or Pit River), and Northern Paiute Indian Tribes. Each Tribe is a sovereign nation, functioning as a separate government entity. Serving an interface between Tribal and U.S. governments, the U.S. Department of Interior, Bureau of Indian Affairs (BIA) administers federal and State programs benefiting Native Americans. With offices in Redding, the BIA Northern California Agency jurisdiction includes Modoc areas. The BIA typically administers federal funding for improvements and maintenance on eligible roads, although recent legislation allows tribes to apply for funding directly. The local Indian Reservation Road system is discussed later in this chapter.

All tribes approved transportation plans in 1997 and the Pit River and Fort Bidwell tribes updated their plans in 2004 and 2006. Today, four different Indian tribal governments own land in six locations within Modoc County (Figure 2-1). Below are brief overviews of these Indian properties. Tribal Transportation projects are listed in Chapter 4 of this document.

Alturas Rancheria

Located approximately one mile east of Alturas, the Alturas Rancheria encompasses 20 acres that border the Modoc National Wildlife Refuge. Access to the Rancheria is from US 395 (Main Street) in the City of Alturas to County Road 56 (Parker Creek Road), then to BIA Route 79 (casino entry). There are only nine Tribal members (adults), with seven children, who receive services and assistance from the Tribe. Three dwelling units are located at the Rancheria site, along with a small casino and one paved road about 0.1 miles long. The Tribe is interested in acquiring additional acreage from the U.S. Fish and Wildlife Service in order to build more housing units. Transportation needs as of the 1997 plan include: widen and pave BIA Route 79, and add bicycle/pedestrian lines to section 20 of Parker Creek Road.

Cedarville Rancheria

The Cedarville Rancheria owns 17 acres, located approximately one-quarter mile south of SR 299. The Rancheria is accessible by BIA Route 44 adjacent Patterson Street, which connects to SR 299. Nine families with about 15 tribe members live on this Rancheria. Development includes only nine dwelling units, three of which are made available to the general public as rentals. The Tribe is planning future residential development and recently purchased additional land adjacent to the southern boundary of the Rancheria. There is currently no economic

opportunity within this Rancheria. Transportation needs cited in the *Cedarville 1997 Transportation Plan* include the need for improvement of existing housing roads and new roads to service additional residential development as it occurs. Cedarville Rancheria also has participated in the public input portion of the *Coordinated Human Services Transportation Plan*.

Fort Bidwell Reservation

Covering about 3,300 acres, the Fort Bidwell Reservation is located just to the west of the community of Fort Bidwell in the northern portion of Surprise Valley. CR 1 (Surprise Valley Road) north from Cedarville provides access to the reservation. The total Tribal population numbers 177 persons. Of this, 34 percent is under the age of 16 years, and 16 percent are over the age of 65 years. There are several dozen dwelling units on the reservation, wherein about 150 persons reside. The Tribe is planning to develop additional residential units in the future. New roadways will be needed at that time. Governed by the Fort Bidwell Indian Community Council, timber harvesting and fisheries provide seasonal economic and employment opportunities on the Reservation. Fort Bidwell is in the process of updating their Transportation Plan.

Pit River Tribes (Likely, Lookout, and X-L Reservations)

Affiliated with the Pit River Tribe, the Likely Rancheria consists of an historic Indian cemetery located off of the Indian Road, about 0.2 miles long. This private road is accessed from US 395 via CR 65. As noted in the 1997 transportation plan, Likely Rancheria would like to develop an alternative to this private road to the cemetery in the long term. The owner of the private road has expressed a willingness to work with the BIA to improve the situation. The Rancheria has no living residents and no development.

Lookout Rancheria is located on CR 87, three miles east of the community of Lookout in Modoc County. The Rancheria contains 40 acres of land with only four residences. Tribes indicated in the *1997 Transportation Plan* that there are no plans for future additional housing nor do they intend to purchase additional land. Transportation needs addressed in the *1997 Transportation Plan* and 2004 update include paving Lookout Drive and placing the road on the BIA Public Road System and reconstruction of Lookout Cemetery Road.

The X-L Ranch Reservation comprises 97,254 acres in the extreme northeast corner of Modoc County. The main part of the reservation lies along US 395, near the junction with SR 299. There are 12 homes on the reservation, and the land is used primarily for farming and ranching. There are no land use plans or development plans for the reservation, although there may be a need to improve Thomas Creek Road in the future for additional housing.

One project which can be jointly pursued by the Pit River tribes and Modoc County is to update the tribal road inventory in the spring of 2008. Many County maintained roads travel through the various Pit River Rancherias which are surrounded by cultural resources. The Pit River tribes would like to include these roadways in the tribal road inventory.

DESCRIPTION OF PUBLIC ROAD SYSTEM

The public road system in Modoc County consists of 1,699.4 miles of maintained public roads to 2004 (Caltrans). This figure does not include private roadways or roads that are not maintained by public entities. Distance mileage of maintained public roads system by jurisdiction includes the following:

- State of California 177.6 miles
- County of Modoc 987.4 miles
- City of Alturas 33.12 miles
- U.S. Forest Service 466.34 miles
- U.S. Fish & Wildlife Service 5.89 miles
- U.S. National Park Service 9.46 miles
- U.S. Bureau of Indian Affairs 16.6 miles

Public Lands Road System

Nearly three-quarters of Modoc County is public land, divided into the Modoc National Forest; Bureau of Land Management; Modoc, Clear Lake and portions of Tulelake National Wildlife Refuges; State Wildlife Area at Ash Creek; and part of Lava Beds National Monument. Below are brief discussions about these resources, managing agencies, road systems, and related funding.

Modoc National Forest

Created in 1907, the Modoc National Forest boundaries encompass nearly two million acres within Modoc, Siskiyou, and Lassen Counties. The U.S. Department of Agriculture, Forest Service (USFS) oversees these lands with 1,663,530 acres under its direct control. About 83 percent of the Modoc National Forest is located within Modoc County. In 2005, the Forest Service reported 2,874 miles of mostly unimproved roads. Some 679 miles of gravel roads and 28 miles of paved roads are USFS maintained. There are just 20 miles of paved roads, mostly providing access to campgrounds and forest facilities. Funding for USFS road maintenance is appropriated through Congress; about $400,000 is available for Modoc Forest roads annually. Occasionally, special program funding becomes available through various mechanisms, such as timber access fees or special legislation for programs like the Discovery Trails, which are used for specified projects. While USFS maintained roads are not included in this Plan, close coordination occurs between the County and the USFS when adjacent projects are planned and implemented.

- **California Back Country Discovery Trails** - About 200 miles of forest roadways are dedicated as a segment of this off-road system, starting at the Oregon border to the north and ending at the Shasta-Trinity National Forest to the west. Most trails are single lane and unpaved, suitable for travel in sport utility vehicles. There is another 42.2 miles of alternate trails that provide challenging access to more remote areas. Off-road enthusiasts, equestrians, hikers, and cyclists share the Back Country system.

- **Federal Lands Highway Program (FLHP)** - Forest Highways category provides discretionary 100 percent federal funding for maintenance of designated road segments to the controlling agency. Eligible roads must be under another agency jurisdiction, outside the USFS maintained road system, and provide access to, within, or adjacent to National Forests and Grasslands. Agreements govern funding allocated to specific projects by the Federal Highway Administration (FHWA) and USFS, on a competitive/need basis. Specific Forest Highway projects are discussed in Chapter 4.

Bureau of Land Management

The U.S. Department of Interior, Bureau of Land Management (BLM) administers 140,975 non-contiguous acres within Modoc County. The BLM manages these lands for assorted multi-use purposes according to numerous federal laws. Roads maintained by the state, county, private parties, and other entities which cross BLM lands; all must allow public access. The BLM roadway system includes 130.8 miles of primitive or unimproved roads. These roads are not maintained regularly; they are repaired as needed or improved on an event basis to provide access for BLM and public activities. Limited grading on 30.0 miles occurs infrequently within the limits of the $5,000 annual facilities maintenance budget. Improvements are rare; they are provided on a competitive project basis through Congressional allocation to the U.S. Department of Interior. Thus, BLM roads are not included in this plan.

Protected Lands

- **Lava Beds National Monument** - Volcanic eruptions over millions of years created a rugged landscape punctuated by cinder and spatter cones, lava flows, pit craters, and lava tube caves within the Lava Beds National Monument. Created by proclamation in 1925, this monument was added to the National Park Service (NPS) in 1933. While only a small portion of its 46,000 acres are located within Modoc County, chief access to the monument is via County Roads 97, 111, and 120 from SR 139. The National Park Service oversees the monument and its 22 miles of paved roads, of which 7.8 miles are within Modoc County. The FLHP-Park Roads and Parkways funds construction and improvements to these public roads, which are not included in this Plan.

- **National Wildlife Refuges** - Modoc County is home to more than 300 wildlife species, including many threatened, rare, endangered, and sensitive animals. The Pacific Flyway for migratory waterfowl crosses directly over Modoc County. Managed wetlands attract hundreds of thousands of birds annually. The U.S. Department of Interior, Fish and Wildlife Service (FWS) manage three properties in the County: the Modoc National Wildlife Refuge, portions of the Tulelake National Wildlife Refuge, and the Clear Lake Refuge. The latter is part of the Klamath Basin National Wildlife Refuge complex. The Modoc Refuge includes 7,021 acres with 3.5 miles of gravel roads. The Tulelake Refuge covers 39,116 acres, of which 8,320 are located within Modoc County with 14 miles of public roads. The remote Clear Lake Refuge encompasses 46,460 acres with no roads. The FLHP-Refuge Roads category provides funding that may be used by the FWS and FHWA for maintenance and

improvement of public roads providing access to or within a unit of the National Wildlife Refuge System. No legislative formula has been established and discretionary funds are allocated according to relative need and availability. Refuge roads are not included in this Plan.

- **Ash Creek Wildlife Area** – Managed by the California Department of Fish and Game (CDFG), about one-half of these 14,700 acres are located within southwestern Modoc County. The Area provides refuge and homes to species of waterfowl, owls, and pronghorn antelope. Local headquarters are located off SR 299; interior access is provided via County Roads 87 and 91. Its limited, primitive roads are maintained/repaired through an annual CDFG budgeting process and are not included in this Plan.

Indian Reservation Road System

Funding through the FLHP-Indian Reservation Roads (IRR) category is available for selected projects on eligible roads. In the past the BIA administered this program. With the enactment of SAFETEA-LU, tribes are eligible to apply for IRR funding directly if they have demonstrated financial stability. There are 6.5 miles of eligible roads on Indian properties in Modoc County, with another 0.3 miles pending. To become part of the IRR system, the road must (1) be located on Tribal or federal land, (2) be accessible to the public, (3) meet current federal road standards with 60-foot granted right-of-way and permission to survey from the Tribe, and (4) qualify according to one or more of the following criteria:

- Provide primary access to an Indian Rancheria or Reservation
- Serve at least four Indian homes
- Provide Tribal access to medical clinics, community centers, administration, schools, or cemeteries
- Connect arterial roads as part of the public roadway network

Table 2-4 below shows current IRR eligible roads by Indian property.

TABLE 2-4: Indian Reservation Roads in Modoc

Tribal Property	Paved	Gravel	Total
Alturas Rancheria	0.1	0.1	0.2
Cedarville Rancheria	0.1	-	0.1
Fort Bidwell Reservation	3.6	-	3.6
Lookout Rancheria	0.2	-	0.2
Likely Rancheria (cemetery)	-	0.2	0.2
XL Rancheria	2.2	-	2.2
Total Miles	**6.2**	**0.3**	**6.5**

Source: BIA, 2005.

Through an agreement with the Federal Highway Administration, the BIA prepares transportation plans for all Indian reservations in order to receive funding. In 1997, all four Modoc County tribes completed transportation plans. As of 2008, Pit River and Fort Bidwell Rancherias have updated their transportation plans since 1997.

Regional Roadway System

The Regional Roadway System includes roadways, bridges, and transportation facilities maintained by three public entities: the State of California, County of Modoc, and City of Alturas. This roughly 1,200-mile transportation system is the focus of this RTP. Brief discussions below describe the regional roadway system by jurisdiction. Following these, detailed characteristics of the regional network are described for a better understanding of existing conditions. Figure 2-2 below displays regional roadway classifications throughout Modoc County.

State Highways

State highways in Modoc County are all 2-lane paved routes, totaling 177.6 distance miles, which consist of US 395, SR 299, and SR 139. Specifically, SR 299 runs generally west to east from the southwestern portion of the County through the communities of Adin, Canby, Alturas, and Cedarville to the Nevada state line. US 395 runs in a south to north direction from the Lassen County line through the City of Alturas to the Oregon border. This highway is a common route for recreational travelers going from Eastern California and Nevada to destinations in Central and Eastern Oregon. SR 139 traverses the western portion of Modoc County through the communities of Adin, Canby, and Newell on its way to Tulelake in Siskiyou County. SR 139 provides the most direct route for recreational travelers from Eastern California and Nevada to Klamath Falls, Oregon and beyond.

These routes are part of the State Highway System (SHS), which consists of a total of 249 routes. The state highways in Modoc County serve local and interregional traffic. They provide lifeline accessibility for rural residents, and support interregional and interstate movements of people, goods, and recreational travel. Caltrans has jurisdiction and responsibility for these facilities. The State Highway Account is the Department's primary funding source for transportation projects under different programs, such as the State Highway Operation and Protection Program (SHOPP), the Interregional Transportation Improvement Program (ITIP), and the Minor programs. Appendix E shows the relationships between this RTP and the State programs, in addition to other plans and statutes.

- **State Highway Operation and Protection Program (SHOPP)** is a four-year program which places projects in four categories: traffic safety, roadway rehabilitation, roadside rehabilitation, and system operations.

- **Interregional Transportation Strategic Plan (ITSP)** - The State prepares the ITSP to provide planning strategies, objectives, and priorities for improving the interregional system. The ITSP is not a detailed transportation plan, as this RTP is required to be. Instead it,

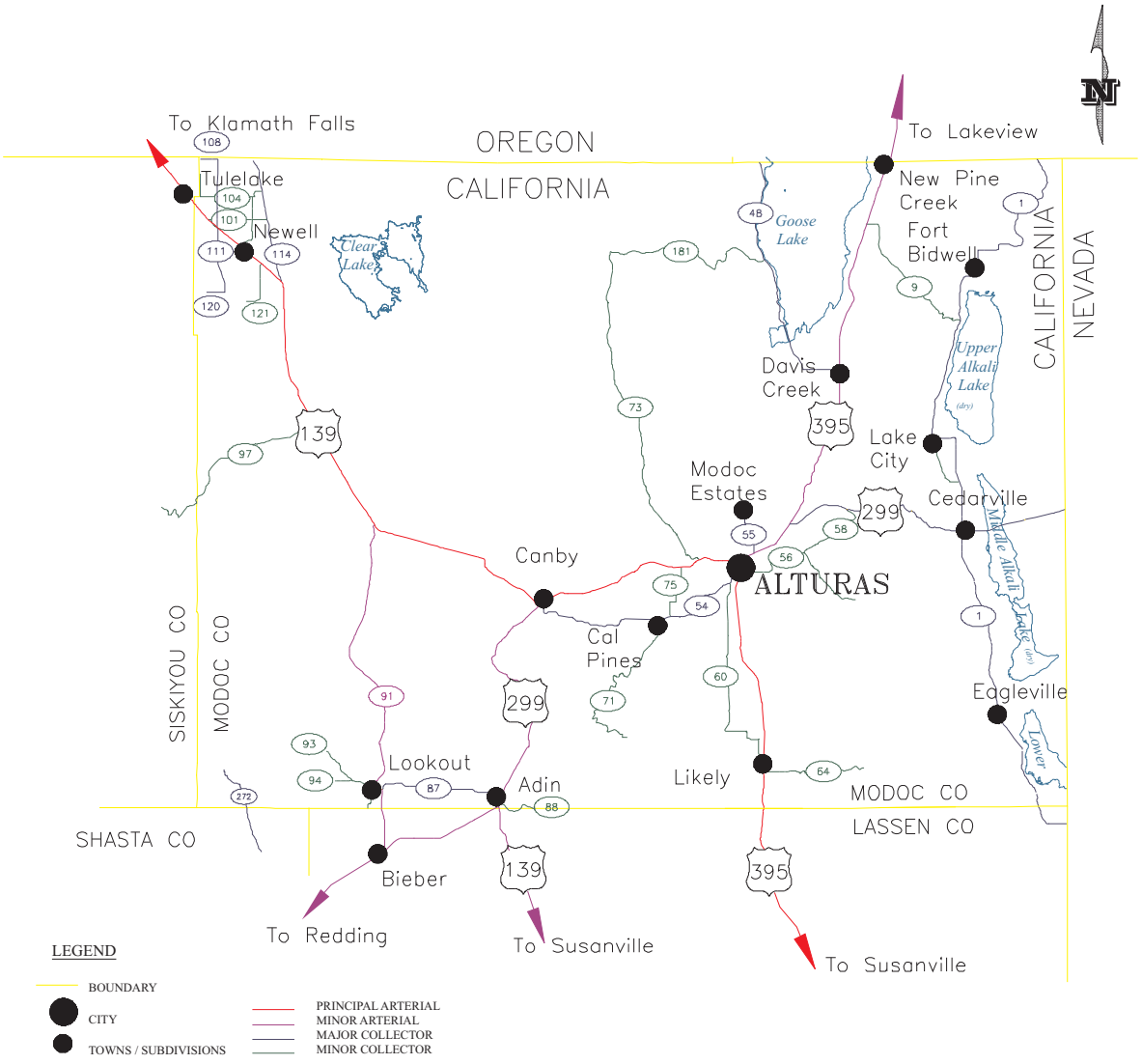


FIGURE 2-2:
MODOC COUNTY
ROADWAY CLASSIFICATION MAP

". . .communicates key pieces of Caltrans' ongoing long and short-range planning for the state highway, interregional road and intercity rail systems" (ITSP 1998). Identified in statute, the Interregional Road System (IRRS) currently includes 87 state routes or portions thereof. The routes serve interregional movements of people and goods.

> The 1998 ITSP identifies 34 interregional routes as "High Emphasis Routes" or major transportation corridors. Portions of the three state highways in Modoc County are High Emphasis Routes: the full length of US 395, SR 299 between Alturas and Canby, and SR 139 from Canby to the Oregon border. The ITSP also identifies ten "Focus Routes" among the 34 High Emphasis Routes. During the next twenty years, Focus Routes are the highest priority for completion of minimum facility standards. These high-volume primary arteries are used for longer interregional trips, access to principal centers of commerce, and to balance north-south (State Highways and County Roads) and east-west connectivity throughout the state. In Northern California, they assure rural mobility and connections to urban areas.

In Modoc County, the entire portion of US 395 is classified as a "Focus Route." This route section serves mostly rural/recreational and tourist travel (85 percent of trips), supports significant goods movement by truck, and provides emergency access and routing. Caltrans' concept statement for US 395 (Figure 2-3) describes the goals, objectives, and strategies for implementation. Facility standards for the Modoc portion include a two-lane conventional roadway from Alturas to the Oregon border. In addition, Caltrans provided a Program Track for each Focus Route – to identify improvements necessary through 2018. However, all suggested projects on US 395 are located in Southern California, except for passing lanes in Lassen County which are identified for implementation between the years 2008 and 2020.

County Roads

The maintained mileage of County Roads totals 987.4 miles of two-lane local roads. About 50 percent are paved. The main County Roads and respective functional classifications are shown in Figure 2-2.

City Streets

Maintained by the City of Alturas, the City Streets inventory totals 36.1 miles of two-lane paved roads, most with curb and gutter. Figure 2-4 depicts the City-maintained roadway system and its functional classifications.

REGIONAL ROADWAY CHARACTERISTICS

Functional Classifications

Roadways are grouped into classes or systems according to characters of their intended service. Because travel on any one route is dependent of the system, functional classifications describe traffic flows through the system, connectivity, and carrying capacities. Obviously travel patterns,

Figure 2-3

US 14/395 Concept

INTERREGIONAL MOBILITY GOAL – State Routes 14 and 395 are considered one corridor for purposes of this plan. It is one of the four major north-south corridors serving California. The corridor is a "gateway" with the State of Nevada. It is a 557 mile north/south rural facility, divided into two segments, one between Southern California and the Nevada State Line near Reno to the Oregon State Line north of Alturas. It provides a consistent high level of service and lifeline accessibility for rural recreational travel along the eastern slope of the Sierras. Eighty-five percent of trips are recreational oriented.

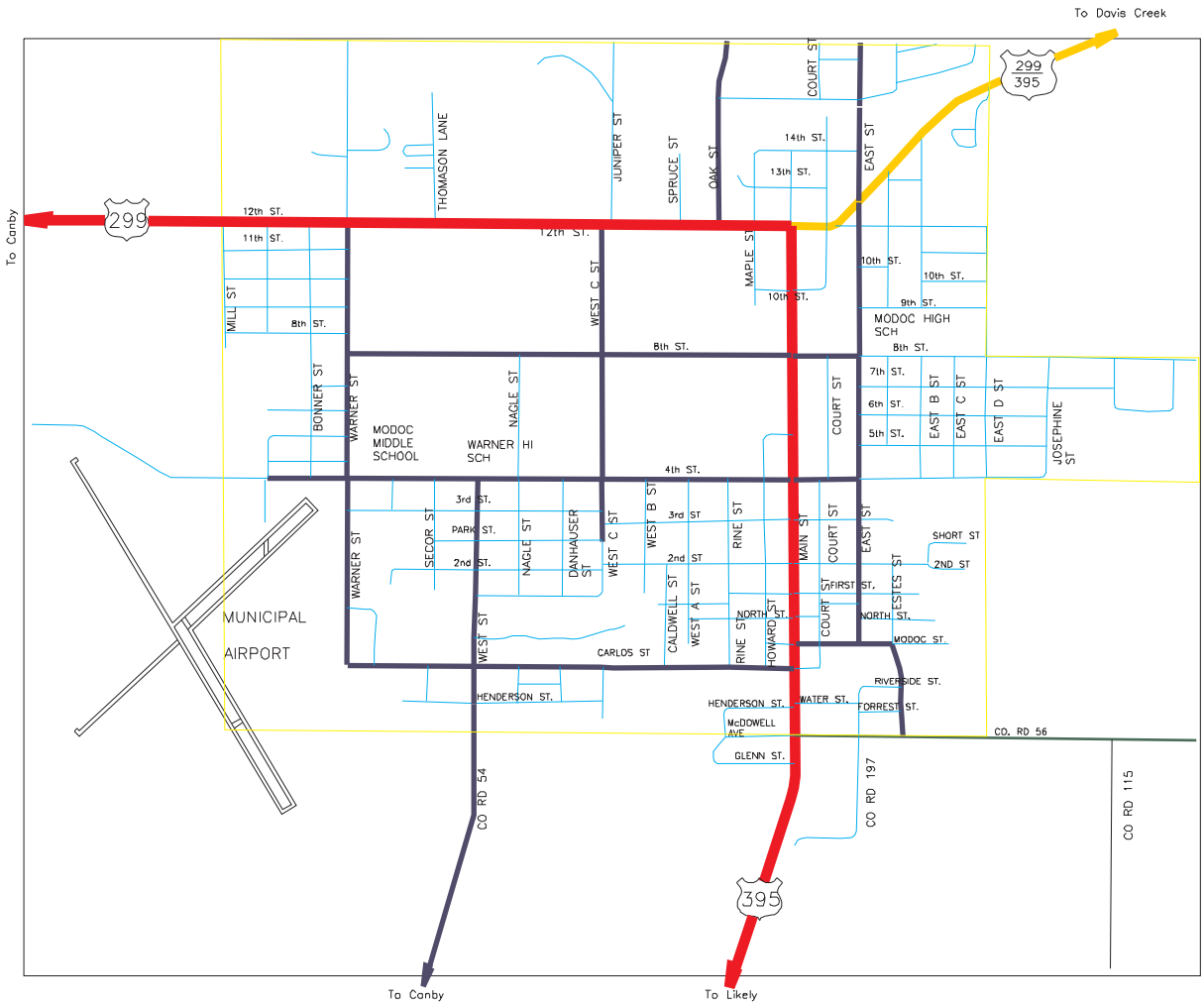
FACILITY STANDARD TO MEET CONCEPT

- 4-lane expressway from I-15 in San Bernardino County to Lee Vining in Mono County north of Mammoth Lakes, and combination 4-lane conventional roadway, 4-lane expressway and 2-lane fully improved conventional roadway with passing lanes Lee Vining to Nevada State Line (south).
- 4-lane freeway and expressway from the Nevada State Line near Reno to State Route 36 at Susanville, 2 lane expressway from Susanville to Alturas, and 2 lane conventional roadway from Alturas to Oregon State Line.

STRATEGY TO MEET CONCEPT

- Cooperatively identify and plan capacity improvement strategies to ensure that the State's interregional needs, including lifeline and recreational requirements, are comprehensively considered with regional needs.
- Encourage local agencies to share funding responsibilities where regional growth is a factor, to ensure timely construction and minimize travel delay.
- Close conventional roadway and expressway gaps to facilitate recreational travel and goods movements.
- Provide adequate passing facilities on 40-foot roadway segments in mountain areas to facilitate the safe movement of recreational vehicles and trucks.
- Continuous improvement of US 395 for increased interregional travel demand emphasizing goods movement, recreation, and lifeline needs includes the following actions:
  - Close expressway and conventional gaps north of the SR 14 junction;
  - Construct fully improved 2-lane conventional with passing lanes north of Lee Vining;
  - Begin construction of 4-lane expressway segments south SR 14 to I-15 and north of Nevada State Line to SR 36.

Source: Caltrans, Interregional Transportation Strategic Plan, June 1998, page 34.



LEGEND:
- PRINCIPAL ARTERIAL
- MINOR ARTERIAL
- MAJOR COLLECTOR
- MINOR COLLECTOR
- OTHER RURAL ROADS

SCALE IN MILES

0.00 0.25 0.50 0.75 1.00

FIGURE 2-4:
ALTURAS CLASSIFICATION MAP

density and their relationships are different in urban and rural areas. Thus, separate classification schemes are used. As Modoc County is a frontier area, regional roadways are defined according to the rural functional classes described below (adapted from FHWA 1989):

- Principal Arterials Interstate (01) are continuous major routes serving interstate travel.

- Other Principal Arterials (02) are continuous routes that serve corridor movements for statewide or sometimes interstate travel. Their design provides for relatively high travel speeds with minimum interference for interregional movement. These routes provide for travel in, out of, and through the region.

- Minor Arterials (06) are important routes for regional circulation. They link smaller cities, towns, and communities, serving the majority of intra-county or regional travel.

- Major Collectors (07) provide access to more localized destinations for regional traffic. These routes support regional traffic between State Routes and to undeveloped or lightly developed areas (such as agricultural lands or timber areas) from higher classified roadways. Most major collectors in unincorporated Modoc County serve traffic between states and/or other counties.

- Minor Collectors (08) provide regional travelers with additional access to local attractions. All minor collectors connect to State Routes; they also provide access to other major or minor collectors.

- Local Roads (09) serve travel over relatively short distances to access specific properties or adjacent lands. They include all roads not otherwise designated according to classes above.

In addition to describing route characteristics, functional classifications are important in determining eligibility for federal-aid and certain state funding. For example, on-system roads (02, 06, and 07) may be improved with STIP funding; off-system roads (08 and 09) may not. Table 2-5 provides an inventory of regional roadways by functional classification. Figure 2-2 and 2-4 show key regional roadways by classifications.

Traffic Volumes

To facilitate comparison on State highways from year-to-year, electronic counters at specific locations measure traffic volume. Actual counts are adjusted to estimate Average Daily Traffic (ADT) by compensating for seasonal fluctuation, weekly variation and other variables. Expressed in vehicles per day, annual ADT (AADT) is total traffic volume for one year divided by 365 days. AADT is used to portray statewide traffic flow, evaluate trends, compute accident rates, plan and design highways, and assorted purposes. Peak month ADT is the average daily traffic for the month with heaviest traffic flow. These data are obtained because on many routes, high traffic volumes during a certain season are more important for planning and highway design than AADT.

TABLE 2-5: Functional Classifications of Regional Roadway System

Jur.	Facility No. / Name	From	To	Maintained Miles
CAL	SR139	SR299 - Canby Jct.	Siskiyou County Line - Newell	49.97
CAL	SR299	SR139 - Canby Jct.	US395 South Jct. - Alturas	18.82
CAL	US395	Lassen County Line	Oregon State Line - New Pine Creek	61.50
CAL	SR299	Lassen County Line - Adin	SR139 - Canby Jct.	21.75
			Rural Other Principal Arterials (02)	***152.04***
CO	CR91 - Lookout-Hackamore Rd	Lassen County Line - Adin	SR139 - near Hackamore	27.27
CAL	SR139	Lassen County Line - Adin	SR299 - Adin Jct.	0.20
CAL	SR299 (through Cedar Pass)	US395 North Jct.	Nevada State Line	26.00
			Rural Minor Arterials (06)	***53.47***
ALT	4th Street	Mill Street	East Street	1.25
ALT	8th Street	Warner Street	East Street	1.15
ALT	Carlos Street	Main Street	Warner Street	1.00
ALT	East Street	Modoc Street	19th Street	1.28
ALT	Estes Street	Modoc Street	CR56 - Parker Creek Road	0.15
ALT	Modoc Street	US395 (Main Street)	Estes Street	0.24
ALT	Oak Street	SR299 (12th Street)	19th Street	0.53
ALT	Warner Street	Carlos Street	SR299 (12th Street)	0.88
ALT	West C Street	Park Street	SR299 (12th Street)	0.71
ALT	West Street	0.11M S/Carlos Street	4th Street	0.36
CO	CR1 - Surprise Valley Road	Lassen County Line	Oregon State Line	67.61
CO	CR48 - Westside Road	US395	Oregon State Line	22.93
CO	CR54 - Centerville Road	SR299	West Street - Alturas	20.67
CO	CR55 - Pencil Road	US395	8001	4.25
CO	CR87 - Adin-Lookout Road	CR91 - Lookout-Hackamore Rd	SR299	11.28
CO	CR108 - State Line Road	Siskiyou County Line	CR111 - Great Northern Road	1.52
CO	CR111 - Great Northern Road	CR120	Oregon State Line	11.48
CO	CR114 - Old Alturas Highway	SR139	Oregon State Line	11.11
CO	CR120 - Dike Road	Lava Beds National Monument	CR111 - Great Northern Road	1.59
CO	CR272 - Day Road	Shasta County Line	RD 8214	5.46
			Rural Major Collectors (07)	***165.45***
CO	CR9 - Fandango Pass Road	CR1 - Surprise Valley Road	US395	15.42
CO	CR17 - Upper Lake City Road	CR1 -Surprise Valley Road	CR1 -Surprise Valley Road	5.20
CO	CR56 - Parker Creek Road	US395 (Main Street) - Alturas	RD 8015	13.42
CO	CR58 - Alpine Road	CR56 - Parker Creek Road	SR299	7.02
CO	CR60 - Westside Road	CR 189	CR54 - Centerville Road	16.50
CO	CR64 - Jess Valley Road	US395 - Likely	CR258 - Blue Lake Road	9.57
CO	CR71 - Cal Pines Blvd.	S 8139	CR54 - Centerville Road	18.88
CO	CR73 - Crowder Flat Road	SR299	CR181 - South Main Road	30.80
CO	CR75	CR54 - Centerville Road	SR299	5.20
CO	CR88 - Ash Valley Road	SR299	Lassen County Line	4.07
CO	CR91A - Lookout Access North	CR91 - Lookout-Hackamore Rd	CR91 - Lookout-Hackamore Road	0.25
CO	CR93	Lassen County Line	RD 8199	7.63
CO	CR93A - Main Street - Lookout	CR93	CR93A - Main Street, Lookout	0.50
CO	CR94 - Widow Valley Road	Cedar Drive	CR93	2.00
CO	CR97 - Tionesta Road	RD 8185	SR139	4.50
CO	CR101	CR111	CR114 - Old Alturas Highway	4.34
CO	CR104	CR114 - Old Alturas Highway	County Line .85 N/CR105	7.65
CO	CR113	SR139	CR104 - Main East-West Road	5.09
CO	CR121	CR120	SR139	4.25
CO	CR181 - South Main Road	CR73 - Crowder Flat Road	CR48 -Westside Road	16.96
CO	CR189	US395	CR60	2.10
			Rural Minor Collectors (08)	***181.35***
ALT	Local City Streets Group	various	various	28.57
CO	Local County Roads Group	various	various	620.88
			Rural Local (09)	***649.45***
			TOTAL SYSTEM	***1,201.76***

Source: Caltrans, Modoc County, City of Alturas, 2008

Historical AADT volumes from 1993 to 2004 according to Caltrans are shown in Table 2-6 and Figure 2-5. In 1999, the highest AADT volume on State highways in Modoc County (7,100) was observed on US 395 (Main Street) near First Street in Alturas. In 2004, it still serves the highest AADT, which dropped slightly to 6,900. Other relatively high AADT volumes in 2004 were observed on US 395 south of the SR 299 junction in Alturas (6,800), on SR 299 west of US 395 Junction in Alturas (4,500) and on SR 139 near Newell (2,450). These volumes indicate a mix of local and interregional traffic.

The roadway segment on US 395 in Alturas near Glenn Street saw the largest increase in traffic volumes from 1993 to 2004 (86 percent or 950 AADT). SR 299 east of Junction 139 Northwest (28 percent, 400 AADT), SR 299 West of CR 1 (16 percent, 200 ADT), and SR 299 in Alturas west of Juniper Street (12 percent, 300 AADT) also had increases in ADT over the eleven-year period. This pattern demonstrates increased traffic activity in the communities of Alturas and Cedarville.

Other roadway segments listed in Table 2-6 had a decrease in ADT since 1993. First Street in Alturas had the largest decrease in AADT (1,100 or 14 percent), followed by the section of US 395 near the Alturas Caltrans Maintenance Station on US 395 (700 or 19 percent), and the segments of SR 139 around Newell and Tulelake (300 ADT decrease for both). Additionally, the northernmost segment of US 395 near the Oregon border decreased by 210 ADT or 22 percent over the 11-year period. These figures show that interregional traffic on SR 139 and US 395 has

TABLE 2-6: Daily Traffic Volumes on State Highways, 1993-2004

Highway / Counter Location	1993	1995	1997	1999	2001	2003	2004	Change: 1993 - 2004 Absolute	Change: 1993 - 2004 Percent	Annual Percent Change
State Route 139										
Adin, South Junction SR 299	560	560	550	510	510	530	540	-20	-4%	-0.33%
Canby, North Junction SR 299	1,000	1,000	1,100	970	970	1,000	1,000	0	0%	0.00%
CR 91 (Lookout-Hackmore Road)	1,500	1,500	1,350	980	980	1,300	1,300	-200	-13%	-1.29%
Newell	2,450	2,500	2,600	2,100	2,100	2,150	2,150	-300	-12%	-1.18%
Tulelake	2,750	2,800	2,750	2,450	2,450	2,450	2,450	-300	-11%	-1.04%
State Route 299										
Adin, Junction SR 139 South	1,100	1,100	1,350	1,000	1,000	1,050	1,050	-50	-5%	-0.42%
Adin Summit	1,600	1,600	1,650	1,350	1,350	1,400	1,400	-200	-13%	-1.21%
East of Junction SR 139 Northwest	1,450	1,500	1,600	1,400	1,400	1,600	1,850	400	28%	2.24%
Alturas, West of Juniper Street	2,600	2,700	2,800	2,900	2,900	2,900	2,900	300	12%	1.00%
Alturas, East of Juniper Street	3,100	3,200	3,200	2,900	2,900	3,000	3,000	-100	-3%	-0.30%
Alturas, South Junction US 395	4,200	4,300	4,550	4,400	4,400	4,500	4,500	300	7%	0.63%
North Junction US 395	770	770	790	760	760	890	830	60	8%	0.68%
West of CR 1 (Surprise Valley Road)	1,250	1,250	1,250	1,250	1,250	1,450	1,450	200	16%	1.36%
East of CR 1	410	410	410	410	410	310	310	-100	-24%	-2.51%
US Highway 395										
Likely, North of CR 64 (Jess Valley Road)	1,550	1,550	1,350	1,250	1,250	1,250	1,300	-250	-16%	-1.59%
Alturas, Glenn Street	1,100	1,100	1,800	1,500	1,500	1,900	2,050	950	86%	5.82%
Alturas, First Street	8,000	8,000	7,600	7,100	7,100	6,900	6,900	-1,100	-14%	-1.34%
Alturas, South of Junction SR 299 West (12th St)	6,600	6,700	6,700	5,800	5,800	6,800	6,800	200	3%	0.27%
Alturas, Junction SR 299	4,800	4,900	4,700	4,300	4,300	5,000	4,950	150	3%	0.28%
Alturas, State Hwy Maintenance Station	3,750	3,850	3,050	2,800	2,800	3,100	3,050	-700	-19%	-1.86%
Junction SR 299 East	1,750	1,800	1,800	1,600	1,600	1,500	1,550	-200	-11%	-1.10%
Oregon State Line	950	950	880	860	860	740	740	-210	-22%	-2.25%

Source: Caltrans, Traffic Volumes on the California State Highway System, 1993-2004. *Modoc Co, 2005 RTP*

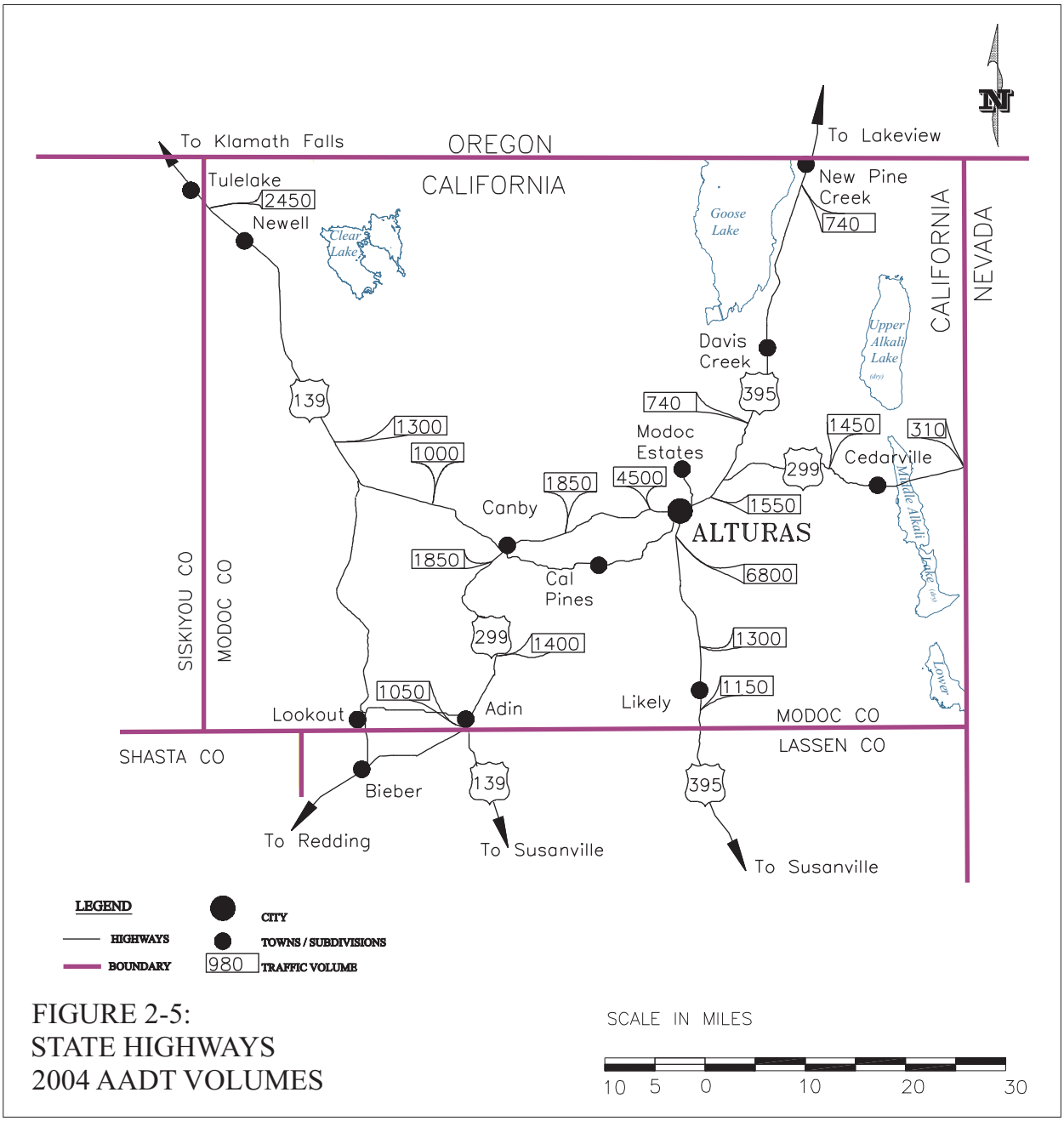


FIGURE 2-5:
STATE HIGHWAYS
2004 AADT VOLUMES

decreased to the north. With respect to local traffic, it is interesting to note that traffic in Alturas at First Street has decreased during this time period while traffic has increased near Glenn Street. Peak month ADT (typically August) demonstrates seasonal traffic trends. An analysis of peak month ADT volumes indicates that activity dropped more than average annual daily traffic on SR 139, but grew more than average annual daily traffic on US 395 (Table 2-7). These data suggest a general shift in recreational traffic from the SR 139 corridors to US 395, in patterns mirroring AADT. Other than the far eastern segment of SR 299, a comparison of the rate of change of peak month and ADT volumes on SR 299 shows no apparent recreational travel pattern. As SR 299 serves as the primary east-west route through the City of Alturas, a larger portion of traffic on this highway is affected by resident travel patterns.

Roadway segments near the junction of US 395 and SR 299 in Alturas had the highest peak month ADT in 2004: US 395 in Alturas at 12th St. (8,000 ADT), US 395 in Alturas at First Street (7,800 ADT), and at the west US 395/299 junction (5,800 ADT). The largest increases in peak month ADT from 1993 to 2004 occurred on the same roadway segments around Alturas and Cedarville, which had high AADT increases.

The greatest percentage decrease in peak month ADT occurred on US 395 in Alturas at First Street (900 ADT or 10 percent), on SR 139 near CR 91 (Lookout-Hackmore Road) (850 ADT or 33 percent) and at the Alturas Highway Maintenance Station on US 395 (700 ADT, 16 percent). Overall, peak month traffic around Alturas has increased while SR 139 and the outer segments of SR 299 and US 395 have had decreases in traffic activity.

Truck Traffic Volumes

Table 2-8 presents the most recent available data (2004) for truck traffic on State Routes, along with historical data. Generally, truck volumes are down from 1998. Truck traffic volumes observed on SR 299 north of the SR 139 south junction have decreased from 398 to 175, US 395 at Glenn Street are down from 533 trucks per day in 1998 to 439 in 2004, while on SR 139 near CR 91 or the Lookout/Hackamore Road truck volumes are down from 473 per day to 320. Increases in truck traffic occurred west and south of Alturas on SR 299 and US 395. The overall percentage of trucks on state highways is also down. In 2001 the highest proportion of trucks occurred on SR 139 north of SR 299, where trucks comprised nearly 35 percent of all traffic, while in 2004, trucks only comprised approximately 25 percent of total AADT. Truck traffic through Modoc County will likely remain an important concern given that the north-south highways through this region provide the shortest route between Southern California, Arizona, and Nevada or Phoenix and Las Vegas to the south and the Pacific Northwest region, as well as the need for regional goods access.

Traffic Conditions

Due to relatively low population levels, the region is generally free of traffic congestion, except at key intersections during peak periods or when caused by special events, extreme weather conditions, accidents, or other incidents.

TABLE 2-7: Peak Month Average Daily Traffic Volumes on State Highways, 1993 - 2004

Highway / Counter Location	1993	1995	1997	1999	2001	2003	2004	Change: 1993 - 2004 Absolute	Change: 1993 - 2004 Percent	Annual Percent Change
State Route 139										
Adin, South Junction SR 299	750	750	740	700	700	730	740	-10	-1%	-0.12%
Canby, North Junction SR 299	1,450	1,450	1,500	1,300	1,300	1,400	1,400	-50	-3%	-0.32%
CR 91 (Lookout-Hackmore Road)	2,600	2,600	1,800	1,300	1,300	1,750	1,750	-850	-33%	-3.54%
Newell	2,800	2,850	2,700	2,200	2,200	2,250	2,250	-550	-20%	-1.97%
Tulelake	3,400	3,450	3,300	2,900	2,900	2,900	2,900	-500	-15%	-1.44%
State Route 299										
Adin, Junction SR 139 South	1,400	1,400	1,450	1,250	1,250	1,250	1,300	-100	-7%	-0.67%
Adin Summit	1,950	1,950	2,000	1,650	1,650	1,700	1,700	-250	-13%	-1.24%
East of Junction SR 139 Northwest	1,700	1,750	1,900	1,900	1,900	2,150	2,400	700	41%	3.18%
Alturas, West of Juniper Street	3,000	3,100	3,200	3,300	3,300	3,300	3,300	300	10%	0.87%
Alturas, East of Juniper Street	3,600	3,700	3,700	3,350	3,350	3,500	3,500	-100	-3%	-0.26%
Alturas, South Junction US 395	4,750	4,850	5,000	4,750	4,750	5,000	4,500	-250	-5%	-0.49%
North Junction US 395	1,000	1,000	870	870	870	830	890	-110	-11%	-1.05%
West of CR 1 (Surprise Valley Road)	1,550	1,550	1,550	1,550	1,550	1,750	1,750	200	13%	1.11%
East of CR 1	360	360	460	460	460	350	350	-10	-3%	-0.26%
US Highway 395										
Likely, North of CR 64 (Jess Valley Road)	1,950	1,950	1,950	1,800	1,800	1,750	1,850	-100	-5%	-0.48%
Alturas, Glenn Street	1,550	1,550	2,000	1,650	1,650	2,100	2,250	700	45%	3.45%
Alturas, First Street	8,700	8,700	7,900	7,400	7,400	7,800	7,800	-900	-10%	-0.99%
Alturas, South of Junction SR 299 West (12th St)	8,100	8,200	7,800	6,800	6,800	8,000	8,000	-100	-1%	-0.11%
Alturas, Junction SR 299	5,600	5,700	5,500	5,000	5,000	5,800	5,800	200	4%	0.32%
Alturas, State Hwy Maintenance Station	4,350	4,450	3,650	3,600	3,600	3,650	3,650	-700	-16%	-1.58%
Junction SR 299 East	2,050	1,800	2,100	1,850	1,850	1,750	1,750	-300	-15%	-1.43%
Oregon State Line	1,200	950	1,150	1,250	1,250	1,050	1,050	-150	-13%	-1.21%

Source: Caltrans, Traffic Volumes on the Ca. State Highway System: 1993-2004 *Modoc Co. 2005 RTP*

TABLE 2-8: Truck Traffic on State Highways in Modoc County

Highway/ Counter Location	Truck ADT (1) 1998	Truck ADT (1) 2004	# Change 1998-2004	Avg. Annual Change 1998-2004	AADT (All Vehicles) 2004	% Trucks 2004
State Route 139						
Adin, South Jct. SR 299	92	50	-42	-9.7%	1,000	5.0%
CR 91 (Lookout/Hackamore Road)	473	320	-153	-6.3%	1,300	24.6%
Newell	338	330	-8	-0.4%	2,150	15.3%
State Route 299						
Adin, N. of Junction SR 139 South	398	175	-223	-12.8%	1,400	12.5%
East of Jct. SR 139 North	419	494	75	2.8%	1,850	26.7%
Alturas, East of Juniper Street	410	415	5	0.2%	3,000	13.8%
Alturas, South Jct. US 395 (Main Street)	400	415	15	0.6%	4,500	9.2%
East of CR 1 (Surprise Valley Road)	89	34	-55	-14.8%	310	11.0%
US Highway 395						
Likely, North of CR 64 (Jess Valley Road)	265	354	89	4.9%	1,300	27.2%
Alturas, Glenn Street	533	439	-94	-3.2%	2,050	21.4%
Alturas, First Street	350	407	57	2.5%	6,900	5.9%
Alturas, Jct. SR 299 West (12th St.)	369	396	27	1.2%	6,800	5.8%
Alturas, South of Jct. SR 299 East	220	222	2	0.2%	1,550	14.3%

Note 1: Truck traffic includes all two-axle vehicles and 1-1/2 ton trucks with dual rear tires, but excludes pickups and vans with only four tires.

Source: Caltrans, Annual Average Daily Truck Traffic on the California State Highway System, 2004.

Level of Service

Level of Service (LOS) is used to rate roadway traffic flow characteristics (see Appendix F for detailed LOS descriptions). LOS serves as an indicator of roadway performance, to facilitate determining when roadway capacity needs to be improved. LOS for rural 2-lane highways is determined largely by roadway geometry factors, such as grades, vertical and horizontal curves, and presence of passing opportunities. In mountainous topography and particularly through canyons, roadway LOS can be relatively poor, even with low traffic volumes.

Caltrans periodically measures traffic volume on state highways, and calculates "peak conditions" using the 30th highest hourly volume measured during one year. Table 2-9 shows 2004 LOS estimates on several principal arterial segments during peak traffic conditions. On some roadway segments in Modoc County, LOS is affected by terrain and elevation change, as opposed to traffic volumes. For example, the sections of SR 299 over Adin Summit and over Cedar Pass are steep, shaded by terrain in many places with short horizontal curves. Also, these segments carry a high ratio of truck traffic, further slowing traffic on steep grades. Such conditions cause drivers to slow, leading to sporadic isolated traffic queuing.

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D. As shown in the table, no state highway segment in Modoc County operates at or below LOS D. Future LOS is not anticipated to change significantly due to slow growth in traffic volumes.

TABLE 2-9: Level of Service on State Highways in Modoc County, 2004

From	To	Rating
State Route 139		
South Modoc County Line	CR 91 (Lookout-Hackamore Road)	LOS A
CR 91 (Lookout-Hackamore Road)	Siskiyou County Line	LOS B
US Highway 395		
South Modoc County Line	SR 299 West (12th Street, Alturas)	LOS B
SR 299 West (12th Street, Alturas)	Station	LOS C
Alturas State Hwy. Maint. Station	Junction SR 299 East	LOS B
Junction SR 299 East	Oregon State Line	LOS A
State Route 299		
South Modoc County Line	Adin Summit	LOS B
Adin Summit	Jct. SR 139 Northwest, Canby	LOS C
Jct. SR 139 Northwest, Canby	Alturas, Juniper Street	LOS B
Alturas, Juniper Street	Jct. US 395 (12th and Main Streets)	LOS C
Jct. US 395 North	CR 1 (Surprise Valley Road)	LOS B
CR 1 (Surprise Valley Road)	Nevada State Line	LOS A

Note: Future LOS is not anticipated to change significantly due to slow growth in traffic volumes.

LOS presented is for mainline vehicles only and not for locations with stop or signal control.

Source: Caltrans, District 2, Office of System Planning.

Vehicle Miles of Travel

Vehicles Miles Traveled (VMT) is an aggregate measure of travel occurring on all or part of a roadway system. It is the sum of miles traveled by all vehicles during a fixed period on a fixed expanse of roadways. Table 2-10 provides historical and future VMT estimates in the region. As shown, state highways in Modoc County served roughly 82 million vehicle-miles in 2003. Due to a re-evaluation of VMT data from 1999 to 2003, local road VMT is not available. By 2025, Caltrans projects VMT will an increase to 90.75 million on state highways and 119.1 million on local roads. This represents a 10.7 percent increase in VMT on state highways from 2003 to 2025. The 2025 truck VMT projection is 15.44 million miles on the State Highway System, and another 7.29 million miles on local roads.

Traffic Accidents

According to California Highway Patrol (CHP), in 2003 there were 23 injury accidents and 2 fatal accidents on unincorporated state highways within Modoc County. In the same year there were 20 injury accidents and one fatality on Modoc County maintained roadways. CHP also reported that roadways in the City of Alturas had six injury accidents and no fatalities in 2003.

Caltrans traffic accident data from 2001 to 2004 on state highways within Modoc County show that a total of 84 accidents occurred on SR 139, 112 accidents occurred on US 395, and 127 accidents occurred on SR 299 over the four-year period. Total accident rates as well as fatality and injury accident rates are generally below the statewide average. For state highway segments within the City of Alturas city limits, Caltrans accident data shows that 11 accidents occurred on US 395 from 2001 to 2004 and 3 accidents occurred on SR 299 over that time period.

TABLE 2-10: Vehicle Miles Traveled in Modoc County

Year	(Million Miles) State Hwys	Local Roads	Total
1990	83.0	60.1	143.1
1995	92.5	68.1	160.6
1999	80.0	NA	NA
2000	81.0	NA	NA
2001	80.0	NA	NA
2002	83.0	NA	NA
2003	82.0	NA	NA
2025	*90.8*	*119.1*	*209.8*
% Change from 2003 to 2025	10.7%	NA	

Source: Years 1990, 1995 and 2025, Caltrans, CA Motor Vehicle Stock, Travel and Fuel Forecast, 2000, 2004.

Years 1999-2003, Caltrans Traffic and Vehicle Data Systems Unit.

It should be noted that the City of Alturas Police Department recorded 18 accidents (Caltrans data reported only 3 accidents) on SR 299 in Alturas over the same time period. By year, 8 accidents were reported in 2001, 0 in 2002, 2 in 2003, and 8 in 2004. There is regional concern that Caltrans accident data for the Modoc County state highways is incomplete. Although the accident rate within the Alturas city limits may be below the statewide average, SR 299 corridor through Alturas remains a safety concern.

County Roads – Modoc County tracks the number of accidents on major and minor collectors within the County. From 2001 through 2004, 128 accidents were reported on all County roadways. By year, the number of accidents reported were:

- 2001 – 23 accidents on major collectors and 14 accidents on minor collectors with no fatalities.
- 2002 – 17 accidents on major collectors and 15 accidents with minor collectors with one fatality.
- 2003 – 22 accidents on major collectors and 9 accidents on minor collectors with one fatality.
- 2004 – 20 accidents on major collectors and 8 accidents on minor collectors with no fatalities.

In the major collector classification, County Route 1 which travels through Cedarville and County Route 54 which travels between Canby and Alturas had the largest number of accidents over the four-year period. As for minor collectors, County Route 56 (Parker Creek Road) east of Alturas had the greatest number of accidents. County Road Department engineers continue to monitor reported accidents and causes, to help spot accident clusters that may indicate the need for specific safety improvements.

BRIDGES

Seventy-seven bridges in Modoc County are maintained by public agency funding. By definition, "bridges" are structures at least 20 feet in length. There are similar, shorter structures in Modoc County that do not meet this definition and are thus not included in the discussion. However, it must be noted that federal or state programs do not support these shorter structures. Most bridge improvement projects are financed through the federal Highway Bridge Replacement and Rehabilitation (HBRR) program that provides funding for bridge improvement to meet federal safety standards. This program supports bridge and bridge rail replacements with 80 percent federal funding with a 20 percent state and local match.

The City and County Bridge Inventory includes 55 bridges, as presented in Table 2-11. The terms "structurally deficient" and "functionally obsolete" are categories defined by Caltrans, which are used to classify bridges needing improvement based on biennial inspections. As of 2005, three County bridges were designated structurally deficient and four bridges were functionally obsolete.

TABLE 2-11: City and County Bridge Inventory

Jur.	Flag	Bridge No.	Roadway - Feature	Location	Built/ Recon
ALT		03C0015	Estes St - No Fork Pit River	0.1 mi N CR56	1971
CO		03C0002	CR87 - Pit River Slough	0.1 mi N CR91	1955
CO		03C0003	CR87 - Pit River Slough	0.8 mi NE CR91	1955
CO		03C0004	CR87 - Roberts Slough	0.9 mi NE CR91	1955
CO		03C0005	CR87- Roberts Slough	1.0 mi NE CR91	1955
CO		03C0016	CR54 - No Branch Pit River	0.3 mi South of SR299	1958
CO		03C0017	CR54 - Middle Branch Pit	0.4 mi South of SR299	1958
CO		03C0018	CR54 - So Branch Pit River	0.6 mi South of SR299	1958
CO		03C0019	CR54 - Thoms Creek	3.2 mi SE of SR299	1958
CO		03C0023	CR54 - Canyon Creek	9.1 mi SE of SR299	1958
CO		03C0024	CR54 - Cyn Creek Overflow	9.4 mi SE of SR299	1958
CO		03C0025	CR54 - So Fork Pit River	19.8 mi SE of SR2999	1958
CO		03C0027	CR54 - No Fork Pit River	20 mi SE of SR299	1958
CO		03C0031	CR133C - Willow Creek	0.1 mi South of CR9	1987
CO	FO	03C0036	CR61 - Westside Canal	0.7 mi West of US395	1960
CO	FO	03C0037	CR61 - Middle Canal	0.6 mi West of US395	1960
CO		03C0038	CR61 - Eastside Canal	0.5 mi West of US395	UNK
CO		03C0039	CR60 - Westside Canal	3.6 mi West of CR189	1985
CO		03C0041	CR60 - Eastside Canal	2.1 mi West of CR189	2005
CO		03C0044	CR63 - Stones Canyon	1.7 mi West of US395	1972
CO		03C0045	CR64 - So.Fork Pit River	3.5 mi East of US395	1972
CO		03C0046	CR58 - Alpine Road	0.3 mi North of CR56	1989
CO		03C0053	CR1 - Bidwell Creek	Fort Bidwell	1951
CO		03C0064	CR111 - J Canal	2.6 mi South of SR139	1954
CO		03C0065	CR111 - No 46 Drain	0.6 mi South of SR139	1954
CO		03C0066	CR111 - J14B Canal	1.1 mi North of SR139	1954
CO		03C0067	CR111 - 45D Drain	1.15 mi North of SR139	1954
CO		03C0068	CR111 - J14A Canal	2.6 mi North of SR139	1954
CO		03C0070	CR87 - Pit River Slough	0.2 mi NE CR91	1955
CO		03C0071	CR87 - Pit River Slough	0.2 mi NE CR91	1955
CO		03C0075	CR198 - Rush Creek	0.25 mi South of SR299	1923
CO		03C0076	CR215 - Howards Gulch	2.15 mi North of SR299	1931
CO		03C0077	CR215 - Howards Gulch	4.2 mi North of SR299	1931
CO		03C0078	CR91 - Pit River	0.3 mi NW of CR87	1975
CO		03C0080	CR1 - Owl Creek	11.0 mi South of SR299	1943
CO		03C0083	CR91 - Pit River Overflow	1.2 mi South of CR87	1975
CO		03C0084	CR90 - Pit River	0.6 mi East of CR91	2000
CO		03C0085	CR90 - Pit River Overflow	0.5 mi East of CR91	2000
CO		03C0086	CR90 - Halls Creek	1.0 mi East of CR91	1996
CO		03C0087	CR224 - Bidwell Creek	1.6 mi NW Fort Bidwell	1991
CO		03C0089	CR69 - Pit River	2.7 mi South of SR299	2002
CO		03C0090	CR25 - Deep Creek	1.5 mi West of CR1	1967
CO		03C0091	CR75 - Pit River	0.3 mi South of SR299	1968
CO	SD	03C0092	CR85 - Stone Coal / Pit	4.7 mi West of SR299	1953
CO	FO	03C0093	CR112 - J Canal	South of State Line Rd	1985
CO		03C0111	CR56 - Alturas Creek	0.50 mi East of US395	1938
CO		03C0116	CR258 - So Fork Pit River	0.06 mi South of CR64	1957
CO	SD	03C0117	CR87A - Ash Creek	1.25 mi South of CR87	1980
CO		03C0118	CR86 - Rush Creek	East of SR299	1986
CO	FO	03C0119	CR 108 - D Canal	0.05 mi West of CR 114	UNK
CO		03C0120	CR70 - Pit River	2.8 mi South of SR299	1997
CO		03C0121	CR70 - Pit River	3.75 mi South of SR299	1996
CO		03C0122	CR85C - Pit River	0.75 mi South of CR 85	UNK
CO	SD	03C0123	CR87A - Ash Creek	1.25 mi South of CR87	1980
CO		-	CR 17 - Soldier Ck	1.25 mi West of CR 1	UNK

Legend: ALT = City of Alturas, CO = County of Modoc, FO = Functionally Obsolete, SD = Structurally Deficient

Source: Caltras Local Assistance Website, County of Modoc Road Department, 2005.

Two of the functionally obsolete bridges are scheduled for replacement by 2009 and two of the structurally deficient County bridges are scheduled for replacement by 2010. Deficient bridges create potential safety hazards, and may seriously limit access due to bridge closure or failure. County transportation permits provide a mechanism to regulate the weight of heavy vehicles with regards to certain bridge limits.

The state highway bridge inventory lists 22 state bridges in Modoc County (Table 2-12). There are three more bridges in the County. The City of Alturas has one bridge in good condition, located on Estes Street; and the Bureau of Indian Affairs maintains two bridges on Native American lands. One Indian bridge was replaced in 1998; the other was replaced in 2004.

TABLE 2-12: Modoc County State Bridge Inventory

Bridge No.	Roadway - Feature	Location	Built/ Recon
03 0001	SR299 - Butte Creek	PM 0.51	1985
03 0002	SR299 - Ash Creek	PM 1.02	1985
03 0003	SR299 - Rush Creek	PM 6.32	1964
03 0003Z	SR299 - Rush Creek	PM 6.32	1923
03 0004	SR299 - Rush Creek	PM 8.07	1964
03 0005	SR299 - Pit River	PM 17.95	1962
03 0006	SR299 - Cloverswale Road	PM 27.43	1991
03 0007	SR299 - Rock Creek	PM 37.16	1991
03 0008	SR299 - Rattlesnake Creek	PM 37.8	1980
03 0009	US395 - No Fork Pit River	PM 26.23	1982
03 0010	US395 - Parker Creek	PM 26.71	1954
03 0011	SR139 - Howards Gulch	PM 2.23	1966
03 0019	US395 - So Fork Pit River	PM 3.73	1947
03 0023	US395 - No Fork Pit River	PM 21.88	1971
03 0026	SR299 - No Fork Ash Creek	PM 3.38	1948
03 0028	SR299 - Caldwell Creek	PM 23.34	1947
03 0029	SR299 - W Br Cloverswale Creek	PM 27.35	1947
03 0033	SR139 - Perez Overhead UPRR	PM 30.63	1994
03 0052	US395 - So Fork Pit River	PM 16.52	1971
03 0053	US395 - So Fork Pit River	PM 19.64	1971
03 0054	US395 - Alturas Overhead UPRR	PM 20.77	1971
03 0055	US395 - Juniper Overhead UPRR	PM 15.06	1971

Source: Caltrans District 2.

TRANSIT SERVICES

The Modoc Transportation Agency (MTA) was established in 1997 to provide public transit services both within the County and to nearby regional centers. Prior to its formation, there was no consistent public transportation in Modoc County, although various social service agencies provided some transportation for their clients. The MTA was created as a Joint Power Authority between the County of Modoc and City of Alturas to operate the Sage Stage. The MTA Mission Statement confirms its purpose "to provide the citizens of Modoc County with lifeline public transportation services, both within and outside the region, to facilitate access to basic living activities." Typical of frontier counties, the local commission and MTA recognize the need to provide "lifeline" transportation from remote rural communities to medical and social services, where no passenger carrier or taxi services exist. Since Fiscal Year (FY) 1997-1998, the MCTC has committed 100 percent of its available Transportation Development Act funds to the MTA/Sage Stage, after an administrative allocation to the commission.

The service area of the Sage Stage is large in comparison with other public transit systems (Figure 2-6). The bus system currently provides two types of public transportation services: intercity/commuter (fixed-route with deviation) and local Dial-A-Ride operated on a demand-response basis. Due to limited resources and highly fluctuating demands, all Sage Stage services are operated on a reservation basis. Initially, when services began in January 1999, three types of services were offered: local demand-response or Dial-A-Ride, inter-community fixed-route with deviation, and intercity fixed route with deviation. After over two and one-half years of service, low ridership and disproportionately high costs caused the MTA to abandon regular fixed route services between Alturas and other Modoc communities.

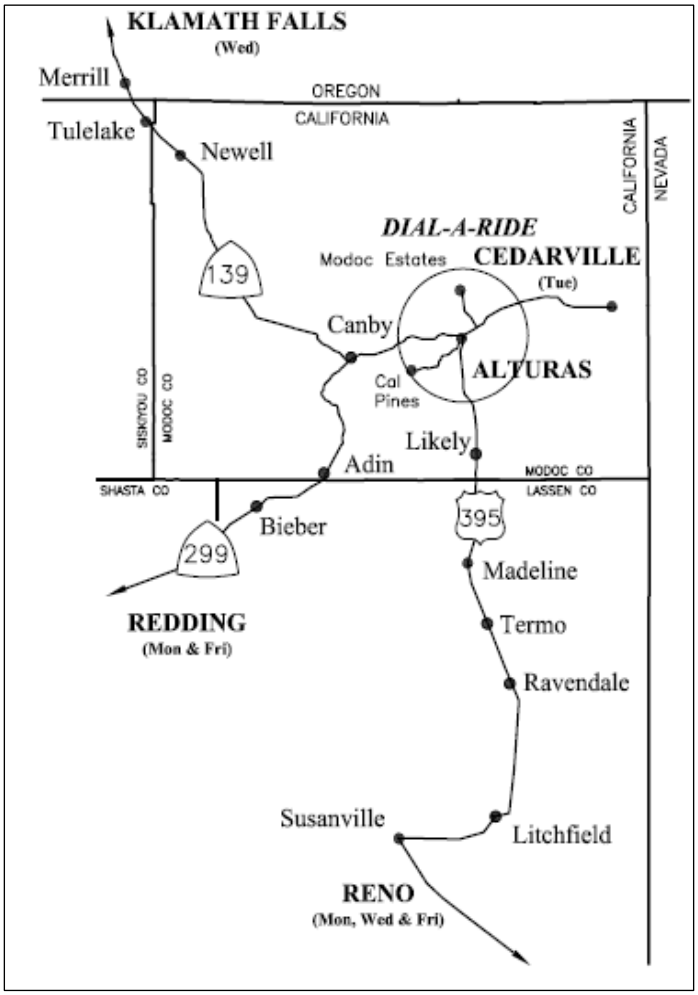
Dial-A-Ride Service

Beginning in June 2000, the MTA provides general public Dial-A-Ride service weekdays between 8:00 AM and 5:00 PM. This service is provided within a 10-mile radius of Alturas, including to and from Modoc Estates and Cal Pines subdivisions. Dial-A-Ride provides curb-to-curb service to the general public and door-to-door access for elderly and disabled persons. General fares for each one-way trip range from $2 to $6, depending upon distance. Seniors, disabled persons and youth pay half the general fare per trip.

Intercity Services

To support intercity travel and interregional trips accessing specialized health care and other services in distant urban centers, the Sage Stage operates three intercity routes. These routes link Alturas to regional centers in Reno, Nevada three times per week; in Redding, California twice per week; and in Klamath Falls, Oregon once weekly. Intercity buses leave Alturas at between 6 AM and 8 AM (earlier, special pick ups can be arranged) and return in late afternoon of the same day. Each intercity route is operated with one bus making a three- to four-hour layover in the terminus regional center. For passenger convenience, the bus drops off and picks up riders at specific destinations, such as hospitals, health care facilities, airports, bus and train stations, and popular locations within the city limits.

Figure 2-6
Sage Stage Bus Routes



- To Klamath Falls, Oregon (every Wednesday) – The Sage Stage operates between Alturas and Klamath Falls (100 miles one-way) on Wednesdays. A single Sage Stage vehicle is used to make one round-trip each Wednesday with a 3-4 hour layover in Klamath Falls. The general fare is $14 one-way; seniors, disabled, and accompanied children travel at a discounted rate. This intercity service connects with Basin Transit in Klamath Falls (both fixed route and Dial-A-Ride services), as part of MCTC's ongoing efforts to coordinate closely with adjacent transit operators and transportation providers. On this route, the Sage Stage also provides intercity connections to scheduled airline service, the Shuttle to Medford, Oregon, Red Ball Express to Lakeview, Oregon, and Amtrak's Coast Starlight and Cascades. Package and delivery services are used regularly on this route, particularly by Modoc districts needing to send water samples to a Klamath Falls laboratory for purity testing. On their way to Klamath Falls, Sage Stage intercity buses stop at the Modoc County communities of Canby, Newell, and Tulelake.

- To Redding, California (every Monday and Friday) – This route began service from Alturas to Redding in June 2001. One round-trip is scheduled on Mondays and Fridays, providing service to intermediate stops and towns in three counties along the 145-mile route. The same bus transports Sage Stage passengers to specific destinations within the Redding city limits and lays over for 3.5 hours before returning to Alturas by 5:00 PM. Service on this route is coordinated with adjacent operators and transportation commissions, including Lassen Rural Bus, Lassen County Transportation Commission, Redding Area Bus Authority, and Shasta County Transportation Commission. The general fare is $18 one-way, with elderly and disabled persons, and accompanied children paying half the general fare. This route facilitates travel to and from Fall River Mills where Lassen College offers training for licensed vocational nurses. Residents of Lassen and Shasta counties are served by stops in Bieber, McArthur, Fall River Mills, Burney, Montgomery Creek, and Bella Vista. This route also provides transit service for the communities of Adin, Canby, Beiber and Burney. Fares to these communities correspond to distance traveled.

- To Reno, Nevada (every Monday, Wednesday, and Friday) – In an effort to provide southerly connections, the Sage Stage has modified service along the US 395 corridor several times. Initially, the Sage Stage provided service to Susanville, California along the US 395 corridor. Two separate round trips on each service day allowed connections with Lassen Rural Bus in Susanville and the Mt. Lassen Shuttle to Reno. The latter provides contract transportation services for the California Corrections Department transporting parolees, mainly to the Sacramento area. Due to missed connections and public passenger preferences, ridership was minimal, while costs were considerable. For example, by FY 2000-2001, the Susanville routes carried only 6 percent of system riders but incurred over 35 percent of the Sage Stage operating costs.

  By initial design, the focus of this service was non-emergency medical transportation to Reno. However, ridership surveys indicated that most passengers made connections for interregional travel, as the Reno/Tahoe International Airport is the closest facility offering extensive airline connections. Further, public surveys indicated that potential riders preferred a quicker and more direct connection to Reno. Thus, after extensive consultation with the Lassen County Transportation Commission, public and private operators, Mt. Lassen Shuttle, Reno Transportation Commission, and the Nevada Department of Transportation, the Sage Stage began direct service between Alturas and Reno (189 miles one-way) in November 2001.

  Currently, the Alturas-Susanville-Reno service is offered on Mondays, Wednesdays, and Fridays. Passengers may connect to the Lassen Rural Bus in Susanville. In Reno, the Sage Stage connects with the Reno/Tahoe International Airport, local Citifare transit services, Inyo/Mono Transit CREST intercity (Reno/Carson-Bishop), Amtrak and Greyhound bus services. Direct service is also provided to the Veterans Hospital and Washoe Regional Medical Center, among other health care facilities and popular Reno destinations. The general fare is $30 one way from Alturas; accompanied children, elderly, and disabled persons pay half the general fare. In addition to serving Susanville and Reno, this intercity route stops along US 395 in the towns of Madeline and Likely.

- On Wednesdays, one additional round trip to the Klamath Falls intercity route is offered between Alturas and Canby, serving social service clients and the general public with access to an expanding health care facility. One bus leaves Alturas at 10:40 AM, arrives in Canby at 11:00 AM, and returns to Alturas by 11:20 AM. Outbound and inbound travel via the Klamath Falls intercity route allows reasonable stays for medical and dental care appointments. The general fare is $7.50 per one-way trip with a discounted fare of $5.00 for seniors, disabled persons, and accompanied children.

- Alturas - Cedarville Pilot Services - Historically, the Sage Stage has offered three different types of fixed-routes with deviation services between Alturas and Cedarville: regular morning and afternoon services; three-times per week morning and afternoon services; and four round trips on Tuesdays, one service day. Buses left Alturas at 6:15 AM, 9:30 AM, 12:45 PM, and 5:15 PM, and arrived in Cedarville 45 minutes later. The return trip to Alturas departed Cedarville after a 15- minute layover. This schedule allowed passengers to use varied layover periods (from three to eleven hours) at either destination for errands or medical appointments. The most recent form of this pilot service was a response to repeated requests during the annual Unmet Needs process. The MCTC and MTA took time to carefully design the schedule, offer reasonable fares and include extensive public outreach. Despite these best efforts, too few riders actually used the service. During the four-month trial period, the Sage Stage provided 128 vehicle trips, which served only 63 passenger-trips and less than a dozen unduplicated riders. These results and previously failed pilots suggest that the public transportation between Alturas and Cedarville is simply not reasonable.

Greyhound Partnership – MTA recently entered into an agreement with Greyhound Lines Inc. that allows MTA to sell Greyhound tickets out of the Sage Stage office. This will allow Modoc County residents who require travel via bus to distant locations to book their entire trip at their point of origin. MTA reorganized Sage Stage schedules so that passengers will only have to wait up to 30 minutes to catch a connecting Greyhound bus. Some direct timed transfers from Sage Stage to Greyhound are possible.

The existing Sage Stage fleet consists of six vehicles; each equipped with a wheelchair-lift. The transit operation is handled by a third-party contract operator, which provides operators, driver training and licensing, substance abuse testing, vehicle maintenance and insurance, dispatch and management services. Vehicle maintenance and repair is subcontracted to local vendors. The MTA provides contract administration, policy determination, marketing, customer billing, collections, and accounting functions.

Since public transit service began in Modoc County, ridership and service levels have expanded greatly. As evidenced in Table 2-13, ridership increased by 5,854 percent from FY 1998-1999 to FY 2004-2005, while vehicle service hours increased by 192 percent and vehicle service miles increased by 448 percent.

TABLE 2-13: Modoc Sage Stage Operations

Fiscal Year	Ridership	Vehicle Service Miles	Vehicle Service Hours
FY 98/99	215	56,527	1,176
FY 99/00	706	70,133	1,574
FY 00/01	2,942	71,738	1,721
FY 01/02	5,591	95,519	2,650
FY 02/03	6,739	108,514	4,238
FY 03/04	11,462	143,812	6,008
FY 04/05(1)	12,781	165,136	6,449
% Change from FY 98/99 to FY 04/05	**5845%**	**192%**	**448%**

Note 1: Unaudited.
Source: MTA.

Social Service Transportation Providers

While there are no private taxi companies in the County, several other public and social service agencies provide inter- and intra-County transportation. Services furnished by each provider are described below:

- **Modoc Joint Unified School District** operates nine bus routes Monday through Friday from 6:30 AM to 8:30 AM and from 2:00 PM to 5:00 PM. From Alturas, the district services the area between Madeline, the Oregon border and Canby, and provides 300 daily passenger-trips.

- **Surprise Valley Joint Unified School District** operates two bus routes that serve Cedarville, Eagleville, Lake City, and Fort Bidwell. The Eagleville route carries approximately 20 students per day and the Fort Bidwell route carries around 56 students. Buses operate a morning run from 6:45 AM to 7:50 AM and an afternoon run from 3:05 PM to 4:15 PM. Monday through Friday providing service to students from Kindergarten through 12th grade. The morning run also serves preschool students.

- **Tulelake Basin Joint Unified School District** operates three bus routes that serve the area between the Oregon border and Tionesta. The vehicle fleet consists of six buses. Transportation is provided to students from pre-school (3-4 years old) through 12th grades.

Buses operate Monday through Friday generally between 6:15 AM and 8:30 AM, and again from 2:30 PM until 5:30 PM to accommodate after school programs three days a week.

- **Modoc County Office of Education (MCOE)** is responsible for all special education services within the public schools serving Modoc County. MCOE operates four vehicles one of which is owned by TEACH. Two wheelchair vans stationed in Alturas are used to transport physically disabled students. A standard van and auto is also used to transport different students with various disabilities. MCOE vehicles are also used to transport students on field trips. On average, MCOE transports five or six students, 50 total miles per school day.

- **Training Employment and Community Help, Inc. (TEACH)** is a private, non-profit organization that administers more than 40 federal, State and local social service programs in Modoc County. Among others, current programs include Families Matter, Independent Living, Early Head Start, Even Start, Welcome Baby, Safe & Drug-Free Schools, Tobacco Use Prevention Education, Modoc Child Care Resource & Referral, and the Modoc Crisis Center. One or more specialized state and federal grants or special revenues support each program. For example, the Early Head Start program is a federally funded program for children between the ages of 0-3 years old from low-income families. TEACH supports the Sage Stage, utilizing the voucher program to provide transportation for various clients within the County and to interregional destinations. Also, TEACH operates nine sedans owned by the County of Modoc, funded through a combination of grants.

- **Modoc County Senior Citizens Association** provides transportation in Alturas within five miles of the site, and in Tulelake within twelve miles. The fleet consists of one 10-passenger vehicle equipped with a wheelchair lift (donated by MCTC) and one 9-passenger van located at the Alturas site. In Tulelake, the Association contracts with La Cena Tours to transport seniors and provide meal delivery. Additionally, the Association coordinates with the Sage Stage for wheelchair service, when the need arises. Most trips travel to and from the senior centers (60 percent); the second most popular destinations are the post offices (15 percent). The remaining passenger-trips are primarily to grocery stores, pharmacies, medical appointments, recreation, and banks. Service is provided to the sites as follows:

  - Alturas Site - Fixed-route and demand-response transportation services are provided Monday through Friday, from 8:00 AM to 3:00 PM within a 5-mile radius of Alturas.

  - Tulelake Site - The Modoc Senior Citizens Association provides home delivered meals and transportation for medical appointments and shopping trips on Monday, Wednesday, and Friday to eligible residents who live within a 12-mile radius of Tulelake (including Newell).

- **Modoc Work Activity Center (MWAC)**, d.b.a. Dimensional Associates Resources and Training, is a private, non-profit organization that provides demand-response transportation services primarily to developmentally disabled clients of the Center and individuals through extension programs. Program funding is provided by the Far Northern Regional Center.

- **California Work Opportunity and Responsibility to Kids (CalWORKS)** is a federal/State mandated education and employment program for recipients of Aid to Families with Dependent Children. CalWORKS offices are located in Alturas, serving clients throughout Modoc County. CalWORKS supports the Sage Stage, providing annual funding to subsidize specific routes that benefit the program. In addition, the agency purchases transportation from the transit system, for clients to attend regular training and workshops. The MTA developed a "voucher program" working in partnership with CalWORKS staff. The voucher program provides social service and other agencies a tool to authorize Sage Stage transportation, by designated agency staff, for which the agency is billed monthly.

- **Public Guardian and Conservator's Office** provides services to about a dozen persons who are gravely disabled. Once conservatorship is granted by the Superior Court, the Office is responsible for ensuring that the individual has food, clothing, shelter, and medical and dental care, purchased with the individual's resources. Using one sedan, demand-response transportation is provided according to individual needs, primarily in Modoc County. Sometimes, trips to Shasta County, Reno, Nevada and Klamath Falls, Oregon are necessary to transport clients for medical appointments or treatment.

- **The Strong Family Health Center** is a non-profit tribal organization in Alturas that provides contract health services to eligible Native Americans. Tribes in Modoc County established this organization. Demand-response service is provided to MIHP clients who have no means of transportation to social services and medical appointments. MIHP serves clients throughout Modoc County, except on the Fort Bidwell Indian Reservation. Transportation services are provided five days a week on an on-call basis. The MIHP owns two vehicles, none of which are wheelchair-lift equipped.

- **Pit River Health Services, Inc. (PRHS)** headquartered in Burney, California, is another tribal organization that administers contract health programs through the Indian Health Service federal program. With holdings in Lassen, Modoc, Shasta, and Siskiyou counties, the Pit River Tribe established this organization to provide comprehensive ambulatory medical and dental care to the Pit River Tribe members, other eligible American Indians, and some non-Indians. PRHS provides demand-response transportation, weekdays between 8:00 AM and 5:00 PM, mostly to Native Americans or members of Indian households. The fleet includes 14 vehicles, one of which has a wheelchair lift.

- **Fort Bidwell Indian Community Council** provides limited medical services on a part-time basis to Fort Bidwell Tribe members and several non-Indian residents who live nearby. Demand-response service is provided seven days a week, as space allows, for community members who have medical appointments within Modoc or surrounding counties. Persons with special medical needs are routinely referred out of the area. Transportation is also provided for Indian children, Monday through Friday, to and from Cedarville schools.

- **California Tribal TANF Partnerships** provides transportation with an agency owned vehicle, gas vouchers and mileage reimbursements for Native Americans to access employment and training opportunities.

- **Cedarville Rancheria** provides transportation and mileage reimbursements for seniors, people with disabilities, and low income individuals.

- **Modoc County Health Services** agency includes three departments: Alcohol and Drug, Mental Health, and Public Health Services, all part of the County of Modoc. Using a fleet of seven vehicles with no wheelchair access, the agency provides transportation for patients without other means to avoid deterioration in their conditions. Occasionally, Mental Health, patients are transported to various psychiatric facilities in Shasta, Butte, Yolo, and Sacramento counties. Some Alcohol and Drug clients are provided transportation to rehabilitation centers in assorted counties. On occasion, Public Health provides transportation for children in need of specialized medical services in other counties. Additionally, some counseling and therapy patients independently travel on the Sage Stage.

- **Reno Veterans Hospital** provides fuel, maintenance, and insurance expenses to support trips to its facility only for specific appointments by qualified veterans living in Modoc County. AMVETS purchased one 8-passenger van without a wheelchair lift; volunteers drive this vehicle. Trips are coordinated through another volunteer working out of the Modoc County Veterans Services Office. Transportation is provided on an as-needed basis to ambulatory veterans 2 days per week. However, all trips begin and end at a central location in the City of Alturas. Travel typically starts at 5:00 AM or 6:00 AM. Many veterans have difficulties arranging transportation from their homes to the departure point. Recently, the VA Van has been picking up additional passengers in Susanville on its way to Reno.

- **Modoc Medical Center**, the County hospital, operates one cutaway vehicle with a wheelchair lift. The bus is owned and supported by the County of Modoc, and used to transport hospital patients without other means to/from medical appointments. The vehicle was purchased with Proposition 116 funding. It is also used to transport long-term residents of the Warner View facility for medical care and occasional social outings.

- **Alliance for Workforce Development, Inc.** provides transportation to support individuals seeking employment. Trips include program access, job sites, health care appointments, personal business, shopping, education and job training, and social and recreation opportunities.

- **American Cancer Society – Road to Recovery** provides patients with a mileage reimbursement.

- **California Department of Rehabilitation** provides transportation for health care in support of employment training. Services include mileage reimbursement, gas vouchers, carpool/fuel sharing reimbursement, and bus passes.

- **Canby Family Practice** provides gas vouchers to its transportation-disadvantaged patients to access health care at its clinic.

- **Modoc County CalWORKS** provides transportation to clients in support of securing employment. Transportation is provided through the purchase of bus passes, provision of gas vouchers, mileage reimbursement, and directly by staff.

- **Modoc County Department of Health Services** provides transportation to public health programs including mental health and drug and alcohol treatment through gas vouchers, mileage reimbursement, bus passes, and direct services with agency-owned vehicles.

- **Modoc County Department of Social Services** provides transportation with staff and volunteer drivers for health care appointments.

- **Surprise Valley Health Care District** provides transportation for their clients who need to access the clinic or community hospital. They use paid staff and an agency-owned vehicle.

Coordinated Transit Planning

It is important for rural transportation providers such as MTA to collaborate with other regional and local transportation providers in order to minimize costs and serve the transit dependent population efficiently. MTA has made great strides in this area. The following details some previous and coordinated transit planning efforts. Future coordinated transit planning projects and strategies are listed in Chapter 4.

- **Tri-County Transit Coordination Group (TCTC)** – With assistance from Caltrans District 2 Regional Planning in 1999, an informal Tri-County Transit Coordination group was formed, consisting of staff representatives from the Lassen, Plumas, and Modoc County RTPAs, and respective transit operators including the Lassen Rural Bus, Plumas Transit Services and Modoc's Sage Stage. An initial project, funded through a FTA 5313(b) Partnership Planning grant, received $48,000 federal funds. The purpose was to develop a study that examined transit services in the three counties, fostered enhanced coordination, and considered opportunities to combine all or parts of the transit operations. Each participating Commission allocated $3,200 match funds each to the endeavor, which retained professional consultants to conduct the study, meet with the steering committee and prepare the study (described below). The Committee meets regularly, though less frequently than during project development phases. The ongoing interaction among neighboring agencies and operators has been productive and successful in several areas.

- **Tri-County Public Transportation Integration Study** (Nelson\Nygaard-Portland, June 2000) – Among various coordination and consolidation models, the consultant team recommended further development of informal collaborations within each county and between regions. The study determined that within each county, some transportation service providers were unknown to one another and some distrusted the objectives and goals of other providers. Intra-County collaboration was recommended to bring providers together to address Countywide problems and opportunities through less formal structures. The goals were to share information, build trust, and possibly enter into agreements to share tasks and resources as appropriate. Likewise, inter-County collaborations and agreements were suggested in two county combinations or among all three. It was hoped that mutual concerns

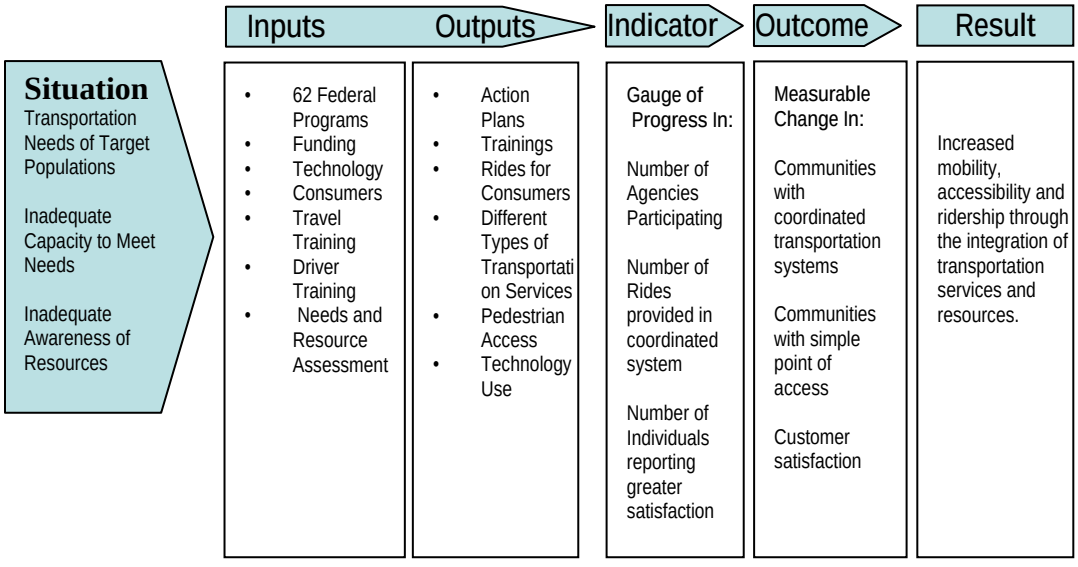
would initiate discussion and lead to cooperative solutions concerning vehicle maintenance, on-road communications, and shared marketing plan and efforts.

- **Frontier Rural Non-Emergency Medical Transportation (NEMT) Coordination Plan** (Nelson\Nygaard-San Francisco, February 2006) – The Tri-County Group joined by the County Medical Services Program (CMSP) received funding from the California Department of Transportation Environmental Justice program for a project with three objectives: (1) use an inclusive participatory planning process to develop a practical and cost-effective plan to improve the delivery of NEMT in Modoc, Lassen and Plumas counties, as well as access to preventive health care for transportation-disadvantaged persons; (2) develop a service strategy that builds on local resources, avoids duplication, and improves local transit service productivity; and (3) facilitate environmental justice through representation of low-income and minority populations.

United We Ride Model

United We Ride, an initiative of the Coordinating Council on Access and Mobility has developed a number of tools and strategies for building coordinated human service transportation systems across programs and funding streams. The Framework for Action is a comprehensive evaluation and planning tool to help state and community leaders and agencies involved in human service transportation and transit services, along with their stakeholders, improve or start coordinated transportation systems. The United We Ride Logic Model displayed below presents a process or a tool, which MTA can employ to increase transit productivity and measure transit coordination projects effectiveness.

United We Ride
Logic Model



BIKEWAY AND PEDESTRIAN FACILITIES

Existing Modoc County bikeway facilities include a bike lane in Alturas on McDowell Street from Main Street to Estes Street and commuter bike routes/paths/striping in Canby. In 2001 additional bike lanes and paths were constructed in the town of Canby. The Draft Modoc County Bicycle Transportation Plan lists proposed bikeway projects throughout the County. The primary goal of the bike plan is *"to serve the needs of bicyclists, pedestrians, and motorists, by supporting a safe, effective, efficient, balanced, and coordinated transportation system at reasonable cost."*

In terms of both bike and pedestrian circulation, the region is faced with many issues. Linking communities is difficult due to the long distances between main populations centers located along State Routes. There is limited shoulder area to walk or ride along most roadways in the region. Roadways within rural Modoc communities are narrow and lack sidewalks. The City of Alturas and Cedarville are the only areas where limited sidewalk facilities exist. However, sections of these existing sidewalks offer some hazards, because no funding exists for sidewalk maintenance. In towns such as Newell, Canby, Adin, and Likely, pedestrians commute along the shoulders of the state highways. These pedestrian routes are potentially dangerous when pedestrians walk too close to vehicle travel lanes, in particular if there is snow or ice on the roadways. In the towns of Newell, Cedarville, Canby, and Likely, school children must cross state routes commuting to and from school. The safety and security of bicyclists and pedestrians is an important concern.

AVIATION

General Aviation (GA) supports travel for emergency and other purposes to and form rural areas like Modoc County. GA includes any aircraft activity not described as scheduled passenger service (i.e., airlines), including aircraft used to fight fires and for business, recreation, or medical/health care purposes. This type of aircraft activity allows remote communities quick access to medical and business centers in larger metropolitan areas, which is vital to rural regions. General aviation and the existing airport infrastructure are necessary for the movement of people and light cargo, firefighting, and emergency access to regional medical centers. Maintaining and improving aviation facilities is critical for the safety, security, and personal well-being of residents and visitors of Modoc County.

Modoc County has five publicly-owned airports operated by the County and one privately operated airport (Figure 2-7). There are two types of public airports in the County: municipal airports and non-National Plan of Integrated Airport System (NPIAS) airports. The municipal airports are located in Alturas, Cedarville, and Tulelake. All municipal airports are classified as Basic Utility-Stage I facilities with fuel available for purchase. The Alturas Municipal Airport has two runways, both of which were resurfaced in 1999/2000. This facility serves mostly small private aircraft and biweekly air shuttles for specialized medical teams serving local cardiology patients. Rental hangar space, pilot training, and flying services are available on site in Alturas. The Federal Aviation Administration (FAA) includes these three municipal airports in the NPIAS, and as such, they are eligible for federal Airport Improvement Program funding.

There are three non-NPIAS airports in the County, which are not eligible for FAA assistance. The County operates two non-NPIAS facilities without fuel in Adin and Fort Bidwell, which are classified as Less Than Basic Utility airports. The other non-NPIAS airport is owned and operated by the California Pines Community Services District (CSD). This private airport is classified as a Basic Utility-Stage I facility, although fuel is not available. Recently, the CSD applied for State funding through the 10-year Capital Improvement Program to overlay the runaway and add lighting. In addition to the six regional airports, Modoc Medical Center maintains a heliport, used regularly to transfer critical patients from Alturas to larger medical facilities.

Table 2-14 displays current and future aircraft activity in Modoc County. In 2004 Modoc County airports recorded 16,500 take-offs and landings. This number is expected to increase to 25,600 in 2010.

The closest regional airports offering commercial airline service are situated in Klamath Falls, Oregon (100 miles to the northwest) and Redding, California (145 miles to the west). Located in Nevada about 185 miles from Alturas, the Reno/Tahoe International airport accommodates over a dozen airlines, providing passengers with many interregional and interstate travel options.

TABLE 2-14: Current and Future Aircraft Activity in Modoc County

Airport	2004 Based Aircraft	2004 Aircraft Operations	2010 Aircraft Operations
Adin	0	100	100
Alturas Municipal	9	8,000	10,000
California Pines	1	300	400
Cedarville Municipal	8	3,000	5,000
Fort Bidwell	0	100	100
Tulelake Municipal	11	5,000	10,000
Total	**29**	**16,500**	**25,600**

Source: Modoc County, 2005.

RAILROADS

The Modoc Northern and Burlington Northern Santa Fe Railroads are important elements in the physical form of the County, but play only a limited role locally. The rail lines are completely dedicated to freight, and local service is limited to shipping and receiving. No passenger rail service is currently offered. During the past 15 years, environmental limits on timber harvesting hastened economic decline and significantly reduced railroad traffic in Modoc County.

The Draft California Transportation Plan 2025 considers the rail line which runs between Lassen County and Oregon through Modoc County to be a major freight route. Figure 2-7 depicts the two major rail lines described below:

- **The Burlington Northern Santa Fe Railroad** (BNSF) serves the west side of the County, operating a north/south route from Bieber, California on the south to Klamath Falls, Oregon on the north, where the line connects to the Union Pacific Railroad. This line averages between two and six trains per 24-hour period. BNSF operates out of four ports in California: Stockton, Sacramento, Oakland, and Redwood City. While the BNSF also has an east/west line joining its north/south line near Lookout, the former is not in service at this time.

- **Modoc Northern** – Since November 1, 2005 Modoc Northern has been providing freight rail service on old Union Pacific track in Northeastern California and southern Oregon. In 2006 Modoc Northern purchased Lake County Railroad expanding the railroad to 160 miles of track. Based out of Tulelake, CA, Modoc Northern connects Alturas with Lakeview, Oregon to the northeast and connects Alturas with Klamath Falls, Oregon to the northwest. Modoc Northern joins with Union Pacific Railroad in Klamath Falls, Oregon. The Modoc Northern's operating, traffic, and maintenance employees are based in Tulelake, with an engineer based in Alturas. Trains run between Tulelake and Klamath Falls on Mondays, Wednesdays, and Fridays, and between Alturas and Klamath Falls on Tuesdays and Thursdays, and Saturdays "as needed."

ADVANCED TECHNOLOGY APPLICATION OR INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

Regional ITS Architecture

The U.S. Congress enacted the Intelligent Transportation System Architecture and Standards: Final Rule (23 CFR Parts 655 and 940), which became effective on February 7, 2001. The intent of these regulations is to mainstream ITS within the transportation planning and programming processes, and to encourage ITS deployment and system integration. As part of this rule, Regions not currently implementing ITS projects must have a regional ITS architecture in place in four years. Regions not currently implementing ITS projects must develop a regional ITS architecture within four years from the date their first ITS project advances to final design (US DOT/FHWA, 2005).

Regional ITS Architecture is the foundation for planning, coordinating, and implementing advanced technology transportation projects. ITS architecture includes comprehensive management strategies and applied technologies in an integrated manner to improve efficiency and safety on transportation facilities in the region. Examples of ITS projects include road weather information systems, tourism enhancements, specific safety applications, and inter-community transit service information. Often projects cross jurisdictional boundaries; therefore it is important to integrate different agency ITS systems. The Federal Transit Administration National ITS Architecture Policy requires that, "ITS projects shall conform to the National ITS Architecture and standards. . . ." In compliance with this policy applicable components from the local region that are related to ITS are mapped to the National ITS Architecture.

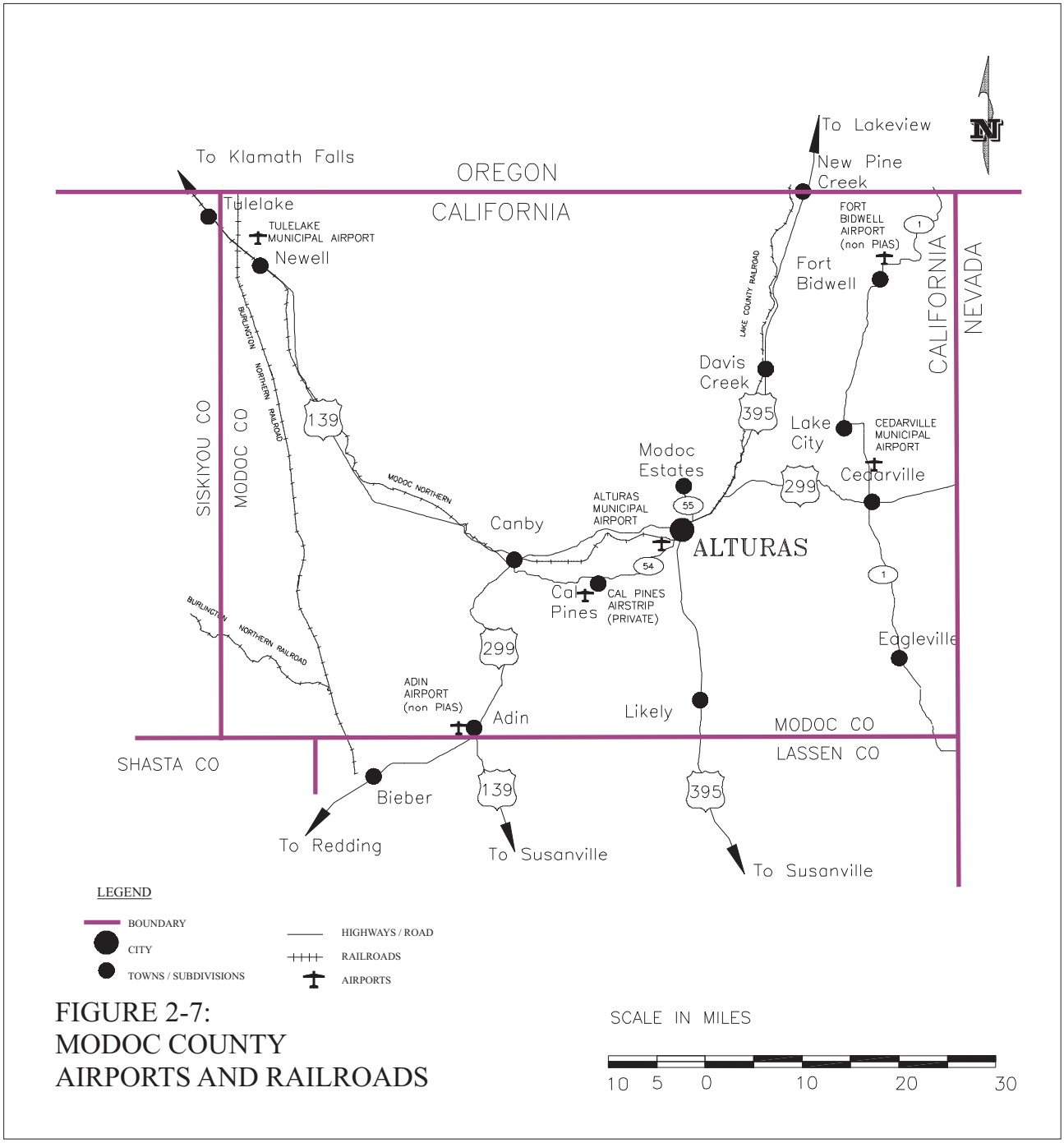


FIGURE 2-7:
MODOC COUNTY
AIRPORTS AND RAILROADS

Deployment of ITS technologies in rural environments is beginning to unfold. Modoc County is in the process of developing a Regional ITS Architecture. The draft version is included in Appendix G. The region has also participated in discussion and development of several ITS projects and a related motorist safety project that fits best into this section. These projects are outlined briefly below.

California-Oregon Advanced Transportation System (COATS)

In an effort to realize benefits of ITS in rural areas, the COATS study began in April 1998. In general, the study addresses rural transportation challenges through use of appropriate ITS technology. Specifically, Caltrans and the Oregon Department of Transportation (ODOT) jointly developed this project to investigate the feasibility of ITS in Northern California and southern Oregon. The intent was to facilitate ITS use to enhance safety; to improve movements of people, goods and services, to promote economic development of the region; and to begin ITS deployment within the study area (Caltrans New Technology, COATS Fact Sheet). The following statement from one of several publications overviews the COATS project purpose:

> *"The purpose of COATS is to encourage regional, public and private sector cooperation between Oregon and California organizations to better facilitate the planning and implementation of advanced technology systems. The (COATS) . . . focus is between Redding, California and Eugene, Oregon. . . . This area provides a test bed for research, development, demonstration and deployment of rural ITS technologies and systems to make rural travel safe, dependable and convenient."*
> (COATS Regional Architecture, June 2000)

MCTC has participated in Steering Committee meetings for the rural COATS program and provided input for the COATS ITS *Strategic Deployment Plan* (SDP). COATS has an update of their regional architecture underway. Additionally, COATS remains a good source of information and connection as Modoc County develops its own regional ITS architecture.

Programs to Reduce Animall-Vehicle Crashes

Nearly 750,000 deer-vehicle crashes occur in the United States annually, accounting for more than 120 human fatalities per year (Western Transportation Institute, Sept. 2000). Many state and rural County transportation departments are grappling with these issues. Animals are the single greatest cause of accidents in Modoc County. From 1999 to 2003, animals have accounted for 23 percent of total accidents in the County. In an effort to reduce these accidents, the County of Modoc Road Department (CMRD) received a grant from the California Office of Traffic Safety for a study. This research/demonstration project gathered data about the effectiveness of vehicle-mounted warning devices. This simple project had three components: market and distribute devices, monitor animal-vehicle accidents, and deliver a final report. Different types of "deer whistles" were purchased, electronic and several air-actuated models. A total of 1,648 whistles were distributed to vehicle owners in Modoc County on a request-basis. Owners were responsible for installation and maintenance of devices. As animal-vehicle crashes occur at random, it is difficult to determine whether or not deer whistles work. However, none of the

project participants were involved in animal-vehicle crashes; therefore there is a likelihood that deer whistles reduce collision rates.

Rural Mobility Applications Program (MAP)

Evidence suggests that ITS and the information revolution are bypassing rural California, whose residents and travelers struggle to find public transportation to journey between remote rural areas and regional urban centers. There are few, limited alternatives for persons, especially the elderly, disabled, and those with limited means, who must travel from or through rural regions like Modoc County but cannot drive themselves. Small private and public bus operators are attempting to fill the rural mobility gap, but few can market outside their service areas, so they are mostly unknown to the general public, other providers and agencies.

Rural MAP was developed by MCTC in cooperation with Caltrans, FTA, and Lassen, Plumas, Inyo and Mono counties. The main objective of MAP is to facilitate information about available transit services, improve coordination using technology tools and streamline data collection and reporting.

Through the use of various technologies, the goals of the program are to:

- Increase the effectiveness and efficiency of individual transportation providers in rural California counties using cost-effective technologies
- Increase the coordination between the various transportation providers
- Provide easier access to riders

The MAP concept consists of current and future projects from multiple funding agencies. These projects are described in greater detail and included in Table 4-15 of the Action Element.

Frontier Rural Transit/ITS Workshop

On August 17th and 18th of 2005, MCTC hosted a Frontier Rural ITS/Intercity Transit Workshop in Alturas. Representatives from Inyo, Lassen, Mono, and Plumas County Transportation Commissions and transit operators attended. Topics of discussion included Regional ITS architecture and the coordinated rural trip-planning tool. Technical details about web-based coordinated reservations and trip planners were also presented by a software solution provider.

AIR QUALITY

Air quality is often a significant consideration for planning and evaluating transportation systems. Both State and federal laws contain many regulations to curb the impacts of transportation projects on air quality. In California, local and regional air pollution control districts have the primary responsibility for regulating emissions from all sources other than motor vehicles and fuels. The California Air Resources Board (CARB) regulates sources of

vehicular air pollution, such as motor vehicle manufacturers and fuel refineries. California is divided into air basins related to air circulation and accumulation patterns. Modoc County is part of the Northeast Plateau Air Basin with air quality managed by the Modoc County Air Pollution Control District (APCD). The district maintains one monitoring site in Alturas, where levels for PM_{10} air pollutants are followed. However, Modoc County has good air quality because of its low population density, limited industry, extensive undeveloped public lands, and rare traffic congestion.

The U.S. Environmental Protection Agency (EPA) established federal standards for seven air pollutants that affect the public health and welfare. Likewise, CARB established State standards, which are higher than the federal standards because air quality is worse in California. Both agencies use separate standards for the two categories of particulate matter (PM) based on particle diameter: PM_{10} (ten microns or less) and $PM_{2.5}$ (2.5 microns or less). The Modoc County APCD continuously monitors PM_{10} airborne particulates. A description of this pollutant is described below.

Particulate Matter 10 (PM_{10}) – Airborne Particulate Matter 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 which are formed in the air from emitted hydrocarbons, and chloride, sulfur oxides, and oxides of nitrogen. Particulates reduce visibility and pose a health hazard by causing respiratory and related problems.

The County is considered "in attainment" for every state and federal air quality standard, except the state PM_{10} standard. Notably, almost every county in California exceeds the state standards for airborne particulates. The primary sources of PM_{10} pollution include wood stoves, open and prescribed burning, and wind-blown dust generated from unpaved roads and agriculture. Typically, the highest levels of PM_{10} observed in Modoc County occur during fall and winter, because of increased open burning and wood stove use. Thus, particulate matter air pollution problems in the region are not from transportation sources. The local APCD officer provides a statement about the air quality-transportation relationship in Modoc County in Appendix H. Unlike many urban areas in California, where congestion, traffic volume, and environmental conditions cause unhealthful ozone pollution, transportation has no significant impact on air quality in Modoc County.

PROGRESS REPORT

Several improvement projects have been completed on regional roads, bridges, tribal roads, and airports in recent years. The majority were rehabilitation projects, to replace and repair existing transportation facilities. Table 2-15 presents completed transportation improvement projects from 2001 to 2007. Projects are organized by type of facility and listed numerically by road number. Over $12.3 million was spent on reported transportation improvement projects over the five-year period. (This figure is not accounting for SHOPP Minor projects whose construction cost is unknown at this time). By project type, 80.3 percent was expended for roadway improvements, 11.3 percent for tribal transportation projects, 7.6 percent for aviation and 0.7 percent for bicycle/pedestrian facilities.

TABLE 2-15: Completed Transportation Improvement Projects in Modoc County - 2001 through 2007

Lead Agency	Facility No.	Specific Location	Project Description	Miles	FY Done	Total Cost (1,000s) Dollars	Funding Source
City Street Projects							
ALT	Carlos St.	Between Main and Warner	Street Rehabilitation	1.21	2002	$ 2	STIP
County Road Projects							
CO	CR17	CR1 to CR18	Road Rehabilitation	3.5	2001	$ 636	Local
CO	CR18	CR1 to CR17	Road Rehabilitation	1.0	2001	$ 180	Local
CO	CR121	SR139 to CR120	Road Rehabilitation	4.3	2001	$ 251	Local
CO	CR75	SR299 to CR54	Road Rehabilitation	5.2	2003	$ 937	Local
CO	CR60	CR260 to 5 mi S	Road Rehabilitation	5.0	2003	$ 901	Local
CO	CR56	CR 57 to 0.6 miles west	Road Rehabilitation	0.6	2005	$ 200	Local
CO	CR56	CR 115 to 1.6 miles east	Road Rehabilitation	1.6	2006	$ 288	Local
CO	CR55	MP 1.0 to MP 2.0	Road Rehabilitation	1.0	2006	$ 180	Local
CO	Adin	Adin City Streets	Road Rehabilitation	1.8	2006	$ 317	Local
CO	CR 105	CR 104 to CR 110	Road Rehabilitation	1.0	2007	$ 180	Local
CO	CR236	CR 55 to CR 244	Road Rehabilitation	0.9	2007	$ 153	Local
CO	McDowell St.	Main St. to Hospital	Road Rehabilitation	0.1	2007	$ 25	Local
CO	CR1	Nevada State Line to Lassen County Line	Road Rehabilitation	3.6	2007	$ 800	STIP/Local
Forest Highway Projects							
CO	--	Crowder Flat Road - Barnes Grade	Pave existing gravel road	2.1	2004	$ 680	Fed/Local
Hazard Elimination Safety (HES) Projects							
CO	--	Countywide - various locations	Traffic Sign Replacement - regulatory and warning	--	2004	$ 392	HES/Local
County Bridge Projects							
CO	CR 69	3C0089 - Pit River	Bridge Replacement	--	2002	$ 840	HBRR/STIP
CO	CR 60	3C0041 - Eastside Canal	Bridge Replacement	--	2005	$ 890	HBRR
CO	CR 87	3C0002 - Pit River Slough	New Bridge Rail	--	2002	$ 32	HBRR
CO	CR 87	3C0004 - Roberts Slough	New Bridge Rail	--	2002	$ 32	HBRR
CO	CR 87	3C0005 - Roberts Slough	New Bridge Rail	--	2002	$ 32	HBRR
CO	CR 87	3C0071 - Pit River Slough	New Bridge Rail	--	2002	$ 32	HBRR
CO	CR 85	3C0092 – Pit River	Bridge Replacement	--	2007	$ 1,960	HBP/STIP
State Highway Projects							
State	SR 139	PM 44.9	Newell Mtc. Station	--	2003	NA	Minor B
State	SR 299	PM 48.7 - 51.1	G11 Alturas AC Shoulders & Dikes	--	2005	NA	Minor A
State	SR 299	PM 52.2 - 52.8	Construct Passing Lane - Cedar Pas	0.6	2002	NA	Minor A
State	SR 299	PM 60.1 - 66.5	G11 Replace Culverts - Cedarville	--	2002	NA	Minor B
State	US 395	PM 3.0 - 3.3	Likely Drainage	--	2004	NA	Minor B
State	US 395	PM 23.0	Alutras Mtc. Station	--	2004	NA	Minor B
State	Various	Alturas	Intersection Lighting	--	2003	NA	Minor B
Tribal Projects							
BIA	Bridge J001	XL Rancheria - North Fork Pit River	Replaced wood bridge with concrete	--	2004	$ 600	IRR
BIA	BIA 96	Fort Bidwell - Su-Muh Puh-Ku Way, Bridge St. and Gidutikad Square	Overlay	--	2004	$ 800	IRR
Airport							
CO	--	Adin Airport	Crack Sealing	--	2004	$ 12	State
CO	--	Tulelake Municipal Airport	Reconstruction of Existing Runway as New Parrallel Taxiway (35'x3720')	--	2004	$ 372	FAA
CO		Cedarville Airport	Reconstruct Tie Down Apron	--	2006	$ 248	FAA
ALT	--	Alturas Airport	Construct 8-foot Chain Link Security Fence	--	2007	$ 297	FAA
ALT	--	Alturas Airport	Replace Floating Suction in Above Ground Fuel Tank	--	2007	$ 13	FAA
Bikeway/Pedestrian							
CO	--	Canby Streets and Bikeways	New Bike Lanes and Path		2001	$ 90	State
					Total Cost	**$ 12,372**	

Source: Modoc County Department of Public Works, City of Alturas, Caltrans District 2, BIA, 2005.

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Chapter 3
Policy Element

This chapter describes the regional transportation issues and provides goals, objectives, and policies to assist setting transportation priorities for the Modoc County region. The Policy Element presents guidance for decision-makers about the implications, impacts, opportunities, and insolvent/inadequate options that will result from implementation of this RTP.

LOCAL AND REGIONAL ISSUES

As described in Chapter 2, Modoc County is a rural frontier region. The inherent isolation of the County and extensive travel distances between communities and to urban centers impacts the efficiency of the regional transportation system. These regional characteristics underscore the lack of designated funding for roadway maintenance and operations, which naturally allow the regional transportation system to continue to deteriorate and soon crumble. The critical need for people to travel in and out of the County for non-emergency medical care, employment, job training, educational opportunities, and so on, tax the region's finite ability to provide lifeline transit services. Bicyclist and pedestrian access are limited by inadequate facilities and funding. These key issues are among the most important regional needs and problems. The list that follows identifies key regional transportation issues (in no particular order):

- Shortfall in revenues to implement an adequate pavement rehabilitation program and to make needed improvements to local roads, state highways, and regional bridges.
- Impact of substandard roads on maintenance funds, when added to the need of local maintained roadway inventory.
- Need for transportation services – to ensure mobility and reasonable access for all ethnic, age, and income groups – in comparison with limited funding sources, extensive travel distances, and higher regional operating and fuel costs.
- Need for traveler safety and security.
- Desire to improve local economic vitality, supporting livable communities, and individual well-being.
- Need for bicycle and pedestrian facilities to provide safer environments and better connectivity for non-motorized travel.
- Importance of maintaining and improving regional airports for emergency response and general aviation.
- Need to preserve the rail system, maintain existing rail service, and protect potential for long-term expansion, which are economically important to the region.

REGIONAL MOBILITY NEEDS

In a county where the proportion of persons living below the poverty level and the proportion of persons over the age of 65 is greater than the statewide population, mobility is a top priority. The Modoc County Coordinated Human Services Transportation Existing Conditions Report (FLT Consulting Inc. and Nelson/Nygaard Consulting Associates Inc., 2008) discusses several key findings of transit service gaps and unmet transportation needs. These unmet needs were defined as those transportation needs that are not currently being met and are not financial constrained.

Two-thirds of the County's residents live outside of Alturas and require transportation into the city for services. The following communities were identified as unserved or underserved areas:

- Adin
- Lookout
- Tulelake
- Newell
- Fort Bidwell
- Surprise Valley, including Cedarville and Eagleville
- Modoc Estates
- Cal Pines

Being a rural area, many key medical destinations are located outside the County in Redding, California, Reno, Nevada, and Klamath Falls, Oregon. Lakeview, Oregon was also identified as a growing area that may provide increased shopping and employment opportunities in the future. Non-emergency medical transportation was cited as one of the most important transit destinations for Modoc County residents. The following key destinations are not currently served by public transit:

- Strong Family Medical Center
- Adin Senior Center
- Preschool access for low-income families
- Non-emergency medical transportation to specialized facilities in Davis, Redding, San Francisco, Klamath Falls, and Reno
- Return trips from hospital stays when departure needs do not match Sage Stage service times back to Modoc County

Some stakeholders felt that the DAR service area was too small.

There is a need to serve nontraditional work times and after-school programs.

<u>Critical Needs</u>

As the result of an intensive public outreach and participation process during the development of the Coordinated Human Services Transportation Plan, three critical transit needs were identified

and prioritized in Modoc County:

- Mitigation of high cost transportation – This addresses not only the cost of transportation to the passenger but the provider as well. As gas prices rise, so will the transit provider's operating costs, forcing the operator to raise fares.

- Direct trips to and from out-of-county medical appointments – Some passengers with disabilities find it difficult to wait for the bus before and after a medical appointment. Direct trips would be preferred.

- Transportation for people who fall outside the ADA definition of disability.

SELECTION CRITERIA

MCTC Commissioners developed selection criteria to provide a basis for crafting RTP goals, objectives, performance measures, and policies that assist future decision-making about the regional transportation system. The criteria were defined and "weighed" by the MCTC according to relative importance to the region. The selection criteria serve the following purposes:

- To assist Commissioners and staff in comparing outcomes of different alternative strategies.

- To aid comparisons across modes and among strategies focused on different modes.

- To facilitate assessment of priorities in the Action Element linking implementation through the Regional Transportation Improvement Plan (RTIP) and the Interregional Transportation Improvement Plan (ITIP).

- To assist Caltrans with integrating interregional transportation objectives and decisions with regional transportation objectives and decisions.

By completing a survey, Commissioners developed and ranked the selection criteria by importance according to the individual's understanding of County transportation needs. Reliability was ranked the highest, followed by safety and security, mobility and accessibility, and economic development. Quality of life, telecommunication infrastructure, and cost effectiveness did not receive much weight according to the results of the survey. While weighing was useful to develop and refine specific criteria, Commissioners decided that the range of individual scores suggested that they should not be prioritized in the RTP. Regardless, all selection criteria can be used in the future to assist the MCTC to rank proposed projects based on importance to the region.

GOALS, OBJECTIVES, PERFORMANCE MEASURES, AND POLICIES

The development of valid and appropriate goals, objectives, performance indicators or measures, and policies is an important part of the regional transportation planning process. Following the

RTP Guidelines, these terms are defined below:

- A **goal** is general in nature and characterized by a sense of timelessness. It is something desirable to work toward, the result to which effort is directed.

- An **objective** is a measurable result to be achieved at a specific point in time. It can be quantified and realistically attained with consideration for probable funding and political constraints. Objectives represent levels of achievement in movement toward a goal.

- A **performance indicator or measure** is the scale that gauges attainment of an objective. Performance measures in the RTP clarify the link between transportation decisions and their outcomes. They set the context for determining the effectiveness of the RTIP, as a program, in supporting the RTP goals and objectives. These indicators also focus discussion about transportation planning options and improve communication with the general public. Performance measurement involves examining the effectiveness of the existing system, as well as forecasting future performance. By considering system performance over time, the MCTC can monitor trends and identify regional transportation needs that may be addressed in future RTP updates. This RTP lists program level performance measures in the Policy Element and project specific performance measures in the Action Element. The program level performance measures set the context for judging the effectiveness of the RTIP as a program, in furthering the goals and objectives of the RTP, while the performance measures in the Action Element will be used to measure the effectives of specific projects.

- A **policy** is a direction statement that guides decisions with specific actions.

The selection criteria categories and their relative weights, discussed above, were used to develop regional transportation goals. Scoring of individual criteria was used to develop the objectives. These goals and objectives are generally consistent with the policies set forth in the Modoc County General Plan (1988), the *City of Alturas General Plan* (1985) and assorted documents, such as the *Draft Modoc County Bicycle Transportation Plan* (January 2000).

Program level performance measures in this RTP are consistent with System Performance Measures/Outcomes defined in the *California Transportation Plan 2025*:

- Mobility/Accessibility
- Safety and security
- Reliability
- System Preservation
- Environmental quality
- Return on Investment
- Equity

The Regional Plan sets forth policies that provide the framework to guide decision-making so that short-range actions and decisions are made toward implementation of the long-range plan. Some policies are specific by their very nature, while others provide guidance that is more general. The MCTC established policies in this RTP that support implementation of its goals and

objectives. These policies support each transportation mode to ensure the effectiveness of a comprehensive regional transportation system.

Below Tables 3-1 through 3-7 present each RTP goal, related objectives, performance indicators, and specific policies linked to the particular goal.

No plan can be implemented without workable strategies and mechanisms. The following approaches will be used to implement the 2008 RTP:

- Transportation investments will be evaluated based on performance and need assessments.

- "Bottom up" planning and coordination, so that the policy vision and projects meet local needs and consider the regional system as an integrated whole.

- Greater involvement between stakeholders in the early stages of the planning process and subsequent phases of project implementation will ensure solutions to problems experienced by local and interregional customers of the system.

- The 2008 RTP emphasizes maintenance and preservation of the system and provides for mobility and access, job opportunities, safety in vehicle and non-motorized travel, reliability of the transportation system, efficient movement of freight, protection of the environment, satisfaction of customers, and equitable distribution of benefits.

- The 2008 RTP attempts to ensure that the mobility, economic, and "quality of life" needs of the region's scattered population are met. Emphasis is given to providing the elderly, disadvantaged, and mobility-impaired portions of the population with better transportation choices.

- This plan supports livable and economically vital communities by improving access to locally operated businesses. The plan also encourages programs that encourage greater transit usage, bicycle, and pedestrian activities.

- The 2008 RTP confirms that partnerships and coordination are the foundations of cooperative problem solving with emphasis on developing and sustaining mutual respect and cooperation among stakeholders to solve transportation problems.

The goals and objectives in this RTP are consistent with the goals and objectives in the RTIP and ITIP.

TABLE 3-1: Reliability and System Preservation Goal (1)		
Develop a reliable transportation system, implementing only projects that can be maintained, operated, and sustained by identified funding sources		
Objectives	**Program Level Performance Indicators/Measures**	**Policies**
Programming of improvements to prevent further deterioration of the existing system, with preference to preventative maintenance, rehabilitation, and reconstruction projects over enhancement projects	Countywide road pavement condition	– Maintenance and management of the existing transportation system have priority over capacity expansion – Allocate local discretionary funding at sufficient levels to rehabilitate and maintain existing facilities, before funding any new construction or acquisition – Promote refinement of a regionally-appropriate pavement management system with reasonable maintenance requirements – Prioritize public transit vehicle maintenance and replacement, in light of extensive travel distances and lack of readily-available emergency response along transit routes – Promote e-commerce, advanced technological applications, and expanded package delivery services in Modoc County as alternatives to travel – Consider each transportation improvement project on a its merit and according to available resources – To the extent possible, require new development to finance local capital costs necessary to maintain adequate transportation conditions – Assess improvement needs of the regional system annually, coordinating with the State, County, and City, as part of the planning process defined by the Overall Work Program
Compatible land use and transportation planning to maximize the effectiveness of transportation investments	Proportion of development proposals referred to transportation staff for review Degree of involvement by transportation staff in land use planning	
Timely and adequate maintenance of transportation facilities, to avoid the excessive rehabilitation costs incurred when maintenance is deferred	Road serviceability index	
Adequately maintained transit vehicles and facilities, to avoid service interruption and increased costs when routine maintenance is deferred	Service miles between road calls Incidents per vehicle miles of travel (Data compilation by number of incidents, location, date, cause, and available specifics)	

TABLE 3-2: Safety and Security Goal (2)

Provide for optimum safety and security during movements of people and goods

Objectives	Program Level Performance Indicators/Measures	Policies
Transportation system should provide minimal risks of accident, injury, and fatality	Countywide accident rate per million vehicle miles of travel (Data compilation by number of accidents by location, date, cause, and available specifics)	– Review accident history on an ongoing basis, conduct studies regarding hazard elimination, and implement corrective actions as a high priority, where feasible – Encourage and support efforts to reduce animal-related traffic accidents – Provide paved shoulders to enhance safety for vehicular and non-motorized traffic – Promote optimum safety and security in transit operations – Reduce/eliminate preventable bus, passenger, and operator accidents through effective driver training, operating procedures, and vehicles/ equipment that enhance safety – Promote advanced technology applications, wherever feasible, to enhance traveler safety and transit information – Ensure that adequate roadways are available for emergency access Provide for periodic overlays on public airport runways and taxiways, and support efforts to sustain private community airports – Construct all new roadways to meet or exceed City and County design standards Improve existing roads to current standards, considering road type, design speed, traffic volume and mix, and feasibility within financial and environmental constraints – Coordinate with law enforcement personnel and support efforts to educate drivers and to enforce traffic laws
Improved traveler safety by elimination of hazards or potential hazards, especially along routes with higher accident rates		
Adequate bicycle and pedestrian facilities that afford safe roadside travel and highway crossings, particularly in developed areas	Bicyclist and pedestrian movements Bicyclist/pedestrian accidents	
Safe and efficient airports and heliports for General Aviation	Maximize annual hours available for operations an/or zero identified deficiencies	
Safe and secure public transportation	Transit accident rates – bus, passengers and drivers – per trip, miles traveled and service hours	

TABLE 3-3: Mobility and Accessibility Goal (3)

Provide transportation services and facilities that best facilitate mobility, provide reasonable accessibility, and are equitably distributed among all ethnic, age and income groups

Objectives	Program Level Performance Indicators/Measures	Policies
Maximum levels of service on regional roadways within financial and environmental constraints	Roadway levels of service	– Ensure that transportation facilities are compatible with levels and uses that they are intended to provide – Construct all new roads to meet or exceed City and County design standards Improve existing streets and roads to current standards, considering road type, design speed, traffic volume and mix, as feasible within financial and environmental constraints – Coordinate public transit services with those in adjacent jurisdictions to maximize connectivity and access – Maintain safe airports/heliports, and support efforts to improve rail transportation for both freight and passengers – During early and later phases of project development, coordinate planning and programming with appropriate jurisdictions, including the State, County of Modoc, City of Alturas, COATS, neighboring counties and states, and Native American tribes – All existing and new public transit services, facilities, and equipment shall be fully accessible to persons with disabilities as defined, mandated and required applicably under the Americans with Disabilities Act (1990) and the Rehabilitation Act (1964) – All existing and new transit services shall be provided in ways that do not preclude use on the basis of race, color and/or national origin as defined, mandated, and required under Title 6 of the Civil Rights Act (1964)
Increased numbers of trips by transit and non-motorized modes through improved facilities and service quality	Transit ridership Bicyclists and pedestrian counts	
Expanded air transportation through airport/heliport improvements	Number of annual take-offs and landings by facility	
Coordinated public transit programs with adjacent jurisdictions, to facilitate effective regional and intercity mobility	Proportion of connecting transportation services with which local services and schedules are coordinated	
Public transit service that accesses to vital medical, commercial and recreational activities, both within and outside the region, to the extent practicable and financially sustainable	Number of requests for transit service unable to serve Number of transit trips by purpose, as monitored through periodic passenger surveys	
Balanced transportation system, recognizing all modes	User counts – traffic, transit, airport, rail (For traffic, separately count autos, light- and heavy-duty vehicles, bicyclists, and pedestrians)	
Effective interregional and intraregional coordination – among neighboring counties, cities, towns, states, local agencies, Native American tribes, as well as public and social service organizations – to reduce redundant transportation services, maximize cost-effectiveness, and improve connectivity	Track contacts between entities to coordinate transportation services	

TABLE 3-4: Quality of Life Goal (4)

Facilitate development of transportation services and facilities, for all transportation modes, that enhance enjoyment of increased mobility and minimize adverse impacts on the natural, social, cultural, and historical environments

Objectives	Program Level Performance Indicators/Measures	Policies
Regional roadway system that is compatible with the physical environment, enhances its quality, and preserves the natural resources of Modoc County	Impact of roadway system on countywide environmental quality	– Transportation investments shall avoid or mitigate environmental impacts to an acceptable level – Seek Transportation Planning Grant funding to implement and plan projects which provide awareness of and compliance with climate change guidelines and support development and implementation of the best practices in community and regional planning – Carefully consider the needs of pedestrians and bicyclists when planning any transportation and community improvement project – Adequately maintain or improve road surfaces, delineation, and safety
Promote and design transportation projects that will reduce greenhouse gas (GHG) emissions and thereby positively contribute to meeting statewide global warming emissions targets set in the Global Warming Solutions Act of 2006 (AB 32)	Reduction in GHG emissions in the region/ reduction in VMT	
Expanded transportation systems of all types, as financially feasible and warranted to serve documented needs	Regional mileage for multi-use trails, roadways, bikeways, and pedestrian pathways	
Reasonable access for all Modoc County residents to vital medical, commercial, and recreational activities; employment; job training; and educational opportunities	Number of requests for transportation service that are not fulfilled	
Pleasant driving experience, insured by maintaining or improving road surfaces, delineation and safety upgrades	Overall countywide pavement quality	

TABLE 3-5: Financial Goal (5)

Construct, operate, and maintain the regional transportation system to meet adequate standards, maximize return on investments, and serve as an integrated and well-coordinated whole

Objectives	Program Level Performance Indicators/Measures	Policies
Sufficient funding to *improve* all regional transportation facilities to meet current geometric and structural standards	Annually, calculate amount of required funds and percentage obtained	– Implementation of the RTP shall guide RTIP approval – Establish Oversight Committee for all projects on State highways, during early stages of project development – Insist upon reasonable phasing for each project proposed for the RTIP, particularly for those with environmental issues, and strict adherence to project schedule during implementation in order to ensure timely use of funds – Apply for all eligible State and federal funds with reasonable expectation of receipt and net benefit to the region – Effectively utilize all available transportation funding, relative to federal and State requirements – Solicit/encourage State and federal governments to increase funding for local roadway maintenance with continued and increased flexibilities for local use – Coordinate routinely with jurisdictions affected by regional transportation projects or services, including neighboring counties, states, transit operators, local governments; agencies, organizations, and Native American tribes
Sufficient funding to *maintain* all regional transportation facilities to satisfactory standards	Fully funded long-term roadway improvement program	
Sufficient funding to provide adequate transit services for all county residents who will use them	Public transit system that meets reasonable transportation needs	
Expeditious delivery of all transportation projects in the region, ensuring prudent and timely use of funds	Monitor RTIP projects through quarterly reports provided by lead agencies, reporting percent completion, key activities, and actual- to-budget	

TABLE 3-6: Livable Communities Goal (6)

Maintain and improve the regional transportation system to support livable communities, access to locally-operated businesses and economic vitality

Objectives	Program Level Performance Indicators/Measures	Policies
Attract travelers and new businesses by providing effective transportation system for safe and convenient movements of people and goods	Countywide retail sales Number of new businesses	– Maintain existing transportation facilities in a manner to support economic well-being and development – Support efforts to maintain and improve State highways in Modoc County to facilitate movements of people and goods, and enhance regional vitality – Assess contributions of each transportation project to the aesthetics of its localized area, and support those projects that enhance tourist experiences in the region – Protect existing and potential rail corridors
Increased mileage of Scenic Roadways and USFS Scenic Byways, when and where feasible	Roadway miles with Scenic Highway or Scenic Byway designations	
Enhanced economic vitality development through efficient goods movement, tourism, and travel to and through Modoc County	User counts – traffic, bicycle, transit, airport, and rail (for traffic, separately count trucks, light- and heavy-duty vehicles, bicyclists, and pedestrians)	

TABLE 3-7: Advanced Technologies Goal (7)

Deploy advanced technologies within regional transportation system to enhance traveler information, safety, mobility, accessibility, and economic vitality.

Objectives	Program Level Performance Indicators/Measures	Policies
Deployment of advanced technologies to support all RTP goals	Number of ITS components by roadway jurisdiction – State highways, County roads and City streets	- Deploy advanced technological applications consistent with the COATS Regional Architecture - Seek funding and develop partnerships to increase financial resources available for ITS deployment - Promote advanced technology applications, wherever feasible, to enhance traveler safety and information - Encourage and support efforts to reduce animal- related traffic accidents, using advanced technologies - Promote ITS applications in transit operations to enhance safety, security, comfort, and convenience of customers, particularly for inter-city travel - Promote e-commerce and advanced technological applications in Modoc County as alternatives to travel
Fewer animal-vehicle accidents in the region	Monitor animal-vehicle accidents (Data compilation by number of accidents, location, date, and available specifics)	
Internet access to MCTC agenda, public notices and updates; MTA/Sage Stage bus schedule; and trip planning technologies for r ural intercity travel	MTA/Sage Stage website with page for MCTC and links to appropriate local, regional, and State agencies and organizations Easy-to-use trip planning tool for intercity travel using two or more rural transit operators or passenger carriers	

Chapter 4
Action Element

This chapter addresses the regional needs and issues associated with each transportation mode, relative to the goals, objectives, and policies in the Policy Element. Projects and programs are prioritized within the Action Element for short-term, mid-term or long-term implementation consistent with identified needs, policies, anticipated future conditions, future travel needs, and forecasted infrastructure deterioration.

DATA FORECASTS

The Action Element is based on forecasts of future conditions that affect the regional transportation system, including resident population, employment, income, land use changes, and traffic forecasts. These conditions are discussed in the following sections.

Population

The State of California Department of Finance conducts population estimates and projections for each County and incorporated city. According to state forecasts, the population of Modoc County is expected to increase at a rate of 2.26 percent per year over the next 23 years. Table 4-1 shows the current estimates of population for Modoc County and several neighboring counties, as well as projections through 2030. Population growth in adjacent Lassen County will average 1.14 percent per year, while Shasta County will average 0.93 percent growth annually, and Siskiyou County is projected to grow at 0.84 percent annually from 2007 to 2030.

TABLE 4-1: Modoc and Neighboring Counties Population

	Population				Total	Annual
County	2007	2010	2020	2030	Change	Change
Lassen	36,375	37,918	42,394	47,240	29.87%	1.14%
Modoc	**9,721**	**10,809**	**13,134**	**16,250**	**67.16%**	**2.26%**
Shasta	181,401	191,722	224,386	224,386	23.70%	0.93%
Siskiyou	45,953	47,109	51,283	55,727	21.27%	0.84%

Source: State of California, Department of Finance, *Population Projections by Race/Ethnicity, Gender and Age for California and Its Counties 2000-2050,* Sacramento, California, 2008.

Employment

According to the California Economic Development Department (EDD), in 2007 Modoc County had 4,000 residents in the labor force, 3,700 of whom were employed. Federal, state, and local governments employ approximately 1,300 persons in the County, or 44 percent of all employed residents. Modoc County's unemployment rate of 8.2 percent is higher than the statewide unemployment rate of 5.4 percent and similar to neighboring Lassen County's rate of 8.1 percent.

The EDD estimated changes in employment by industry between 2004 and 2014. According to the data, Modoc County will experience an increase of 8,690 jobs in this time frame, an 11.6 percent increase or 1.1 percent annually. The greatest number of jobs will be gained in the natural resources, mining, and construction industry, as well as in real estate, rental, and leasing. Wholesale trade jobs are expected to decrease over the ten-year period.

Income

According to the U.S. Department of Commerce, in 2003 Modoc County had a Per Capita Personal Income (PCPI) of $24,091. This PCPI ranked 41st in the state and was 72 percent of the state average ($33,415) and 77 percent of the national average ($31,472). The 2003 PCPI reflected an increase of 0.4 percent from 2002. In 1993, the PCPI of Modoc was $17,958 and ranked 33rd in the state. The 1993-2003 average annual growth rate of PCPI in Modoc County was 3.0 percent, while the average annual growth rate for the state and the nation was 4.0 percent.

Land Use Changes

No major new developments are proposed in Modoc County within the foreseeable future. However, modest development is expected to occur within existing developed areas, along with redevelopment and renovation of properties within Modoc communities. For purposes of this plan, natural resource-based land uses (such as agriculture and timber harvesting) are assumed to remain roughly at the current levels.

Traffic Forecasts

Existing traffic forecasts for regional roads are sparse and limited to volume projections only for state highways. No traffic models of Modoc County or its jurisdictions have been developed to date. Caltrans Route Concept Reports about state highways in the County were prepared between 1984 and 1990. However, these reports do not reflect crucial changes in the regional economy, such as substantial reductions in timber harvesting.

Caltrans Traffic Census Department has developed preliminary future volume estimates at certain points along SR 139, SR 299, and US 395 out to 2015 based on historical growth trends. Using the same growth rate, forecasts were carried out to 2025 by the consultant. These volume forecasts for years 2005, 2010, 2015, and 2025 are presented in Table 4-2. Over the next 20 years, estimates in Table 4-2 show that traffic volumes will increase or remain the same on the

TABLE 4-2: State Highway Estimated Future Annual Average Daily Traffic

Roadway Segment	2005	2010	2015	2025	% Change 2005-2015	% Change 2005-2025	Average Annual Change 2005-2015	Average Annual Change 2005-2025
SR 139								
Junction SR 299 (south)	550	600	650	750	18.18%	36.36%	1.68%	1.56%
Junction SR 299 (north)	1,020	1,070	1,120	1,220	9.80%	19.61%	0.94%	0.90%
Ag Station	1,300	1,300	1,300	1,300	0.00%	0.00%	0.00%	0.00%
SR 299								
Junction SR 139 (south)	1,090	1,190	1,290	1,490	18.35%	36.70%	1.70%	1.58%
Junction SR 139 (north)	850	850	850	850	0.00%	0.00%	0.00%	0.00%
Alturas, Junction SR 395	4,600	4,850	5,100	5,600	10.87%	21.74%	1.04%	0.99%
Junction SR 395 (north)	870	970	1,070	1,270	22.99%	45.98%	2.09%	1.91%
US 395								
Likely, Jess Valley Rd.	1,070	1,120	1,170	1,270	9.35%	18.69%	0.90%	0.86%
Alturas, First St.	6,920	6,970	7,020	7,120	1.45%	2.89%	0.14%	0.14%
Alturas Maintenance Station	3,140	3,240	3,340	3,540	6.37%	12.74%	0.62%	0.60%
Junction SR 299 (east)	740	740	740	740	0.00%	0.00%	0.00%	0.00%

Note: Same growth rate is applied to entire planning period (2005 - 2025).
Source: Caltrans, Traffic Census, and LSC Transportation Consultants, Inc.

selected state highways. SR 299 is expected to have the largest increase in AADT; in particular at the junction with US 395 North (46.0 percent) and the junction with SR 139 South (36.7 percent). AADT at SR 139 at the junction with SR 299 (south) is also expected to increase by more than 30 percent by 2025.

Additional peak-month ADT forecasts for years 2010, 2015, and 2025 for the highway segments listed in Table 4-3 were developed for purposes of this RTP. Traffic forecasts were prepared using the following methodology.

- Like similar regions with substantial recreational industries, Modoc County ADT is substantially higher during the peak-summer tourist season than other times. The average daily traffic for the month of busiest traffic flow is roughly 25 percent higher on regional state highways than annual average daily traffic (AADT). Thus, an evaluation of average peak-month ADT volumes is more meaningful for Modoc County traffic, as they represent the maximum usage and resulting congestion.

- Estimates were first prepared for existing (2005) conditions. To avoid "one-time" data anomalies, Caltrans' counts for 1999, 2001, 2003, and 2004 were considered; the highest figure was assumed to represent 2004 conditions. This representative figure for each location was then increased for one year by the average rate of growth in traffic volume between 1993 and 2004. However, zero growth was assumed for locations that experienced an average annual decrease in volume over the period.

- The increase in AADT identified by Caltrans Traffic Census was then factored by the proportion of peak-month ADT over AADT along each roadway segment.

TABLE 4-3: Forecast Peak-Month Average Daily Traffic (ADT) Volumes

Highway/Counter Location	Estimated 2005	Change in ADT 2005 - 10	Change in ADT 2010-15	Change in ADT 2015-2025	Total 2010	Total 2015	Total 2025	Annual % Change 2005 - 10	Annual % Change 2010 - 15	Annual % Change 2015 - 25
State Route 139										
Adin, South Junction SR 299	**740**	70	70	130	**810**	**880**	**1,010**	1.8%	1.7%	1.4%
Canby, North Junction SR 299	**1,400**	70	70	140	**1,470**	**1,540**	**1,680**	1.0%	0.9%	0.9%
CR 91 (Lookout-Hackmore Road)	**1,750**	70	70	140	**1,820**	**1,890**	**2,030**	0.8%	0.8%	0.7%
Newell	**2,250**	0	0	0	**2,250**	**2,250**	**2,250**	0.0%	0.0%	0.0%
Tulelake	**2,900**	0	0	0	**2,900**	**2,900**	**2,900**	0.0%	0.0%	0.0%
State Route 299										
Adin, Junction SR 139 South	**1,300**	120	120	240	**1,420**	**1,540**	**1,780**	1.8%	1.6%	1.5%
Adin Summit	**1,700**	120	120	240	**1,820**	**1,940**	**2,180**	1.4%	1.3%	1.2%
East of Junction SR 139 Northwest	**2,480**	0	0	0	**2,480**	**2,480**	**2,480**	0.0%	0.0%	0.0%
Alturas, West of Juniper Street	**3,330**	180	180	360	**3,510**	**3,690**	**4,050**	1.1%	1.0%	0.9%
Alturas, East of Juniper Street	**3,500**	190	190	380	**3,690**	**3,880**	**4,260**	1.1%	1.0%	0.9%
Alturas, South Junction US 395	**5,000**	270	270	540	**5,270**	**5,540**	**6,080**	1.1%	1.0%	0.9%
North Junction US 395	**890**	100	100	200	**990**	**1,090**	**1,290**	2.2%	1.9%	1.7%
West of CR 1 (Surprise Valley Road)	**1,770**	100	100	200	**1,870**	**1,970**	**2,170**	1.1%	1.0%	1.0%
East of CR 1	**460**	0	0	0	**460**	**460**	**460**	0.0%	0.0%	0.0%
US Highway 395										
Likely, North of CR 64 (Jess Valley Road)	**1,850**	90	90	170	**1,940**	**2,030**	**2,200**	1.0%	0.9%	0.8%
Alturas, Gleen Street	**2,330**	20	20	30	**2,350**	**2,370**	**2,400**	0.2%	0.2%	0.1%
Alturas, First Street	**7,800**	60	60	110	**7,860**	**7,920**	**8,030**	0.2%	0.2%	0.1%
Alturas, South of Jct. SR 299 West (12th St)	**8,000**	60	60	110	**8,060**	**8,120**	**8,230**	0.1%	0.1%	0.1%
Alturas, Junction SR 299	**5,820**	120	120	230	**5,940**	**6,060**	**6,290**	0.4%	0.4%	0.4%
Alturas, State Hwy Maintenance Station	**3,650**	120	120	230	**3,770**	**3,890**	**4,120**	0.6%	0.6%	0.6%
Junction SR 299 East	**1,850**	0	0	0	**1,850**	**1,850**	**1,850**	0.0%	0.0%	0.0%
Oregon State Line	**1,250**	0	0	0	**1,250**	**1,250**	**1,250**	0.0%	0.0%	0.0%

Source: Estimates by LSC Transportation Consultants, Inc. *Modoc County 2008 RTP*

- These increases in peak-month ADT were then added to estimated 2005 values to identify forecast peak-month ADT in 2010, 2015, and 2025, as shown in Table 4-3.

The resulting traffic volume increases are expected to be relatively minor. The largest increases are forecast for SR 299 in Alturas, where daily volumes in the peak month are expected to increase by roughly 1,080 vehicles per day.

PLAN ASSUMPTIONS

The Action Element is based on the planning assumptions presented below:

- Transportation Funding – Current state transportation funding programs will continue at about the same levels, while federal funding will increase consistent with SAFETEA-LU allocation levels.

- Environmental Conditions – No changes are assumed in attainment status for air or water qualities that would affect regional transportation projects. In the future, Modoc County may be impacted by future regulations related to greenhouse gas reductions implemented as a result of Assembly Bill (AB) 32. As VMT figures are relatively low when compared to other regions in the state, Modoc County will not be significantly impacted.

- Travel Mode – The private automobile will remain the dominant mode of transportation for residents and visitors in Modoc County. Public transportation will continue to be a vital service for elderly, low-income, and disabled persons.

- Growth in Truck Traffic – Other than impacts associated with US 395 rehabilitation and improvements, and those resulting from changes in timber harvesting, existing trends in truck traffic are assumed to remain unchanged.

- Recreational Travel – Recreation-oriented travel will continue to significantly impact traffic on state highways in general and on County roads that access forest and wilderness areas in the region.

- Transit Service – The public transit system will expand slightly as ridership demands. The Sage Stage will continue to provide local Dial-A-Ride and intercity transportation, which will be augmented by limited, dedicated non-emergency medical transportation services. The useful life of gas-powered transit vehicles is five years and about eight for diesel. However, gas-powered vehicles should be replaced after seven years for reasons of safety and maintenance economy.

- Planning Requirements – State and federal policies will not significantly change the transportation planning requirements, although greater flexibility and streamlining would be welcomed.

- Roadway Pavement Deterioration Rate – The asphalt pavement on regional roadways will exhaust its useful life within the next 15 years, unless rehabilitated adequately. Without sufficient maintenance, pavement on most regional roadways will fail altogether within twenty years, requiring replacement at approximately ten times the cost of timely rehabilitation. Proper pavement maintenance entails the following materials and activities:

  - chipseal after two years and every five years
  - occasional "digouts" and blade overlays throughout the pavement life
  - shoulder blading, culvert repair and replacement, roadside ditch cleaning, and re-striping every one or two years

PLAN ALTERNATIVES

Transportation planning processes typically focus on alternatives that vary by travel mode, such as highway versus transit improvements. This approach is not relevant to Modoc County for three key reasons: (1) very limited funding is available for public transit purposes, (2) minimal growth in population and travel demand are anticipated, and (3) there is a large funding shortfall for maintenance of existing roadways. Instead of the "modal" approach, appropriate alternatives should focus on roadway maintenance versus roadway improvements. However, no approach is so exclusive or unilateral to disqualify any well-warranted projects that varied from the emphasis or main theme of attention.

- Status Quo Alternative – Under this "make do" alternative, state and regional entities would continue to prioritize programs and to receive/use revenues consistent with past practices. STIP regional shares would be used to the maximum extent possible for regional road rehabilitation projects, for state matching funds with federal programs, and for inter-regional projects where justifiable. However, under this alternative, roadways would continue to deteriorate unless additional funding sources were identified to support proper maintenance of the regional system.

- Capital Improvement Emphasis Alternative – This "build new" alternative would focus on new capital improvement projects throughout the region. In addition to capital-restricted programs, a portion of any discretionary funding would be accessible to bolster capital projects. While this alternative would allow additional system improvements, it would further decrease available funding for critical maintenance. Accordingly, more local funding would be needed compared to the Status Quo Alternative and/or the level of financially feasible maintenance activities would be reduced. As discussed in Chapter 2, relatively good traffic conditions (lack of significant congestion) throughout Modoc County indicate only limited and localized capital improvement needs.

- Maintenance Emphasis Alternative – This "fix up" alternative would focus funding on maintenance of the existing system - roadway, transit, non-motorized, and aviation facilities and programs. New capital projects would be initiated only if justified by their merit and/or financing did not significantly deflect funding for maintenance and rehabilitation projects. Specialized capital projects would be implemented according to need and/or the availability of new funding sources.

Given the substantial backlog in roadway maintenance and lack of ongoing funding for maintenance activities, the Maintenance Emphasis Alternative is the only prudent course of action for the region. As mobility is an important goal for the frontier communities of Modoc County, the maintenance emphasis also applies to the transit infrastructure. Maintaining a public transit network that provides access to essential commercial and medical services outside the region is a priority for MCTC.

TRANSPORTATION SAFETY

Addressing transportation safety in a regional planning document can 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. This plan sets forth one primary safety goal: reduce roadway fatalities to less than one per one hundred million vehicle miles traveled. The SHSP focuses on 16 "Challenge Areas" with respect to transportation safety in California. For each Challenge Area background data is provided, a specific goal is established, strategies are considered to achieve that goal, and institutional issues that might affect implementation of that goal are discussed. The development of an implementation plan for the SHSP Challenges is currently underway. The California SHSP Challenge Areas are summarized below along with safety strategies that could be applied to the Modoc County region:

Challenge 1 - Reduce Impaired Driving Related Fatalities

Goal: By 2010, reduce the number of roadway user fatalities attributed to alcohol and drug use by 15 percent from their 2004 level.

State Strategies: Implement more strict penalties and educate the public.

Modoc Strategies: Assist California Highway Patrol with reporting drunk drivers.

Challenge 2 - Reduce the Occurrence and Consequence of Leaving the Roadway on Head-on Collisions

Goal: By 2010, reduce the number of fatalities attributed to vehicles leaving the roadway by 15 percent from their 2004 level.

State Strategies: Keep vehicles on roadway, reduce head-on collisions and apply advanced technology.

Modoc Strategies: Pursue roadway rehabilitation projects in order to decrease potholes and other safety hazards. Implement ITS Road Weather Information System (RWIS) projects on state highways. Implement Hazard Elimination Safety (HES) projects.

Challenge 3 - Ensure Drivers are Licensed and Competent

Goal: By 2010, reduce the number of fatalities attributed to drivers with no license, invalid license, or not licensed for class of vehicle by 15 percent from their 2004 level.

State Strategies: Improve licensing process and improve management of unlicensed drivers.

Modoc Strategies: Not applicable.

Challenge 4 - Increase Use of Safety Belts and Child Safety Seats

Goal: By 2010, increase statewide safety belt usage from the 2005 level of 92.5 percent to 95 percent, improve the use of child safety seats from 2005 level of 86.9 percent to 90.0 percent, and increase the percent of all vehicle occupant fatalities that are restrained to 70 percent - this is an indicator of higher total "observational" vehicle occupant restraint use, because a higher percentage of vehicle occupant fatalities that are restrained means that a higher percentage of total vehicle occupants are restrained.

State Strategies: Improve availability and education.

Modoc Strategies: Not Applicable.

Challenge 5 - Improve Driver Decisions about Rights-of-Way and Turning

Goal: By 2010, reduce the number of fatalities attributed to improper rights-of-way and turning decisions by 10 percent from their 2004 level.

State Strategies: Education, increase enforcement, improve roadway geometrics, and employ traffic control devices and speed reduction design.

Modoc Strategies: Implement STIP left turn lane projects.

Challenge 6 - Reduce Young Driver Crashes

Goal: By 2010, reduce the number of fatalities attributed to drivers age 15–20 by 15 percent from their 2004 level.

State Strategies: Education, increase parental involvement and improve testing.

Modoc Strategies: Not Applicable.

Challenge 7 - Improve Intersection and Interchange Safety

Goal: By 2010, reduce the number of intersection crash fatalities by 15 percent from their 2004 level.

State Strategies: Improve land use planning regarding impacts to intersections, improve roadway design, increase enforcement, apply advanced technology, and reduce high risk rural road collisions.

Modoc Strategies: Implement advanced technology projects on state highway intersections and implement roadway realignment on CR 54 (High Risk Rural Road Project).

Challenge 8 - Make Walking and Street Crossing Safer

Goal: By 2010, reduce the number of pedestrian fatalities attributed to vehicle collisions by 25 percent from their 2000 level.

State Strategies: Smart growth policies, enforcement, improve visibility.

Modoc Strategies: Implement RTP pedestrian improvement projects.

Challenge 9 - Improve Safety for Older Roadway Users

Goal: By 2010, reduce the number of fatalities attributed to drivers age 65 and older by 10 percent from their 2004 level.

State Strategies: Improve drivers license testing and assessment, education, and coordinate with public transit.

Modoc Strategies: Implement RTP transit projects and continue to update transit plans.

Challenge 10 - Reduce Speeding and Aggressive Driving

Goal: By 2010, reduce the number of fatalities attributed to speeding and other forms of aggressive driving by 15 percent from their 2004 level.

State Strategies: Change social norms, enforcement, and traffic calming.

Modoc Strategies: Coordinate with CHP to determine roadways where speeding is an issue.

Challenge 11 - Improve Commercial Vehicle Safety

Goal: By 2010, reduce the number of commercial vehicle crash fatalities by 10 percent from their 2004 level.

State Strategies: Vehicle maintenance, commercial driver training and testing, and improve infrastructure.

Modoc Strategies: Implement state highway, county and city roadway rehabilitation projects on roadways that are typically used as truck routes.

Challenge 12 - Improve Motorcycle Safety

Goal: By 2010, decrease the number of motorcycle rider fatalities by 10 percent from their 2004 level.

State Strategies: Education, enforcement, improve visibility and roadway design.

Modoc Strategies: Not applicable.

Challenge 13 - Improve Bicycling Safety

Goal: By 2010, reduce the number of bicycle roadway fatalities by 25 percent from their 2000 level.

State Strategies: Education, enforcement, improve bicycle safety on school routes through engineering techniques, and improve bicycle safety expertise among transportation professionals.

Modoc Strategies: Implement RTP bicycle improvement projects. Promote bicycle safety awareness.

Challenge 14 - Enhance Work Zone Safety

Goal: By 2010, reduce work zone fatalities by 10 percent from their 2004 level.

State Strategies: Improve traffic control, reduce worker exposure, and apply advanced technology.

Modoc Strategies: Not Applicable.

Challenge 15 - Improve Post Crash Survivability

Goal: By 2010, reduce crash-related fatalities in California at least 5 percent from their 2004 level through focused improvement in Emergency Medical Services (EMS) system communications, response, and safety education.

State Strategies: Improve technology for locating crash sites, improve emergency medical services (EMS) access routes, and improve communication systems.

Modoc Strategies: Place a higher priority on improvement projects to EMS access routes.

Challenge 16 - Improve Safety Data Collection, Access, and Analysis

Goal: Improve the quality, timeliness, accessibility, and usefulness of traffic safety data.

State Strategies: Improve data sharing among state, federal and local entities and improve accessibility to real-time information.

Modoc Strategies: Coordinate with Caltrans on accident data sharing.

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 SECURITY/PREPAREDNESS

Transportation security is another element, which should be incorporated into 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 Modoc County would be the focus of a terrorist attack nor become a refuge for persons displaced by an attack or natural disaster elsewhere in the State. In the Modoc County region, forced evacuation due to wildfire is the most likely emergency scenario. The Modoc County General Plan characterizes 40 percent of the County as very high fire danger area. In fact, high fire hazard areas exist very close to the City of Alturas. The Bureau of Land Management (BLM) *Proposed Resource Management Plan and Final Environmental Impact Statement* (May, 2007) identified the Modoc County communities of Likely, Alturas, and Canby as having some wild-land fire issues such as defensible space, hazardous fuel buildup, hazardous materials, ignition risk, and poor public education.

The Modoc County region has few documents related to transportation security/emergency preparedness in place. The *General Plan* safety element discusses how proper land use planning is an important method of limiting the affect of wildfire on Modoc County residents. A Modoc County *Emergency Preparedness Plan* was adopted in 1981. The plan provides a basis for coordinating the operations and resources necessary to meet the requirements of an emergency, but does not include a description of evacuation routes. In 2004, Modoc County adopted an *Emergency Operation Plan*. The purpose of the plan is to:

- Answer the questions, "Who's in charge?" and "What should I do?" during an emergency
- Make sure that necessary jobs get done during emergencies
- Provide for the continuity of government during emergencies
- Describe the Modoc County emergency organization

- Provide guidance for disaster education and training
- Provide more detailed information regarding planning guidance and references

This plan does NOT replace the operating procedures of any agency. In fact, it depends upon agencies that respond according to their proven expertise. This plan provides channels for communication between agencies that do not normally work together. It provides a means to access needed resources; it provides a framework for recovery; and it provides a method of organizing and confirming information for public release.

Additionally, the plan calls for the activation of an "emergency operations center." The center acts a coordinator between the different departments and agencies in the County by taking requests for resources and prioritizing these requests. MCTC and Sage Stage are not specifically mentioned in the plan as potential resources.

As Modoc County is approximately 4,000 square miles with small pockets of population centers, no countywide evacuation plan has been developed for the region. Identifying evacuation routes and other methods of evacuation is pertinent to the scope of the RTP:

- Three state highways traverse Modoc County and act as the primary evacuation route for many Modoc County communities, such as Alturas, Likely, Canby, Cedarville, Newell and Tulelake. Evacuation routes should follow US 395 south to Susanville or north to Lakeview, Oregon, SR 139 northwest to Klamath Falls, Oregon, and SR 299 west to Redding. 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 Modoc County residents live in very rural areas, which are not accessed by state highways, and therefore would depend on local roadways for 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 91, 1, 48, 54, 55, 87, 108, 111, 114, 120, and 272.

- In the event of a natural disaster, Sage Stage's fleet of six vehicles would be available to transport evacuees. The transit fleet is stationed in Alturas, and all vehicles are wheelchair accessible. MCTC should coordinate with the County Office of Emergency Services to include the availability of Sage Stage buses for emergency transportation in the County Emergency Operations Plan.

- The five publicly owned airports dispersed throughout Modoc County are available for emergency evacuation, and there is one officially designated helipad at Canby within the County.

- Although there is no passenger rail available in the County, the freight rail lines could provided supplies from Oregon in an emergency situation.

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 and public transit. Additionally, MCTC and MTA should work with the County Office of Emergency Services to develop a more active role in disaster preparedness.

TRANSPORTATION SYSTEM IMPROVEMENTS

Improvement projects are categorized in this Action Element according to one of three priority levels indicating their status and timeline: (1) programmed and short-term (2007-2012), (2) planned and mid-term (2013-2017), or (3) long-term (2018-2027). The first priority indicates that the project is programmed with funding identified and secured, and implementation is typically planned during the next one to five years. The second priority designates projects with reasonable cost estimates, identified or potential funding sources, and implementation generally from five to ten years hence. The last priority includes projects in very preliminary planning stages, sometimes without identified funding sources or cost estimates. Consequently, construction of these projects would occur ten, twenty or more years in the future. The 2007 RTP Guidelines require financially unconstrained projects to be included in this RTP update. The unconstrained project list is considered a "wish list," or projects that will be unlikely to receive funding over the next twenty years, but would benefit the region. Separate listings of financially unconstrained projects are included in this chapter.

Project Specific Performance Measurement Development

The STIP Guidelines include a list of suggested project specific performance indicators and measures that should be used to quantitatively evaluate the benefit of a project. These performance indicators are listed in Table 4-4 along with performance measures specific to projects for Modoc County, the current system baseline performance, and the projected impact of RTP projects on baseline system performance. A performance indicator is assigned to each project in the following tables regardless of funding sources. Table 4-4 will be used in the development of short-term capital improvement plans to prioritize improvement projects and determine each project's cost-effectiveness. After completion of a project, the effectiveness or performance of the project will be measured according to the criteria listed in Table 4-4.

Considerable effort was put in to the development of appropriate and consistent project specific performance measures for Modoc County transportation improvement projects. MCTC worked closely with the consultant, Modoc County, the City of Alturas, and Caltrans to develop performance measures and accurate baseline system performance. The performance measures listed in Table 4-4 will be amended as necessary to reflect future changes in regional needs, goals and polices. The discussion below provides some background on how the project specific performance measures and current system baseline performance was developed.

- System Preservation – Maintaining regional roadways in satisfactory condition is the top priority for the region as well as the number one priority in the California Vehicle Code. Due to different data collection techniques and available resources, it was difficult to develop one

TABLE 4-4: 2008 Modoc County Region Performance Indicators and Measures

Indicator	Priority	Performance Measures			Current System Performance (Baseline)	Projected Impact of Projects	Data Source
		Mode	Level	Measures			
System Preservation (SP)	1	Roadway[a]	State	Total Road Miles - Distressed State Highways	178.3	Reduce	Caltrans
				% Distressed State Highway Road Miles	64.0%	Reduce	RTP Table 2-5
			County	Total Road Miles - Distressed County - Paved/Improved	377	Reduce	County
				% Distressed County Paved/Improved Roads	79.0%	Reduce	County
				Total Road Miles - Distressed County - Unimproved	225	Reduce	County
				% Distressed County - Unimproved Roads	44.0%	Reduce	County
			City	Total Road Miles - Distressed City Streets	21.03	Reduce	City
				% Distressed City Streets	59.0%	Reduce	City
		Bridges	State	% Deficient State Bridges	18.18%	Reduce	RTP Table 2-12
			County / City	% Deficient County / City Bridges	12.73%	Reduce	RTP Table 2-11
			Region	% Deficient Bridges (Total)	14.29%	Reduce	RTP Tables 2-11, 2-12
Safety (S)	2	Roadway	Region[b]	Fatalities / Vehicle Miles Traveled (VMT)	0.016/MVMT	Reduce	CHP SWITRS, Caltrans, 2003
				Fatal Collisions / VMT	0.016/MVMT	Reduce	
				Injury Collisions / VMT	0.32/MVMT	Reduce	
			County	Animal-Vehicle Accidents	8.2 per year	Reduce	CHP
			City	Injury and PDO Collision / VMT	36 per year	Reduce	City
		Transit	All Modes	Major Injuries / Passenger Miles	0	Maintain	MTA
		Systemwide		Information Technology Projects	--	Implement	
Mobility/ Accessibility (M/A)	3	Transit	Region	Percent of population within 1/4 mile of a bus route	63.2% [c]	Maintain	MTA
		Transit	Region	Transit Ridership [d]	12,695	Increase	MTA, RTP Table 2-13
		Non-Motorized	Region	Bicycle / Pedestrian Mode Split	8.4%	Implement	Census
Connectivity/ Coordination	4	Transit	Region	Percentage ridership (1-way trips) funded by human service agencies	TBD	Increase	MTA
		Transit	Region	Number of "Meaningful Connections" provided by Sage Stage	7	Increase	MTA
Reliability (R)	5	Transit	GP Dial-A-Ride	Percentage "on-time" arrivals (<15 minutes late)	98.6%	No Change	MTA
			Intercity	Percentage "on-time" arrivals (<5 minutes late)	97.5%	No Change	MTA
Productivity (P)		Trucks	Corridor	% of roadways able to accommodate STAA trucks	All State Hwys	Maintain	Caltrans
		Transit	General Public Dial-A-Ride	Passengers per Vehicle Revenue Hour [d]	3.80	No Change	
				Passengers per Vehicle Revenue Mile [d]	0.29	No Change	
		Transit	Intercity	Passengers per Vehicle Revenue Hour [d]	0.98	No Change	
				Passengers per Vehicle Revenue Mile [d]	0.03	No Change	
Equity (E)	7	Transit	Region	% of Transit Service That is ADA Accessible	100.0%	No Change	MTA
Environmental Quality (EQ)	8	Roadways	Region	Improvement in Air Quality / Reduction in VMT (Global Warming)		Reduce	CARB
		Roadways	Global Warming	Reduction in emissions or % fossil fuels used that results in overall reduction of carbon dioxide emissions	Need direction from State		Caltrans, CARB
		Airports	Region	Noise Complaints (Airports)	None	Maintain	County

Notes:
(a) Total road mileage for state highways = 178.3 mi, county roads = 987.4 mi and city streets =36.11 mi.
(b) Includes total state highways, county roads and city streets.
(c) Dependent on regional settlement pattern, Modoc population clusters in communities along state highways or main corridors, which serve as intercity bus routes.
Percentage of population within 1/4 mile of General Public Dial-A-Ride = 39.9%; of Intercity routes = 23.3%; for combined 63.2% accessibility.
(d) FY 2006-07 Sage Stage ridership data.

steamline method of determining the proportion of "distressed" maintained road miles for state highways, county roads, and city streets; therefore, methodologies vary among the jurisdictions. The number of "distressed" state highway lane-miles was extrapolated from the *Caltrans Maintenance Program, 2007 Pavement Condition Survey*. Caltrans describes three types of pavement conditions that qualify as "distressed" pavement and justify Capital Preventative Maintenance (CAPM) and rehabilitation work:

- Poor ride quality – fair condition with moderate potholes and cracks
- Minor structural distress – poor condition with significant cracks
- Major structural distress – poor condition with extensive cracks

As a point of comparison, the proportion of distressed pavement state highway road miles in Modoc County is approximately 64 percent, and the *2005 State of the Pavement Report* notes that distressed pavement levels on a statewide basis are closer to 25 percent.

Modoc County Road Department established "distressed" road mile performance measures for both paved/improved roads and unpaved/improved roads using distress types listed in the *Performance Measure for Rural Transportation Systems Guidebook* (Caltrans, 2006). Paved County roads are considered "distressed" if the following distress types are visible:

- Alligator cracking
- Block cracking
- Distortions
- Longitudinal and Transverse Cracking
- Patching and Utility Cut Patching
- Rutting and Depressions
- Weathering and Raveling

There are approximately 511 unpaved road miles in the County. The final two distress types listed above were considered in order to determine "distressed" unpaved road miles. It should be noted that unpaved road distress varies significantly based on weather, time of the last grading, and the quality of the last grading.

Distressed road miles in the City of Alturas are calculated based on data derived from the City of Alturas Pavement Management System (PMS). The City's PMS includes a scoring system for establishing the prioritization of street maintenance needs. The PMS evaluation score is comprised of five score components for each of the following categories: pavement condition, amount of traffic, community-wide importance, neighborhood importance, and functional classification. The higher the totals score for a given street, the higher the need for repairs. The highest possible score attainable is 50, and the lowest possible score is 5. High scoring streets that are scheduled as past due or in imminent need of an overlay, rehabilitation, or chip seal according to the PMS are then considered distressed road miles. In order to achieve a high score that indicates distressed status, a street must meet qualitative thresholds for poor pavement condition along with moderate traffic usage, and subjective thresholds for community and neighborhood importance. Finally, the functional classification is an important weight factor in

the overall score with local streets receiving a low score of 1 and major collectors receiving a score up to 10. Therefore, a local street (FC 09) can sustain a worse total pavement condition before it is considered distressed. Under this method, minor collectors (FC 08) and major collectors (FC 07) may be considered distressed with progressively better pavement conditions than local streets.

Bridges are also an important part of the regional transportation system. The proportion of bridges classified as structurally deficient or functionally obsolete was calculated to determine baseline performance.

- Safety – Accident data obtained from the California Highway Patrol and Caltrans was used to determine the system baseline performance for accidents per vehicle miles traveled. As Modoc County is located in a rural region with an abundance of wildlife, a performance measure for animal-vehicle accidents was established.

- Mobility/Accessibility – *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, these performance measures refer to delay and travel time. Although weather-related travel delays do occur in Modoc County, there is relatively no traffic congestion. Mobility and accessibility is best measured in Modoc County using transit and non-motorized transportation data. Various maps were consulted, and it was determined that approximately 63.2 percent of County residents are located within one-quarter mile of Sage Stage Dial-A-Ride or intercity routes. FY 2006-2007 ridership figures were used as the second mobility/accessibility system baseline performance and the travel to work mode split obtained from the US Census 2000 was used for the non-motorized mode baseline performance.

- Connectivity/Coordination – This performance indicator is not identified in the STIP guidelines, however, the connectivity and coordination between residents and goods and services in the region is very important to rural Modoc County. Sage Stage coordinates with various human service agencies in the County to provide transit trips for their clients. A baseline performance measure will be developed for the Final RTP document.

- Reliability – The best way to measure reliability in Modoc County is through the on-time performance of Sage Stage.

- Productivity – This RTP does not list any capacity increasing roadway projects; therefore, measuring the maximum number of vehicles that a roadway can accommodate is not relevant to Modoc County. Measuring the productivity of Sage Stage is appropriate for the projects listed in this RTP. Maintaining the state highway in satisfactory condition for goods movement is another indicator of productivity in the region.

- Return on Investment – Caltrans has developed a spreadsheet tool called the Cal-B/C model, which can be employed to calculate the return on investment from rehabilitation, transit and ITS projects. The Cal-B/C model is used for all state highway-related capital projects.

- Equity – The best measure of equity in Modoc County is maintaining ADA accessibility on Sage Stage.

- Environmental Quality – Performance measures related to the reduction of greenhouse gas emissions were included in Table 4-4 as a placeholder until CARB develops strategies to reach the emission reduction goals set forth in the climate change legislation, Assembly Bill 32.

RTP Projects

Proposed roadway improvement projects and implementation status are listed in a series of tables throughout this chapter. Projects are categorized according to responsible entity, transportation mode, and/or funding source. Replacement or rehabilitation of structural crossings (bridges) with less than 20-foot spans is omitted, because the state and federal governments do not define them as bridges; hence, no funding is available.

Determining exact construction costs of transportation projects is difficult, especially for long-term projects. In recent years the price of raw materials used for transportation projects has risen resulting in actual costs much greater than those estimated in the project's planning phase. In an effort to produce a realistic view of Modoc County's transportation needs, the cost estimates in the ensuing tables are presented in two ways: "2007 dollars" and "adjusted for inflation." The Engineering News Record Construction Cost Index for San Francisco from December 1996 to December 2006 was reviewed to determine the average annual rate of inflation (3.2 percent) for construction costs. Many of the projects in the following transportation improvement tables do not have construction years specified. Therefore, project costs with unknown construction dates were adjusted to represent 15 years of inflation. Estimated project costs cited in the text of this document represent "adjusted for inflation" costs.

The final column in the project list tables classifies each project as "Project List" or "Inventory." Improvement projects denoted as "Project List" are programmed for short-term priority projects and an improvement projects denoted as "Inventory" are mid-term or long-term projects. "Project List" projects are the region's top priority projects needed to address goals and objectives stated in the Policy Element and are projects which can realistically be implemented over the next five years, before the next RTP update. In other words, funding is secured for the project and sufficient staff and resources are available to see the project through to completion. As "Project List" projects are implemented, the "Inventory" list will be reviewed to determine which projects should be promoted to the "Project List." A brief discussion of how "Project List" projects will improve the system baseline performance listed in Table 4-4 accompanies the project descriptions below.

- **STIP Regional Shares** will support many projects on City, County and State roadways and bridges during the ensuing twenty years. Proposed projects suggested for STIP funding are listed by lead agency and type of facility in Tables 4-5, 4-7, 4-9, and 4-10. Omitting bicycle projects, the sum of proposed constrained STIP projects presented in this RTP is $41.3 million. These projects are planned for implementation throughout the planning period.

Financially unconstrained STIP projects total roughly $71.9 million. The breakdown of proposed STIP project-estimates (both constrained and unconstrained) shows about $16.5 million on County roads, $14.4 million on City streets and $2.5 million on State highways. Short-term proposed STIP regional share projects are consistent with the adopted Modoc 2008 STIP/RIP. No improvement projects located in Modoc County are listed in the Caltrans 2008 Interregional Transportation Improvement Program (ITIP), and the Modoc 2008 RTP is consistent with the ITIP.

- **State Highway Projects** are listed in Table 4-5. All STIP financial constrained improvements listed are estimated to cost $4.5 million with construction during the next five years. Also listed are $27.7 million in financially unconstrained improvements such as left turn lane and passing lane projects.

  Performance Measurement – There are three state highway STIP funded projects listed in the 2008 RTIP. The location of these projects is graphically presented in Figure 4-1 (refer to Map ID number in Table 4-5). The first "Project List" state highway project is Phase I of the SR 299 Alturas widening project and is linked to both the safety and mobility/accessibility performance measures. This project will enhance safety for motorists, bicyclists, and pedestrians through the construction of a two-way left turn lane, increased shoulder and upgrade to highway rail crossings. A quantitative reduction in the number of accidents as a result of this project is difficult to determine; however, the project will reduce the baseline accidents in the region per VMT identified in Table 4-4. The other two "Project List" state highway projects are linked to the mobility and accessibility category as they include ITS projects, which will assist motorists traveling through the region in planning the best and safest routes. Mobility is difficult to quantitatively measure in Modoc County as there is no traffic congestion in the region. However, weather-related travel delays and highway closures do occur. Travel time for motorists traversing the region will be reduced, if information about these delays is available before the motorist reaches the affected location.

  State Highway Future Needs – As discussed in Chapter 5, the 2007 update to the ten-year State Highway Operations and Protection Program (SHOPP) is financially constrained and there are no SHOPP projects listed in Modoc County. However, system preservation is top priority for the region. Table 4-6 presents state highway future maintenance needs that may become projects if new sources of funding become available.

- **County Road Projects** are planned over a 20-year horizon. As reflected in Table 4-7, County road improvement projects funded with recurring funding sources such as STIP are estimated to cost $246.5 million over the next 20 years (not including the specially funded projects shown in Table 4-8). Of these projects, approximately $18.0 million in funding is expected to come from STIP Regional Shares and $228.5 million from local funding sources. In terms of implementation period, approximately $12.3 million will be spent on County road projects during the short-term planning period, $19.2 million during the medium term, $6.1 million during the long-term planning period and $208.8 as ongoing projects.

TABLE 4-5: State Highway Future Roadway Improvement Projects - 20-Year Vision

Map ID	Facility No.	Post Miles	Specific Location	PPNO	Proposed Project Description	Priority[1]	Construct Year	Total Cost (1,000s) *2007/08 Dollars*	Total Cost (1,000s) Adjusted for Inflation[2]	Funding Source	Corresponding Goal	Performance Indicator	Project List/ Inventory[3]
	STIP - 2008 RTIP												
1	SR 299	39.3 - 40.6	Alturas 299 Widening -West C St. to 0.1 mi E of SR 299/ US 395 separation (Phase I)	3368	TWLTL, increase paved shoulder, upgrade RRx warning system and improve drainage	1	2012	$ 2,718	$ 3,203	STIP	1,2,3	S, M/A	P
2	SR 299/ SR 139	22.4	SR 299/ SR 139 junction in Canby	3382	Highway Advisory Radio (HAR)	1	2012	$ 397	$ 468	STIP	1,2,3	M/A	P
3	SR 139	23.2	Perez Inspection Station	3383	Install Closed Circuit Television (CCTV) and Roadside Weather Information System (RWIS)	1	2012	$ 746	$ 879	STIP	1,2,3	M/A	P
	STIP Left Turn Lane Projects (Unconstrained)												
	SR 299	35.29	WB, Jct. W/Co. Rd 75		Left Turn Lane	2	2013	$ 1,300	$ 1,573	STIP	3	M/A	I
	SR 299	37.1	Co. Rd 73 Crowder Flat		Left Turn Lane	2	2014	$ 1,300	$ 1,624	STIP	3	M/A	I
	SR 299	46.29	WB, Alpine Rd - CR 58		Left Turn Lane	2	2016	$ 1,300	$ 1,730	STIP	3	M/A	I
	US 395	25.48	NB, Bowman Rd.		Left Turn Lane	2	TBD	$ 1,300	$ 2,094	STIP	3	M/A	I
	SR 139	27.9	NB, Tionesta Rd.		Left Turn Lane	2	TBD	$ 1,300	$ 2,094	STIP	3	M/A	I
	SR 299	45.5	EB, CR 267		Left Turn Lane	2	TBD	$ 1,300	$ 2,094	STIP	3	M/A	I
	STIP Passing or Truck Climbing Lanes (Unconstrained)												
	SR 299	11.8 - 14.5	Adin Summit		Truck Climbing Lane(s)	3	TBD	$ 3,750	$ 6,039	STIP	3	P	I
	SR 299	50.6 - 52.0	Cedar Pass		East Bound Passing Lane	3	TBD	$ 2,250	$ 3,624	STIP	3	P	I
	SR 299	39.3 - 40.6	Alturas 299 Widening -West C St. to 0.1 mi E of SR 299/ US 395 separation (Phase 2)		Widening and 2 Way Left Turn Lane, increase paved shoulder and drainage	3	TBD	$ 4,300	$ 6,925	STIP	3	P	I
					Total Estimated Cost of STIP Constrained Projects			**$ 3,862**	**$ 4,550**				
					Total Estimated Cost of STIP Unconstrained Projects			**$ 18,100**	**$ 27,796**				

Note 1: Priority Nos: 1= Short Term (FY 2007-2012), 2= Mid Term (FY 2013-2017), 3=Long Term (FY 2018-2027).

Note 2: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006. Long-term projects with unknown construction dates were adjusted to reflect 15 years of inflation.

Note 3: Project List (P) = project programmed, funded or listed current RTIP; Inventory (I) = Project is part of the long-term inventory and not likely to be built within the next 5 years.

Source: Caltrans, District 2, MCTC

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FIGURE 4-1

MODOC STATE HIGHWAY "PROJECT LIST"

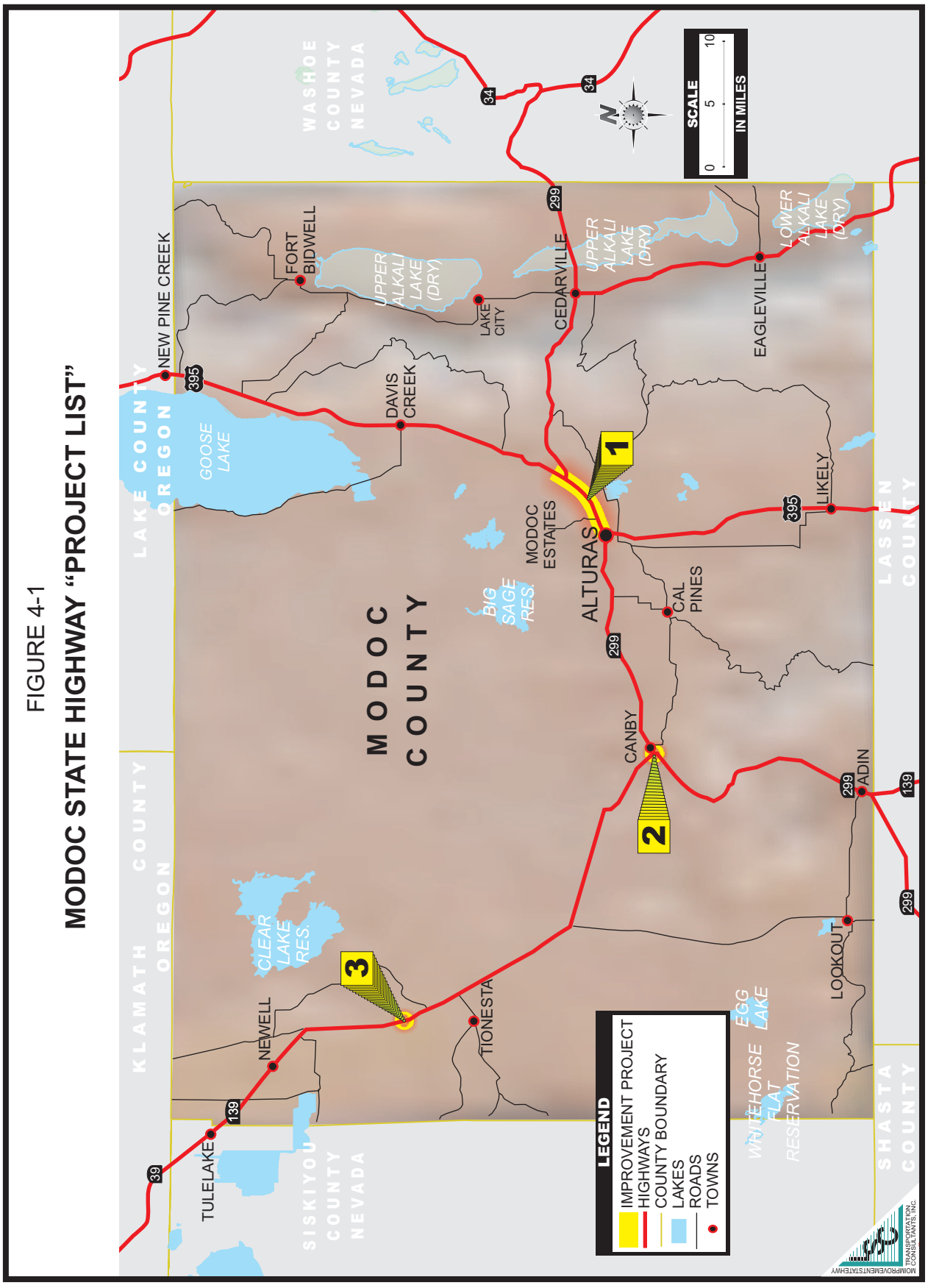

TABLE 4-6: State Highway Future Needs

Facility No.	Post Miles	Description
Roadway Preservation		
SR 139	10.3 - 27.90	Rehabilitation
SR 139	34.0 - 50.7	Pavement Preservation
SR 139	27.3 - 34.0	Chip Seal
SR 139	34.0 - 97.8	Chip Seal
SR 299	21.7 - 40.6	Rehabilitation
SR 299	9.0 - 21.7	Rehabilitation
SR 299	40.6 - 66.6	Pavement Preservation
SR 299	3.1	Chip Seal
SR 299	40.6 - 66.6	Chip Seal
SR 299	6.3 - 56.3	Rockfall Mitigation
SR 395	0.06 - 20.6	Chip Seal
SR 395	23.3 - 61.5	Chip Seal
Mobility/ Advanced Technology Projects		
All Routes	--	(CCTV's, CMS's, HAR's RWIS's)
All Routes	--	Upgrade as needed existing D2 TMC Field Elements
Roadside Preservation		
Various	--	Acquire, establish, monitor and relinquish environmental mitigation
Facilities		
SR 299	--	Major Rehabilitation
SR 139/ 395	--	Major Rehabilitation

Source: Caltrans.

TABLE 4-7: County of Modoc Roadway Improvement Projects - Recurring Funding Sources

Map ID	CR No.	FC	Specific Location	PPNO	Proposed Project Description	Miles	Priority[1]	Const Year	Total Cost (1000s) 2007/08 Dollars	Total Cost (1000s) Adjusted for Inflation [2]	Fund Source	Related Goals	Performance Indicator	Project List/ Inventory[3]
1	CR 114	07	CR101 to Oregon border	2265	Road Rehabilitation	4.9	1	2008	$ 1,715	$ 1,772	STIP	1,2,5	S/SP	P
2	CR 1	07	Cedarville to Lake City	3269	Road Rehabilitation	10.5	1	2010	$ 4,031	$ 4,448	STIP	1,2,5	S/SP	P
	CR 1	07	CR13 to CR 9		Road Rehabilitation	8.0	1	2013	$ 1,483	$ 1,794	STIP	1,2,5	SP	I
	CR 1	07	CR 9 to end AC		Road Rehabilitation	11.0	1	2013	$ 1,982	$ 2,398	STIP	1,2,5	SP	I
	CR 104	08	CR114 to 5 mi West		Road Rehabilitation	5.0	2	2013	$ 901	$ 1,090	Local	1,2,5	SP	I
	CR 189	08	US395 to CR60		Road Rehabilitation	5.0	2	2013	$ 901	$ 1,090	Local	1,2,5	SP	I
	CR 58	08	CR56 to 5 mi NE		Road Rehabilitation	5.0	2	2013	$ 901	$ 1,090	Local	1,2,5	SP	I
	CR 60	08	5 mi S CR260 to CR189		Road Rehabilitation	5.0	2	2013	$ 901	$ 1,090	Local	1,2,5	SP	I
	CR 115	08	CR56 to CR59		Road Rehabilitation	2.6	2	2013	$ 469	$ 567	Local	1,2,5	SP	I
	CR 58	08	SR299 to 5 mi NE CR56		Road Rehabilitation	2.1	2	2013	$ 378	$ 458	Local	1,2,5	SP	I
	CR 113	08	SR139 to CR104		Road Rehabilitation	5.1	2	2013	$ 919	$ 1,112	Local	1,2,5	SP	I
	CR 114	07	CR101 to SR139	3270	Road Rehabilitation	6.5	2	2013	$ 1,310	$ 1,585	STIP	1,2,5	SP	I
	CR 76	08	CR54 to CR75		Road Rehabilitation	2.3	2	2013	$ 411	$ 497	Local	1,2,5	SP	I
	CR 88	08	SR299 to Transfer Station		Road Rehabilitation	1.5	2	2013	$ 270	$ 327	Local	1,2,5	SP	I
	CR 91A	08	CR91 to CR93A		Road Rehabilitation	0.3	2	2013	$ 59	$ 72	Local	1,2,5	SP	I
	CR 93	08	LAS/MOD Line to CR94		Road Rehabilitation	3.6	2	2013	$ 649	$ 785	Local	1,2,5	SP	I
	CR 93A	08	CR93 to CR91A		Road Rehabilitation	0.5	2	2013	$ 90	$ 109	Local	1,2,5	SP	I
	CR 94	08	CR93 to RR Tracks		Road Rehabilitation	1.8	2	2013	$ 324	$ 392	Local	1,2,5	SP	I
	CR 111	07	SR139 to CR120		Road Rehabilitation	5.8	2	2014	$ 1,045	$ 1,305	STIP	1,2,5	SP	I
	CR 133B	08	US395 to US395		Road Rehabilitation	2.4	2	2014	$ 432	$ 540	Local	1,2,5	SP	I
	CR 133D	08	US395 to CR9		Road Rehabilitation	2.3	2	2014	$ 414	$ 518	Local	1,2,5	SP	I
	CR 47	08	US395 to Transfer Station		Road Rehabilitation	0.3	2	2014	$ 54	$ 68	Local	1,2,5	SP	I
	CR 55	07	US 395 to end AC	2438	Road Rehabilitation	5.6	1	2014	$ 1,794	$ 2,241	STIP	1,2,5	SP	I
	CR 111	07	SR139 to Oregon border		Road Rehabilitation	5.9	2	2015	$ 1,063	$ 1,371	STIP	1,2,5	SP	I
	CR 115	08	US395 to CR59		Road Rehabilitation	3.6	2	2015	$ 649	$ 836	Local	1,2,5	SP	I
	CR 2	08	CR1 to CR196		Road Rehabilitation	1.0	2	2015	$ 180	$ 232	Local	1,2,5	SP	I
	CR 35	08	CR1 N to CR1 S		Road Rehabilitation	4.6	2	2016	$ 829	$ 1,103	Local	1,2,5	SP	I
	CR 101	08	SR139 to CR114		Road Rehabilitation	5.2	2	2017	$ 937	$ 1,287	Local	1,2,5	SP	I
	CR 108	07	CR111 to Drain 10 Road		Road Rehabilitation	1.5	2	2017	$ 270	$ 371	STIP	1,2,5	SP	I
	CR 55	07	US395 to end AC		Road Rehabilitation	4.3	3	2017	$ 775	$ 1,065	STIP	1,2,5	SP	I
	CR 15	08	CR1 to End AC		Road Rehabilitation	3.3	2	2018	$ 595	$ 843	Local	1,2,5	SP	I
	CR 37	08	CR1 to End AC		Road Rehabilitation	2.0	2	2018	$ 360	$ 511	Local	1,2,5	SP	I
	CR 71	08	CR54 to 4.6 mi		Road Rehabilitation	4.6	3	2019	$ 829	$ 1,214	Local	1,2,5	SP	I
	CR 71	08	PM 4.6/9.2		Road Rehabilitation	4.6	3	2020	$ 829	$ 1,253	Local	1,2,5	SP	I
	CR 71	08	PM 9.2/13.8		Road Rehabilitation	4.6	3	2021	$ 829	$ 1,293	Local	1,2,5	SP	I
	CR 71	08	PM 13.8/18.4		Road Rehabilitation	4.6	3	2022	$ 829	$ 1,335	Local	1,2,5	SP	I
	Various	07/08	All Above Major & Minor		Interim Chipseals (twice	-	on going	TBD	$ 2,938	$ 4,037	Local	1,2,5	SP	Ongoing
	Various	09	Local County Roads - Paved		Initial & Mid-Period	259.6	on going	TBD	$ 83,072	$ 133,784	Local	1,2,5	SP	Ongoing
	Various	09	Local County Roads - Gravel		Mid-Period 3" Aggregate	525.0	on going	TBD	$ 44,100	$ 71,021	Local	1,2,5	SP	Ongoing
								Total Estimated Cost	**$ 160,519**	**$ 246,907**				

Note 1: Priority Nos: 1= Short Term (FY 2007-2012), 2= Mid Term (FY 2013-2017), 3=Long Term (FY 2018-2027).
Note 2: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006. Long-term projects with unknown construction dates were adjusted to reflect 15 years of inflation.

Note 3: Project List (P) = project programmed, funded or listed current RTIP; Inventory (I) = Project is part of the long-term inventory and not likely to be built within the next five years.

Estimate Assumptions: All County Roads have two lanes. Major and Minor Collectors (07 & 08) estimates based on average cost per mile for County STIP projects, $180,200. 20-foot local roads cost estimated based on: overlay = $150,000 per mile, chipseal = $10,000 per mile, 3" layer aggregate = $28,000. Routine maintenance not included.

Source: Modoc County Road Department, 2007.

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TABLE 4-8: County of Modoc Special Funding Program Improvement Projects - 20-Year Vision

This list is not in order of priority. Projects will be implemented as funding becomes available.

Map ID	FC	Specific Location	Proposed Project Description	Miles	Priority[1]	Construct Year	Total Cost (1,000s) 2007/08 Dollars	Total Cost (1,000s) Adjusted for Inflation	Fund Source	Related Goals	Perf Indicator	Project List/ Inventory[3]
Forest Highway Projects												
	09	CR 258 to Blue Lake CG	Rehabilitate	6.6	2	2014	$ 5,500	$ 6,870	FHLP	1,2,4,5,6	SP	I
	08	Jess Valley Rd - US395 to Mill Creek Falls CG	Rehabilitate	14.1	2	2019	$ 2,600	$ 3,807	FHLP	1,2,4,5,6	SP	I
	08	Parker Creek Road - CR 58 to Forest boundary	Rehabilitate	6.6	1	2010	$ 8,250	$ 9,075	FHLP	1,2,4,5,6	SP	I
	08	Tionesta Road - SR139 to FDR 44N01	Rehabilitate	9.2	1	2012	$ 4,500	$ 5,275	FHLP	1,2,4,5,6	SP	I
					Forest Highway Projects Total		**$ 20,850**	**$ 25,026**				
Highway Safety Improvement Program (HSIP)												
	07	CR 87	Bridge Rail Replacement	0.1	1	2010	$ 198	$ 218	HSIP/Local	2,4	S	I
	07	CR 54	Shoulder Widening	7.9	1	2010	$ 204	$ 224	HSIP/Local	2,4	S	I
	08/09	All Paved Roads - Countywide (except above)	Paint stripes and apply thermoplastic markers	335.1	2	TBD	$ 480	$ 773	HSIP/Local	2,4	S	I
	-	Countywide - various locations	Remove obstacles (eg. relocate utility poles in R/W)	-	2	TBD	$ 420	$ 676	HSIP/Local	2,4	S	I
	-	Countywide - various locations	Remove obstacles (gates)	-	1	TBD	$ 380	$ 612	HSIP/Local	2,4	S	I
					HSIP Projects Total		**$ 1,280**	**$ 2,061**				
High Risk Rural Roads Program - HR3												
	07	CR 54, 4 miles southwest of Alturas	Roadway Realignment	0.6	1	2014	$ 556	$ 700	HR3/STIP	2,4	S	P
					HRS Projects Total		**$ 556**	**$ 700**				
Section 130 - Federal Railroad Crossing Protection Projects												
	07	Great Northern Rd - PUC 009-36.1, DOT 066965T	Upgrade - Gates A	-	1	TBD	$ 200	$ 275	Fed	2,6	S	I
	07	Centerville Rd - PUC 001CFA-459.1, DOT 749073H	Upgrade - Gates A	-	2	TBD	$ 200	$ 275	Fed	2,6	S	I
	07	Pencil Rd - PUC 086CFB-460.0, DOT 857433A	Upgrade - Gates A	-	2	TBD	$ 200	$ 275	Fed	2,6	S	I
					Section 130 Projects Total		**$ 600**	**$ 824**				

Note: Applications were submitted for HSIP and Section 130 projects; Forest Highway projects are controlled by FHWA and USFS. HSIP portion varies by project type, generally 80-90%. Modoc County Road Department applies for HSIP grants regularly, each 3+ year cycle. If HSIP grants are not awarded, then local funds are needed for safety projects and improvements.

Note 1: Priority Nos: 1= Short Term (FY2007-2012), 2= Mid Term (FY2013-2017), 3= Long Term (FY2018-2027).

Note 2: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006. Long-term projects with no construction dates were adjusted to reflect 15 years of inflation.

Note 3: Project List (P) = project programmed, funded or listed current RTIP; Inventory (I) = Project is part of the long-term inventory and not likely to be built within the next five years.

Source: County of Modoc Road Department, 2007.

Performance Measurement: The "Project List" County Road projects are associated with the safety and system preservation performance indicator and graphically displayed in Figure 4-2. A large percentage of accidents on County roads are single vehicle accidents resulting from vehicles leaving the traveled roadway. Having a uniform road surface could reduce this type of accident. County staff observations show that on both CR 1 and 114 the existing structural section is inadequate; pavement is showing signs of failure, including transverse and longitudinal cracking. Additionally, County accident records over the last five years show that, CR 1 had the highest number of accidents of all County maintained roadways (19 injury accidents and one fatality). "Project List" rehabilitation projects will improve safety on CR 1 and 114. System preservation/road rehabilitation is the top transportation priority for the County as nearly 80 percent of paved County maintained road miles are considered distressed. STIP funds are the greatest contributor to preserving the current roadway system.

Table 4-6 presents proposed County projects financed all or in part by Federal Highway Administration special funding programs. As shown, forest highway projects (funded through the Federal Lands Highway Program) are estimated to cost $25 million during the course of the planning period. Highway Safety Improvement Program (HSIP) projects are anticipated to total $2 million, High Risk Rural Roads Program (HR3) projects total $700,000 and Section 130 federal railroad crossing projects total $824,000.

Financially unconstrained County road rehabilitation projects are displayed in Table 4-9. If new funding sources were to become available, an additional $43.7 million in roadway improvements would be planned over the long term in Modoc County.

- **City of Alturas Projects** are listed in Table 4-10. The estimated total cost of transportation improvement projects over the next twenty years is $18 million. It is anticipated that STIP funds will be used to finance these future projects. One City of Alturas projects in Table 4-10 have been assigned to the "Project List." This project is also displayed in Figure 4-3. The Warner Street project (PPNO 2176) is particularly important, as this project is associated with the safety and system preservation performance indicator. Warner Street is a designated truck route in Alturas, which serves communities south of the city and the city's industrial parks and airport. Trucks use this route to bypass the business district along SR 299 and US 395, deliver goods within the city, transport trash to the County's solid waste landfill and service the outlying communities south of the city. Current road conditions pose a safety risk in areas where the pavement width is inadequate for travel lanes plus on-street parking. Table 4-11 presents the City of Alturas' list of financially unconstrained transportation improvement projects. The estimated cost for these long-term street rehabilitation projects is over $36.2 million, should funding become available.

- **Bridge Improvement Projects** proposed on County roadways are estimated to cost about $14.9 million as presented in Table 4-12. Five of these projects are on the short-term "Project List" and include the replacement of bridges, which are considered functionally obsolete or structurally deficient. Refer to Figure 4-2 for the approximate location of these projects. As bridges age, their weight carrying capacity decreases, thereby limiting the loads they can safely support. Maintaining a regular bridge replacement schedule will gradually restore the

FIGURE 4-2

MODOC COUNTY ROADWAY AND BRIDGE IMPROVEMENT "PROJECT LIST"

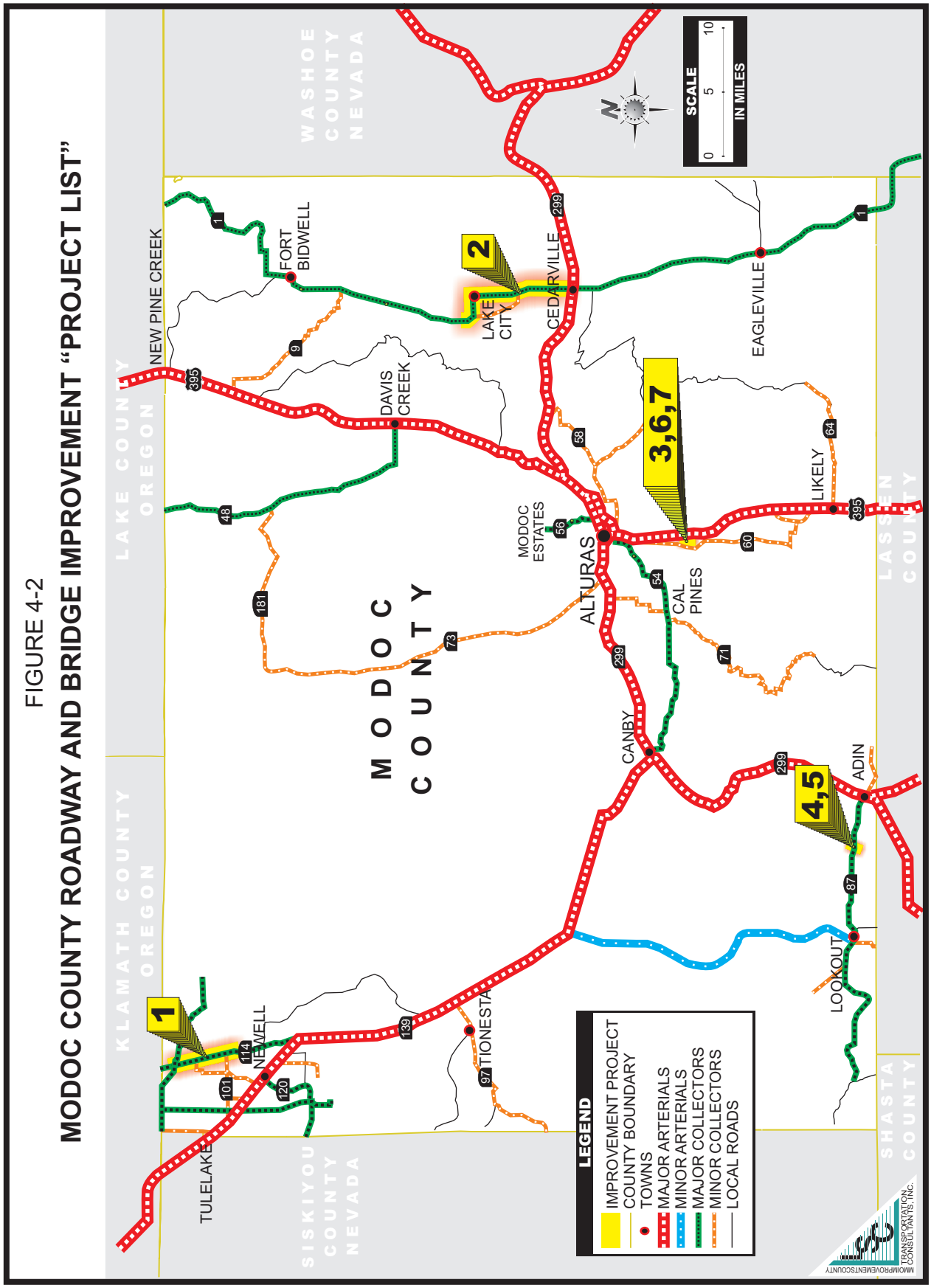


TABLE 4-9: County of Modoc Roadway Improvement Projects - Financially Unconstrained

No.	FC	Specific Location	Proposed Project Description	Miles	Const Year	Total Cost (1,000s) 2007/08 Dollars	Total Cost (1,000s) Adjusted for Inflation[1]	Fund Source	Related Goals	Performance Indicator	Project List/ Inventory[2]
CR 1	07	Lassen County Line to Cedarville	Road Rehabilitation	38.1	TBD	$ 6,867	$ 11,060	STIP	2,4,6	SP	I
CR 120	07	CR111 to end	Road Rehabilitation	1.6	TBD	$ 288	$ 464	STIP	2,4,6	SP	I
CR 120	07	Lava Beds National Monument to CR111	Road Rehabilitation	1.6	TBD	$ 287	$ 461	STIP	2,4,9	SP	I
CR 272	07	Shasta Co Line to Rd 8214	Road Rehabilitation	5.5	TBD	$ 984	$ 1,585	STIP	2,4,10	SP	I
CR 48	07	US 395 to Oregon State Line	Road Rehabilitation	22.9	TBD	$ 4,132	$ 6,654	STIP	2,4,6	SP	I
CR 54	07	Alturas city limits to 7 mi West	Road Rehabilitation	7.0	2023	$ 1,261	$ 2,097	STIP	2,4,6	SP	I
CR 54	07	7 mi W of Alturas to 14 mi West	Road Rehabilitation	7.0	2025	$ 1,261	$ 2,235	STIP	2,4,6	SP	I
CR 54	07	14 mi W of Alturas to Canby	Road Rehabilitation	7.0	TBD	$ 1,261	$ 2,031	STIP	2,4,6	SP	I
CR 54	07	SR 299 to West St. Alturas	Road Rehabilitation	20.7	TBD	$ 3,725	$ 5,999	STIP	2,4,7	SP	I
CR 87	07	CR 91 to Lookout-Hackamore Rd	Road Rehabilitation	11.3	TBD	$ 2,033	$ 3,274	STIP	2,4,8	SP	I
CR 91	07	Lassen County Line to SR 139	Road Rehabilitation	27.3	TBD	$ 4,914	$ 7,914	STIP	2,4,9	SP	I
			Total Estimated Cost			**$ 27,014**	**$ 43,773**				

Note 1: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006. Long-term projects with no construction date were adjusted for 15 years of inflation.

Note 2: Project List (P) = project programmed or listed current RTIP; Inventory (I) = Project is part of the long-term inventory and not likely to be built within the next five years.

Source: County of Modoc Road Department, 2007

TABLE 4-10: City of Alturas Street Improvement Projects - 20-Year Vision

Map ID	Street Name	FC	From	To	PPNO	Project Description	Miles	Priority[1]	Const Year	Total Cost (1000s) 2007/08 Dollars	Total Cost (1000s) Adjusted for Inflation[2]	Fund Source	Related Goals	Performance Indicator	Project List/ Inventory[3]
1	Warner	07	Park	12th (SR 299)	2176	Street Rehabilitation	0.68	1	2008	$ 2,219	$ 2,291	STIP	1,2,5	S/SP	P
	4th	07	Warner	East	2472	Street Rehabilitation	1.07	1	2014	$ 1,508	$ 1,884	STIP	1,2,5	S	I
	8th	07	Warner	East	2197	Street Rehabilitation	1.00	1	2014	$ 3,263	$ 4,076	STIP	1,2,5	S	I
	East	07	Modoc	19th		Street Rehabilitation	1.33	2	2014	$ 3,015	$ 3,766	STIP	1,2,5	SP	I
	West C	07	Park	12th (SR 299)		Street Rehabilitation	0.75	2	2015	$ 1,700	$ 2,192	STIP	1,2,5	SP	I
	West	07	Carlos	4th		Street Rehabilitation	0.37	2	2017	$ 843	$ 1,158	STIP	1,2,5	SP	I
	Modoc	07	Main (US 395)	Estes		Street Rehabilitation	0.24	3	2018	$ 295	$ 418	STIP	1,2,5	SP	I
	Oak	07	12th (SR 299)	19th		Street Rehabilitation	0.50	3	2019	$ 1,133	$ 1,659	STIP	1,2,5	SP	I
	Estes	07	Modoc	CR 56		Street Rehabilitation	0.18	3	2020	$ 408	$ 617	STIP	1,2,5	SP	I
									Total Estimated Cost	**$ 14,384**	**$ 18,059**				

Note 1: Priority Nos: 1= Short Term (FY 2007-2012), 2= Mid Term (FY 2013-2017), 3=Long Term (FY 2018-2027).

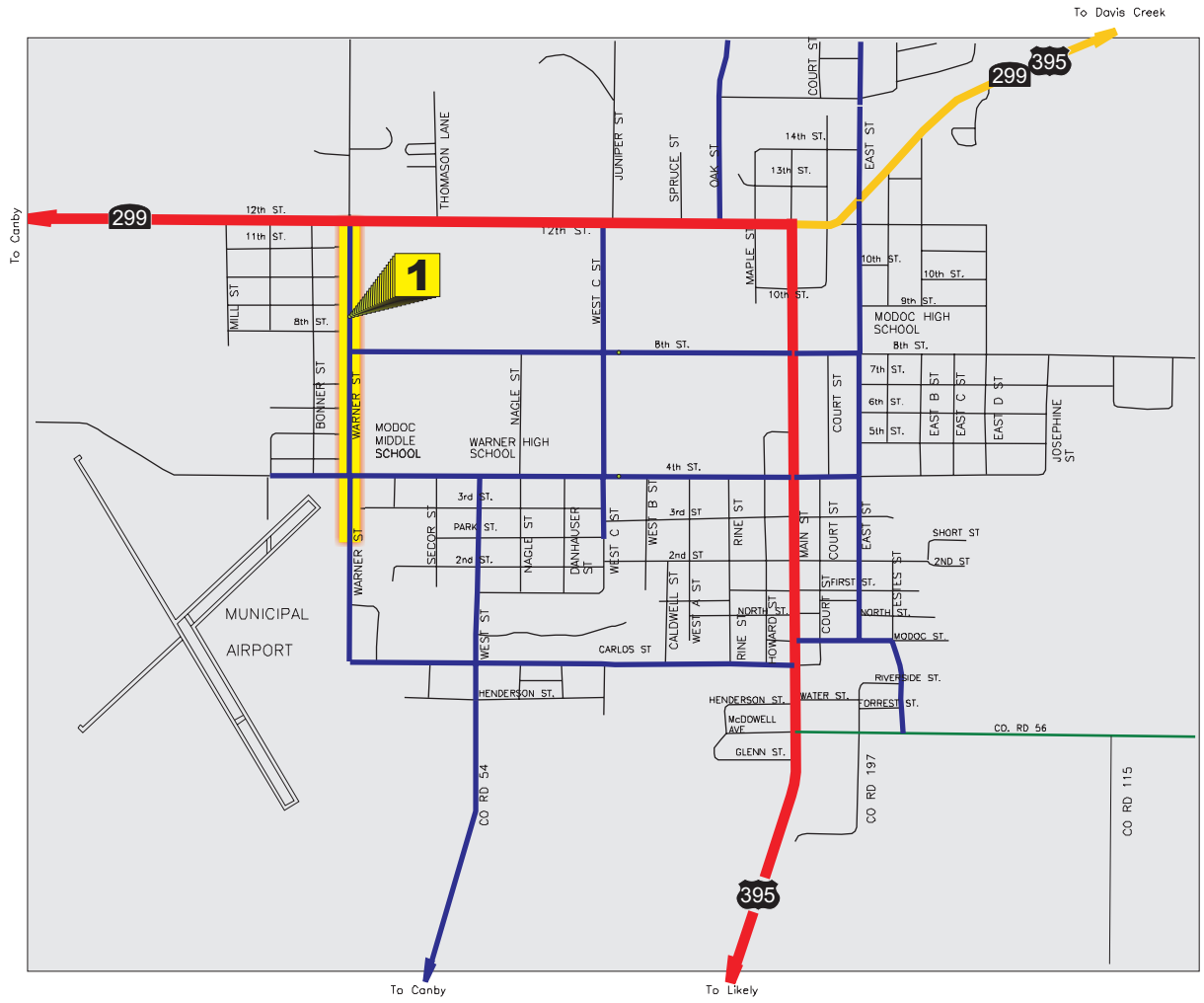
Note 2: Annual growth rate of 3.2% applied to construction costs to account for inflation. The rate is based on growth per Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006.

Note 3: Project List (P) = project programmed, funded or listed current RTIP; Inventory (I) = Project is part of the long-term inventory and not likely to be built within the next five years.

Source: City of Alturas Public Works Department, 2008.

FIGURE 4-3

ALTURAS ROADWAY IMPROVEMENTS "PROJECT LIST"



LEGEND

- IMPROVEMENT PROJECT
- PRINCIPAL ARTERIAL
- MINOR ARTERIAL
- MAJOR COLLECTOR
- MINOR COLLECTOR
- OTHER RURAL ROADS

N

SCALE

0 .25

IN MILES

MOMPROVEMENTS

TRANSPORTATION CONSULTANTS, INC.

TABLE 4-11: City of Alturas Financially Unconstrained Street Improvement Projects

Street	FC	From	To	Project Description	Miles	Total Cost (1,000s) 2007/08 Dollars	Total Cost (1,000s) Adjusted for Inflation[1]	Funding Source	Corresponding Goals	Performance Indicator	Project List/ Inventory[2]
Archer	09	East A	East A	Street Rehabilitation	0.34	$ 369	$ 595	Local	2,4,6	SP	I
Bond	09	Warner	Smith	Street Rehabilitation	0.17	$ 184	$ 297	Local	2,4,6	SP	I
Bonner	09	4th	12th (SR299)	Street Rehabilitation	0.52	$ 575	$ 927	Local	2,4,6	SP	I
Caldwell	09	Carlos	2nd	Street Rehabilitation	0.21	$ 233	$ 375	Local	2,4,6	SP	I
Carlos	09	Court	Main (US395)	Street Rehabilitation	0.05	$ 59	$ 94	Local	2,4,6	SP	I
Carlos	07	Main (US395)	Warner	Street Rehabilitation	1.00	$ 180	$ 290	STIP	2,4,6	SP	I
Cedar	09	3rd	Kemble	Street Rehabilitation	0.10	$ 108	$ 173	Local	2,4,6	SP	I
Court	09	Carlos	18th	Street Rehabilitation	1.15	$ 1,263	$ 2,035	Local	2,4,6	SP	I
Danhauser	09	Henderson	4th	Street Rehabilitation	0.32	$ 351	$ 566	Local	2,4,6	SP	I
East	09	CR56	Riverside	Street Rehabilitation	0.11	$ 117	$ 189	Local	2,4,6	SP	I
East A	09	Archer	5th	Street Rehabilitation	0.71	$ 774	$ 1,247	Local	2,4,6	SP	I
East B	09	2nd	12th (SR299)	Street Rehabilitation	0.65	$ 717	$ 1,155	Local	2,4,6	SP	I
East C	09	4th	8th	Street Rehabilitation	0.25	$ 276	$ 444	Local	2,4,6	SP	I
East D	09	4th	12th	Street Rehabilitation	0.50	$ 548	$ 883	Local	2,4,6	SP	I
Estes	09	Modoc	2nd	Street Rehabilitation	0.21	$ 226	$ 364	Local	2,4,6	SP	I
Forrest	09	So. East	Estes	Street Rehabilitation	0.10	$ 110	$ 178	Local	2,4,6	SP	I
Henderson	09	Main (US395)	Poplar	Street Rehabilitation	0.58	$ 633	$ 1,019	Local	2,4,6	SP	I
Howard	09	Carlos	5th	Street Rehabilitation	0.48	$ 529	$ 852	Local	2,4,6	SP	I
Josephine	09	4th	8th	Street Rehabilitation	0.25	$ 276	$ 444	Local	2,4,6	SP	I
Kemble	09	Warner	Smith	Street Rehabilitation	0.26	$ 290	$ 466	Local	2,4,6	SP	I
Main	09	12th (SR299)	14th	Street Rehabilitation	0.14	$ 159	$ 255	Local	2,4,6	SP	I
Maple	09	10th	14th	Street Rehabilitation	0.26	$ 286	$ 461	Local	2,4,6	SP	I
Mill	09	8th	12th (SR299)	Street Rehabilitation	0.21	$ 234	$ 377	Local	2,4,6	SP	I
Modoc	09	Howard	RR tracks	Street Rehabilitation	0.28	$ 310	$ 500	Local	2,4,6	SP	I
Nagle	09	Henderson	4th	Street Rehabilitation	0.32	$ 352	$ 566	Local	2,4,6	SP	I
North	09	RR tracks	West A	Street Rehabilitation	0.44	$ 486	$ 783	Local	2,4,6	SP	I
Park	09	West C	Poplar	Street Rehabilitation	0.37	$ 400	$ 644	Local	2,4,6	SP	I
Pine	09	12th (SR299)	14th	Street Rehabilitation	0.14	$ 159	$ 255	Local	2,4,6	SP	I
Poplar	09	2nd	4th	Street Rehabilitation	0.19	$ 207	$ 333	Local	2,4,6	SP	I
Rine	09	Carlos	4th	Street Rehabilitation	0.39	$ 427	$ 688	Local	2,4,6	SP	I
Riverside	09	So. East	Estes	Street Rehabilitation	0.10	$ 110	$ 178	Local	2,4,6	SP	I
Short	09	East End	East B	Street Rehabilitation	0.07	$ 79	$ 128	Local	2,4,6	SP	I
Smith	09	4th	12th (SR299)	Street Rehabilitation	0.38	$ 420	$ 677	Local	2,4,6	SP	I
Spruce	09	12th (SR299)	14th	Street Rehabilitation	0.14	$ 159	$ 255	Local	2,4,6	SP	I
Thomason	09	12th (SR299)	14th	Street Rehabilitation	0.13	$ 141	$ 228	Local	2,4,6	SP	I
Warner	09	12th (SR299)	19th	Street Rehabilitation	0.51	$ 141	$ 228	Local	2,4,6	SP	I
Warner	07	Park	Carlos	Street Rehabilitation	0.17	$ 31	$ 49	STIP	2,4,6	SP	I
West A	09	South End	4th	Street Rehabilitation	0.37	$ 402	$ 647	Local	2,4,6	SP	I
West B	09	1st	4th	Street Rehabilitation	0.25	$ 269	$ 433	Local	2,4,6	SP	I
West C	09	South End	2nd	Street Rehabilitation	0.19	$ 207	$ 333	Local	2,4,6	SP	I
Western	09	West C	West	Street Rehabilitation	0.27	$ 300	$ 483	Local	2,4,6	SP	I
1st	09	RR tracks	Caldwell	Street Rehabilitation	0.55	$ 603	$ 971	Local	2,4,6	SP	I
2nd	09	East B	Poplar	Street Rehabilitation	1.12	$ 1,227	$ 1,975	Local	2,4,6	SP	I
3rd	09	RR tracks	Warner	Street Rehabilitation	1.15	$ 1,255	$ 2,021	Local	2,4,6	SP	I
4th	09	Josephine	East	Street Rehabilitation	0.41	$ 446	$ 719	Local	2,4,6	SP	I
5th	09	Josephine	Smith	Street Rehabilitation	0.72	$ 766	$ 1,233	Local	2,4,6	SP	I
6th	09	Josephine	Smith	Street Rehabilitation	0.58	$ 613	$ 988	Local	2,4,6	SP	I
7th	09	Josephine	East	Street Rehabilitation	0.42	$ 455	$ 733	Local	2,4,6	SP	I
8th	09	East End	Mill	Street Rehabilitation	0.88	$ 965	$ 1,555	Local	2,4,6	SP	I
9th	09	East D	Mill	Street Rehabilitation	0.52	$ 565	$ 911	Local	2,4,6	SP	I
10th	09	East D	Mill	Street Rehabilitation	0.59	$ 643	$ 1,035	Local	2,4,6	SP	I
11th	09	East D	Mill	Street Rehabilitation	0.39	$ 426	$ 686	Local	2,4,6	SP	I
12th	09	East D	Court	Street Rehabilitation	0.33	$ 364	$ 586	Local	2,4,6	SP	I
13th	09	East B	Maple	Street Rehabilitation	0.21	$ 233	$ 375	Local	2,4,6	SP	I
14th	09	East	Maple	Street Rehabilitation	0.34	$ 378	$ 608	Local	2,4,6	SP	I
16th	09	East A	Oak	Street Rehabilitation	0.36	$ 391	$ 630	Local	2,4,6	SP	I
17th	09	East	Court	Street Rehabilitation	0.08	$ 90	$ 144	Local	2,4,6	SP	I
Unimproved	09	Unimproved/Gravel Streets		Blading & Aggregate	7.00	$ 13	$ 20	Local	2,4,6	EQ	I
				City Unconstrained Projects Total		**$ 22,528**	**$ 36,281**				

Note 1: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006.

Note 2: Project List (P) = project programmed or listed current RTIP; Inventory (I) = Project is part of the long-term inventory and not likely to be built within the next five years.

Source: City of Alturas Public Works Department, 2007

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TABLE 4-12: Modoc County Future Bridge Improvement Projects

Map ID	Facility No.	Bridge No.	Specific Location	PPNO	Proposed Project Description	Priority[1]	Const Year	Total Cost (1,000s) 2007/08 Dollars	Total Cost (1,000s) Adjusted for Inflation[2]	Fund Source	Related Goals	Performance Indicator	Project List/ Inventory[3]
3	CR 61	3C0038	Eastside Canal	--	Replace arch plate culvert	1	2009	$ 50	$ 53	Local	1,2,5	S / SP	P
4	CR 87 A	3C0117	Ash Creek	3267	Bridge Replacement	1	2009	$ 130	$ 139	HBP/STIP	1,2,5	S / SP	P
5	CR 87 A	3C0123	Ash Creek	3268	Bridge Replacement	1	2009	$ 130	$ 139	HBP/STIP	1,2,5	S / SP	P
6	CR 61	3C0036	Westside Canal	2413	Bridge Replacement	1	2011	$ 179	$ 204	HBP/STIP	1,2,5	S / SP	P
7	CR 61	3C0037	Middle Canal	2414	Bridge Replacement	1	2011	$ 179	$ 204	HBP/STIP	1,2,5	S / SP	P
	CR 54	3C0016	No. Branch Pit River	--	Scour Counter Measures	3	2015	$ 250	$ 322	HBP	2,4,5	S / SP	I
	CR 54	3C0017	Middle Branch Pit River	--	Scour Counter Measures	3	2015	$ 250	$ 322	HBP	2,4,5	S / SP	I
	CR 54	3C0018	So. Branch Pit River	--	Scour Counter Measures	3	2015	$ 250	$ 322	HBP	2,4,5	S / SP	I
	CR 1	3C0053	Bidwell Creek	--	Strengthen bridge	3	TBD	$ 1,000	$ 1,610	HBP	1,2,5	S / SP	I
	CR 1	3C0080	Owl Creek	--	New Bridge Rail	3	TBD	$ 50	$ 81	HBP	2,5	S / SP	I
	CR 108	3C0119	D Canal	--	Bridge Replacement	3	TBD	$ 800	$ 1,288	HBP	1,2,5	S / SP	I
	CR 111	3C0064	J Canal	--	New Bridge Rail	3	TBD	$ 40	$ 64	HBP	2,5	S / SP	I
	CR 111	3C0065	No 46 Drain	--	New Bridge Rail	3	TBD	$ 40	$ 64	HBP	2,5	S / SP	I
	CR 111	3C0066	J14B Canal	--	New Bridge Rail	3	TBD	$ 40	$ 64	HBP	2,5	S / SP	I
	CR 111	3C0067	45D Drain	--	New Bridge Rail	3	TBD	$ 40	$ 64	HBP	2,5	S / SP	I
	CR 111	3C0068	J14A Canal	--	New Bridge Rail	3	TBD	$ 40	$ 64	HBP	2,5	S / SP	I
	CR 17	--	Soldier Creek	--	Widen bridge & rails	3	TBD	$ 150	$ 242	Local	2,5	S / SP	I
	CR 198	3C0075	Rush Creek	--	Bridge Replacement	3	TBD	$ 800	$ 1,288	HBP	1,2,5	S / SP	I
	CR 215	3C0076	Howards Gulch	--	New Bridge Rail	3	TBD	$ 50	$ 81	HBP	2,5	S / SP	I
	CR 215	3C0077	Howards Gulch	--	New Bridge Rail	3	TBD	$ 50	$ 81	HBP	2,5	S / SP	I
	CR 224	3C0087	Bidwell Creek	--	New Bridge Rail	3	TBD	$ 40	$ 64	HBP	2,5	S / SP	I
	CR 258	3C0116	So. Fork Pit River	--	New Bridge Rail	3	TBD	$ 50	$ 81	HBP	2,5	S / SP	I
	CR 56	3C0111	Alturas Creek	--	New Bridge Rail	3	TBD	$ 40	$ 64	HBP	2,5	S / SP	I
	CR 60	3C0039	Westside Canal	--	New Bridge Rail	3	TBD	$ 50	$ 81	HBP	2,5	S / SP	I
	CR 64	3C0045	Pit River, South Fork	--	Strengthen Bridge	3	TBD	$ 1,500	$ 2,416	HBP	1,2,5	S / SP	I
	CR 75	3C0091	Pit River	--	Bridge Replacement	3	TBD	$ 1,200	$ 1,933	HBP	1,2,5	S / SP	I
	CR 85 C	3C0122	Pit River	--	Bridge Replacement	3	TBD	$ 1,400	$ 2,255	HBP	1,2,5	S / SP	I
	CR 86	3C0118	Rush Creek	--	Bridge Replacement	3	TBD	$ 800	$ 1,288	HBP	1,2,5	S / SP	I
	CR 87	3C0070	Pit River Slough	--	New Bridge Rail	3	TBD	$ 40	$ 64	HBP	2,5	S / SP	I
						Total Estimated Cost		**$ 9,638**	**$ 14,944**				

Note 1: Priority Nos: 1= Short Term (FY2007-2012), 2= Mid Term (FY2013-2017), 3=Long Term (FY2018-2027).

Note 2: Annual growth rate 3.2% applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006. Long-term projects with no construction dates were adjusted to reflect 15 years of inflation.

Note 3: Project List (P) = project programmed or listed current RTIP; Inventory (I) = Project is part of the long-term inventory and not likely to be built within the next five years.

Source: Modoc County Road Department, 2007.

continuously deteriorating bridge system in Modoc County. Modoc County "Bridge Project List" projects will enhance safety and system preservation in the region. Proposed funding for County bridges is through STIP, local sources and the federal HBRR program (88.5 percent federal and 11.5 percent local/STIP match).

Estimated costs for bridges on state highways are $7.5 million and shown in Table 4-13. SHOPP funding is used for state highway bridge replacements.

- **Tribal Improvement Projects** are financed chiefly with Federal Lands Highway Program – Indian Reservation Road (IRR) funds, administered through the BIA or applied for directly by the Tribes. Reflecting recent higher funding levels, most regional Tribal roads were improved during the past ten years. As shown in Table 4-14, in the short-term, Cedarville Rancheria intends to pave three Tribal roads at an estimated cost of $671,000. One of these roads, Rancheria Way Extension, benefits the general community as well as the tribe. Therefore, there is the possibility that Modoc County will develop a cooperative agreement with the BIA for development of this road. In this case, the BIA would fund paving costs and then transfer the road to the County who would provide roadway maintenance. Otherwise, Rancheria Way Extension would remain in the BIA road inventory. Over the long term, the Fort Bidwell Rancheria is planning new housing developments along Hot Springs Road (which serves the County Cemetery) and Water Tank Road. As development goes in, these unimproved roads will be added to the BIA system. Project cost and construction year is unknown at this time. Alturas Rancheria has future plans to replace a culvert and Pit River Tribes plan to pave gravel roads and perform road reconstruction. All tribal transportation future improvement projects will total approximately $1.9 million.

- **Public Transit/Coordinated Transportation Improvement Projects** are identified in Table 4-15. Many of these projects build on the existing coordination between Modoc County and its neighboring counties. The table is divided into two sections: projects that have been completed or are in progress and future projects. Transit projects include planning improvements, operating assistance and capital improvements such as ongoing vehicle replacement. Transit vehicles should be replaced according to the schedule developed in the *Modoc Transportation Agency Sage Stage Fleet Study Report* (LSC, 2006). Coordinated transportation improvement projects include advanced technology projects such as CALnections. Appendix I presents the Mobility Management Plan for establishing a Mobility Management Center in Modoc County.

  Total estimated costs amount to about $2.2 million with $911,000 for ITS/coordinated transportation projects, $573,000 for planning projects, $268,000 for operating assistance and $500,000 for capital purchases. Funding sources include various FTA programs, TDA, STIP, and State grants. As transit and mobility are very important to Modoc County, a more detailed description of significant regional transit projects is relevant to this document.

TABLE 4-13: State Highway Bridge Improvement Projects in Modoc County, 20-Year Vision

Bridge No.	Roadway - Feature	Location	Built/ Recon	Proposed Project Description	Priority[1]	Construct Year	Total Cost (1000s) 2007/08 Dollars	Total Cost (1000s) Adjusted for Inflation[2]	Fund Source	Corresponding Goals	Performance Indicator	Project List/ Inventory[3]
03 0001	SR 299 - Butte Creek	PM 0.51	1985	Replace	3	TBD	$ 1,100	$ 1,716	SHOPP	1,2	S / SP	I
03 0002	SR 299 - Ash Creek	PM 1.02	1985	Replace	3	TBD	$ 1,100	$ 1,716	SHOPP	1,2	S / SP	I
03 0003Z	SR 299 - Rush Creek	PM 6.32	1923	Replace	3	TBD	$ 1,100	$ 1,716	SHOPP	1,2	S / SP	I
03 0026	SR 299 - North Fork Ash Creek	PM 3.38	1948	Replace	3	TBD	$ 1,100	$ 1,716	SHOPP	1,2	S / SP	I
03 0028	SR 299 - Caldwell Creek	PM 23.34	1947	Rail	3	TBD	$ 150	$ 234	SHOPP	1,2	S / SP	I
03 0029	SR 299 - W Br Cloversdale Creek	PM 27.35	1947	Rail	3	TBD	$ 150	$ 234	SHOPP	1,2	S / SP	I
03 0010	US 395 - Parker Creek	PM 26.71	1954	Rail	3	TBD	$ 160	$ 250	SHOPP	1,2	S / SP	I
					Total Estimated Cost		**$ 4,860**	**$ 7,582**				

Note 1: Priority Nos: 1= Short Term (FY 2007-2012), 2= Mid Term (FY 2013-2017), 3=Long Term (FY 2018-2027).

Note 2: Annual growth rate 3.2% was applied to construction costs to account for inflation. Rate is based on Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006. Long-term project construction date of 2021 assumed.

Note 3: Project List (P) = project programmed or listed current RTIP; Inventory (I) = Project is part of the long-term inventory and not likely to be built within the next five years.

Source: Caltrans District 2.

TABLE 4-14: Tribal Transportation Future Improvement Projects

Functional Classification	Specific Location	Type	Jurisdiction	Miles	Priority[1]	Future Project Descriptions	Const Year	Total Cost (1000s) 2007/08 Dollars	Total Cost (1000s) Adjusted for Inflation[2]	Fund Source	Related Goals	Performance Indicator	Project List/ Inventory[3]
Alturas Rancheria													
09		Culvert	BIA	--	3	Replace culvert	TBD	NA	NA	IRR	1,3	SP	I
Cedarville Rancheria													
09	Rancheria Way/Bonner Rd/ Johnstone Rd	Unimproved	BIA/County	0.3	1	Gravel to paved	2008	$ 650	$ 671	IRR	1,3,4	EQ	P
Fort Bidwell													
09	Water Tank Road	Unimproved	Future BIA	--	3	Road to new housing development	TBD	NA	NA	IRR	3	R	I
09	Hot Springs Road to County Cemetery	Unimproved	BIA	--	3	Road to new housing development	TBD	NA	NA	IRR	3	R	I
Pit River Tribes													
09	XL Cemetery Road	NA	BIA	--	1	Road reconstruction	TBD	$ 23	$ 37	IRR	1,2,5	SP	I
09	XL - Thomas Creek Road	Unimproved	Tribe	1	2	Reconstruction/Pave	TBD	$ 561	$ 903	IRR	1,3,4	SP, EQ	I
09	Lookout - Lookout Drive (cul-de-sac)	Unimproved	County	0.25	2	Pave/ Place on BIA system	TBD	$ 71	$ 114	IRR	1,3,4	EQ	I
09	Lookout - Cemetery Road	Unimproved	Tribe	0.1	2	Road reconstruction	TBD	$ 28	$ 45	IRR	1,2,5	SP	I
09	Likely - Cemetery Road	Proposed	BIA	0.2	3	New gravel access road	TBD	$ 139	$ 224	IRR	3	R	I
						Total Tribal Future Projects		**$ 1,472**	**$ 1,995**				

Note 1: Priority Nos: 1= Short Term (FY2007-2012), 2= Mid Term (FY2013-2017), 3=Long Term (FY2018-2027).

Note 2: Annual growth rate 3.2% was applied to construction costs to account for inflation. Rate based on the growth of Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006. Long-term projects with no construction date adjusted for 15 years of inflation.

Note 3: Project List (P) = project programmed or listed current RTIP; Inventory (I) = Project is part of the long-term inventory and not likely to be built within the next five years.

Source: U.S. Department of Interior, Bureau of Indian Affairs, Northern California Agency, 2007.

TABLE 4-15: Public Transit/ Coordinated Transit Improvement Projects, 20-Year Vision

Project Description	Priority	Const Year	Total Cost (1000s) 2007/08 Dollars	Total Cost (1000s) Adjusted for Inflation	Fund Source	Related Goals	Performance Indicator	Project List/ Inventory
Completed or In Progress								
CALnections (Rural Trip Planner)	1	On going	$ 250	$ 250	State Research Grant	3,7	C, M/A, P	P
Mobility Mgmt Center Business Plan	1	On going	$ 90	$ 90	CTAA/USDA	3,7	C, M/A, P	P
Future								
TRIMS-Web Coordinated Transit Planning Tool	1	2009	$ 500	$ 533	State/ Federal Funded	3,7	C, M/A	P
Coordinated Public Transit - Human Service Transportation Plan	1	2008	$ 43	$ 43	State/ Federal Funded	3,4	C, M/A	P
Coordinated Human Services Transportation - Driver Safety Training	1	2011	$ 400	$ 440	FTA 5310, 5316, 5317	2,3,4	C, S	P
AVL Swipe for Coordinated Frontier Rural Intercity Services Serving Inyo, Mono and Modoc Counties	1	2011	$ 120	$ 128	FTA 5311 (f)/ TDA	7	R, P	P
Replace transit vehicles, rolling stock,	2	On going	$ 194	$ 194	FTA 5311 (f)/ STIP	2	SP	I
Transit operating assistance for Redding/ Klamath intercity routes	2	On going (Per year)	$ 67	$ 67	FTA 5311(f)	3,4	M/A	I
Transit operating assistance for Reno intercity service - Increase service from 3 days/week to 5 days/week	2	On going (Per year)	$ 201	$ 201	FTA 5311(f)	3,4	M/A	I
Modoc Transportation Center	3	2013	$ 357	$ 418	FTA / STIP	3,4,7	C, M/A	I
Total Estimated Cost			**$ 2,222**	**$ 2,365**				

Note 1: Priority Nos: 1= Short Term (FY2007-2012), 2= Mid Term (FY2013-2017), 3=Long Term (FY2018-2027).

Note 2: Annual growth rate 3.2% was applied to construction costs to account for inflation. Rate is based on growth of Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006. Long-term projects with no construction date were adjusted for 15 years of inflation.

Note 3: Project List (P) = project programmed or listed current RTIP; Inventory (I) = Project is part of the long-term inventory and not likely to be built within the next five years.

Source: MTA.

Mobility Management Center

Mobility management is an approach to service development and management that focuses on individualized customer markets and involves establishing a variety of services tailored to meet the needs of those markets. It also entails a responsibility for establishing a coordinated service delivery network to achieve connectivity for customers and efficiency for taxpayers. Finally, mobility management encompasses the design and management of the transportation infrastructure so that the services developed can perform effectively and efficiently.

The underlying idea behind the Modoc Mobility Management Center is to establish one location in the County staffed by a mobility manager who can find rides for customers independent of the mode or provider. The motto, "virtual and physical one-stop shop for folks who need a ride," while appropriate for the entire transit program in Modoc County, directly applies to this project. This concept exemplifies the United We Ride concept of working across agencies and funding sources to provide rides. The Mobility Management Center (MMC) will benefit the Modoc County region in various ways:

- Trip planning will be provided via phone, email, internet or walk-in requests. The Mobility Manager will be able to arrange transportation on public transit providers in Modoc County and surrounding areas, on a Medi-Cal van, through senior transportation programs, volunteer drivers, veteran services, and private intercity shuttles and taxis. Not only will the Mobility Manager be able to arrange trips with a social service transportation provider for an individual, but the Mobility Manager will be able to take requests for transportation from social service providers. The Mobility Manager will use CALnections (the web-based rural trip planning tool discussed below) to arrange these trips. One regionally important aspect of the MMC is the ability of the Mobility Manager to book rides on Greyhound. Passengers will also be able to perform this task directly through CALnections.

- Person centered transportation plans – The scope of the MMC goes beyond arranging trips for residents of Modoc County since the Mobility Manager will develop individual transportation plans for customers, help customers understand transportation resources, and work directly with caseworkers.

- Travel Training – The MMC will work with social service agencies to provide travel training to clients.

- Client Eligibility – The MMC will maintain a database of social service and ADA eligible passengers and the services for which they are eligible.

- Coordination with MCTC – The MMC will assist MCTC with conducting a Social Service Transportation Inventory and recording unmet transit needs.

- Resource Directory – The MMC will maintain an accurate transportation directory.

- Vouchers and Billing – The MMC will assist with financial tracking for social service providers through CALnections.

CALnections

CALnections is an advanced technology rural trip-planning tool. It will implement a web-based trip planning in a rural setting. The user will be able to enter an origin, destination, and desired date of travel, and the system will return an itinerary. The system will be designed originally for use in Modoc County; however, CALnections can act as a model for similar trip planning tools for other rural regions. The project will also support trips that are not regularly scheduled. Finally, the project will implement some operations support for the public transportation agencies.

Part of the CALnections technology is a financial tracking tool. This will assist social service providers in tracking transportation subsidies and fares, as well as developing reports for grant programs. The financial tracking will include a module to track transportation uses and costs and assign them to passengers and programs. Reports will include ridership numbers and other measures of effectiveness. This project will be implemented in a web environment. The project will provide social service agencies the capability to automatically refer clients to transit.

Automatic Vehicle Location (AVL)/Swipe

MTA is also pursuing the procurement two advanced technology projects for the intercity transit services serving Modoc, Inyo and Mono counties: Automatic Vehicle Location (AVL) and smart card technologies. AVL can assist transit operations staff with trip planning and on-time performance. AVL also increases security in the event of an emergency or threat. Smart cards are an advanced form of fare media. In boarding the vehicle, the smart card is swiped through a reader that automatically deducts the fare and records the passenger-trip. The use of a smart card by regular users and clients of social service areas would allow for discrete billing and reduces data entry requirements. The combination of the two technologies will assist transit staff with collecting passenger activity data by stop.

Coordinated Plan Strategies

At the time of this writing, the *Modoc County Coordinated Public Transit – Human Services Transportation Plan* was in the draft preparation process. The final document will satisfy planning requirements associated with Federal Transit Administration funding sources. The plan focuses on identifying transit needs specific to low income, elderly and disabled population, as well as developing strategies to meet their needs. In May of 2008, a public workshop was held to identify and prioritize these strategies. A summary of the draft strategies is presented in Table 4-16 below.

- Bikeway/Pedestrian Improvement Projects – Access for non-motorized travelers is a problem in the region. Because most population centers in Modoc County are located 20 or more miles from one another, providing pedestrian/bikeways for travel between communities is unrealistic. Thus, the bike plan envisions a disconnected network of bicycle/pedestrian facilities. Five nodes are centered around Alturas and four other communities in the

TABLE 4-16: Coordinated Transit Goals and Strategies

Strategy	Priority
Goal: Make It Easy and Safe	
Coordinate Schedules, Fares and Transfers	High
Streamline Information with 511 / 211 System	High
Plan for Emergencies	High
Streamline Payment Process	Medium
Upgrade Level of Type of Services	Medium
Goal: Provide More Options	
Voucher System for Volunteer Drivers	High
Bus Buddy or Escorts	High
Expand Service Hours	High
Expand Service Days	Medium
Carpool or Ride Share	Medium
Ride Sponsorships	Medium
Expand Service Areas	Medium
Transit Travel Training	Low
Connections to Intercity Transportation	Low
Goal: Be Efficient	
Subsidize Mileage Reimbursements / Gas Vouchers	High
Offer Bulk-Pay Trips	High
Joint Purchasing Agreements	High
Share Resources	Medium
Contract for Services	Medium

Source: FLT Consulting Inc.

unincorporated County: Adin, Canby, Cedarville and Newell. Some bikeway projects will be implemented in conjunction with another project. For example, as the County rehabilitates roads in Adin, Newell, and Cedarville, safety improvements for pedestrians and bicyclists are planned within the project scope (wider shoulders). Likewise, programmed City projects will yield both safety enhancements and facility improvements for non-motorized travel. Table 4-17 lists the many proposed non-motorized improvements throughout the region suggested in the *Draft Modoc County Bicycle Transportation Plan*, totaling nearly $32 million. With respect to bikeway/pedestrian projects, Modoc County intends to focus on facilities, which will increase the safety of roadway crossings for schoolchildren. Mobility and accessibility will also be improved by the implementation of bicycle and pedestrian projects.

Other long-term non-motorized projects in the region that are being considered by the Bureau of Land Management Alturas Field Office is obtaining 40 miles of right-of-way from the abandoned Union Pacific railway and converting it to trails.

TABLE 4-17: Regional Bicycle/Pedestrian Transportation System Improvement Projects

This list is in alphabetical order and is not in order of priority. Projects will be implemented as funding becomes available.

Community / Locale	Street / Road / Location	Specific Route / Related Schools	Miles	Source	Proposed Project Description	Priority	Const Year	Estimated Costs (1000s) 2007	Estimated Costs (1000s) Adjusted for Inflation[2]	Fund Source	Related Goals	Performance Indicator	Project List/ Inventory[3]
Adin	CR88 -	Adin ES		D	Sidewalk; pave bus stop and drop-off areas	3	TBD	$ 61	$ 98	SR2S/ Local	2,3,4	S	I
Alturas	4th Street	Main St. (US395) to Railroad Museum	1.3	A,C	Bike path	3	TBD	$ 130	$ 209	STIP	2,3,4	M/A	I
Alturas	8th Street		0.8	A,B,C	Bike path - rehabilitate	1	2009	$ 30	$ 32	STIP	2,3,4	M/A	I
Alturas	12th Street (SR299)	Main St. (US395) to Warner St.	0.8	A	Bike lane - signage & striping (construct thru road project)	1	2008	$ 8	$ 8	STIP	2,3,4	M/A	I
Alturas	Carlos Street	Main St. (US395) to Warner St.	0.8	C	Bike path - signage & striping (construct thru road project)	1	2007	$ 8	$ 8	STIP	2,3,4	M/A	I
Alturas	East Street	12th Street (SR299) to Modoc St.	0.8	C	Bike lane	3	TBD	$ 80	$ 129	BTA	2,3,4	M/A	I
Alturas	Howard Street	Carlos St. to 4th St.	0.9	A	Bike lane - signage & striping only	3	TBD	$ 9	$ 14	BTA	2,3,4	M/A	I
Alturas	Main Street	McDowell/CR56 to Intersect SR299 /US395	0.9	C	Bike lane - signage & striping only	2	2010	$ 90	$ 99	SHOPP	2,3,4	M/A	I
Alturas	Warner Street	4th St. to 12th St. (SR299)	0.4	A,C	Bike lane - signage & striping (construct thru road project)	2	2010	$ 4	$ 4	STIP	2,3,4	M/A	I
Alturas	West C Street	4th Street to 12th St. (SR299)	0.4	C	Bike path - signage & striping (construct thru road project)	3	2022	$ 4	$ 6	STIP	2,3,4	M/A	I
Alturas - Cal Pines	CR54 - Centerville Road	Carlos St. to Cal Pines Blvd. (CR71)	9.0	B	Bike route - wider shoulders, signage & striping (w/ project)	3	TBD	$ 900	$ 1,449	STIP	2,3,4	M/A	I
Alturas - Modoc Estates	12th St. (SR299) / Pencil (CR55)	Main St. to Woodduck Lane (CR236)	0.8	C	Bike lane	3	TBD	$ 176	$ 283	STIP	2,3,4	M/A	I
Alturas - Modoc Estates	CR55 - Pencil Road	Alturas ES, Modoc MS and HS		D	School bus turnout	3	TBD	$ 16	$ 26	SR2S/ Local	2,3,4	S	I
Alturas - Refuge	Modoc National Wildlife Refuge	Around refuge (CR59/59A)	12.2	B	Circular bike route	3	TBD	$ 6,100	$ 9,824	TEA	2,3,4	M/A	I
Alturas - Thomas Creek	US395 and SR299	Alturas ES, Modoc MS and HS		D	(2) school bus turnouts: each near CR267	3	TBD	$ 26	$ 42	SR2S/ Local	2,3,4	S	I
Canby	CR83 -	Arlington ES	0,1	D	Install flashing beacons	1	2006	$ 8	$ 7	Local	2,3,4	M/A	I
Cedar Pass	SR299	Across Cedar Pass	15.0	C	Bike path - signage & striping (construct thru road projects)	3	TBD	$ 7,200	$ 11,595	SHOPP	2,3,4	M/A	I
Cedarville	High Street	Surprise Valley ES and HS, and Great Basin HS		D	Sidewalk, curb & gutter, crosswalk striping and flashing beacon	3	TBD	$ 299	$ 482	SR2S/Local	2,3,4	S	I
Cedarville	High Street	Surprise Valley ES to Cedarville Park	0.2	A	Bike lane - signage & striping only	3	TBD	$ 2	$ 3	BTA	2,3,4	M/A	I
Cedarville	Townsend Street (SR299)	Main Street (CR1) to West edge town	0.6	C	Bike path - signage & striping (construct thru road project)	1	2009	$ 108	$ 115	SHOPP	2,3,4	M/A	I
Cedarville	Wallace Street	Main Street (CR1) to High Street	0.2	C	Bike lane - signage & striping only	3	TBD	$ 3	$ 5	BTA	2,3,4	M/A	I
Lake City	CR17 - Upper Lake City Road	Lake City to Surprise Valley Rd. (CR1)	5.2	B	Bike route - signage & striping (construct thru road project)	3	TBD	$ 520	$ 837	BTA	2,3,4	M/A	I
Likely	US 395	South Fork ES		D	Install flashing beacon	3	TBD	$ 13	$ 21	SR2S	2,3,4	S	I
Likely	CR64 - Jess Valley Road	Likely to Mill Creek Falls CG	14.1	B	Bike route - wider shoulders, signage & striping (w/ project)	3	2020	$ 1,410	$ 2,131	Fed/Local	2,3,4	M/A	I
Likely	CR258 - Blue Lake Road	Jess Valley Rd. (CR64) to Blue Lake CG	6.6	B	Bike route - wider shoulders, signage & striping (w/ project)	3	2015	$ 660	$ 851	Fed/Local	2,3,4	M/A	I
New Pine Creek	Pine Street - along West side	State Line Ave. to State Line ES	0.3	A	Bike path - signage & striping (construct thru road project)	3	TBD	$ 6	$ 10	BTA	2,3,4	M/A	I
Newell	Dunsmuir Street	Newell Preschool and Newell ES		D	Sidewalk and flashing beacon	3	TBD	$ 128	$ 206	SR2S/Local	2,3,4	S	I
Surprise Valley	CR1 - Surprise Valley Road	Cedarville (southern limit) to Fort Bidwell	29.2	B,C	Bike route - wider shoulders, signage & striping (w/ project)	2	2013	$ 2,920	$ 3,533	STIP	2,3,4	M/A	I
Warner Mountains	N/A	Through Warner Mountains	-	C	Multiple (mountain) bike paths	3	TBD	-	-	TE	2,3,4	M/A	I
					Bicycle / Pedestrian Projects Total			**$ 20,919**	**$ 32,030**				

Note 1: Priority Nos: 1= Short Term (FY2007-2012), 2= Mid Term (FY2013-2017), 3=Long Term (FY2018-2027).

Note 2: Annual growth rate of 3.2% was applied to construction costs to account for inflation. Rate is based on the growth of Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006. Long-term projects with no construction date are adjusted for 15 years of inflation.

Note 3: Project List (P) = project programmed or listed current RTIP; Inventory (I) = Project is part of the long-term inventory and not likely to be built within the next five years.

Legend: A = projects presented to MCTC in 1999, B = 1994 RTP projects, C = projects suggested by local bicycle enthusiasts and commuters, D = school related projects proposed in 2000.
ES = Elementary School, HS = High School, SR2S = Safe Routes to Schools Program.
Bike facility types: path = completely separated R/W for bicyclists/pedestrians; lane = stripped lane for one-way travel; route = roadway shoulder for shared use.

Sources: Draft Modoc County Bicycle Transportation Plan, January 2000 and County of Modoc Road Department.

Aviation Improvement Projects – An important objective for the region is to provide safe public airports for general aviation. The Capital Improvement Plan includes projects, which will help overcome deficiencies identified during airport inspections. Listed by airport, capital improvement projects are shown in Table 4-18. Projects varying from T-hangar construction to routine runway striping are estimated to cost $26.5 million over the twenty-year planning period. Working with Caltrans Aeronautics, the Cal Pines Community Services District identified two improvement projects for the private airport (also included in Table 4-18). It is hoped that both these runway and lighting projects will be funded by a combination of State grants and CPCSD funds. Airport improvement project will improve mobility/ accessibility, system preservation and safety in the region.

- Advanced Technology/Traveler Safety and Information Projects – As part of a broad regional ITS plan, Caltrans District 2 plans to implement several advanced technology projects on State highways in Modoc County over the coming twenty years. Examples of these projects include highway advisory radio (HAR), closed circuit television (CCTC), and radio and weather information systems (RWIS) (Table 4-5). The majority of Modoc County's ITS projects lie within the realm of coordinated public transit. Therefore, these ITS improvement projects were included in the Public Transit Projects section above and Table 4-15. Appendix G includes the *Regional ITS Architecture Inventory Report*. The *Inventory Report* provides a list of both Caltrans District 2 ITS projects and Coordinated Transit ITS projects.

ENVIRONMENTAL MITIGATION

The 2007 RTP Guidelines require 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 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 or stream could be disturbed by reconstruction of a bridge. According to the Modoc County Planning Department, typical mitigation measures that are applied to road department projects reflect recommendations by the California Department of Fish and Game and Regional Water Quality Control Board. Some examples of these limitations and measures applied to transportation projects are:

- Conducting work only from June 1 to October 15.

- Shrubs and trees shall only be removed after September 1 and before March 1. If this is not possible, a qualified biologist should conduct pre-construction surveys for nesting raptors and songbirds. If an occupied nest is located, no vegetation removal/treatment shall occur within 200 feet of any raptor nest or 50 feet of other nests until the nest is vacated.

- Any dredged sediment shall be disposed of in a legal manner.

- In order to prevent erosion and sediment discharge, sediment barriers shall be maintained.

TABLE 4-18: Airport Capital Improvement Projects, 20-Year Vision

Proposed Project Description	Priority[1]	Construct Year	Total Cost (1000s) 2007/08 Dollars	Total Cost (1000s) Adjusted for Inflation[3]	Funding Source	Corresponding Goals	Performance Indicator	Project List/ Inventory[4]
Adin Airport (non-NPIAS)								
Runway (RW) and Taxiway (TW) overlay	1	2010	$ 350	$ 385	State	1,2,3	SP, M/A	P
Striping RW and TW	1	2010	$ 10	$ 11	State	3	SP, M/A	P
Alturas Municipal Airport (NPAIS)								
Reconstruct Service Road, Reconstruct Auto Lot	1	2008	$ 185	$ 191	FAA	3,4	SP, M/A	P
Remark Runway 3-21, Runway 13-31, Taxiways and Apron	1	2008	$ 180	$ 186	FAA	1,3	SP	P
Reseal Joints in Runway, Taxiway and Apron Pavements	1	2008	$ 405	$ 418	FAA	3	SP	P
Extension of Water Lines and Fire Hydrant	1	2008	$ 80	$ 83	FAA	2	S	P
Snow Plow	1	2009	$ 160	$ 170	FAA	2	S	P
Firehouse Structure and Equipment Storage (40' x 60')	1	2010	$ 500	$ 550	FAA	2	S	P
Engineering Design for Tee Hangar Taxiways, Slurry Seal Runways, Taxiways and Apron	1	2010	$ 57	$ 63	FAA	3,4	EQ	P
Medium Intensity Taxiway Edge Lights -Taxiway A Complex	1	2011	$ 290	$ 329	FAA/ State	2,3	S	P
Construct Tee Hangar Taxiways	1	2012	$ 277	$ 325	FAA	3,4	P	P
Slurry Seal Runways, Taxiways and Apron	2	2013	$ 723	$ 875	FAA	1,3	SP	I
Engineering Design for Long Term ACIP projects	2	2013	$ 180	$ 218	FAA	3,4	EQ	I
Secondary Airport Access Road	2	2014	$ 209	$ 261	FAA	3	M/A	I
Pave Tee Hangar Aprons and Hangar Floor; Construct 6 unit Nested Tee Hangar Building	2	2014	$ 578	$ 722	FAA	3	SP, M/A	I
Replace Non-directional Beacon	2	2015	$ 130	$ 168	FAA	2,3,5	SP	I
Widen Runway 13-313 to 75 feet and add Airfield Guidance Signs	2	2016	$ 1,510	$ 2,010	FAA	3,6	S, M/A	I
Engineering Design for Runway Extension, Fueling Facility and Helipad	2	2017	$ 120	$ 165	FAA	3,6	EQ	I
Land Acquisition and Aviation Easements	2	2018	$ 392	$ 556	FAA	3,6	EQ	I
Runway 13-31 Extension, 4th St Relocation	3	2018	$ 1,120	$ 1,588	FAA	3,6	M/A	I
Construct Helipad - 7,300 s.f.	3	2019	$ 257	$ 376	FAA	3,6	S, M/A	I
Self Fueling Facilities	3	2019	$ 360	$ 527	FAA	3	M/A	I
Striping RWs and TW	3	every 2 yrs.	$ 158	$ 158	State	3	SP, M/A	I
Slurry Seal RWs and TW	3	every 5 yrs.	$ 131	$ 131	State	1,2,3	SP, M/A	I
Cedarville Municipal Airport (NPAIS)								
Reconstruct Access Road (30'x250')	1	2008	$ 82	$ 82	FAA	3,4	SP, M/A	P
Reseal Joints in Pavement	1	2008	$ 225	$ 225	FAA	3,4	SP	P
Slurry Seal RW and TW	1	2008	$ 440	$ 440	FAA	2,3	SP, M/A	P
Construct Grated Drains at Taxiway and Runway Intersection	1	2008	$ 66	$ 66	FAA	3,4	SP	P
Snow Plow	1	2009	$ 160	$ 160	FAA	3,4	SP	P
Engineering and Design for Hangar and Taxiway Projects	1	2009	$ 90	$ 90	FAA	3,4	EQ	P
Construct T-Hangar Taxiways	1	2010	$ 495	$ 527	FAA	3,4	SP, M/A	P
T-Hangar Apron Expansion, and 4 Unit Nested Tee Hangar	1	2011	$ 480	$ 528	FAA	3,4	SP, M/A	P
Automated Weather Observation System, Segmented Circle and Lighted Wind Cone	1	2012	$ 265	$ 301	State	3,7	S	P
Construct Cross Wind RW 4/22 (30'x3000')	3	2020	$ 304	$ 459	FAA	3,4	SP, M/A	I
Striping RW and TW	3	every 2 yrs.	$ 113	$ 113	State	3	SP, M/A	I
Fort Bidwell Airport (non-NPIAS)								
Perimeter Fencing	1	2010	$ 25	$ 27	State	3	S	I
Tulelake Municipal Airport (NPAIS)								
Reconstruct Tie Down Apron	1	2008	$ 1,080	$ 1,080	FAA	2,3	SP	P
Construct 8-foot Security Fence	1	2009	$ 485	$ 501	FAA	3	S	P
Reconstruct Service Road	1	2009	$ 242	$ 250	FAA	2,3	SP, M/A	P
Snow Plow	1	2010	$ 160	$ 170	FAA	3,4	SP	P
Construct New Tee Hangar Site Including Two 10-Unit Hangar Sites	1	2011	$ 623	$ 685	FAA	3,4	M/A	P
Engineering and Design for Runway and Hangar Construction	1	2011	$ 360	$ 396	FAA	3,4	EQ	P
Automated Weather Observation System, Segmented Circle and Lighted Wind Cone	1	2012	$ 288	$ 327	FAA	3,4	S	P
Environmental Assessment - New Runway and Taxiway	1	2012	$ 300	$ 341	FAA	3,4	EQ	P
Construct New Runway 11-29 (75' x 4000'), Construct Extension to Parallel Taxiway (35' x 400') and Cross Taxiways (47 @ 35' x 200') and Two Holding Aprons (40' x 165')	2	2014	$ 5,090	$ 6,159	FAA	2,3	SP, M/A	I
Replace 6 Existing Tee Hangers with a 6 Unit Nested Tee-Hanger Building	2	2015	$ 1,152	$ 1,439	FAA	3,4	SP, M/A	I
Striping RW and TW	3	every 2 yrs.	$ 113	$ 113	State	3	SP, M/A	I
Slurry Seal RW and TW	3	every 5 yrs.	$ 278	$ 278	State	2,3	SP, M/A	I
Cal Pines Airport (non-NPIAS / Privately Owned)								
Overlay RW and TW	1	2010	$ 850	$ 935	State/CPCSD	2,3,4	SP, M/A	I
Install Lighting	1	2010	$ 400	$ 440	State/CPCSD	2,3,4	S	I
Airport Projects Total			**$ 22,526**	**$ 26,596**				

Legend: NPAIS = National Plan of Integrated Airport Systems, RW = runway, TW = taxiway.

Note 1: Priority Nos: 1= Short Term (FY2007-2012), 2= Mid Term (FY2013-2017), 3=Long Term (FY2018-2027).

Note 2: Costs are cumulative and through 2020.

Note 3: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006. Long-term projects with unknown construction dates were adjusted to reflect 15 years of inflation.

Note 4: Project List (P) = project programmed or listed current RTIP; Inventory (I) = Project is part of the long-term inventory and not likely to be built within the next five years.

Source: County of Modoc Public Works Department, 2007

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- Groundwater and subsurface flow encountered during excavation of a streambed shall be pumped to a natural or excavated settling basin on stable soil outside of the channel. The settling basin shall not be drained until the stored water is less turbid than the stream flow.

- Any disturbed portions of the stream channel or lake margin within the high water mark of the stream or lake shall be restored to as near their original condition as possible.

- After completion of the project, at least 90 percent of the soil, which has been exposed by the project, shall be covered with mulch as least two inches deep. All exposed soils and fills shall be reseeded with a mix of native grasses common to the area.

- If the National Weather Service calls for more than a 30 percent chance of rain, or at the onset of precipitation, construction work shall stop and erosion and sediment control measures shall be implemented.

- If necessary to prevent mobilization of loose soils, fiber mats shall be laid over loose soils after mulching and tracking.

- Staging, storage, and re-fueling areas for machinery, equipment, and materials shall be located outside of the 100-year flood plain.

- All vehicles and/or equipment driven or operated within, or adjacent to the stream or lake shall be checked and maintained daily to prevent leakage of materials that may be harmful to aquatic and riparian species.

- The Water Quality Control Board shall be notified immediately of all petroleum and/or chemical spills and clean up shall begin immediately.

- All litter and pollution laws shall be obeyed.

- No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete, asphalt, paint, oil, petroleum products, or other organic material from construction activity shall be placed into or where it may be washed into any waters of the State. After completion of the project, any excess materials shall be removed from the work area and no rubbish shall be deposited within 150 feet of the high-water mark of any stream or lake.

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. Seven agencies were contacted at the beginning of the RTP update process and were notified of the availability of the Draft RTP document. To date only the Bureau of Land Management and Bureau of Reclamation have responded. As RTP projects are primarily located on highways and already-established roads while BLM land encompasses the less developed parts of the County, there is little conflict between RTP projects and BLM-controlled natural resources. The BLM uses several designations to identify areas that require special management to protect resources or provide unique recreation opportunities. The designations include Areas of Critical Environmental Concern (ACEC), Scenic (Backcountry)

Byways, Historic Trails, Wilderness Study Areas (WSAs) (prior to being declared Wilderness by Congress), and Wild and Scenic Rivers (WSRs). BLM maps were compared to RTP project list maps to confirm that RTP projects will not negatively affect the BLM special management areas. The Bureau of Reclamation provided the consultant a listing of County Roads that cross or enter the rights-of-way of Bureau of Reclamation canals, laterals and drains. This list was forwarded to Modoc County Public Works for reference for future projects.

During the environmental review process, a comment was received by the Native American Heritage Commission concerning the proper procedures for dealing with the discovery of cultural resources during excavation or ground disturbance as part of an RTP project. A copy of the letter can be found in Appendix D. According to County and Caltrans staff, the following policy would be followed if cultural resources were discovered:

> "The policy is to avoid significant cultural resources whenever possible. If buried cultural materials are encountered during construction, the policy is that work in that area must halt until a qualified archeologist can assess the nature and significance of the find and determine an appropriate course of action in consultation with the State Historic Preservation Officer (SHPO). Also, in the event that project plans change to include unsurveyed areas, additional archaeological reconnaissance will be required."

Additionally, the tribal entities in the region were contacted for any information about the location of cultural resources that might be affected by RTP projects. To date, none of the tribes cited any areas of concern.

Chapter 5
Financial Element

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. The intent is to define realistic financing constraints and opportunities for Modoc County transportation programs. The following provides a summary of the federal, state, and local funding sources and programs potentially available to the Modoc County region for roadway improvements. The next section examines historical and future regional transportation revenues and compares anticipated revenues with proposed roadway projects. The last section provides a brief summary and conclusions. From a practical perspective, finances and funding availability ultimately determine which projects are constructed.

All regional projects must be consistent with this RTP. While projects funded with regional revenues are selected by the MCTC (subject to CTC approval), many other funding sources are highly competitive and outside the Commission's authority. Many such funds are awarded through statewide competition with exacting criteria, often quantitatively defined by factors such as affected population, traffic volume, or number of accidents. Thus, it may not be reasonable or prudent to expect funding from certain programs to be awarded to the Modoc County region. To facilitate understanding from the region's perspective of cited funding sources and their likelihood, the following symbols are used: recurring or regular (R) funding sources, discretionary funding sources or those controlled by federal or state agencies (D), and those not applicable (N/A). Because the region cannot accurately project, or even anticipate funding from competitive programs or those controlled by another agency or organization, only recurring or regular regional funds (R) are projected for comparison between the costs of proposed projects and anticipated revenues.

ROADWAY IMPROVEMENT FUNDING

Federal Sources

On August 10, 2005, President Bush signed the "Safe, Accountable, Flexible, and Efficient Transportation Equity Act – A Legacy for Users" (SAFETEA-LU), providing $286.4 billion in guaranteed funding for federal surface transportation programs over six years through FY 2009, including $52.6 billion for federal transit programs. Building on the "Transportation Equity Act for the 21st Century" (TEA-21) enacted in 1998 and the 2003 SAFETEA-LU includes several programs that might provide funding for Modoc County, though it should be emphasized that these funds are discretionary and are not guaranteed for use in the Modoc County region. A summary of important federal programs is provided below:

- **Surface Transportation Program (STP)** – This program provides funding for improvements on federally aided highways, bridges, transit capital, bicycle, and pedestrian projects. Authorization of SAFETEA-LU expanded STP eligibility to include advanced truck stop electrification systems, high accident/congestion intersections, and environmental restoration and pollution abatement, control of noxious weeds and establishment of native

species. Funds are distributed among the states based on lane-miles of federal aid highways, total vehicle-miles traveled on those highways, and estimated contributions to the State Highway Account (SHA). These federal funds pass through the state, and may or may not be allocated in any one year to projects in Modoc County (D).

- **Regional Surface Transportation Program (RSTP)** – Rural counties (urbanized areas less than 20,000) can exchange federal STP dollars for State Highway Account (SHA) funds (a process known as "RSTP Exchange"). This is advantageous to RTPAs as federal funds have stringent requirements, which includes 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. Modoc County takes advantage of this opportunity and receives approximately $296,000 in RSTP exchange funds each year. The RSTP Agreement between Modoc County and the state requires funds be used for projects in the FSTIP and other purposes that are in accordance with Article XIX of the California State Constitution. The RSTP agreement also requires the County to use the state matching funds to match federally funded transportation projects prior to expending those funds on other purposes. RTPAs may allocate remaining funds for construction, rehabilitation, resurfacing, restoration, and operational improvements on federal aid highways and bridges (all functional classifications). Additionally bikeway, pedestrian, transit, safety, ridesharing, parking, traffic management, transportation control, and environmental enhancement projects are eligible for these funds.

- **Transportation Enhancement Activities (TE)** – TE funds represent 10 percent of the statewide STP funds, but are separate from the local STP funds discussed above. TE projects must be related to surface transportation, but are intended to be enhancements that go beyond the normal transportation project functions. Projects eligible for TE funding include acquisition of scenic easements, scenic or historic highway programs, landscaping, rehabilitation of historic transportation buildings, preservation of existing and abandoned railway corridors, pedestrian/bikeway improvements, and the acquisition of abandoned right-of-way for conversion to pedestrian/bicycle trails. Under TEA-21, safety education activities for pedestrians and bicyclists were also added to the list of eligible projects. While the MCTC is responsible for ranking TE projects Countywide, the California Transportation Commission makes final funding decisions. Further, because the population in Modoc County is less than 50,000, the MCTC has the option of exchanging TE funds for state highway funds that may be used for any transportation purpose, except transit and federal TE projects. As of August 2003, TE funds are programmed through the State Transportation Improvement Program (STIP) (R).

- **Highway Bridge Program (HBP)** – The HBP program provides funding for highway bridges in need of repair according to federal safety standards. The federal government provides 88.5 percent of the funds, while the remaining 11.5 percent must come from state and local sources. Under the enactment of SAFETEA-LU, the Bridge program has been broadened in scope to include systematic preventative maintenance, and has been freed from the requirement that bridges must be considered "significantly important" (R).

- **Federal Lands Highway (FLH)** – The FLH program provides funding for roadway improvements and transit facilities within public lands, national parks, and Native American reservations. In addition, FLH funds can be used as the state/local match for most types of federal aid highway funded projects. A new provision of this program under TEA-21 was the ability to fund improvements to federally owned public roads providing access to or within a National Wildlife Refuge System. SAFETEA-LU added maintenance of forest highways, signage identifying public hunting and fishing access, and facilitating the passage of aquatic species beneath roads in the National Forest System to the list of eligible uses of Public Lands Highways funds. (R)

- **Indian Reservation Roads (IRR)** – Indian Reservation Roads are public roads that provide access to and within Indian reservations, Indian trust land, restricted Indian land, and Alaska native villages. A portion of FLH funds are dedicated to improvement projects on IRR's (R).

- **Highway Safety Improvement Program (HSIP)** – As part of the SAFETEA-LU, this program authorizes a new core federal aid funding program beginning in FY 2006 to achieve a significant reduction in traffic fatalities and serious injuries on all public roads. This program effectively replaces the Hazard Elimination Safety Program (HES). Once railway-highway crossing and infrastructure safety needs are satisfied, states with a Strategic Highway Safety Plan (SHSP) can use HSIP funds for additional safety programs such as education, enforcement, and emergency medical services. States with no SHSP are only eligible to use HSIP money for railway-highway crossing and hazard elimination projects, as was the case prior to enactment of SAFETEA-LU (D).

- **Railway Highway Crossings** – This program, otherwise known as Section 130, is funded through a $220 million "set-aside" from HSIP. The intent of this program is to reduce the number of fatalities and injuries at public highway-rail grade crossings through the elimination of hazards and/or the installation/upgrade of protective devices at crossings.

- **High Risk Rural Roads Program (HR3)** – This program is funded through a "set-aside" after HSIP funds have been apportioned to the states. The purpose of this program is to reduce the frequency and severity of collisions on rural roads by correcting or improving hazardous roadway locations or features. A "high-risk rural road" is defined as any roadway functionally classified as a rural major collector, minor collector or local road on which the accident rate for fatalities and incapacitating injuries exceeds the statewide average for those functional classes of roadways; or that will likely have increases in traffic volume that are likely to create an accident rate for fatalities and incapacitating injuries that exceeds the statewide average for those functional classes of roadway. California's annual share of these funds will be approximately $8.25 million and should remain at or near this level throughout the duration of SAFETEA-LU.

- **Emergency Relief Program (ER)** – Emergency Relief funds are provided to assist local agencies with repairs to federal aid highways that have been heavily damaged in natural disasters. Such federal funds are generally coordinated with similar State funding through the California Office of Emergency Services (D).

In addition, federal SAFETEA-LU funds are available for the National Scenic Byways Program, the Recreational Trails Program, for Bicycle Transportation (SRTS) and Pedestrian Walkways, the State and Community Highway Safety Grants program, and for transit operations and capital assistance.

State Sources

In the past, California's transportation program was stable and funded almost exclusively from user fees (gasoline tax and weight fees) protected by the California Constitution. Today, the program is dependent primarily on motor fuel sales tax, which is not protected under the Constitution. Since 2001, proceeds from these taxes to the tune of $7.5 billion have been diverted from the transportation program in an effort to address the General Fund deficit. Because transportation program funds have been loaned to the General Fund in the past, the State Transportation Improvement Program (STIP) and State Highway Operation and Protection Program (SHOPP) have been the hardest hit. With the passing of the state budget in July of 2005, the funding situation improved. A total of $1.3 billion dollars was directed from sales tax on gasoline to transportation projects. Additionally, Proposition 1A was passed in the November 7, 2006, election. This legislation solidifies the stipulations of Proposition 42 by prohibiting state sales tax on motor vehicle fuels from being used for any purpose other than transportation improvements, authorizes loans of these funds only in the case of severe state fiscal hardship, requires loans of revenues from state sales tax on motor vehicle fuels to be fully repaid within three years, and restricts loans to no more than twice in any 10-year period.

The most recent changes to state transportation funding resulted from the adoption of the FY 2007-2008 budget. Approximately $1.3 billion was diverted from the Public Transportation Account (PTA, a STIP public transportation funding mechanism generated from fuel sales tax) to the General Fund and the State Transit Assistance program (discussed below). Additionally, gas tax "spillover" revenue to the PTA has been reduced. According to the Department of Finance estimates, the effect of ongoing spillover diversion will reduce available STIP funding by approximately $300 million annually. Lastly, Senate Bill 717 changed the proportion of Proposition 42 transfers that flow to the PTA (and ultimately STIP projects) and the STA program. This legislation will positively affect the STA program but will further reduce the funding capacity of the STIP program.

STIP consists of two broad transportation improvement programs: (1) the regional program consisting of 75 percent of new STIP funding, and (2) the interregional program consisting of 25 percent of new STIP funding. Brief summaries of these programs are provided below, along with other state funding sources:

- **Regional Transportation Improvement Program (RTIP)** – The RTIP receives 75 percent of the STIP funding. The 75 percent portion is subdivided by formula into county shares. Caltrans, the County of Modoc, and the City of Alturas can program funds, which are apportioned to the region and allocated by the MCTC. These funds may be used to finance some projects that are "off" the state highway system. This "regional share" must be relied upon to fund capacity, increasing projects on roadways with functional classifications of 01, 02, 06, and 07. Critical to rural California counties, regional STIP funding also may be used

for local roadway rehabilitation projects on roadways with the appropriate functional classifications (R).

- **Interregional Transportation Improvement Program (ITIP)** – The ITIP receives the remaining 25 percent of the STIP funding. 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 the use of ITIP funding is the very limited availability of "local match" for ITIP-funded programs. (However, RTIP funds can be used as match for the ITIP program.) Caltrans directly receives 15 percent of the STIP for state highway projects on the interregional system; potential projects must compete statewide for the remaining funds (10 percent of the STIP). Much of the state highway system is not eligible for interregional funding, and must rely on the regional share to fund capacity improvement projects. There are no Modoc County projects in the 2008 ITIP (D).

- **Traffic Congestion Relief Fund/Proposition 42/AB 687 Tribal Casino Bonds** – The Traffic Congestion Relief Act of 2000 (AB 2928) was to provide $6.8 billion derived from the state's sales tax on gasoline to fund transportation projects over a six-year period. The majority of the funds were to go to the Traffic Congestion Relief Program (TCRP a project list chosen by the legislature), and a portion to local road projects. Since the Act's inception, however, funds have been borrowed back for the General Fund, and subsequent sales tax transfers have been postponed or suspended. In 2002, the electorate (with a 69 percent affirmative vote) passed Proposition 42, which is a legislative constitutional amendment that permanently dedicated the revenues (an estimated $1.3 billion annually) from sales tax on gasoline to transportation infrastructure needs. However, the protections of Proposition 42 were quickly set aside the first year (FY 2003-2004) they came into effect, and thereafter these revenues have remained in the General Fund.

  The passage of AB 687 (tribal casino bonds to repay loans) in 2004 dedicated $1.5 billion in FY 2004-2005 to the repayment of transportation program loans to the General Fund. Essentially, AB 687 was a replacement to the suspended Proposition 42 transfer. However, due to a lawsuit filed in September 2004, no funds have been allocated as the bonds cannot be sold. Therefore, in recent years TCRP has been funded through the Governor's budget. In FY 2007-2008, it is anticipated that the TCRP program will be allotted $683 million dollars with lesser amounts for following years until TCRP projects are complete. Modoc County Road will receive approximately $546,000 from TCRP/Proposition 42 funds in FY 2007-2008 (D).

- **State Highway Operations and Protection Program (SHOPP)** – 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 via the state Highway Account. Projects are nominated within each Caltrans district office. Proposed projects are sent to Caltrans Headquarters for programming on a competitive basis statewide. Final project 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, and operations) and within each Caltrans district. SHOPP funds cannot be used for capacity-enhancing projects (R).

- **Minor Programs** – The Minor A Program is a Caltrans District 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 $750,000. Minor B Program funds are used for projects up to $111,000. 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 Minor A allocation (D).

- **Proposition 1B** – The Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, approved by the voters as Proposition 1B on November 7, 2006, authorized nearly $20 billion dollars in general obligation bond proceeds to be available for a series of transportation programs. Modoc County and the City of Alturas will receive approximately $2 million from the Local Streets and Roads programs. MTA would like to apply the $79,000 in Proposition 1B Public Transportation Modernization, Improvement, and Service Enhancement Account (PTMISEA) funds towards the purchase of a new four-wheel drive high clearance transit vehicle appropriate for the intercity routes. Additionally, $7,940 in California Transit Security Grant Program State Transit Assistance Agencies (CTSGP-STAA) funds is available in Modoc County.

- **Environment Enhancement and Mitigation (EEM) Program** – Similar to TE at the Federal level, the EEM offers 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 State Resources Agency manages this grant program, and the MCTC makes project-funding decisions. In the past, the EEM program allocated up to $4 million to the Northern California counties. It is anticipated that no EEM funds will be available in the state FY 2005-2006 budget (D).

- **Bicycle Transportation Account (BTA) Program** – This state program provides funding for projects that improve safety and convenience of bicycle commuters. To be eligible for funding, local jurisdictions must have an adopted "Bicycle Transportation Plan" prepared according to 1999 guidelines and approved by Caltrans. Projects must conform to the requirements of Caltrans' *Highway Design Manual*, Chapter 1000. Only commuter bikeway projects are eligible (D).

- **AB 1475 - Safe Routes To School (SR2S)** – This program allocates funds for projects that improve school commuter routes. Fundable projects include the construction of bicycle and pedestrian safety and traffic calming projects such as sidewalk improvements, traffic calming and speed reduction, pedestrian/bicycle crossing improvements, on-street bicycle facilities, traffic control devices, and traffic diversion improvements. This program was originally scheduled to sunset in 2006. However, SB 1087 and AB57 have extended the program to January 1, 2013 (D).

- **Rural Planning Assistance (RPA)** – Formerly called State Subvention funding, this 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 Plan, prepared by the region and approved by Caltrans. In recent years, local planning activities increased several fold as regional STIP and TE shares provided increased funding opportunities for local projects (R).

Local Sources

The following are sources of transportation funding not currently employed in Modoc County for transportation projects, but 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; however, in all cases, these fees must be clearly related to the costs incurred as a result of the development with a rational connection between fee and development type. 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 must have the cooperation of all jurisdictions affected. Traffic mitigation fees would be difficult to implement in Modoc 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 Modoc County would generate minimal fee revenues (N/A).

- **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 ongoing transportation maintenance and operations costs. Further, this funding source is improbable and insignificant in Modoc County (N/A).

- **Optional Local Sales Tax** – A county-created taxing authority may levy up to a one-cent additional sales tax with the funds allocated for improvements to the regional transportation system, as authorized under the Local Transportation Authority Act, Division 19, Public Utilities Code Section 18000. Any new tax or tax increase requires a two-thirds majority vote of the affected electorate. This funding mechanism is not considered feasible for Modoc County due to the close proximity of shopping in "sales tax-free" Oregon.

In addition to the major capital projects recommended in this transportation study, Modoc County has ongoing operations and maintenance (O&M) needs. To some extent, funding sources for O&M and capital projects overlap. Therefore, it is important to understand the annual O&M funding sources. Each of three sources is briefly described below:

- **State Gas Taxes** – The state returns a portion of the statewide gas tax revenues to each jurisdiction for maintaining local roadways. These funds are restricted for use to the City or County Road Fund. They are accrued on a monthly basis. The formula for determining the amount of allocation to each local jurisdiction is complex, and is based upon the number of registered vehicles, assessed property valuation, and population according to the decennial census. Because of population decline, Modoc County may receive less revenue from these fund sources. Nevertheless, the City of Alturas typically receives around $57,000 in gas tax revenues per year, and the County of Modoc receives around $1.5 million (R).

- **Motor Vehicle In-Lieu Fees** – These local revenues are motor vehicle registration funds returned to the county from the state. These funds are General Fund revenues and are not restricted for roadway use. Although the County of Modoc does not receive Motor Vehicle In-Lieu Fees, the City of Alturas expects to receive roughly $122,000 per year (R).

- **Benefit Assessment Act of 1982** – This Act allowed for the development of countywide assessments for drainage, flood control, and street lighting. A 1989 amendment to the Act added street maintenance assessments. To date, very few cities or counties have instituted such assessments for roadway maintenance (N/A).

The Modoc County Code lists County Service Area (CSA) and Private Road Division (PRD) fees are legal funding mechanisms for local road maintenance. A CSA is a type of special district that may provide and finance expanded services in areas that desire or need a higher level of service and are willing to pay for it. CSAs are the most common type of district in the state due to their versatility and can provide a wide range of extended municipal services within a county, including transportation and transit. CSAs may encompass all of the County's unincorporated area or selected portions only. Cities within the County may consent to be included within the CSA by vote of the city council. In all instances, it must be shown that the proposed level of extended service is not otherwise provided on a countywide basis and that those paying the service charge will benefit from the extended service. An Engineer's Report is required for the proposed CSA that outlines the geographic boundary, the types of services that will be provided, development absorption rate, and fees associated with each parcel in the area. CSAs and PRD are useful funding tools, which can be implemented with new developments to ensure that maintenance on newly built roads can be funded in perpetuity.

TRANSIT IMPROVEMENT FUNDING

Relevant Transit Funding Sources

The crux of any issue regarding the provision of public service is the matter of funding. Provision of a sustainable, permanent funding source has proven to be the single greatest determinant in the success or failure of transit service. A wide range of potential transit funding

sources is available, particularly within California. The following discussion provides an overview of these programs.

As presented above, in order to facilitate understanding from the region's perspective of cited transit funding sources and their likelihood, the following symbols are used: recurring or regular (R), discretionary or controlled by federal or state agencies (D), and not applicable (N/A).

Federal Funding Sources

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

- **FTA Section 5310 Capital for Elderly and Disabled Transportation** – Until recently, recipients of Section 5310 funding were restricted to non-profit organizations. Since ISTEA, local government jurisdictions are eligible for Section 5310 funding when the lead agency is in a coordinated transportation arrangement. Apportioned funds available within California totaled $12.4 million in FY 2007-2008. Obtaining these funds is difficult for Modoc County agencies, because allocation occurs through a statewide competitive process (D).

- **FTA Section 5311 Public Transportation for Rural Areas** – Section 5311 remains the core program for rural public transportation under SAFETEA-LU. This program for rural areas requires 20 percent local match for capital and a 50 percent match for operating expenditures. These funds are segmented at the state level into "apportioned" and "discretionary" programs. The bulk of funds (80 percent) are allocated based on the ratio of population in non-urbanized areas, while the remaining 20 percent of the funding is allocated to states based on the land area not in urbanized areas. The recent enactment of SAFETEA-LU added Indian tribes as eligible recipients of FTA 5311 funds. A substantial increase in funding allocations is identified over the next five years. Nationwide, Section 5311 will grow from $250.9 million in FY 2005 steadily upward to approximately $465 million in FY 2009 (an 85 percent increase). Funds apportioned to California will rise even faster, from $10.1 million in FY 2005 to $19.8 million in FY 2006 and $23.1 million in FY 2009 (a full 115 percent increase overall). A portion of funding is set aside each year for Indian tribes – $8 million in FY 2006 rising to $15 million by FY 2009 (R).

- **FTA 5311(f) Intercity Bus Program** – This program funds intercity bus projects with emphasis on connectivity. Federal legislation mandated that states set aside a minimum percentage of funds for an intercity program to meet its needs. In California, remaining Section 5311 program funds (15 percent) are used to address intercity travel needs of residents in rural areas. There are three objectives for this program: (1) support connections between rural areas and larger regional or national system, (2) support services to meet rural residents' intercity travel needs, and (3) support intercity bus infrastructure through planning, marketing assistance and capital investment. Most capital and operating assistance projects are eligible providing they meet one or more program objectives. However, funding is awarded on a statewide competitive basis for a maximum of two years before reapplication (D).

- **Job Access and Reverse Commute Program (JARC)** – The Job Access and Reverse Commute (JARC) Section 3037 grant program assists states and localities in developing new or expanded transportation services that connect welfare recipients and other low-income persons to jobs and other employment related services. Job Access projects are targeted at developing new or expanded transportation services such as shuttles, vanpools, new bus routes, connector services to mass transit, and guaranteed ride home programs for welfare recipients and low-income persons. Reverse Commute projects provide transportation services to suburban employment centers from urban, rural and other suburban locations for all populations. Criteria for evaluating grant applications for JARC grants include:

  - Coordinated human services/transportation planning process involving state or local agencies that administer the Temporary Aid to Needy Families (TANF) and Welfare-to-Work (WtW) programs, the community to be served, and other area stakeholders.

  - Unmet needs for additional services and extent to which the service will meet need.

  - Project financing, including sustainability of funding and financial commitments from human service providers and existing transportation providers.

  - Other factors that may be taken into account include the use of innovative approaches, schedule for project implementation, and geographic distribution.

  The JARC grant program is intended to establish a coordinated regional approach to job access challenges. All projects funded under this program must be the result of a collaborative planning process that includes states and metropolitan planning organizations, transportation providers, agencies administering TANF and Welfare to Work funds, human services agencies, public housing, childcare organizations, employers, states and affected communities, and other stakeholders. The program is expected to leverage other funds that are eligible to be expended for transportation in order to encourage a coordinated approach to transportation services. A 50 percent non-DOT match is required; however, other (non-DOT) federal funds may be used as part of the match. FTA gives high priority to applications that address the transportation needs of areas that are un-served or under-served by public transportation. Under SAFETEA-LU, the JARC program will be administered as a formula program beginning in FY 2006. Funds available throughout California will expand from $10.0 million in FY 2005 to $23.6 million in FY 2009 (D).

  FTA Section 5317 – New Freedom Program – This new program under SAFETEA-LU provides formula funding for expanded public transportation services beyond those required by Americans with Disabilities Act (ADA) for persons with disabilities. The idea behind the program is to help communities provide transportation services beyond those required by ADA, and to help people with disabilities more fully participate in the workforce and in community life. It is apportioned to the individual states based upon the disabled population, and only 20 percent is available to non-urbanized areas. Modoc County intends to pursue funds from the New Freedom Program (D).

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) launched in 1972, and the State Transit Assistance (STA) fund established in 1980.

- **Local Transportation Fund** – 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. FY 2004 LTF allocated to Modoc County was nearly $218,000. LTF revenues may be allocated by the MCTC for the following prioritized purposes (R):

  - To MCTC for TDA administration in the required, reasonable amount.

  - 2 percent of the remaining amount may be provided for pedestrian/bicyclist facilities.

  - Up to 5 percent of remainder may be allocated for coordinated community transit services.

  - Provided there are no reasonable-to-meet unmet transit needs, remaining funds may be allocated for local streets and roads to jurisdictions based on their population. TDA funds in Modoc County have not been used for non-transit purposes over the last few years.

- **State Transit Assistance** - In addition to LTF funding, the TDA includes the STA funding mechanism. The STA funds are for transportation planning and mass transportation purposes, as specified by the legislature. Under current law, the STA program is allocated one-half of the revenues deposited into Public Transportation Account (PTA). Historically, the PTA received revenues from two sources: (1) diesel sales tax, and (2) a portion of the state sales tax on gasoline, including "spillover" revenue and revenue from the sales tax on 9 cents per gallon of gasoline (referred to as the Proposition 111 gasoline sales tax revenue). Since 2005-06, PTA has also received a portion of Proposition 42 gasoline sales tax revenue. Beginning in FY 2008-2009, half of "spillover" funds will go to the General Fund and two-thirds of the remaining balance will go to STA. However, SB 717 changed the allocation of Proposition 42 revenues going to local transit agencies receiving funding through STA, increasing the local transit agency share from 50 percent to 75 percent, resulting in an increase to local transit agencies of $74.3 million in 2008-09. Statewide, STA funds have varied dramatically over recent years. Modoc County was allocated $15,700 in STA funds in FY 2004-2005, $82,504 in FY 2006-2007, and will be allocated approximately $40,000 in FY 2007-2008 (R).

TRIBAL FUNDING

Transportation funding budgets are approved by Congress for rancherias/reservations. In the past, the FHWA allocated funds to the Bureau of Indian Affairs (BIA), which proportioned them to Agency Offices. The recent SAFETEA-LU legislation allows tribes to receive funding directly

if financial stability is demonstrated. Modoc County rancherias/reservations are under the jurisdiction of the Northern California Agency, located in Redding, California. All tribes in California are allotted roughly $5 million for IRR projects. There are 18 tribes competing for roughly $1.6 million in funds under the Northern California Agency. Funding for IRR roads is based upon rancheria/reservation road mileage, vehicle miles traveled and the cost to construct. In FY 2005-2006 Modoc County tribes received $37,000 in IRR funds for both road construction and planning. The amount of IRR funds allocated for a given year is based on the projects proposed at that time and availability of funding. Therefore, it is difficult to predict future IRR revenues for Modoc County tribes. Additionally, obtaining sufficient funds on a per-project basis can be difficult because of the road mileage allocation formula. As shown in Table 2-3, many IRR roads in Modoc County are less than one mile in length. Therefore, BIA often recommends that tribes prioritize projects and pool funding resources.

In FY 1999-2000, Congress approved $18.3 million in funding for tribal transportation planning purposes. For the next three years, roughly $35,000 was available to all tribal applicants each year. Fort Bidwell Indian Community Council participated for all three years and Pit River Tribe-XL Ranch Reservation and Cedarville Rancheria participated for two years. After 2003, virtually no funding has been available for tribal transportation planning.

AVIATION

The Federal Airport Improvement Program (AIP) provides 90 percent federal funding, with a 10 percent local and state match, for general aviation projects. Available for most capital expenditures at public airports, this funding program must be approved annually by Congress. AIP funds are derived from user charges such as aviation fuel tax, civil aircraft tax, and air passenger fare surcharges.

The State of California Aid to Airports Program (CAAP) makes grant funds available for airport development and operations. Three types of state financial aid to publicly owned airports are available through the CAAP.

- *Annual grants* for up to $10,000 per airport per year. These funds can be used to match Federal programs, but not state programs.

- *Acquisition Development Grants* provide funds for up to 90 percent of the cost of qualified airport developments on a matching basis, to the extent that state funds are available.

- *Loans* of 100 percent are available for projects with self-amortizing improvements. Such loans will be a continuing source for local funds required to match the 90 percent federal project funds.

State law requires that the local government provide necessary state or local matching funds from non-federal sources for any CAAP funds. These local match funds can be provided by the Airport Enterprise Fund. Grants are allocated based on a complex project rating methodology used by the state, with a similar methodology used for the federal AIP. The highest rated projects are those that relate to safety and state mandates. Grants to privately-owned/publicly-used

airports are also awarded by the State through its CIP. California Pines Services District intends to apply for state grants to help fund a runway/taxiway overlay projects and a lighting project at the California Pines airport.

PROJECTED REVENUES

Projecting revenues and expenditures over a twenty-year period is difficult since funding levels can fluctuate dramatically, be eliminated by legislation, policy changes, or economic conditions. In addition, many projects are eligible for discretionary funds, which are nearly impossible to forecast, due to the competitive nature of the programs.

Recurring regional transportation revenues were estimated in four-year increments over the next twenty years based on historical revenues and current year allocations. Because the region cannot accurately project-funding levels from competitive programs or those controlled by another agency, only recurring or regular regional funds are projected. Results are presented in Tables 5-1 through 5-3 with explanations of revenue projection methodology included as footnotes. The projected revenues in Tables 5-1 through 5-3 are consistent with the Policy Element of this RTP.

Several challenges to transportation funding exist and may have a negative impact on the funding outlook in Modoc County:

- The transfer of state gasoline sales tax revenues to the Transportation Investment Fund (TIF) and state highways is not guaranteed despite state legislation. Although Proposition 1A will help secure this source of funding, gas sales tax revenues may be diverted to the general fund twice in any ten-year period under certain circumstances. This would have a significant impact on STIP funded transportation projects throughout the state, including Modoc County.

- Federal highway funding is also at risk. SAFETEA-LU is set to expire in 2009 and U.S. Treasury projections estimate that the Federal Highway Trust Fund (FHTF) may not be able to support funding at specified SAFETEA-LU levels in 2009. Furthermore, the recent bridge collapse in Minnesota may prompt the flow of any available funds to major bridge rehabilitation projects.

- Rising construction costs are posing a major problem for all California counties. Caltrans' California Highway Construction Cost Index has shown a significant rise of 24 percent per year in construction material costs over the last three years due to demand for steel and cement and a rise in oil prices. Although prices in Modoc County tend to be a bit lower than much of the state, Modoc County has been and will continue to be affected by inflation.

Transportation revenue sources available to MCTC were divided into three categories. Table 5-1 presents MCTC revenue sources available for roadway, bridge and planning projects while Table 5-2 presents revenue sources available for transit operating and capital projects over the next twenty years. Approximately $50.2 million will be available to MCTC for regional roadway and bridge projects and an additional $ 6.8 million will be available for transportation planning

Table 5-1: MCTC Projected Regional Revenues

All figures in inflation adjusted dollars (1,000)

Program / Fiscal Year Period	Projected Revenues 07/08-10/11	11/12-14/15	15/16-18/19	19/20-22/23	23/24-26/27	Total
Roadways and Bridges						
STIP - Projects	$ 9,617	$ 7,070	$ 8,188	$ 10,028	$ 12,282	**$ 47,185**
STIP - TE	$ -	$ 547	$ 679	$ 832	$ 1,019	**$ 3,078**
Total Roadways and Bridges	**$ 9,617**	**$ 7,617**	**$ 8,867**	**$ 10,860**	**$ 13,302**	**$ 50,264**
Planning						
STIP - PPM	$ 452	$ 580	$ 708	$ 855	$ 1,032	**$ 3,627**
RPA	$ 592	$ 615	$ 640	$ 666	$ 693	**$ 3,206**
Total Planning	**$ 1,044**	**$ 1,195**	**$ 1,348**	**$ 1,521**	**$ 1,725**	**$ 6,833**

STIP revenues though FY 2015 based on 2008 RTIP and 2008 STIP Fund Estimate (Caltrans). Later years are increased by 5.2% annually to reflect 2008 STIP Fund Estimate projected growth in gas and diesel sales tax. STIP funding was not projected for transit capital projects as this source is more unstable and difficult to predict.

TE Revenues: Based on 2008 RTIP and later years increase by same annual growth rate as STIP non-TE funds.

RPA revenues based on historical allocations and increased by 1% annually.

Source: MCTC, 2008.

Table 5-2: MCTC Projected Revenues - Transit/ Public Transportation

All figures in inflation adjusted dollars (1,000)

Program / Fiscal Year Period	Projected 07/08-10/11	11/12-14/15	15/16-18/19	19/20-22/23	23/24-26/27	Total
Operating Funding						
TDA						
STA	$ 71	$ -	$ -	$ -	$ -	**$ 71**
LTF	$ 598	$ 658	$ 712	$ 770	$ 834	**$ 3,572**
FTA						
5311	$ 145	$ 140	$ 140	$ 140	$ 140	**$ 705**
5311(f)	$ 665	$ 700	$ 700	$ 700	$ 700	**$ 3,465**
JARC/ New Freedom	$ 60	$ -	$ -	$ -	$ -	**$ 60**
Total Operating Funding	$ 1,479	$ 1,498	$ 1,552	$ 1,610	$ 1,674	**$ 7,873**
Capital Funding						
FTA						
5311	$ 80	$ 80	$ 80	$ 80	$ 80	**$ 400**
5311(f)	$ 24	$ -	$ -	$ -	$ -	**$ 24**
5310	$ 96	$ 98	$ 100	$ 102	$ 104	**$ 500**
JARC/ New Freedom	$ 88	$ -	$ -	$ -	$ -	**$ 88**
Prop 1B						
PTMISEA	$ 79	$ -	$ -	$ -	$ -	**$ 79**
CTSGP-STAA	$ 8	$ -	$ -	$ -	$ -	**$ 8**
Total Capital Funding	$ 212	$ 125	$ 125	$ 125	$ 125	**$ 1,099**

LTF Revenues: An annual growth rate of 2% was applied to the average of historical allocations.

STA Revenues: This is an unstable funding source; therefore no revenue was projected beyond FY 08-09.

FTA: Operating revenue based on MCTC estimates. Flat growth is assumed over the planning period. Capital revenue based on historical allocations.

Source: MCTC, 2008.

TABLE 5-3 : Projected Recurring Revenues - Aviation and Local Funding Sources

All figures in $1,000 and adjusted annually for inflation

Program / Fiscal Year Period	07/08-10/11	11/12-14/15	15/16-18/19	19/20-22/23	23/24-26/27	Total
Aviation						
FAA AIP	$ 5,252	$ 11,165	$ 5,926	$ 1,363	$ -	**$ 23,706**
State CAAP	$ 200	$ 200	$ 204	$ 208	$ 212	**$ 1,024**
Recurring Aviation Revenues	**$ 5,452**	**$ 11,365**	**$ 6,130**	**$ 1,571**	**$ 212**	**$ 24,730**
City of Alturas						
Motor Vehicle In-Lieu (VLF)	$ 504	$ 546	$ 591	$ 640	$ 693	**$ 2,974**
Gas Taxes	$ 235	$ 255	$ 276	$ 299	$ 323	**$ 1,388**
Main Street	$ 30	$ 30	$ 30	$ 30	$ 30	**$ 150**
St Hwy Sweeping	$ 20	$ 20	$ 20	$ 20	$ 20	**$ 100**
Snow Removal	$ 5	$ 5	$ 5	$ 5	$ 5	**$ 25**
Recurring City Revenues	**$ 795**	**$ 856**	**$ 922**	**$ 993**	**$ 1,071**	**$ 4,637**
County of Modoc						
Gas Taxes	$ 6,125	$ 6,630	$ 7,177	$ 7,768	$ 8,409	**$ 36,109**
RSTP (Exchanged for State)	$ 1,244	$ 1,347	$ 1,458	$ 1,578	$ 1,708	**$ 7,336**
State Match	$ 420	$ 455	$ 493	$ 533	$ 577	**$ 2,478**
Prop 42/ Traffic Congestion Relief	$ 2,250	$ 2,436	$ 2,637	$ 2,854	$ 3,089	**$ 13,266**
Recurring County Revenues	**$ 10,040**	**$ 10,868**	**$ 11,764**	**$ 12,734**	**$ 13,783**	**$ 59,190**
All Recurring Revenues	**$ 16,287**	**$ 23,089**	**$ 18,816**	**$ 15,298**	**$ 15,066**	**$ 88,557**

Notes: Generally early years based on actual figures, or known allocations. Future years based on last known stable year figures extended.

Aviation revenues based on projects lists. Assumed $10K annual grant per year for CAAP funds.

City of Alturas: VLF, Gas Tax revenues based on 2% annual growth to account for population increase; other revenue per City of Alturas staff projections.

County Revenues: Gas taxes and Prop 42 based on 2% annual growth to account for population increase, RSTP adjusted for 2% annual inflation.

Sources: MCTC, City of Alturas, and County of Modoc Road Department, 2007.

activities. As the RTPA for Modoc County, MCTC allocates transit funding for Sage Stage. As shown in Table 5-2, $7.8 million in transit operating revenue will be available over the planning period. Capital funding sources for transit projects are discretionary and difficult to predict, but historical allocations have shown that at least $1 million will be available over the RTP planning period. Non-motorized facility revenues were not projected as these funding programs are very competitive and MCTC has received limited revenue for these types of projects in the past.

Table 5-3 presents projected transportation revenues, which are not allocated by MCTC. Aviation funding is anticipated to amount to $ 24.7 million over the next twenty years. Table 5-3 also demonstrates that the City of Alturas anticipates a total of $ 4.6 million over the twenty-year planning period; whereas the County of Modoc estimates that roughly $59.1 million will be allocated to their jurisdiction during the study period.

ROADWAY REVENUE TO EXPENDITURE COMPARISON

A comparison of regional roadway transportation revenues to expenditures is presented in Table 5-4. It should be noted that revenue to expenditure comparisons were not made for SHOPP projects, as there are no SHOPP projects listed in Modoc County. Revenue to expenditure comparisons were not made for transit, aviation or bicycle/ pedestrian projects as capital funding sources for these facilities are often competitive grants and therefore difficult to predict. The regional roadway/bridge transportation improvement projects listed as constrained in the tables in Chapter 4 will cost around $41 million over the twenty-year period. As projected STIP revenues over the next twenty years are roughly $53.8 million, these STIP projects are, indeed, fiscally constrained. Particularly, the first four-year period of the RTP is fiscally constrained and consistent with the 2008 STIP fund estimate. If unconstrained transportation improvement needs are considered, there is a deficit of approximately $59.6 million in STIP regional funds over the twenty-year planning period.

As can been seen in Table 5-4, the City of Alturas has developed a financial constrained local road improvement program over the entire RTP planning period; however there are significantly more local road improvement needs than funding available, as can be seen in the $35.9 million unconstrained local road improvement projects.

There is a funding deficit of $561,000 for non-STIP eligible county roadway projects during the first four years of the planning period. As Modoc County will receive approximately $1.6 million from the Proposition 1B local streets and roads program, there will be sufficient funding available for County roadway projects in the short-term. Over the long term, there is a deficit of approximately $12.8 million in local funding.

These estimates indicate a $107.9 million funding shortfall over the next twenty years if unconstrained projects are taken into account, for major regional, City, and County roadway/bridge projects. Furthermore, the forecast of revenues or expenditures do not take into account the actual needs for the entire transportation network. All expenditure estimates were based on anticipated revenue and relative, realistic project planning.

TABLE 5-4: Proposed Roadway/ Bridge Projects Cost to Revenues Comparison

All figures in inflation adjusted dollars (1,000)

Program / Fiscal Year Period	07/08-10/11	11/12-14/15	15/16-18/19	19/20-22/23	23/24-26/27	Total 20 Years: Constrained Projects	Total 20 Years: Financially Unconstrained Projects	Total Constrained and Unconstrained Projects
Regional Revenue STIP Shares								
STIP PPM	$ 452	$ 580	$ 708	$ 855	$ 1,032	**$ 3,627**	--	--
STIP Projects	$ 9,617	$ 7,070	$ 8,188	$ 10,028	$ 12,282	**$ 47,185**	--	--
TE Projects	$ -	$ 547	$ 679	$ 832	$ 1,019	**$ 3,078**	--	--
Available Regional Revenues	***$ 10,069***	***$ 8,197***	***$ 9,575***	***$ 11,715***	***$ 14,334***	***$ 53,890***	--	--
Proposed Major Regional STIP Projects Costs								
City Streets[1]	$ 2,291	$ 11,917	$ 3,236	$ 617	$ -	**$ 18,059**	**$ 340**	**$ 18,399**
County Roads[2]	$ 6,906	$ 9,324	$ 2,807	$ -	$ -	**$ 19,037**	**$ 43,773**	**$ 62,810**
State Highways[3]	$ -	$ 4,550	$ -	$ -	$ -	**$ 4,550**	**$ 27,796**	**$ 32,346**
All Major Regional Projects Costs	***$ 9,197***	***$ 25,791***	***$ 6,042***	***$ 617***	***$ -***	***$ 41,646***	***$ 71,908***	***$ 113,555***
Balance	**$ 872**	**$ (17,593)**	**$ 3,533**	**$ 11,099**	**$ 14,334**	**$ 12,244**	--	**$ (59,664)**
City of Alturas Public Works								
Recurring Revenues	$ 795	$ 856	$ 922	$ 993	$ 1,071	**$ 4,637**	--	--
Staff, Equipment & Legacy Costs	$ (715)	$ (770)	$ (830)	$ (894)	$ (964)	**$ (4,173)**	--	--
Available for City Projects	$ 79	$ 86	$ 92	$ 99	$ 107	**$ 464**	--	--
Local Roadway Projects[4]	$ -	$ -	$ -	$ -	$ -	$ -	**$ 35,941**	**$ 35,941**
Balance	**$ 79**	**$ 86**	**$ 92**	**$ 99**	**$ 107**	**$ 464**	**--**	**$ (35,477)**
County of Modoc Road Department								
Recurring Revenues	$ 10,040	$ 10,868	$ 11,764	$ 12,734	$ 13,783	**$ 59,190**	--	--
Staff & Equipment	$ (10,360)	$ (10,360)	$ (10,360)	$ (10,360)	$ (10,360)	**$ (51,800)**	--	--
Available for County Projects	$ (320)	$ 508	$ 1,404	$ 2,374	$ 3,423	**$ 7,390**	--	--
Local Roadway Projects[5]	$ 242	$ 10,874	$ 4,959	$ 3,881	$ 242	**$ 20,197**	--	--
Balance	**$ (561)**	**$ (10,366)**	**$ (3,555)**	**$ (1,507)**	**$ 3,182**	**$ (12,807)**	**--**	**$ (12,807)**
NET REVENUE	**$ 391**	**$ (27,874)**	**$ 70**	**$ 9,691**	**$ 17,623**	**$ (100)**	**--**	**$ (107,949)**

Notes: 1. Proposed City Street STIP projects (Table 4-10).

2. Proposed County STIP projects (Table 4-7, Table 4-8, Table 4-12).

3. Proposed State Highway projects designated to be financed with STIP regional shares (Table 4-5)

4. City-Local Roadway Projects listed in Table 4-10, excluding STIP-eligible projects. All Constrained projects are STIP-eligible.

5. County-Local Roadway Projects are remaining projects listed in Table 4-7 and Table 4-12, which do not include STIP-eligible projects. Ongoing maintenance projects are not included All county-unconstrained projects are STIP-eligible.

Sources: MCTC, City of Alturas Public Works and County of Modoc Road Department.

FUNDING STRATEGIES

The following are potential funding strategies that could be implemented to address the funding shortfall addressed earlier in this section.

MCTC Overall STIP Funding Strategy – CTC has indicated that neither state highways nor local roads should be ignored when preparing an RTIP. There should be a balance of the two categories that represent transportation needs, corresponds to RTP goals and policies, and will improve baseline performance measures. This RTP update was intended to make the project selection process more user friendly by providing local decision-makers with user-friendly tables and realistic performance measures. As discussed in Chapter 4, RTP improvement projects are classified as "Project List" or "Inventory." "Project List" projects have already been determined to be high priority projects for the region and are feasible to implement. As these projects are completed, the "Inventory" list should be reviewed to determine each project's affect on baseline performance measures listed in Table 4-4. Inventory projects that are determined to have the greatest positive impact on the overall regional transportation system should be promoted to the "Project List."

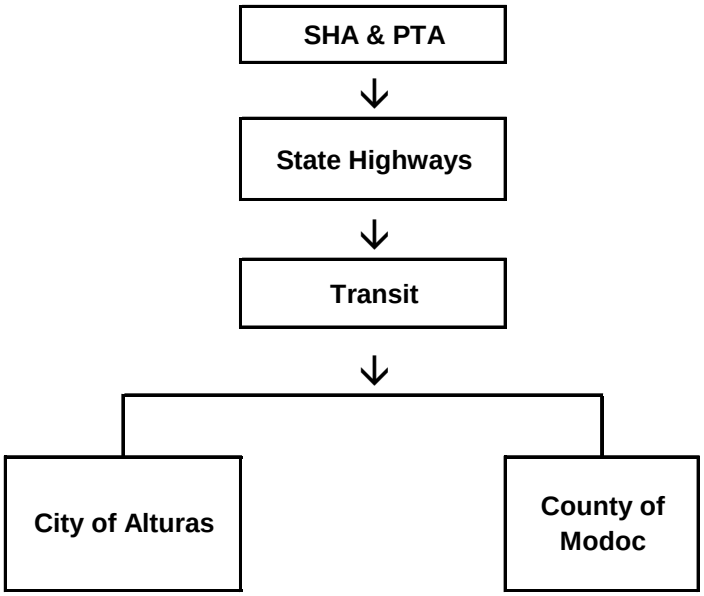
Local Roadway Funding Strategy - STIP dollars flow from the State Highway Account (SHA) and the Public Transportation Account (PTA) to MCTC to finance state highway, local road and transit projects. The proportion allotted to each county RTPA is based on county population and state highway mileage. STIP dollars fund three major transportation projects: state highway projects, transit projects and local roadway projects with a functional classification of 02, 06 or 07. In the past, approximately two-thirds of local roadway STIP funding was directed towards the County of Modoc and one-third was directed towards the City of Alturas. In an effort to maximize STIP funding and streamline the process, developing a more formal policy may be warranted. Figure 5-1 provides several funding distribution factors, which could be used as a basis for distributing STIP funding.

Population is one method of distributing funds. According to the US Census 2000, the un-incorporated portion of the County makes up 76.6 percent of total Modoc County population while the City of Alturas accounts for 23.4 percent. As STIP funding is primarily used to finance local roads, perhaps it is more appropriate to allocate funds by the proportion of maintained road mileage. In this case, the County would receive 96.5 percent and the City would receive 3.5 percent. These proportions are very similar if only STIP eligible roadway mileage (not including roads classified as a local road) is considered. According to County and City staff, a lack of staff, equipment, and other resources can be a major inhibitor to completing County-maintained or City-maintained roadway projects. Therefore, it would be more efficient for the City, County, and MCTC to concentrate on one particular project together and then move on to the next.

Coordination efforts are already in effect, as the City and County have shared equipment resources to complete projects in the past.

The performance measure criteria addressed in Table 4-4 of this RTP should be used to determine which local road projects to focus on first. Funding should be allocated to projects on a needs based system. Additionally, how quickly a project can be ready for construction is

Figure 5-1: STIP Funding Flow Chart Policy



Funding distribution factors:

	City	%	County	%	Total
Population (Current)	2,892	*23.4%*	9,449	*76.6%*	12,341
Maintanined Road Mileage	35.9	*3.5%*	987.4	*96.5%*	1,023
STIP Eligible Roadway Mileage(1)	7.55	*3.9%*	185.17	*96.1%*	193

Note 1: Functional Classification 02, 06, 07.

another important factor. Projects that do not increase current baseline performance significantly and will require extensive environmental review or right-of-way acquisition should be placed lower on the project priority list.

Finally, Modoc County should become familiar with and implement CSA and PRD funding mechanisms for maintenance funding.

Transit Funding Strategies

As stated throughout this document, public transit and mobility management are very important to the Modoc County region. Efforts are underway to construct a Mobility Management Center, implement technology tools and draft a coordinated human services transportation plan. In addition to the traditional federal and state funding sources available to transit projects (listed in

the beginning of this Chapter), MCTC can seek financial assistance in the form of vehicle purchase or mobility management training through a variety of health and human service assistance programs when a coordinated transportation relationship is established. Examples of such human service programs include Headstart, State Developmental Disabilities Programs, and Medi-Cal.

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