

## **2000 REGIONAL TRANSPORTATION PLAN**

---

### **1.0 EXECUTIVE SUMMARY**

#### **INTRODUCTION (Section 2.0)**

Regional transportation planning is a dynamic process requiring periodic refinement, monitoring and updating. The 2000 Regional Transportation Plan includes extensive evaluation of regional transportation issues and the elements required by the Transportation Enhancement Act for the 21st Century (TEA-21). Each component has been studied and modified consistent with regional transportation priorities to achieve an integrated multimodal system.

The adopted Regional Transportation Plan establishes a basis on which funding applications at the state and federal transportation funds by local governments must conform with the RTP, the Kern County State Implementation Plan, and the Federal Transportation Improvement Program.

The Regional Transportation Plan establishes a set of regional transportation goals, objectives, policies and actions intended to guide development of the planned multimodal transportation systems in Kern County over the next twenty years. It was developed through a continuing, comprehensive and cooperative planning process, and provides for effective coordination between local, regional, state and federal agencies. The Congestion Management Program, included as Section 6.2, is designed to ensure that a balanced transportation system is developed, relating population and traffic growth, land use decisions, level-of-service performance standards, and air quality improvement.

With adoption of the RTP, new multimodal facilities will be constructed and transportation services will be implemented on a level consistent with projected funding. Funding projects are based on the assumption that current levels and funding sources will continue throughout the 20-year planning period.

A complete listing of planned improvements by mode is provided in the Financial Element, Section 8.0, Table 8.1. In addition, the projects are displayed on Figure 2-1. The listing and graphic display of projects are consistent with those projects that have been evaluated according to air quality conformity guidelines and requirements and have been found to improve air quality in Kern County, as discussed in Section 7.0. Figure 6-1 provides a graphic display of the CMP System of Highways and Principal Arterials. It is envisioned that this system will address the needs of improved mobility by managing recurring congestion.

#### **GOALS, OBJECTIVES AND POLICIES (Section 3.0)**

Goals, objectives and policies are identified as a means of promoting consistency of action among federal, state, regional, and local agencies. Goals, objectives and policies are defined as follows:

**Goal** - A broadly stated end, or target, toward which effort is directed. It is general in nature and is not time-specific.

**Objective** - Specific results that contribute to the attainment of a goal within specific times. These results are quantifiable and attainable in light of fiscal, political, and resource constraints. Responsibility for attainment is clearly identified.

**Policy** - Specific means by which goals and objectives are attained. A policy is a direction statement that guides present and future decisions on specific actions.

The goals, objectives and policies in Section 3.0 have been developed to provide a foundation for regional transportation planning and congestion management.

**REGIONAL AND ENVIRONMENTAL SETTING (Section 4.0)**

The Kern region is located in southcentral California, sharing boundaries with eight other counties: San Luis Obispo, Ventura, Santa Barbara, Ventura, Los Angeles, San Bernardino, Inyo, Tulare and Kings. Monterey County lies within two miles of Kern's northwestern corner. Kern County has eleven incorporated cities, 47 school districts, 69 County districts, and 124 special districts. Kern County covers 8,145 square miles, of which 20.4 square miles are waterbodies.

**History.** Kern County derives its name from Edward M. Kern, a topographer with Captain John C. Fremont's Third Expedition to the West in 1843-44. The first Europeans known to view the area were Spanish soldiers, under the Command of Don Pedro Fages. While in pursuit of army deserters in 1772, the soldiers crested the mountains near what is now called Tejon Pass and gained a view of San Joaquin Valley, naming it "Buena Vista" ("Good View"). Indians had occupied the area for centuries, but little remains to indicate their presence.

**Economic Base.** Kern County is among the top oil-producing regions in the United States. Two-thirds of the onshore oil produced in California was extracted in the County. Oil production is so great that if the County were a country, it would rank 17th in the world for oil produced. In 1992, the oil industry employed over 12,000 people and provided 10 percent of the County's property tax base.

**Land Use Trends.** Land use patterns in the majority of Kern County are dispersed. Population centers are often far from each other and travel between them is almost exclusively by automobile. Several exurban areas generate significant commuter traffic into the Bakersfield metropolitan area, namely Tehachapi, Lake Isabella and Frazier Park. In the Rosamond area, residential growth is a direct result of low-cost land, and many of the residents work in Los Angeles County.

**Socioeconomic Projections.** Population growth in the County has been significant and sustained. From a 1980 population of just over 400,000, Kern County had grown to over 640,000 by the beginning of 1998. Current projections call for a population of 958,300 by 2010. Table 4-1 indicates the past and projected population and housing growth for the County, the metropolitan Bakersfield area and the incorporated cities. The trend of population growth in Kern County over the last 15-20 years has been outward expansion of existing urban centers. This trend is anticipated to continue.

Section 4.4 describes the **Environmental Setting** of Kern County in varying degrees of specificity. An Environmental Impact Report has been integrated with the Regional Transportation Plan and provides a program-level analysis of typical construction impacts and policy-related issues. A program EIR establishes conditions that reasonably can be expected to occur during the timeframes of the RTP and CMP. It discusses the impacts, mitigation measures, and alternatives to the proposed projects in a conceptual manner, and serves as a basis for focused EIRs on those portions of the multimodal system that require indepth analysis at the time of implementation.

This approach dictates that areas of environmental concern be discussed in varying degrees of specificity. The RTP has been analyzed consistent with the California Environmental Quality Act (CEQA) and determined to have potential impacts in the following areas:

- o **Geology/Hydrology**
- o **Air Quality**
- o **Biotic Resources**
- o **Noise**
- o **Cultural Resources**
- o **Light and Glare**
- o **Aesthetics**
- o **Public Services**

## 2000 REGIONAL TRANSPORTATION PLAN

---

- o Land Use
- o Risk of Upset.
- o Transportation/Circulation

Section 4.5 describes **Existing Transportation Systems**, including highways, aviation, mass transportation, non-motorized transport such as bicycling and walking, and goods movement.

**Highways.** Kern County's highway and road system provides transportation connectivity over more than an 8,000 square mile region. Because of residents' heavy reliance on the highway network and the geographical expanse of the region, maintenance and expansion of these facilities are critical to the well being of the region's economy. The existing network consists of approximately 6,700 miles of public roads (Figure 4-16). State highways account for 870 miles, while 87 miles comprise the interstate highway system within the region. With the enactment of the federal Intermodal Surface Transportation Efficiency Act and its extending legislation TEA-21, the National Highway System (NHS) and the Surface Transportation Program (STP) redefined the national highway network.

Section 4.5.1.2 addresses issues, accomplishments and needs of the highway system. Key issues identified include (1) aging highway network; and (2) highway safety. Accomplishments include: (1) funding approval and ISTEA requirements in the FTIP; (2) new construction; (3) modeling; (4) corridor studies; (5) work element to monitor the FTIP; (6) short range plans; (7) long range plans; and (8) beyond 20-year horizon. The section also identifies expected roadway deficiencies over the next 20 years.

**Aviation.** The regional airport system in Kern County is comprised of seven airports operated by the Kern County Department of Airports, four municipally owned airports, three airport districts, three privately owned public use airports, and two major military facilities (Figure 4-58).

Kern County airports include: Meadows Field, Elk Hills/Buttongwillow, Kern Valley in the Lake Isabella area, Lost Hills, Poso adjacent to Routes 65 and 46, Wasco, and Taft. Municipal airports include Bakersfield, California City, Delano and Tehachapi. The airport districts within Kern County include: East Kern at Mojave, Indian Wells Valley at Inyokern, and Minter Field at Shafter. Private airports include Mountain Valley gliderport at Tehachapi and Rosamond Skypark.

China Lake Naval Air Weapons Station and Edwards Air Force Base are located in eastern Kern County in an area known as the R-2508 complex, which is used for the advancement of weapons system technology and tactical training.

Section 4.5.2.2 looks at issues, accomplishments and needs of aviation infrastructure. Issues include: (1) noise; (2) air quality; (3) other environmental factors; (4) airport ground access; and (5) airport comprehensive land use planning. The major accomplishment is the Kern County Airport Land Use Compatibility Plan. Needs include numerous capital improvement projects.

**Mass Transportation.** Public transit is available in sixteen Kern County communities. In 1996-97, public transit services transported over 5.3 million passengers in Kern County. Transit services include intercity, intracity, demand responsive and fixed route operations. The County of Kern operates Kern Regional Transit that includes service to the unincorporated areas of Buttongwillow, Lamont, Kern River Valley, Frazier Park, Rosamond and Mojave. In addition, the County has agreements with several small cities to share the cost of providing transit service to County areas surrounding incorporated areas. These cities include Delano, Ridgecrest, Shafter, Taft, Tehachapi and Wasco.

Golden Empire Transit District has provided public transit service for the Bakersfield area since 1973. Today, GET operates 14 fixed routes and the Get-A-Lift program to 133 square miles and serves approximately 350,000 residents. Get-A-Lift provides paratransit service in metro Bakersfield for those who are physically unable to use the fixed route service. Elderly and disabled service is also provided by the Consolidated

## **2000 REGIONAL TRANSPORTATION PLAN**

---

Transportation Service Agency (CTSA). Table 4-28 summarizes public transit services operated within Kern County.

The Amtrak San Joaquin rail line has its southern terminus in Bakersfield. Bus connections transport passengers to the Los Angeles area from Bakersfield. Currently, the San Joaquin runs four times daily. Common carriers serving Kern County include Greyhound, Orange Belt Stages, Airport Bus of Bakersfield, and Amtrak. These operations have terminals in central Bakersfield.

Section 4.5.3.2 identifies issues, accomplishments and needs of public transit. Issues include: (1) limited transit dollars; (2) coordination with private sector providers; (3) senior/mobility-disabled public transportation; (4) regional transit service improvements; (5) population residing more than 1/4 mile from transit route; (6) highspeed rail; and (7) light rail. Accomplishments include: (1) changes in GET programs and procedures; (2) creation of CTSA; (3) new intercity services provided by Kern Regional Transit; (4) increased Amtrak ridership; (5) GET's Long Range Public Transportation System study; (6) five studies of the potential for high speed rail in California; (7) countywide reporting system; (8) Delano City fixed route system; (9) Kern rural coordination plan; and (10) regional reciprocal transfer system.

Identified needs of the mass transit system include: (1) analysis of funding strategies; (2) intercity service; (3) express service; (4) direct connection with AMTRAK station; (5) coordination of schedules for intercity bus service; (6) countywide CTSA; (7) regional transportation center; and (8) establish railroad right-of-way acquisition policy.

**Non-Motorized.** "Non-motorized" defines trips made by bicycle or on foot. Physical fitness, cost, ease of travel, convenience and air quality considerations all influence a decision to bicycle or walk. The future of non-motorized travel within the Kern region is encouraging. Over the past decade, a number of mixed-use developments have been planned and constructed, which have lessened demand for automobile travel while encouraging non-motorized trips. When residents of mixed-use developments work within that development, benefits to the larger community include lessened traffic congestion, enhanced air quality and reduced fuel consumption.

Section 4.5.4.2 addresses issues, accomplishments and needs of non-motorized transportation. These are identified as: (1) public support; and (2) local bikeway plans.

**Goods Movement.** Movement of goods plays an important role in the overall economy of Kern County. The County is the third most productive agricultural county in the United States (based on farm

income), the leading oil producing county in the State and a prominent producer of other minerals. These industries all rely on bulk material movements by truck, rail, pipeline, and to a lesser extent, air.

Kern County is central to the rail and highway transportation network in California and the west coast. Major highways, rail lines, pipelines and air corridors criss-cross the County in all directions. In 1990, trucks traveled over 803 million miles in the County, representing 24.43 percent of all vehicle miles traveled (VMT). Statewide, the average truck VMT was 9.83 percent. Several communities in Kern County have adopted truck routes through the urbanized areas. Special truck routes are posted to guide trucks to central business districts, industrial sites and commercial areas.

Two major railroads, Union Pacific and Burlington Northern Santa Fe operate mainline operations within the County. San Joaquin Valley Railroad operates a number of short-line operations.

Section 4.6.5.2 reviews issues, accomplishments and needs of goods movement. Issues include: (1) high truck volumes and roadway deterioration; (2) truck routing; (3) pipeline safety; (4) hazardous materials

## **2000 REGIONAL TRANSPORTATION PLAN**

---

movement; and (5) foreign trade zone. Numerous accomplishments are identified, including the modification of low clearance tunnels in Tehachapi Pass. Much of the improvement needed regionally relates to the development of the intermodal connection between modes.

## **2000 REGIONAL TRANSPORTATION PLAN**

---

### **ACTION ELEMENT (Section 5.0)**

The Action Element establishes a plan for addressing identified needs and issues in accordance with the goals, objectives, and policies of the RTP. As outlined by the metropolitan transportation planning process (Section 450.316), fifteen factors are required to be considered, analyzed as appropriate, and reflected in the planning process products. These factors include: (1) preservation of existing transportation facilities; (2) consistency of transportation planning with applicable energy conservation programs; (3) congestion relief; (4) effects of transportation policy decisions on land use and development; (5) programming of expenditures for transportation enhancement activities; (6) effects of all transportation projects to be undertaken within the metropolitan area without regard to the source of funding; (7) access to intermodal transportation facilities, major freight distribution routes; recreation areas, and military installations; (8) connectivity of roadways within and outside metropolitan areas; (9) Transportation needs as measured by the six ISTEA management systems; (10) preservation of future transportation corridors; (11) enhancement of efficient goods movement; (12) use of life-cycle costs in development of bridges, tunnels, or pavement; (13) overall social, economic, energy, and environmental effects of transportation decisions; (14) expansion, enhancement and increased use of transit services; and (15) capital investments for increased transit systems security.

### **INTELLIGENT TRANSPORTATION SYSTEMS (Section 6.0)**

Intelligent Transportation Systems (ITS) is the application of advanced information processing, communications, vehicle sensing and traffic control technologies to the surface transportation system. The objective of ITS is to promote more efficient use of the existing highway and transportation network, increase safety and mobility, and decrease the environmental impacts of congestion. The Federal Highway Administration (FHWA) sponsored the preparation of Early Deployment Plans (EDPs) in different areas of the country to identify ITS application opportunities.

The overall goal of the ITS EDP was to develop a multi-year strategic deployment plan for the Kern region that would result in a well-balanced, integrated, intermodal transportation system. Kern's transportation needs that have the potential of being addressed by ITS technologies have been identified and ITS elements that would be beneficial, cost-effective, and implementable have been evaluated. The strategic plan will facilitate the integration and coordination of ITS applications valley and state-wide in conjunction with other EDPs being conducted throughout California.

### **CONGESTION MANAGEMENT PROGRAM (Section 6.2)**

The Congestion Management Program is designed to ensure that a balanced transportation system is developed that relates population growth, traffic growth, and land use decisions to transportation system performance standards and air quality improvement. The CMP is directly links land use, air quality, transportation, and the use of advanced transportation technologies as an integral and complementary part of the region's plans and programs.

State law requires the CMP to include the following elements: (1) land use analysis program; (2) level of service standards; (3) public transit standards; (4) trip reduction and travel demand strategies; (5) capital improvement program. In addition to these components, Kern COG is required to develop a traffic data base for use in a Countywide model and to monitor the implementation of the CMP.

### **AIR QUALITY CONFORMITY (Section 7.0)**

As the Metropolitan Planning Organization for Kern County, the Kern Council of Governments has made an air quality conformity determination for the 1994 RTP pursuant to the federal Environmental Protection Agency's (EPA) Final Rule 93.104. The conformity determination was adopted by Kern Council of Governments on

## **2000 REGIONAL TRANSPORTATION PLAN**

---

September 18, 1998 and subsequently approved by FHWA/FTA.

Air quality conformity refers to the process whereby transportation plans, programs, and projects are shown to conform to the requirements of the federal Clean Air Act Amendments and the applicable State Implementation Plan (SIP). Specific regulations and requirements are contained in the EPA's Transportation Conformity Rule dated November 15, 1993. Kern Council of Governments' Regional Transportation Plan was found to meet the requirements for Volatile Organic Gases, Nitrous Oxides, Carbon Monoxide, and PM<sub>10</sub> when modeled for (1) "build" scenario improvements over "no build"; (2) improvements over the 1990 base year; and (3) adherence to emission budgets in the State Implementation Plan.

### **FINANCIAL ELEMENT (Section 8.0)**

The Financial Element provides a 20-year Capital Improvement Plan (CIP) of project commitments in Kern County. Summarized below are the funding requirements of all ISTEA management system programs. While the RTP CIP for Kern County is financially constrained, a financial summary of projects not part of the conformity process is also presented. These projects are necessary for future year transportation needs to offset anticipated deficiencies in level of service.

The 20-year CIP financial summary projects revenues by quinquennium and by existing funding source. Revenues are further separated by: (1) Capital Improvement revenue projections, and (2) Operations and Maintenance revenues.