

DRAFT AIR QUALITY CONFORMITY **ANALYSIS**

May, 2002

**Covering 2002-03 to 2007-08
Federal Transportation Improvement Program
Reaffirm 2000 RTP Conformity Analysis**

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**Kern Council
of Governments**

1401 19th Street, Suite 300
Bakersfield, California 93301

Telephone: 661/861-2191
Facsimile: 661/324-8215
E-Mail: rball@kerncog.org



May 20, 2002

NOTICE OF DOCUMENT AVAILABILITY

TO: Interested Persons

FROM: RONALD E. BRUMMETT,
EXECUTIVE DIRECTOR

By: Robert Ball
Senior Planner

SUBJECT: **DRAFT REVIEW PERIOD FOR THE DRAFT 2002
AIR QUALITY CONFORMITY ANALYSIS**

The attached document is forwarded for your review and comment. The Kern Council of Governments, as the Metropolitan Planning Organization and the Regional Transportation Planning Agency for the Kern Region, is required to publish an Air Quality Conformity Analysis with the adoption or amendment of every Federal Transportation Improvement Program (FTIP) and Regional Transportation Plan. The Draft 2002 FTIP for the Kern Region is a four-year schedule of transportation improvements. Revisions to the FTIP or other planned transportation improvements must be modeled for conformance with Air Quality Standards as required by the Federal Clean Air Act. This mandatory process is called the Air Quality Conformity Analysis.

The public review period for the Draft 2002 Air Quality Conformity Analysis begins May 21, 2002 and ends June 20, 2002. During this time, a public hearing will be held at the following time and location:

Thursday, June 20, 2002, 4:00 pm
Kern Council of Governments' Board Room
1401 19th Street, 3rd Floor
Bakersfield, California

This document will be considered for adoption, by resolution, by Kern Council of Governments at a regularly scheduled meeting to be held on June 20, 2002. The document will then be submitted to state and federal agencies for their review and final approval.

All written comments should be submitted to Kern Council of Governments, 1401 19th Street, Suite 300, Bakersfield, California 93301 no later than 4:00 pm, June 20, 2002.

Please contact Robert Ball at (661)861-2191 or rball@kerncog.org with questions regarding the Draft 2002 Air Quality Conformity Analysis.

Enclosure(s)

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I. INTRODUCTION

The 1990 Federal Clean Air Act Amendments (CAAA), promulgated November 15, 1990, placed tough new requirements on sources and causes of air pollution in areas failing to meet federal air quality standards, including the San Joaquin Valley air basin. The CAAA require substantial reductions from all pollution sources, including pollutants from the transportation sector. The CAAA included more stringent requirements for demonstrating that transportation plans and projects contributed to improvements in air quality contained in the conformity provisions in section 176(a). On November 15, 1993, the Environmental Protection Agency (EPA) published a conformity rule delineating specific criteria and procedures for fulfilling the conformity requirements of the CAAA. This rule was updated, published in the Federal Register August 15, 1997, and became effective September 15, 1997. The conformity rule is codified in the Code of Federal Regulations (CFR) Title 40 Part 93 Subpart A. Additional portions of the CFR referring to conformity that apply to conformity implementation plans are included in Part 51. References to the 1997 conformity rule contained in this conformity finding generally refer to Part 93 unless otherwise indicated.

On March 2, 1999, the United States Court of Appeals for the District of Columbia Circuit issued a decision on the Environmental Protection Agency's 1997 Final Transportation Conformity Rule in response to a suit filed by the Environmental Defense Fund. The Environmental Defense Fund challenged several provisions of the 1997 Final Rule pursuant to the 1990 Amendments to the Clean Air Act. The CAAA statute prohibits a metropolitan planning organization from approving and the Department of Transportation from funding any transportation project unless it comes from a regional transportation plan and program that conform to applicable national ambient air quality standards. The Court found that certain challenged portions of the 1997 Final Rule do not satisfy this requirement or the single permitted exception, and thus held that some provisions of the 1997 Final Rule violate the Clean Air Act.

On June 18, 1999, the Federal Highway Administration (FHWA) issued Additional Supplemental Guidance for the Implementation of the Circuit Court Decision Affecting Transportation Conformity, which superseded the interim guidance of March 31, 1999, and supplemental guidance of May 7, 1999. This Air Quality Conformity Determination complies fully with the June 18, 1999, FHWA Additional Supplemental Guidance, as well as the May 14, 1999 United States Environmental Protection Agency Conformity Guidance on Implementation of the March 2, 1999 Conformity Court Decision.

This conformity determination covers the Kern Council of Governments' 2002 Federal Transportation Improvement Plan (FTIP) covering the years 2002-03 to 2005-06 and two fiscal years beyond that (to 2007-08). FHWA last issued a conformity finding for the 2000 RTP and the 2000 FTIP through Amendment #4 on September 25, 2001. This conformity assessment fulfills all applicable requirements in the 1997 conformity rule and supplemental guidance.

Kern County is contained within two air basins: the San Joaquin Valley Air Basin (SJVAB) and the Mojave Desert Air Basin (MDAB). Each air basin has its own Air Pollution Control District, Plans, and pollutant budgets. Kern COG makes conformity findings for each air basin.

Organization of Conformity Finding

This conformity documentation is organized in the same general order as the FHWA conformity documentation checklist developed by FHWA and EPA to facilitate review. The checklist, updated March 30, 1998, was consulted in the development of this conformity determination. Items covered include:

- (1) Plan and TIP status;
- (2) Nonattainment and maintenance area designations;
- (3) SIP and Maintenance Plan status;
- (4) General conformity criteria and procedures;
- (5) Emissions reduction tests and the budget test;
- (7) Projects in the Transportation Plan and Program.

The documentation required for serious and above ozone Nonattainment Areas with urbanized area populations over 200,000 is included as appropriate under the General Conformity Criteria and Procedures section per 93.106(a).

II. REGIONAL TRANSPORTATION PLAN AND TRANSPORTATION IMPROVEMENT PROGRAM STATUS

The Kern Council of Governments (Kern COG), the Metropolitan Planning Organization (MPO) for Kern County, adopted and made a conformity determination for the 2000 RTP in September 2001, which was subsequently approved by FHWA/FTA on September 25, 2001. Kern COG is now making a conformity finding for the 2002 Federal Transportation Improvement Plan (FTIP) covering the years 2002-03 to 2005-06 and two fiscal years beyond that (to 2007-08). The Kern COG Board of Directors will officially adopt the FTIP and make a conformity determination on June 20, 2002. The 2000 RTP complies with applicable conformity requirements of implementation plans and court orders (93.109) through May 15, 2002, and is a financially constrained document per 93.108. In addition, the RTP includes all federal and non-federal regionally significant projects that are expected to be implemented in the nonattainment areas (93.122) and meets the content requirements of 93.106. The regional transportation emissions analysis was developed in accordance with the requirements of 93.118, 93.119 and 93.122.

Financial Constraint Analysis (40 CFR 93.108)

This conformity finding and the 2002 FTIP has been fiscally constrained in accordance with requirements of section 93.108 of the 1997 conformity rule and consistent with the Department of Transportation metropolitan planning regulations (23 CFR Part 450). A discussion of financial constraint, funding sources, and timing is included in the financial element of the 2000 RTP. The purpose of the Financial Element is to provide documentation for assumptions of the cost and revenues necessary to implement 2000 RTP. These assumptions include revenue estimates for specific governmental funding programs, local contributions, license and fuel taxes, and development fees. Currently, Kern County does not have a local sales tax for transportation purposes. The majority of available funds generated from federal and State gas taxes are distributed in a variety of grants and acts. There are numerous specific funding sources under the general categories of state, federal, and local funding categories. These sources and amounts are documented in some detail in the financial element.

Compliance with Specific Plans and Court Orders (40 CFR 93.109 (a))

This conformity finding complies with all applicable conformity plans, conformity guidance and court orders. Since the previous approved conformity finding for the 2000 RTP and 2000 FTIP through Amendment #4 was approved by FHWA/FTA on September 25, 2001, no new guidance, other applicable court orders, or specific plans are known to have been issued.

Content of Transportation Plans (40 CFR 93.106)

Kern County contains a metropolitan planning area with an urbanized area population greater than 200,000; therefore the transportation plan must specifically describe the transportation system envisioned for certain future years. The conformity determination for the 2002 FTIP/2000 RTP defined horizon years as 2005, 2015, and 2025. They were chosen to satisfy 93.106. Both model networks and socio-economic datasets were developed for regional emissions analysis for these years. The projects included in the model are identified in Appendix B.

III. NONATTAINMENT AND MAINTENANCE AREA DESIGNATION

San Joaquin Valley Air Basin

Slightly more than half of Kern County is located in the California San Joaquin Valley Air Basin. The borders of the basin are defined by mountain and foothill ranges to the east and west. The northern border is consistent with the county line between San Joaquin and Sacramento Counties. The southern border is less defined, but is roughly bounded by the Tehachapi Mountains and, to some extent, the Sierra Nevada range. Conformity for Kern County includes analysis of existing and future air quality impacts for each applicable pollutant. Table 1 lists the federal attainment/maintenance status of each applicable pollutant in the San Joaquin Valley portion of Kern County. Those pollutants are: ozone [volatile organic compounds (VOC) and oxides of nitrogen (NO_x)], particulate matter less than ten microns (PM₁₀) with VOC and NO_x precursors, and carbon monoxide (CO). There are also State of California nonattainment designations that differ in some cases from the federal classifications. State classifications are not applicable for conformity.

The San Joaquin Valley Air Basin did not attain the federal ambient air quality standard for ozone in 1999 as forecast in the Air District's *1994 Ozone Attainment Demonstration Plan*. The EPA published a proposal to reclassify the San Joaquin Valley Air Basin to severe ozone status on May 18, 2001 and it was finalized on November 8, 2001 with an effective date of December 10, 2001. The reclassification does not immediately affect transportation conformity procedures. The San Joaquin Valley Regional Transportation Planning Agencies (RTPAs) and their member agencies are completing the process of adopting local government control measures for the SJVUAPCD's *2002 and 2005 Rate of Progress Plan*. The new motor vehicle emission budgets in the *2002 and 2005 Rate of Progress Plan* will be used for conformity once they have been submitted to and found adequate by EPA.

TABLE 1

**Federal Attainment and Maintenance Status of Air Pollutants
in Kern County (San Joaquin Valley Portion)**

<i>Pollutant</i>	<i>Status</i>	<i>Attainment/Maintenance Deadline (Federal)</i>
Ozone (VOC and NO _x)	Nonattainment – Severe	2005
PM ₁₀ (PM ₁₀ , VOC and NO _x)	Nonattainment – Serious	As expeditiously as possible ¹
CO	Maintenance	2005

This conformity documentation documents conformity for each of these pollutants under all applicable requirements.

Mojave Desert Air Basin

Mountain ranges define the northwestern border of the Mojave Desert Air Basin (MDAB). The Kern County Air Pollution Control District (KCAPCD) is responsible for the Kern portion of Mojave Desert and for the Searles Valley Planning Area (SVPA) (Indian Wells portion) portion of Kern County. Conformity for the MDAB portion of Kern County includes analysis of existing and future air quality impacts for ozone in the MDAB and PM₁₀ in the SVPA portion.

TABLE 2

**Federal Attainment and Maintenance Status of
Air Pollutants in Kern County (Mojave Desert Portion)**

<i>Pollutant</i>	<i>Status</i>	<i>Attainment/Maintenance Deadline (Federal)</i>
Ozone (VOC and NO _x)	Nonattainment – Serious	1999
PM ₁₀ (SVPA only)	Nonattainment – Moderate ²	2000
CO	Attainment	N/A

This conformity documentation documents conformity for each of these pollutants under all applicable requirements.

IV. SIP AND MAINTENANCE PLAN STATUS

Current SIPs in the San Joaquin Valley include those developed by the Unified Air Pollution Control

¹ On February 28, 2002, EPA proposed a finding that the San Joaquin Valley failed to attain the PM₁₀ standards by December 31, 2001 as required by the Clean Air Act. If finalized, this action will require that a new plan be submitted to EPA by December 31, 2002 that provides 5% emission reductions in PM₁₀ per year until the area attains the standards.

² ARB requested redesignation to Attainment/Maintenance in 1997.

District, which covers the entire San Joaquin Valley, and some SIPs developed prior to the formation of the SJVUAPCD, applicable only to a specific county. Table 3 documents the status of all San Joaquin Valley Unified Air Pollution Control District SIPs.

Current applicable SIPs submitted to EPA include ozone (under the serious classification) and CO (maintenance plan). Approved motor vehicle emission budgets for ozone precursors VOC and NO_x as well as for CO are in place for Kern County. On February 28, 2002 EPA issued a finding that the State failed to submit the Serious Area PM₁₀ Plan.

The 1978 Kern County Air Quality Maintenance Plan and Nonattainment Area Plan was developed and approved prior to the formation of the San Joaquin Valley Unified Air Pollution District in May 1992. At that time the Kern County APCD became responsible for the Mojave Desert portion of Kern County.

TABLE 3
San Joaquin Valley Unified Air Pollution Control District SIP Status

SIP	Date of Adoption by District	Date Submitted to EPA	EPA Adequacy	EPA Approval
Carbon Monoxide				
1992 Federal Attainment Plan for Carbon Monoxide	November 18, 1992	December 28, 1992		Complete by operational law
CO Redesignation to Attainment and Maintenance Plan	N/A	July 3, 1996 ³	Automatic when approved	Approval effective June 1, 1984
PM₁₀				
Moderate Area PM ₁₀ Plan	November 7, 1991	December 7, 1991	Inadequate - incomplete plan	None
1994 Serious Area PM ₁₀ Plan (no emission budgets)	September 14, 1994	October 12, 1994		Found Complete February 15, 1995
1997 PM ₁₀ Attainment Demonstration Plan	May 15, 1997 ⁵	July 17, 1997	Budgets found inadequate, May 5, 1999.	On 2/26/02, EPA issued a finding that the State failed to submit the Serious Area PM ₁₀ Plan.
Ozone				
Revised 1993 Rate of Progress Plan (Ozone 1990 - 1996)	November 3, 1994	November 15, 1994	Automatic when approved	Approval effective 2/7/97
Ozone Attainment Demonstration Plan	November 14, 1994	November 15, 1994	Automatic when approved	Approval Effective 2/7/97
Revised 1996 Rate of Progress Plan (Ozone 1997 - 1999)	September 20, 1995 (revised)	November 15, 1994	Automatic when approved	Approval effective 2/7/97

Table 3 indicates that there are approved for CO and ozone plans in the SJVAB. The ozone and CO plans contain motor vehicle emissions budgets for use in conformity demonstrations. On February 28,

³ ARB revised State SIP on 4/26/96 requesting redesignation to attainment

⁴ The direct final rule was published on March 31, 1998 in the Federal Register. Lacking adverse comments, the rule became final 60 days after publication.

⁵ Approved by CARB June 26, 1997

2002, EPA issued a finding that the State failed to submit the Serious Area PM₁₀ Plan; however, the 1993 baseline emissions in that plan have been accepted for use in conformity determinations.

The MDAB has an approved SIP for ozone, containing applicable budgets, and a submitted PM₁₀ Plan for the SVPA. No action has been taken on the budgets in the SVPA PM₁₀ Attainment Demonstration, Maintenance Plan and Redesignation Request, therefore 1991 baseline emissions in that plan have been accepted for use in conformity determinations.

On June 5, 2001, EPA proposed to split the Searles Valley Nonattainment Area into three separate areas: Coso Junction, Indian Wells Valley (Kern) and Trona. The split is consistent with how the State of California has historically administered air quality programs in the region and is supported by the geographic features of the area. The Indian Wells Valley (Kern) portion of the SVPA did not attain the PM₁₀ standards by the deadline. There were significant gaps in their data. EPA has proposed to reclassify this area to a serious PM₁₀ nonattainment area.

TABLE 4

Kern County Unified Air Pollution Control District SIP Status

SIP	Date of Adoption by District	Date Submitted to EPA	EPA Adequacy	EPA Approval
Ozone				
90-96 15% Ozone Rate of Progress Plan	November 1, 1993	November 15, 1994		
Post 96 Ozone Rate of Progress Plan	December 1, 1994	December 28, 1994		
Ozone Attainment Demonstration Plan	December 1, 1994	December 28, 1994	Automatic when approved	Approval effective 2/7/97
PM₁₀				
Searles Valley Planning Area (SVPA) PM ₁₀ SIP (revised)	September 7, 1995	January 8, 1996	February 22, 1994 (Kern portion only)	
SVPA PM ₁₀ Attainment Demonstration, Maintenance Plan, and Redesignation Request	January 9, 1997	July 28, 1997		

Basis for Single County Conformity Determination for the San Joaquin Valley

The San Joaquin Valley is an eight-county area containing six Metropolitan Planning Organizations (MPOs) and two Rural Transportation Planning Agencies (RTPAs). The San Joaquin Valley is a single air pollution planning area (air basin) served by the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD).

Section 93.124 (d) of the 1997 final Transportation Conformity Rule (40 CFR Part 93) allows for conformity determination for subregional emission budgets by MPOs if the applicable implementation plans (or implementation plan submission) explicitly indicates an intent to create such subregional budgets for the

purpose of conformity. Additionally, Section 93.132(e) of the 1993 final conformity rule, and section 93.124 (e) of the 1997 final rule states: "...if a nonattainment area includes more than one MPO, the implementation plan SIP may establish motor vehicle emission budgets for each MPO, or else the MPOs must collectively make a conformity determination for the entire nonattainment area." Each applicable implementation plan and estimate of baseline emissions in the San Joaquin Valley lists motor vehicle emission budgets by county, to facilitate county-level conformity findings.

The San Joaquin Valley conformity implementation rule (also referred to as Conformity SIP) was adopted by the SJVUAPCD on January 19, 1995 and submitted to EPA. This rule specified that conformity determinations in the San Joaquin Valley be performed by the MPOs on a county level. Conformity determinations have always been performed on a county level in the San Joaquin Valley. In order to ensure that the emission budget for the entire San Joaquin Valley is not exceeded, each county must ensure that their motor vehicle emissions do not exceed the emission budget specified for their county, or face a finding of nonconformity and resulting loss of federal funding and approvals. Kern COG and the other seven RTPAs maintain regular contact with each other and the SJVUAPCD and ensure that Valleywide emission budgets are not exceeded. The SJVUAPCD is planning to change some procedures in the conformity SIP to make it consistent with new federal guidance and conformity rule numbering. This conformity finding complies with the 1995 conformity SIP as well as subsequent EPA and/or FHWA guidance.

V. GENERAL CONFORMITY CRITERIA AND PROCEDURES

This section documents general conformity criteria and procedures, including the latest planning assumptions, emissions models, PM10 emissions from construction, general and specific consultation procedures, public involvement procedures, the status of TCMs in approved plans, and the date of the last conforming TIP and RTP.

Latest Planning Assumptions (40 CFR 93.110)

On January 18, 2001 The U.S. DOT and EPA jointly issued a memorandum clarifying their expectations for implementing the conformity rule requirements for use of latest planning assumptions in conformity findings. This conformity finding complies with the January 2001 guidance, and with section 93.110 of the conformity rule, as detailed below.

Population and Employment: The starting point for the socioeconomic data by traffic analysis zone (TAZ) was the 1990 and 2020 land use used in the Kern COG peak period model development in 1996. These housing forecasts were based on the 1990 Census and State of California Department of Finance (DOF) projections. Housing was distributed using a share-allocation method based on past historic growth and available capacity allowed for by the general plan. The employment forecasts were developed primarily from a Jobs housing balance rate of 1.3 jobs per household as forecasted by the DOF. The general plan land use data and estimates of market absorption rates by local government planners combined with past growth patterns were used to distribute the employment forecast. Population and employment growth were distributed among Kern County jurisdictions based on local data and a consensus process. The forecast process was presided over by a subcommittee of the Kern COG Transportation Technical Advisory Committee (TTAC).

The new 1998 base year data was updated considering estimates/projections of growth consistent with State of California Department of Finance (DOF) figures, State of California Employment Development Department (EDD) labor market data, *Info USA Employer Data*, and input from local jurisdictions. The DOF data was based on 1990 census counts. Reports from the DOF Historical City/County Population Estimates 1991 – 1998 were used. Additionally, base year housing estimates were refined using the Kern County Assessor's data by TAZ.

Future horizon year (2030) estimates were developed based on the DOF County Population Projections for 1990-2040 (DOF's "County Population Projections with Race/Ethnic Detail Estimated July 1, 1990 –

1996 and Projections for 1997 through 2040) and previous travel demand model inputs for 2020, including General Plan assumptions and trends in population, housing and employment relationships. A review of current and previously assumed historical trends was made. It should be noted that the DOF population projections released in November 1998 predicted substantially lower populations for Kern County compared with previous DOF projections.

Land use: The travel demand model land use inputs (socioeconomic data) by TAZ include population related data (household data, household population, group quarters, income, and population estimates), and employment related data (broken down into three employment categories: retail, basic, and service/other). In conjunction with development of population and employment forecasts by TAZ, an evaluation of expected future development in coordination with local officials and planners was made in order to ensure that additional capacity added through the RTP was appropriately balanced to the expected development patterns in Kern County.

Vehicle Age and Fleet Mix: Vehicle ages and fleet mixes specific to Kern County have never been developed; rather the County has always used the estimates contained within the Air Resource Board (ARB) EMFAC model. These estimates are developed by members of the ARB Mobile Source Division and are based on the most recent data and best projection techniques available.

Kern COG Transportation Model: Kern COG recently updated their travel model to TP+ modeling software and updated the model base year from 1994 to 1998. The Kern COG regional travel model is a four-step travel model used for forecasting. It uses land use, socioeconomic, and road network data to estimate facility-specific transit and roadway traffic volumes. The study area for the Kern COG model covers all of Kern County, including the cities of Arvin, Bakersfield, California City, Delano, Maricopa, McFarland, Ridgecrest, Shafter, Taft, Tehachapi, and Wasco. The county is divided up into approximately 1,100 traffic analysis zones (TAZs). The travel demand model roadway network includes approximately 5,000 nodes, and 10,000 links. Link types include freeway, freeway ramp, highway (multi and two-lane), arterial, collector, rural road and transit. Current and future year road networks were developed considering local agency circulation elements of the general plan, traffic impact studies, capital improvement programs (CIPs) and the State Transportation Improvement Program (STIP).

The travel demand model currently estimates AM 2 hour, Mid-day 3 hour, PM 3 hour and Off-peak 16 hour assignments. Daily forecasts are calculated by summing the individual time periods.

Vehicle miles of travel (VMT) are validated to a 1998 base year. VMT estimates from the model were calibrated to VMT estimates from the Highway Performance Monitoring System (HPMS). The model estimates are well within the targets set by FHWA for calibrating modeled VMT to HPMS figures.

The Kern COG travel model includes feedback loop that is intended to ensure that the congested travel speeds used as input to the air quality analysis are consistent with the travel speeds used throughout the model process. As part of the 1998 model update, a feedback process using the method of successive averages was implemented, complete with the following convergence criteria:

- Maximum weighted percent change in link volumes is < 5%;
- Average zone-to-zone change in impedance < 5%;
- Average zone-to-zone change in impedance (weighted by VMT) < 5%.

Specific Assumptions: Table 5 provides socioeconomic, VMT and trip data for each analysis year in the conformity determination

TABLE 5
Socio-economic, Trip and VMT Data
Kern County

Year	Population	Employment	Trips	VMT
2005	757,000	304,000	2,187,000	22,549,000
2015	1,002,000	452,000	2,879,000	31,317,000
2025	1,282,000	622,000	3,730,000	41,601,000

VMT - Vehicle Miles of Travel

Documentation of Latest Emissions Model (93.111)

Section 93.111 of the 1997 Transportation Conformity Rules requires the use of the latest emission estimation model in development of conformity determinations. In California, there are two Motor Vehicle Emission Inventory (MVEI) models currently in use: MVEI7F and MVEI7G. The MVEI models include EMFAC (EMission FACTor) and BURDEN (so named because it estimates the *burden* placed on the atmosphere) as part of the series of computer models used to estimate on-road motor vehicle emissions. EMFAC7F and EMFAC7G are the emission factor portions of the modeling series, while BURDEN7F and BURDEN7G are the emission estimation segments of the modeling series. In 1997, the California Air Resources Board requested that EPA approve the use of EMFAC7G for use in conformity assessments. The request and subsequent EPA approval specifically states that EMFAC7G should be used to assess conformity for transportation plans and programs when EMFAC7G has been used in the applicable air quality plan. Furthermore, if emission budgets from the applicable air quality plan were developed using EMFAC7F, the agency must continue to use EMFAC7F to assess conformance with those emission budgets.

This conformity analysis uses the officially approved latest model, EMFAC7F, for comparison to motor vehicle emission budgets developed with EMFAC7F. These emission budgets include the VOC and NO_x budgets in the *1994 Ozone Attainment Demonstration Plan* and the CO budget in the *1996 Carbon Monoxide Maintenance Plan* for the San Joaquin Valley, and the Ozone Attainment and PM₁₀ Maintenance Plans for the MDAB portion of Kern. The EMFAC7G model was used to develop the *1997 PM₁₀ Attainment Demonstration Plan*, and associated baseline emission inventory for PM₁₀, VOC, and NO_x. In order to maintain consistency with the emission model used in development of the *1997 PM₁₀ Attainment Demonstration Plan* and per EPA guidance regarding the use of EMFAC7G, the EMFAC7G model was used to assess conformity with the motor vehicle emission test (less than 1993 baseline) for PM₁₀.

The 1993 baseline is used for two reasons. First, the San Joaquin Valley 1997 PM-10 Attainment Demonstration Plan has calendar year 1993 as its baseline emission inventory year. This baseline was developed as a cooperative effort between the SJVUAPCD and the eight San Joaquin Valley RTPAs. Second, no 1990 baseline exists. Therefore, EPA Region IX and FHWA indicated verbally on April 26, 1999 (and confirmed in writing by FHWA California Division in a letter dated May 3, 1999) that the 1993 motor vehicle emissions inventory is the appropriate baseline year to use for this conformity analysis.

Council of Fresno County Governments staff, in coordination with SJVUAPCD staff, developed an additional PM₁₀ worksheet for use by the eight San Joaquin Valley RTPAs. The PM₁₀ worksheet incorporates motor vehicle related PM₁₀ emissions such as entrained road dust with the EMFAC7G and BURDEN 7G outputs completing the PM₁₀ motor vehicle emission inventory for each county. The PM₁₀ worksheet compiles and documents the emission estimation methodology used by the SJVUAPCD to develop the motor vehicle emission budgets in the PM₁₀ Attainment Demonstration Plan.

In addition, some control measures such as heavy-duty truck engine requirements are not included in EMFAC7F or EMFAC7G. In order to account for the effects of these measures, control factors developed and used by the CARB for these measures are applied to the emission factors or to the emission totals as applicable. The California Air Resources Board on April 17, 2000 updated the 2002-2010 emission control factors used with the EMFAC7F emissions model due to changes in implementation of California's Enhanced Vehicle Inspection and Maintenance Program. Kern COG applied these updated factors to the emission totals as appropriate in the emissions analysis for this conformity determination.

VI. DOCUMENTATION OF GENERAL AND SPECIFIC CONSULTATION PROCEDURES (40 CFR §93.112)

In addition to the specific requirements of the conformity rule, which are discussed below, Kern COG employs the following general approach to ensuring appropriate interagency consultation:

- There is regular discussion of air quality issues at quarterly meetings of the San Joaquin Valley Transportation Planning Agency Directors' Association. This group is composed of the executive directors of each of the eight Valley RTPAs. The group invites (and meetings are regularly attended by) Caltrans District 6 and District 10 as well as Caltrans headquarters staff, SJVUAPCD, ARB, FHWA/FTA, and EPA.
- There is regular discussion of air quality issues at meetings of the San Joaquin Valley Modeling and Air Quality Coordinating Committee, which is a designated representative committee reporting to the Directors' Association and which has staff-level representation from each of the above-named agencies and all eight Valley RTPAs. This committee meets on an as-needed basis several times a year.
- There are meetings of the San Joaquin Valley's RTP and TIP Committee to discuss the general content of RTPs and TIPs. This committee prepared the San Joaquin Valley Regional Transportation Overview chapter (including a section on air quality) that all eight RTPAs include in their RTPs.
- There is development and update of a Memorandum of Understanding work program between the San Joaquin Valley RTPAs and the SJVUAPCD. The work program covers transportation and air quality items of shared interest, such as TCMs, conformity, latest emission models, emission budgets, and information sharing.

Section 93.105 of the conformity rule notes the §51.390 requirement to develop a conformity SIP that includes procedures for interagency consultation, resolution of conflicts, and public consultation as described in paragraphs (a) through (e) of the section. Section 93.105(a)(2) states that prior to EPA approval of the conformity SIP, "MPOs and State departments of transportation must provide reasonable opportunity for consultation with State air agencies, local air quality and transportation agencies, DOT and EPA, including consultation on the issues described in paragraph (c)(1) of this section, before making conformity determinations." A conformity SIP was developed and adopted by the San Joaquin Valley Unified Air District Board on January 19, 1995, and submitted to EPA. EPA has not approved the conformity SIP, so the conformity rule requires compliance with §§93.105(a)(2) and (e), and 23 CFR 450 per §93.112 – Criteria and procedures: Consultation.

Below is a list of specific items from paragraph (c)(1) of §93.105, with a description of the procedure for addressing each item. Paragraph (c)(1) covers the specific processes for interagency consultation. Each specific requirement below is addressed through a consultation process that involves Kern COG (the MPO), ARB, SJVUAPCD, KCAPCD, EPA (Region 9), and FHWA/FTA (California Division), as required by section 93.105(c)(1).

1. **§93.105(c)(1)(ii):** Determining which minor arterials and other transportation projects should be considered "regionally significant" for the purposes of regional emissions analysis (in addition to those functionally classified as principal arterial or higher or fixed guideway systems or extensions that offer an alternative to regional highway travel), and

which projects should be considered to have a significant change in design concept and scope from the RTP or TIP.

In determining which projects are regionally significant, Kern COG goes beyond the minimum requirement in the conformity rule by assuming some minor arterials as well as principal arterials are potentially regionally significant. Kern COG's traffic model contains projects on the road network, and includes many local roads that are not regionally significant. Kern COG will use the updated road network and the definition in §93.101 to determine whether a project in an amendment is considered regionally significant.

2. **§93.105(c)(1)(iii). Evaluating whether projects otherwise exempted from meeting the requirements of §93.126 and §93.127 should be treated as non-exempt in cases where potential adverse emissions impacts may exist for any reason.**

Kern COG maintains a review process for draft documents such as the RTP, the FTIP (and amendments to it), and conformity findings by air and transportation agencies as well as the public and uses input from this review process to determine whether there are exempt projects that potentially have adverse emission impacts. No exempt projects have been identified that should be treated as non-exempt.

3. **§93.105(c)(1)(iv). Making a determination, as required by §93.113(c)(1), whether past obstacles to implementation of TCMs that are behind the schedule established in the applicable SIP have been identified and are being overcome, and whether State or local agencies with influence over approvals or funding for TCMs are giving maximum priority to approval or funding for TCMs. This process shall also consider whether delays in TCM implementation necessitate revisions to the SIP to remove TCMs or substitute TCMs or other emissions reduction measures.**

Currently there are no TCMs in the applicable SIPs that are behind schedule. During the process of preparing each conformity determination, Kern COG assesses TCM implementation. The eight San Joaquin Valley RTPAs and the San Joaquin Valley Unified Air Pollution Control District have an organized interagency process that includes regular meetings. These regular meetings include quarterly meetings of the Valley TPA Directors' Association at the policy level, which are regularly attended by Caltrans, FHWA, EPA, and ARB in addition to the eight Valley TPA Directors and the Air District. Meetings are also conducted at the staff level by the San Joaquin Valley Air Quality Modeling Coordinating Committee to discuss topics such as TCM implementation, TCM funding, and SIP issues that involve TCMs.

4. **§93.105(c)(1)(v). Identifying, as required by §93.123(b), projects located at sites in PM₁₀ nonattainment areas which have vehicle and roadway emission and dispersion characteristics which are essentially identical to those at sites which have violations verified by monitoring, and therefore require quantitative PM₁₀ hotspot analysis.**

According to §93.123(b)(4), "The requirements for quantitative analysis contained in this paragraph (b) will not take effect until EPA releases modeling guidance on this subject and announces in the *Federal Register* that these requirements are in effect." As of May 1, 2002, Fresno COG staff is not aware that such guidance has been developed; therefore, this section is not applicable.

5. **§93.105(c)(1)(vi). Notification of transportation plan or TIP revisions or amendments, which merely add or delete exempt projects listed in §93.126 or §93.127.**

Kern COG notifies the San Joaquin Valley RTPAs, SJVUAPCD, KCAPCD, Caltrans, ARB, FHWA/FTA, and EPA of these revisions and amendments through mail-out of copies of submittal letters and/or documents to Caltrans and FHWA/FTA stating such.

VII. PUBLIC CONSULTATION PROCEDURES (40 CFR §93.105(E))

The public consultation procedures consistent with the Conformity SIP adopted by the SJVUAPCD on January 19, 1995, and submitted to EPA have been followed during the development of this conformity assessment. These procedures are consistent with consultation procedures specified in 93.105(e).

Kern COG is providing reasonable opportunity for comments (thirty-day comment period from May 20, 2002 to June 20, 2002) on this conformity assessment from the SJVUAPCD, KCAPCD, the other seven San Joaquin Valley RTPAs, ARB, Caltrans, FHWA, FTA, and EPA. In addition, the San Joaquin Valley Air Quality Modeling and Coordinating Committee met on January 9, February 6, March 6, March 28, April 24, and May 9, 2002. This committee, of which the above-named agencies are members and participate regularly, discusses conformity-related assumptions and procedures used in this conformity analysis. On June 20, 2002 the Kern COG Policy Board will hold a public hearing regarding this Air Quality Conformity Determination and their decision to make a finding of conformity with applicable State Implementation Plans for the 2002 FTIP. If public comments are received, they will be addressed and this Air Quality Conformity Determination will be finalized after the close of the thirty-day public comment period and the public hearing on June 19, 2002.

VIII. STATUS OF TCMS IN APPROVED PLANS (40 CFR §93.113)

This conformity determination establishes that local air quality planning programs are sufficient to demonstrate that TCMs have been identified through a legitimate planning process and that these measures have received the necessary federal, state, and local commitments to ensure implementation. In addition, these commitments are maintained through identification in the 2000 RTP. A description of SIP TCMs that have been or are currently being implemented is provided in the following discussion.

Throughout the process of preparing the 2000 RTP and this conformity analysis, no impediments to timely implementation of adopted TCMs have been identified.

Based on a review of the transportation control measures contained in the applicable air quality plans and their relationship to the 2000 RTP, the required TCM conformity finding is demonstrated. The 2000 RTP provides for the timely completion or implementation of the TCMs in the applicable air quality plans, and no schedule difficulties have been identified. In addition, nothing in the 2000 RTP interferes with the implementation of any TCM in the applicable plans, and priority is given to TCMs.

The currently applicable, EPA-approved SIPs for Kern County date as far back as 1978 with applicable Air District plans: 1978 *Air Quality Attainment Plan/Nonattainment Area Plan*; 1994 Ozone Attainment Demonstration Plan; and 1995 Ozone Revised Post 1996 Rate of Progress Plan. These plans commit Kern COG and local government agencies to implementing the following transportation control measures:

1. Inspection/Maintenance (1978)
2. Transit Improvement (1978, 1995)
3. Traffic Flow Improvements (1978, 1995)
4. Bikeways Plan (1978, 1995)
5. Voluntary Rideshare (1995)
6. Alternative Fuels Program (1995)

1978 Air Quality Nonattainment Area Plan

As shown above, the 1978 plan contains four TCMs: Inspection/Maintenance, Transit Improvement, Traffic Flow Improvements, and Bikeways Plan. The analysis in the 1978 plan identified the four TCMs as being reasonably available measures for implementation. Implementation of these measures is discussed in more detail below.

Inspection Maintenance

Mandatory annual CO and HC emissions testing for all on-road vehicles repair of those vehicles which fail the test is carried out by the State of California.

Transit Improvement

Kern County has a number of public transit agencies. Golden Empire Transit (GET) serves the Metropolitan Bakersfield area while Kern Regional Transit serves the rural portions of the county. In addition to GET and KRT, the following cities provide demand response and/or fixed route transit services: Arvin; California City; Delano; McFarland; Ridgecrest; Shafter; Taft; Tehachapi; and Wasco. The North Bakersfield Recreation and Parks District serves as the Consolidated Transportation Services Agency (CTSA) in Metropolitan Bakersfield, providing curb-to-curb transportation to the elderly and disabled. GET-A-Lift also provides transportation to those individuals who are not able to use GET's fixed route services. As the population of Kern County grows, the need for reliable transit service is increasing.

All of the agencies listed above continually strive to provide additional transit service for the community. The Kern COG *Transit Performance Indicators Report FY 2000-2001*, for Kern County transit agencies, documented transport of 8.28 million passengers. This is an increase of more than 12 percent over the number of passengers (7.35 million) transported by the agencies in FY 1999-2000 (Kern COG *Transit Performance Indicators Report FY 1999-2000*). Kern COG awarded \$3,055,015 in Congestion Mitigation and Air Quality (CMAQ) funds to Kern County transit agencies in FY 2000-2001 (Kern COG FTA Section 5311 Program of Projects, FY 2000-2001). An additional \$1,731,544 in CMAQ funds has been programmed for transit agencies in FY 2001-2002 (Kern COG FTA Section 5311 Program of Projects, FY 2001-2002). Please see Sections 4.5.3, Mass Transportation, 5.2.5, Transit Enhancements, and 8.6, Financial Element, in the Kern COG 2000 Regional Transportation Plan (RTP) for further information regarding recent accomplishments and proposed actions regarding public transit in Kern County.

Traffic Flow Improvements

During TEA 21 from 1998 to 2003, Kern COG has programmed approximately 120 projects comprised of traffic-flow improvement projects, alternative fuel projects and transit projects using Congestion Mitigation/Air Quality funding. Approximately \$16.5 million has been programmed during TEA 21 for signalization, signal synchronization projects, and traffic safety improvements on streets in county areas of metropolitan Bakersfield. Additionally, approximately \$20 million has been programmed towards transit related alternative fuel projects including transit fueling stations, transit transfer stations and rolling stock. To date, approximately $\frac{3}{4}$ of the entire TEA 21 program of projects has been expended. Approximately 30 projects remain to be completed, approximately \$9.7 million in the 2003 year. The 30 projects include 9 transit related projects and 21 traffic control related projects to conclude the TEA 21 programming for CMAQ.

Bikeways Planning

Kern County has an aggressive on-going bicycle travel facilities planning and funding process. Recent planning accomplishments include the publication of the Kern County Bicycle Plan in July 2001. This plan inventories existing facilities and identifies proposed additions to the bicycle travel network in ten of the eleven incorporated cities as well as several unincorporated areas of Kern County.

Other than the installation of bike racks on transit busses, no CMAQ funding has been used to plan, design or construct bicycle travel facilities. In the Kern region, two sources of money have been used to implement bicycle projects. The funding sources are the federal Transportation Enhancement Activities (TEA) program and the state Transportation Development Act Article 3 (Article 3) program.

Since the year 2000 the TEA program has funded a number of bicycle travel projects, including:

- Erskine Creek Bicycle and Pedestrian Project in Lake Isabella
- Calloway Drive Undercrossing in western Bakersfield

- Panorama Park expansion project in Northeast Bakersfield
- Lake Isabella Blvd. Landscape Project, which will include bicycle lanes
- Lamont Main Street Improvements
- Ridgecrest Blvd Bike Lanes Project
- Chelsea Street Bicycle lanes project in Ridgecrest
- Tehachapi Blvd Landscape Improvement Project, which includes bike lane installation
- Downtown Wasco Streetscape Improvement Project, which includes bike lane installation
- South Union Avenue Streetscape project, which included bike lanes
- Delano Downtown Streetscape Improvement project
- Fairfax Road to Hart Park Bike Path

The total cost of all the projects listed above is \$4,565,000.

The Article 3 Program also has a number of projects that have been completed since 2000, or are scheduled for completion within the next two years. These projects include:

- Fairfax Road Bike lanes in Northeast Bakersfield
- Alfred Harrell Highway Frontage Road Bike lanes
- Arvin Bicycle Racks
- California City Blvd Loop Bike lanes
- California City Redwood Blvd Bike lanes
- Delano Bicycle Parking rack
- Ridgecrest Leroy Jackson Park Bike path
- Ridgecrest Upjohn Avenue Bike lanes
- Ridgecrest Bicycle racks
- Shafter Bicycle Racks
- Taft Gardiner Field Road Bike lanes
- Taft Bicycle Racks
- Tehachapi Valley Blvd Bike lanes
- Wasco Bicycle Parking rack

Approximately \$744,000 has been obligated to fund the Article 3 projects listed above.

In addition, Article 3 funding is also used to fund pedestrian projects and projects that provide safety instruction to school children on how to safely ride their bicycle.

Another large bicycle travel project will be installed later this year. The Southwest Kern River Bike path extension will extend some 8.1 miles to Enos Lane (SH 43) in western Metropolitan Bakersfield. This project is being paid for with \$2.1 million in Proposition 12 funding, which called for improvements along the Kern River Corridor. Kern COG funded the initial environmental study for \$25,000 to determine if there were any environmental fatal flaws to this project.

Voluntary Rideshare Program

Kern COG continues to fund and operate Kern Commuter Connection, which provides ridematching services for Kern County. Kern Commuter Connection also provides transportation demand-management services, information, and support to individual commuters and employers in Kern County. The transportation demand-management services facilitate higher vehicle occupancy rates and reduce congestion by expanding the traveler's choice in terms of travel method, time, route, costs, and the quality and convenience of the travel experience.

1995 Revised Post 1996 Rate of Progress Plan (dated 9/20/95)

The Revised Post 1996 Rate of Progress Plan was required to show that the SJVUAPCD would achieve a 9% reduction in emissions of volatile organic compound and/or oxides of nitrogen between 1996 and 1999. No TCMs were included in the plan as primary control measures to meet the 9% reduction in emissions. As required by the Federal Clean Air Act, the SJVUAPCD included contingency measures to be implemented in the event that the 9% reduction in volatile organic compound emissions had not occurred by the end of 1999. Similar to other Air District plans, the terms mobile source control programs and transportation control measures are used almost interchangeably in the documents. EPA did approve into the SIP a TCM package from the Revised Post 1996 Rate of Progress Plan in January 1997. The commitments are listed within the following TCM categories: TCM1-Traffic Flow Improvements, TCM2-Public Transit, TCM3-Rideshare Programs, TCM4-Bicycle Programs, and TCM5-Alternative Fuels Program. Kern COG and its member agencies' implementation of TCM1-TCM4 is discussed above.

For the purpose of conformity, TCM is defined in §93.101. In that definition, it states that vehicle technology-based, fuel-based, and maintenance-based measures (like catalytic converters, cleaner burning compressed natural gas, and *California's Smog Check Program*), which control vehicle emissions under fixed traffic conditions, are not considered transportation control measures. Although Fresno COG staff does not believe that our member agencies or we are obligated to show timely implementation under the conformity regulation of something that is called a TCM, but does not fit the definition in the rule, many alternative fuel projects have been funded and are discussed below.

Alternative Fuels Program

Specific actions taken by the Kern COG and its member agencies regarding an alternative fuels program include the following:

- Under ISTEA CMAQ (1992-1996), awarded 54 alternative fuel (CNG and electric) transit vehicles for public transportation operators in Kern County totaling \$8 million in funding. Under TEA-21 CMAQ (1998-2000), awarded 66 alternative fuel (CNG and electric) transit vehicles for public transportation operators in Kern County totaling \$12 million in funding.

1994 Ozone Attainment Demonstration Plan

The transportation control measures contained in the *1994 Ozone Attainment Demonstration Plan* are not clearly delineated as in previous SIPs. Both transportation control measures and mobile source measures are discussed under the heading of transportation control measures. In fact, transportation control measures and mobile source measures are different control strategies, and under the conformity regulations Kern COG is only responsible to show timely implementation of transportation control measures not mobile source measures. The *1994 Ozone Attainment Demonstration Plan* includes the SJVUAPCD's Rule 9001 – Commute Based Trip Reduction; however, this rule was never approved by EPA as part of the SIP. Voluntary implementation of Rule 9001 is ongoing even though it was not approved into the SIP by EPA. Rule 9001 was a mandatory employer-based trip reduction program. In October 1995, California Governor Pete Wilson signed Senate Bill 437 (codified at Health and Safety Code §40929(a)), which eliminated mandatory employer programs unless the program was expressly required by federal law. Then in December 1995, Congress changed the Clean Air Act to make the Employee Commute Option program voluntary (no longer mandatory). California code was modified to reflect these changes. Kern COG is documenting in this conformity demonstration the Kern County communities' voluntary efforts regarding employee trip reduction.

Kern COG conducted a survey within Kern County to determine to what extent employee trip reduction measures are being implemented on a voluntary basis. Contact names and company addresses were derived from old Rule 9001 Employee Transportation Coordinator lists as well as from the Kern Commuter Connection database. The employer survey was sent to employer representatives to determine the types of programs offered by local companies.

TABLE 6**Analysis of Employer Commute Options Survey**

Total number of companies sent survey: 85

Total number of companies who responded: 56

Rate of return of survey: 45%

Transportation options	% of Responding Employers Implementing Program
Bus/Shuttle Service	21%
Sale of or Subsidized Transit Passes	0%
Company Sponsored Vanpool	11%
Employee Formed Vanpool	5%
Ridesharing	66%
Preferential Rideshare Treatment	11%
Guaranteed Ride Home	8%
Bicycle Racks/Lockers	47%
Changing Rooms/Shower	47%
Compressed Work Week	42%
Telecommuting/Work at Home	13%

As these results indicate, programs initiated with Rule 9001 are still being implemented at companies throughout Kern County. This summary serves as an indication that there are numerous employers implementing the intent of the employer trip-reduction ordinance on a voluntary basis.

Date of Last Conforming TIP and Plan

As required by the FHWA and FTA in section 93.114, this section documents the date of last conforming transportation plan and program for Kern COG. FHWA/FTA issued a conformity finding for the 2002 RTP and 2000 FTIP through Amendment #4 on September 25, 2001.

IX. EMISSIONS REDUCTION TESTS AND THE BUDGET TEST

The 1997 final conformity rule requires the use of emissions budget tests (section 93.118) or, if emissions budgets are not available, the use of emissions reduction tests (section 93.119). The emissions budget test is met when emissions resulting from when the transportation plan or program is implemented are consistent with the motor vehicle emissions budget specified in the applicable SIP. Consistency is satisfied if it is demonstrated that emissions are less than or equal to the motor vehicle emissions budget.

Currently the San Joaquin Valley portion of Kern County has emission budgets in place for ozone and CO. Kern COG must perform a "less-than-baseline" test for PM₁₀ as EPA found the budget inadequate on May 5, 1999. The San Joaquin Valley portion of Kern County is a CO nonattainment or maintenance area. As identified in Table 6, the San Joaquin Valley has EPA approved ozone and CO plans containing emissions budgets. The 1993 baseline emissions of PM₁₀ and precursors (VOC and NO_x) in the PM₁₀ Attainment Demonstration Plan have been agreed to be adequate for purposes of demonstrating conformity to the emission reduction test. The 1993 baseline emissions were developed in consultation with the eight Valley TPAs, the SJVUAPCD, EPA, FHWA, FTA, Caltrans and ARB. This conformity assessment documents consistency with all applicable emissions budgets as well as baseline emissions for PM₁₀ and relevant precursors.

TABLE 7

Pollutant Conformity Test

Pollutant	Applicable Test	EPA Adequacy
CO (SJV)	Budget	Yes
Ozone (VOC, NO _x) (SJV/MDAB)	Budget	Yes
PM ₁₀ plus VOC and NO _x precursors (SJV)	Less-than-baseline	Not applicable to baseline test
PM ₁₀ (SVPA)	Less-than-baseline	Not applicable to baseline test

Carbon Monoxide

The motor vehicle emission budget for Carbon Monoxide for Kern County is specified in the *1996 Carbon Monoxide Redesignation Request and Maintenance Plan* as 223 tons per average winter day. EPA proposed direct, final approval for this plan, and promulgation of the SIP on March 31, 1998. The CO motor vehicle emissions budget became effective on June 1, 1998, and provides the basis for conformity purposes for subsequent years. The *Carbon Monoxide Redesignation Request and Maintenance Plan* does not establish budgets for the last year of the maintenance plan (2005) so the 1993 budget from Table 10 of the Plan is used to compare with each analysis year emissions. In this conformity analysis, emission estimates were calculated using the EMFAC7F model and the same temperature and control measure conditions assumed by CARB in development of the CO motor vehicle budget. Table 8 documents the conformity results for Carbon Monoxide.

TABLE 8
CO Conformity to CO Budgets
San Joaquin Valley Portion of Kern County

Scenario	Tons per Day
1993 Budget	223
2005	169
2015	157
2025	195

Ozone

San Joaquin Valley

The emissions budgets from the San Joaquin Valley Ozone Attainment Plan are specified for the year 1999 for VOC and NO_x in tons per average summer ozone season day. EPA approved the San Joaquin Valley Ozone Attainment Plan on February 7, 1997. These budgets must be maintained for all years following 1999. The budgets were developed by CARB using the EMFAC7F model with ozone season temperatures, and all currently applicable control measures in the San Joaquin Valley. The same procedures were followed in developing the emissions results detailed in Table 9.

TABLE 9

**VOC and NO_x Conformity to Ozone Budgets
San Joaquin Valley portion of Kern County
Tons per Day**

Scenario	VOC	NO_x
1999 Budget	15.88	26.21
2005	13.07	23.67
2015	8.01	20.26
2025	8.08	25.86

Mojave Desert

The emissions budgets from the Mojave Desert Ozone Attainment Plan are specified for the year 1999 for VOC and NO_x in tons per average summer ozone season day. EPA approved the Ozone Attainment Plan on February 7, 1997. These budgets must be maintained for all years following 1999. The budgets were developed by CARB using the EMFAC7F model with ozone season temperatures, and all currently applicable control measures in the MDAB. The same procedures were followed in developing the emissions results detailed in Table 10.

TABLE 10

**VOC and NO_x Conformity to Ozone Budgets
Mojave Desert portion of Kern County
Tons per Day**

Scenario	VOC	NO_x
1999 Budget	3.05	7.46
2005	2.79	3.37
2015	1.75	2.84
2025	1.72	3.64

PM₁₀

San Joaquin Valley

Baseline Emissions for 1993 PM₁₀ and precursors VOC and NO_x are identified in Table 11. Documentation of conformity for PM₁₀ and its precursors are also contained in Table 10. Emissions of VOC, NO_x, and PM₁₀ exhaust were calculated with EMFAC7G. Summer and winter conditions are averaged: summer emissions factors are multiplied by 8/12 and winter factors by 4/12. PM₁₀ emissions from re-entrained road dust are calculated consistent with CARB methodology. These involve growing emissions in proportion to the growth in centerline miles of freeways and major arterials and in proportion to VMT for all other facility classes. These calculations use facility-specific emissions factors for re-entrained road dust developed by CARB. Local control factors (such as dust control programs) are also applied, using control factors developed by CARB for these measures in the San Joaquin Valley.

TABLE 11

**PM₁₀ and Related Emissions
San Joaquin Valley portion of Kern County
Tons Per Day**

Scenario	PM ₁₀ ⁶	NO _x	VOC
1993 Baseline	19.36	50.09	38.11
2005	14.61	24.73	12.88
2015	16.14	22.19	6.50
2025	17.37	26.82	5.97

Searles Valley Planning Area

Baseline Emissions for 1991 PM₁₀ are identified in Table 11. Documentation of conformity for PM₁₀ is also contained in Table 12. PM₁₀ exhaust emissions were calculated with EMFAC7F. PM₁₀ emissions from re-entrained road dust are calculated consistent with CARB methodology. These involve growing emissions in proportion to the growth in centerline miles of freeways and major arterials and in proportion to VMT for all other facility classes. These calculations use facility-specific emissions factors for re-entrained road dust developed by CARB.

TABLE 12

**PM₁₀ and Related Emissions
Searles Valley Planning Area (Indian Wells)
of the Mojave Desert Air Basin
Kern County
Tons per Day**

Scenario	PM ₁₀
1991 Baseline	2.59
2005	1.68
2015	1.82
2025	1.97

The analysis documented in Tables 8 through 12 was performed in accordance with 93.122 (a) and 93.122 (c).

X. PM₁₀ EMISSIONS FROM CONSTRUCTION DUST (40 CFR 93.122(d))

Section 93.122(d)(2) of the federal conformity rule requires that PM₁₀ from construction-related fugitive dust be included in the regional PM₁₀ emissions analysis, if it is identified as a contributor to the nonattainment problem in the PM₁₀ implementation plan. There is no currently applicable PM₁₀

implementation plan but the SJVUAPCD has indicated that they believe construction dust is a significant contributor to PM₁₀ concentrations. PM₁₀ transportation construction emissions are also not included in the baseline on road motor vehicle emissions inventory. However, construction emissions are included for both the San Joaquin and Mojave Desert portions of Kern County in this analysis even though the baseline against which Kern COG is comparing does not include them.

The RTP indicates that approximately 831 lane miles will be constructed in the San Joaquin Valley portion of Kern County from 1998 to 2025, which equates to approximately 31 lane miles per year. Calculations are based on the following assumptions: 1) each lane is 12 feet wide; 2) road construction occurs 5 days per week; 3) ARB default project duration of 18 months; and 4) the number of lane miles of roadway to be constructed is converted to acre-months. When combined with the PM₁₀ emission rate of 0.11 tons per acre (MRI, 1996), the result is 0.34 tons per day. This approach is consistent with the ARB methodology for estimating road construction dust.

The same methodology was applied to the SVPA portion of Kern. Seventy-seven lane miles will be constructed resulting in .03 tons per day of construction emissions.

XI. PROJECTS IN THE TRANSPORTATION PLAN AND PROGRAM

Projects in the 2002 FTIP and the 2000 RTP are summarized in Appendix B. Appendix B also includes projects that are exempt from regional emissions analysis (CMAQ, SHOPP, Safety, etc.) and traffic signalization projects.

XII. CONFORMITY FINDINGS

The following conformity findings are made considering projects contained in Kern COG's 2002 Federal Transportation Improvement Plan covering the years 2002-03 to 2005-06 and two fiscal years beyond that (to 2007-08):

- The 2002 FTIP for Kern County is consistent with the latest available mobile source emissions estimates. Socio-economic data projections were developed by Kern COG considering DOF and Census estimates as well as input from local agency's general plans. Kern COG's regional transportation model has applied these projections using generally accepted modeling procedures to forecast future year VMT and trips. As a result, these travel characteristics have been processed using BURDEN and EMFAC to forecast emissions for VOC, NO_x and PM₁₀.
- The 2002 FTIP for Kern County provides for expeditious implementation of TCMs. All TCMs have been implemented and are now ongoing programs. Kern COG's commitment to implementing past TCMs is outlined in the TCM section of this chapter.
- The 2002 FTIP for Kern County results in emissions that are less than the emission budget or baseline emissions for CO, VOC, NO_x and PM₁₀. This finding is based on analysis of each emissions budget scenario identified in Tables 8 through 12. Positive conformity findings have been made for each pollutant by analysis year in Kern County.

**DOCUMENTATION IN THE CONFORMITY ANALYSIS
FOR TRANSPORTATION PLANS AND PROGRAMS
FHWA CHECKLIST
Updated March 30, 1998**

Page	1. PLAN AND TIP STATUS
3	Indicate the date that the MPO will officially adopt, accept or approve the transportation plan and/or program and make a conformity determination (93.104).
3	Indicate that the transportation plan and/or program are financially constrained consistent with 23 CFR 450 (93.108).
3	Where applicable, indicate that the transportation plan and /or program comply with all applicable conformity requirements of implementation plans and court orders (93.109).
3	Indicate that the transportation plan and/or program include all federal and non-federal regionally significant projects expected in the nonattainment or maintenance area (93.122).
3	Indicate that the content of the transportation plan meets the content requirements of 93.106(c), to the extent it has been the previous practice of the MPO.
	2. NONATTAINMENT OR MAINTENANCE AREA DESIGNATION
5	Discuss the applicable pollutants and precursors for which the area is classified as nonattainment or maintenance.
	3. SIP, MAINTENANCE PLAN OR FIP STATUS
7-8	Provide, if applicable, a status of any control strategy SIP and any findings related to submittal, completeness, approval, or disapproval by EPA.
N/A	Document, if applicable, whether an EPA promulgated FIP includes mobile source emissions budget for each applicable precursor or pollutant.
N/A	Indicate whether EPA has approved a NO _x waiver for the ozone nonattainment area.
	4. GENERAL CONFORMITY CRITERIA AND PROCEDURES
9	Document the latest planning assumptions (93.110).
11	Document the use of the latest emissions model, the date that the conformity analysis was started, and the type of other air quality models and transportation models used (93.111).
12-14	Until EPA approves the Conformity SIP, document the fulfillment of the consultation procedures specified in 93.105(a)(2), 93.105(c)(1) and 93.105(e) and public involvement

	procedures consistent with 23 CFR 450 (93.112).
14-19	List all TCMs in an EPA approved SIP or promulgated FIP and indicate their schedules. Discuss their status in terms of implementation consistent with the schedules in the applicable implementation plan and state that nothing interferes with implementation (93.113).
N/A	List any delayed TCMs in the applicable implementation plans and describe the measures being taken (commitments, approvals, resources, staffing, etc.) to overcome obstacles to implementation (93.113).
N/A	List all projects, programs, or activities which are used in the conformity analysis and require a regulation in order to be implemented and the date that the regulation was adopted or the date of an opt-in to a federally enforced program approved by EPA (93.122 (a)(3)).
19	Identify the date of the last conforming transportation plan and program by the FHWA and FTA (93.114).
5. EMISSIONS REDUCTION TESTS AND THE BUDGET TEST	
20	Provide a table that shows for each pollutant and precursor, whether the emissions reduction tests or the budget test apply to conformity. Indicate whether the emissions budget has been deemed adequate.
20-22	If the emissions reduction tests apply, provide in a table the conformity analysis according to 93.119.
20-22	If the budget test applies, provide in a table, the conformity analysis according to 93.119.
22	Document that the regional transportation-related emissions analysis was done according to 93.122 (a) and 93.122 (c) (including consistency with the assumptions for the emissions budget in the SIP).
3	In areas that are serious and above for ozone and CO and have an urbanized area over 200,000, document the requirements of 93.122(b).
23	In areas where the PM ₁₀ SIP identifies construction-related fugitive PM ₁₀ as a contributor to the nonattainment problem, document consideration of PM ₁₀ emissions in the conformity analysis.
6. SPECIFIC CONSULTATION	
13	Document the consultation with the EPA Regional Office, and include responses to any concerns from EPA.
13	Document the consultation with the transportation and air quality agencies and responses to any written concerns.

13	Document all agreements with public and private entities related to consultation on the transportation plan and program.
14	State that the public involvement procedures developed by the MPO as required under 23 CFR 450 were fully carried out and document any responses to concerns from the public.
7. PROJECTS IN THE TRANSPORTATION PLAN AND PROGRAM	
N/A	List all projects in the transportation plan or program that require mitigation to determine conformity of the transportation plan or program (93.125).
Appendix B	List all projects in the transportation plan or program that are exempt from regional analysis (93.126).
N/A	List all projects that have not completed a major step as defined in 93.102(c), and state that these projects have been included in the action scenario for one transportation plan and program conformity determination.
Appendix B	List all traffic signal synchronization projects that have been approved or implemented, and have been included in the conformity analysis.
8. SERIOUS AND ABOVE OZONE AND CO NONATTAINMENT AREAS WITH URBANIZED AREA POPULATIONS OVER 200,000	
10	Document that a network-based travel model is in use that is validated against observed counts (peak and off-peak, if possible) for a base year that is not more than 10 years prior to the date of the conformity determination.
10	Document that the model results have been analyzed for reasonableness and compared to historical trends and other factors.
10	Document the land use, population, employment, and other network-based travel model assumptions.
10	Indicate that the scenarios of land development are consistent with the future transportation system alternatives, and the distribution of employment and residences for different transportation options is reasonable.
10	Document that a capacity-sensitive assignment methodology must be used, and the emissions estimates are based on a methodology that differentiates between peak and off-peak link volumes and speeds, and uses speeds based on final assigned volumes.
10	Document that the zone-to-zone travel impedances used to distribute trips is in reasonable agreement with the travel times that are estimated from final assigned traffic volumes.
	Where transit is a significant factor, indicate that zone-to-zone travel impedances used to

N/A	distribute trips are also used for modeling mode split.
10	Indicate that travel models are reasonably sensitive to changes in time, cost, and other factors affecting travel choices.
10	Indicate that reasonable methods were used to estimate traffic speeds and delays in a manner that is sensitive to the estimated volume of travel on each roadway segment represented in the travel model.
10	Document the use of HPMS to estimate VMT or a locally developed count-based program or procedures that have been subject to the consultation process.

APPENDIX A

FACTOR 7F – YR.XLS (2005, 2015, 2025) WORKSHEETS PM-10 ANALYSIS WORKSHEETS

KERN SJV OZONE

2005

VMT =>

17,531,094

Trips =>

1,802,351

New Emission Factors from ARB

ROG/VOC

Light Duty Passengers
Light Duty Trucks
Medium-Duty Trucks
Heavy-Duty Gasoline Trucks
Heavy-Duty Diesel Vehicles
Busses
Motorcycles

Enter Total Control Factor
0.139
0.139
0.176
0.133
0.635
0.635
0.098

Enter ROG by Veh Class from Burden
7.560
5.080
1.200
0.700
1.060
0.070
0.420

Total ROG Reduction ==>

Reduction	Burden Total ROG==>
1.0508	Reduce=>
0.7061	Sub Tot
0.2112	Less TCMs
0.0931	Sub Tot
0.6731	VOC Factor
0.0445	Tot VOC
0.0412	1999 budget
2.8200	Diff

NOX

Light Duty Passengers
Light Duty Trucks
Medium-Duty Trucks
Heavy-Duty Gasoline Trucks
Heavy-Duty Diesel Vehicles
Busses
Motorcycles

Enter Total Control Factor
0.151
0.151
0.300
0.209
0.301
0.301
0.125

Enter NOx by Veh Class from Burden
6.800
6.920
2.890
4.230
8.650
0.560
0.250

Total NOx Reduction ==>

Reduction	Burden Total NOx==>
1.0268	Reduce=>
1.0449	Sub Tot
0.8670	Less TCMs
0.8841	Tot NOx
2.6037	1999 Budget
0.1686	Difference
0.0313	
6.6263	

KERN SJV OZONE

2015

VMT =>

27,558,926

Trips =>

2,533,182

KERN SJV

New Emission Factors from ARB

ROG/VOC

Light Duty Passengers
Light Duty Trucks
Medium-Duty Trucks
Heavy-Duty Gasoline Trucks
Heavy-Duty Diesel Vehicles
Busses
Motorcycles

Enter Total Control Factor
0.171
0.171
0.319
0.182
0.675
0.675
0.443

Enter ROG by Veh Class from Burden
4.570
2.740
1.130
0.660
1.270
0.100
0.570

Reduction

0.7815
0.4685
0.3605
0.1201
0.8573
0.0675
0.2525
2.9079

Burden Total ROG==>

Sub Tot
Less TCMs
Sub Tot
VOC Factor
Tot VOC
1999 budget
Diff

Total ROG Reduction ==>

NOX

Light Duty Passengers
Light Duty Trucks
Medium-Duty Trucks
Heavy-Duty Gasoline Trucks
Heavy-Duty Diesel Vehicles
Busses
Motorcycles

Enter Total Control Factor
0.347
0.347
0.630
0.287
0.456
0.456
0.358

Enter NOx by Veh Class from Burden
5.870
6.920
4.310
5.510
10.530
0.780
0.350

Reduction

2.0369
2.4012
2.7153
1.5814
4.8017
0.3557
0.1253
14.0175

Burden Total NOx==>

Sub Tot
Less TCMs
Tot NOx
1999 Budget
Difference

Total NOx Reduction ==>

KERN SJV OZONE

2025

VMT =>

36,609,318

Trips =>

3,282,358

New Emission Factors from ARB

ROG/VOC

Light Duty Passengers
Light Duty Trucks
Medium-Duty Trucks
Heavy-Duty Gasoline Trucks
Heavy-Duty Diesel Vehicles
Busses
Motorcycles

Enter Total Control Factor
0.171
0.171
0.319
0.182
0.675
0.675
0.443

Enter ROG by Veh Class from Burden
4.61
2.26
1.36
0.72
1.6
0.13
0.75

Total ROG Reduction ==>

Reduction
0.7883
0.3865
0.4338
0.1310
1.0800
0.0878
0.3323
3.2397
Burden Total ROG==>
Reduce=>
Sub Tot
Less TCMs
Sub Tot
VOC Factor
Tot VOC
1999 budget
Diff

NOX

Light Duty Passengers
Light Duty Trucks
Medium-Duty Trucks
Heavy-Duty Gasoline Trucks
Heavy-Duty Diesel Vehicles
Busses
Motorcycles

Enter Total Control Factor
0.347
0.347
0.630
0.287
0.456
0.456
0.358

Enter NOx by Veh Class from Burden
6.960
8.960
5.850
7.260
13.350
1.040
0.460

Total NOx Reduction ==>

Reduction
2.4151
3.1091
3.6855
2.0836
6.0876
0.4742
0.1647
18.0199
Burden Total NOx==>
Reduce=>
Sub Tot
Less TCMs
Tot NOx
1999 Budget
Difference

Winter CO=156.77 tons

Kern MDAB Ozone

2005

VMT =>

5,018,364

Trips =>

384,217

New Emission Factors from ARB

ROG/VOC

Light Duty Passengers
Light Duty Trucks
Medium-Duty Trucks
Heavy-Duty Gasoline Trucks
Heavy-Duty Diesel Vehicles
Busses
Motorcycles

Enter Total Control Factor
0.053
0.053
0.107
0.092
0.635
0.635
0.095

Enter ROG by Veh Class from Burden
1.570
0.990
0.210
0.110
0.140
0.010
0.060

Total ROG Reduction ==>

Reduction
0.0832
0.0525
0.0225
0.0101
0.0889
0.0064
0.0057
0.2692

Burden Total ROG==>

Sub Tot
Less TCMs
Sub Tot
VOC Factor
Tot VOC
1999 budget
Diff

NOX

Light Duty Passengers
Light Duty Trucks
Medium-Duty Trucks
Heavy-Duty Gasoline Trucks
Heavy-Duty Diesel Vehicles
Busses
Motorcycles

Enter Total Control Factor
0.084
0.084
0.249
0.209
0.302
0.302
0.125

Enter NOx by Veh Class from Burden
0.930
0.940
0.390
0.580
1.180
0.080
0.030

Total NOx Reduction ==>

Reduction
0.0781
0.0790
0.0971
0.1212
0.3564
0.0242
0.0038
0.7597

Burden Total NOx==>

Sub Tot
Less TCMs
Tot NOx
1999 Budget
Difference

Kern MDAB Ozone

2015

VMT =>

73,936,550

Trips =>

576,733

New Emission Factors from ARB

ROG/VOC

Light Duty Passengers
Light Duty Trucks
Medium-Duty Trucks
Heavy-Duty Gasoline Trucks
Heavy-Duty Diesel Vehicles
Busses
Motorcycles

Enter Total Control Factor
0.085
0.085
0.263
0.147
0.675
0.675
0.446

Enter ROG by Veh Class from Burden
0.990
0.580
0.190
0.110
0.170
0.010
0.090

Total ROG Reduction ==>

Reduction
0.0842
0.0493
0.0500
0.0162
0.1148
0.0068
0.0401
0.3612
Burden Total ROG==>
Sub Tot
Less TCMs
Sub Tot
VOC Factor
Tot VOC
1999 budget
Diff

NOX

Light Duty Passengers
Light Duty Trucks
Medium-Duty Trucks
Heavy-Duty Gasoline Trucks
Heavy-Duty Diesel Vehicles
Busses
Motorcycles

Enter Total Control Factor
0.302
0.302
0.608
0.287
0.458
0.458
0.358

Enter NOx by Veh Class from Burden
0.800
0.940
0.590
0.750
1.440
0.110
0.050

Total NOx Reduction ==>

Reduction
0.2416
0.2839
0.3587
0.2153
0.6595
0.0504
0.0179
1.8273
Burden Total NOx==>
Sub Tot
Less TCMs
Tot NOx
1999 Budget
Difference

Kern MDAB Ozone

2025

VTM ==>

4,992,180

Trips ==>

447,594

New Emission Factors from ARB

ROG/VOC

- Light Duty Passengers
- Light Duty Trucks
- Medium-Duty Trucks
- Heavy-Duty Gasoline Trucks
- Heavy-Duty Diesel Vehicles
- Busses
- Motorcycles

Enter Total Control Factor
0.085
0.085
0.263
0.147
0.675
0.675
0.446

Enter ROG by Veh Class from Burden
0.970
0.510
0.220
0.120
0.220
0.020
0.110

Reduction

- 0.0825
- 0.0434
- 0.0579
- 0.0176
- 0.1485
- 0.0135
- 0.0491
- 0.4124

Burden Total ROG==>

Reduce==>

- Sub Tot
- Less TCMs
- Sub Tot
- VOC Factor
- Tot VOC
- 1999 budget
- Diff

Total ROG Reduction ==>

NOX

- Light Duty Passengers
- Light Duty Trucks
- Medium-Duty Trucks
- Heavy-Duty Gasoline Trucks
- Heavy-Duty Diesel Vehicles
- Busses
- Motorcycles

Enter Total Control Factor
0.302
0.302
0.608
0.287
0.458
0.458
0.358

Enter NOx by Veh Class from Burden
0.950
1.220
0.800
0.990
1.820
0.140
0.060

Reduction

- 0.2869
- 0.3684
- 0.4864
- 0.2841
- 0.8336
- 0.0641
- 0.0215
- 2.3450

Burden Total NOx==>

Reduce==>

- Sub Tot
- Less TCMs
- Tot NOx
- 1999 Budget
- Difference

Total NOx Reduction ==>

PM-10 CONFORMITY ESTIMATES
(Paved Road Emissions)

Kern <- Insert your County name here.

TABLE 1
Paved Road PM-10 Emission Factors

AIR BASIN	COUNTY	Freeway		Major		Collector		Local		Local Rural (or SJV Local)	Avg Veh Weight (tons)
		Silt Load g/m ²	EF (lbs PM10 per 1e6 VMT)	Silt Load g/m ²	EF (lbs PM10 per 1e6 VMT)	Silt Load g/m ²	EF (lbs PM10 per 1e6 VMT)	Silt Load g/m ²	EF (lbs PM10 per 1e6 VMT)		
SJV (5)	ALL	0.020	573.8	0.035	825.5	0.035	825.5	0.320	3479	1.6	2.4

TABLE 2
1993 HPMS travel fractions

County	Freeway	Major	Collector		SJV Local		Total VMT (daily 1000's)
			Local	Collector	Local	SJV Local	
Fresno	0.196	0.501	0.092	0.151	0.092	0.061	16,215
Kern	0.235	0.587	0.078	0.072	0.029	0.029	13,294
Kings	0.224	0.525	0.121	0.099	0.032	0.032	2,640
Madiera	0	0.749	0.085	0.081	0.086	0.086	2,763
Merced	0.186	0.574	0.141	0.043	0.055	0.055	6,506
San Joaquin	0.351	0.421	0.118	0.082	0.028	0.028	13,077
Stanislaus	0.214	0.440	0.214	0.108	0.023	0.023	9,456
Tulare	0.056	0.604	0.164	0.086	0.090	0.090	8,170

TABLE 3
Travel fractions and VMT by facility class

AIR Basin	COUNTY	Analysis Year	VMT (Annual 1,000's)	Travel Fractions					VMT (daily 1,000's)	
				Freeway	Major	Collector	Local	SJV Local		
SJV	Kern	1993	4,852	0.235	0.587	0.072	0.078	0.029	13,294	
		2005	6,399	0.235	0.587	0.072	0.078	0.029	17,531	
		2010	0	0.235	0.587	0.072	0.078	0.029	0	
		2015	8,732	0.235	0.587	0.072	0.078	0.029	23,923	
		2020	0	0.235	0.587	0.072	0.078	0.029	0	
		2025	11,516	0.235	0.587	0.072	0.078	0.029	31,550	
										<=Enter daily VMT/1000
										<=Enter daily VMT/1000
										<=Enter daily VMT/1000
										<=Enter daily VMT/1000
										<=Enter daily VMT/1000
										<=Enter daily VMT/1000

TABLE 4
Paved Road PM-10 emissions w/o control

AIR BASIN	COUNTY	Analysis Year	VMT (Annual VMT)	Paved Road PM10 Emissions (tons/yr)				PM10 Emissions (tons/year)
				Freeway	Major	Collector	Local	
SJV		1993	4852	327.15	1,175.67	144.21	1,355.09	3,002.11
		2005	6399	431.41	1,550.38	190.17	1,786.98	3,958.93
		2010	0	0.00	0.00	0.00	0.00	0.00
		2015	8732	588.71	2,115.66	259.50	2,438.53	5,402.40
		2020	0	0.00	0.00	0.00	0.00	0.00
		2025	11516	776.40	2,790.17	342.24	3,215.97	7,124.77

TABLE 5
Paved Road PM-10 Emissions With Planned Control Measures

County	Analysis Year	Freeway*	Major*	Collector	Local	Total TPY	Total TPD	Actual TPD w/CF
Kern	1993	327.15	1,175.67	144.21	1,355.09	3,002.11	8.22	8.22
	2005	397.01	1,426.74	190.17	1,786.98	3,800.89	10.41	3.84
	2010	421.37	1,514.29	0.00	0.00	1,935.66	5.30	2.04
	2015	474.67	1,705.84	259.50	2,438.53	4,878.54	13.37	5.15
	2020	489.02	1,757.40	0.00	0.00	2,246.41	6.15	2.37
					342.24	5,804.61	15.90	6.12

*Growth independent of VMT. Growth at 1.5% per year

PM-10 CONFORMITY ESTIMATES (Paved Road Emissions)

Kern SVPA <= Insert your County name here.

TABLE 1
Paved Road PM-10 Emission Factors

AIR BASIN SVPA	COUNTY ALL	Freeway		Major		Collector		Local		Local Rural (or SJV Local)		Avg Veh Weight (tons)
		Silt Load g/m ²	EF (lbs PM10 per 1e6 VMT)	Silt Load g/m ²	EF (lbs PM10 per 1e6 VMT)	Silt Load g/m ²	EF (lbs PM10 per 1e6 VMT)	Silt Load g/m ²	EF (lbs PM10 per 1e6 VMT)	Silt Load g/m ²	EF (lbs PM10 per 1e6 VMT)	
		0.020	573.8	0.035	825.5	0.035	825.5	0.320	3479	1.6	9903	2.4

TABLE 2
1993 HPMS travel fractions

County		Major		Collector		Local		Total VMT (daily 1000's)	
Kern		Freeway	0.235	Collector	0.072	Local	0.029	13.294	

TABLE 3
Travel fractions and VMT by facility class

AIR Basin SVPA	COUNTY Kern SVPA	Analysis Year	VMT (Annual 1,000's)	Travel Fractions			VMT (daily 1,000's)	
				Freeway	Major	Collector		
		1991	246	0.235	0.587	0.072	673	<=Enter daily VMT/1000
		2005	300	0.235	0.587	0.078	822	<=Enter daily VMT/1000
		2015	406	0.235	0.587	0.078	1,112	<=Enter daily VMT/1000
		2025	537	0.235	0.587	0.078	1,470	<=Enter daily VMT/1000

TABLE 4
Paved Road PM-10 emissions w/o control

AIR BASIN SVPA	COUNTY Kern SVPA	Analysis Year	VMT (Annual VMT)	Paved Road PM10 Emissions (tons/yr)			PM10 Emissions (tons/year)
				Freeway	Major	Collector	
		1991	246	16.56	59.52	7.30	33.33
		2005	300	20.23	72.69	8.92	83.79
		2015	406	27.36	98.34	12.06	113.35
		2025	537	36.17	130.00	15.95	149.84

TABLE 5
Paved Road PM-10 Emissions With Planned Control Measures

County Kern SVPA	Analysis Year	Freeway*	Major*	Collector		Total TPY	Total TPD	Actual TPD w/CF
				Local	Local			
	1991	16.56	59.52	7.30	33.33	116.71	0.32	0.32
	2005	20.10	72.23	8.92	83.79	185.03	0.51	0.19
	2015	24.03	86.36	12.06	113.35	235.80	0.65	0.25
	2025	24.76	88.97	15.95	149.84	279.51	0.77	0.29

*Growth independent of VMT. Growth at 1.5% per year

APPENDIX B

2000 RTP LIST OF PROJECTS

1st Quinquennium - 2000/2001 - 2004/2005		
Facility Name	Project Limits	Project Description
14	Near Mojave/California City from Old Route 58 north in Mojave to Phillips Road	widen to four lanes and construct interchange at California City Blvd.
46	From San Luis Obispo County Line to Kecks Corner -	widen to four lanes
46	From Kecks Corner to Route 33	widen to four lanes
58	New Alignment from Stockdale Highway near Heath Road to Mohawk Street	build freeway / expressway - (Phase I)
58	extend from Mohawk east to Route 99	New Alignment - - (Phase II)
58	Near Mojave from 0.1 miles east of Cache Creek Bridge to 5 miles east of Route 14 south	construct four lane freeway on new alignment
99	Mcfarland and Delano from 0.2 miles south of Sherwood Avenue To Tulare County Line	widen from four to six lane freeway
Bakersfield Impact Fee Projects		
Ashe Road	Harris Road to _____	widen to four lanes
Ashe Road	Panama Lane to Harris Road	construct to two lanes
Brimhall Road	Allen Road to Old Farm Road	widen to four lanes
Brimhall Road	Calloway Drive to Coffee Road	widen to four lanes
Brimhall Road	Old Farm Road To Jewetta Avenue	widen to four lanes
Buena Vista Road	White Lane to Stockdale Highway	widen to four lanes
Calloway Drive	Rosedale Highway to Brimhall Road	widen to four lanes
Calloway Drive	Rosedale Highway to Meacham Road	widen to six lanes
Hageman Road	Fruitvale Avenue to Mohawk Street	widen to six lanes
Mohawk Street	at Cross Valley/Calloway Canals	construct four lane bridge
Mohawk Street	at the Kern River	construct new bridge (four lanes)
Olive Drive	Calloway Drive to Riverlakes Drive	widen to six lanes
Olive Drive	Riverlakes Drive to Coffee Road	widen to six lanes
Panama Lane	South H Street to Union Ave	widen to four lanes
Panama Lane	Stine Road to Wible Road	widen to six lanes
Stockdale Highway	1/4 mile west of Ashe Street to Oak Street	widen to six lanes
Stockdale Highway	Old River Road to Allen Road	widen to six lanes
White Lane	Route 99 State Highway Bridge	widen to six lanes
Rosamond Blvd.	at RR tracks (east of Sierra Highway)	widen to four lanes
Rosamond Blvd.	Sierra Highway To Edwards AFB	widen to five lanes
Other Funding		
I-5	At Laval Road	reconstruct interchange (local funding only)

2nd Quinquennium - 2005/2006 - 2009/2010		
Facility Name	Project Limits	Project Description
Near Shafter on 7th Standard Road	Route 99 to Santa Fe Way	interchange improvements; construct four lane expressway
14 Near Cantil (Red Rock)	3.1 miles South to 1.1 miles North of Red Rock Inyokern Road	widen to four lane expressway
14 Near Ridgecrest	0.8 miles North of Redrock / Inyokern Road to 0.3 miles south of Route 178	widen to four lanes
14 Near Ridgecrest	0.8 miles south of 178 West to 1.5 miles south of Athel Road	widen to four lanes
46 In Wasco	Jumper Avenue To Route 43 (North)	grade separation; signalization; intersection improvements; widen to four lanes
58 Near Tehachapi	Dennison Road	construct new interchange (ramps)
119 Near Taft	Cherry Avenue To Tupman Road	widen to four lanes
Bakersfield Impact Fee		
Allen Road	Rosedale Highway to Brimhall Road	widen to six lanes
Allen Road	Brimhall Road to Stockdale Highway	widen to six lanes
Brimhall Road	Jewetta Avenue to Verdugo Lane	widen to four lanes
Brimhall Road	Renfro Road to Allen Road	widen to four lanes
Brimhall Road	Verdugo Ln. To Calloway Drive	widen to four lanes
Fruitvale Road	Hageman to Rosedale Highway	widen to four lanes
Hageman Road	At AT&SF RR	improve grade crossing (safety)
Hageman Road	Jewetta Avenue to Verdugo Lane	widen to six lanes
Hageman Road	Mohawk Street to Route 204	widen and extend six lanes
Hageman Road	Santa Fe Way to Old Farm Road	widen to six lanes
Hageman Road	Verdugo Ln. To Calloway Drive	widen to six lanes
Mohawk Avenue	at the Calloway Canal	construct four lane bridge
Mohawk Street	Rosedale Highway to Olive Drive	widen to six lanes
Mount Vernon	at Route 178	reconstruct east bound ramp
Olive Drive	Calloway Canal to Friant-Kern Canal	construct four lane bridges
Olive Drive	Coffee Road to Airport Drive	widen to six lanes
Olive Drive	at Route 99 Bridge/interchange	widen to six lanes
Olive Drive	Jewetta Avenue to Calloway Drive	construct two lane road
Rosedale Highway	at Jewetta Road	turning median (safety)
Rosedale Highway	at Calloway West and East Canals	widen to six lanes
Route 184	at SP RR	construct grade separation and widen to four lanes
Rosamond Impact Fee		

May 2002 Air Quality Conformity Determination

Rosamond Blvd	at Route 14	widen to four lanes
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3rd Quinquennium - 2010/2011 - 2014/15		
Facility Name	Project Limits	Project Description
California City California City Blvd.	Route 14 east six miles	widen to four lane expressway
Near Shafter on 7th Standard Road	Palm Avenue to I-5	widen to four lane expressway
Ridgecrest on West Ridgecrest Blvd.	Mahan Street to China Lake Blvd.	reconstruction; overlay; widen portion to four lanes
58/178 Centennial Transportation Corridor	Mohawk Street East	complete construction of four to six lane facility on future alignment
58/178	extend from Heath Road west to I-5 -	Route 58 - New Alignment - (phase III)
58	Route 43 to Renfro Road	widen to four lanes
58 South of California City	1 mile west of California City Blvd. To 1 mile east of California City Blvd.	construct interchange
99 In Delano	Woollomes Avenue to County Line Road	construct ramp upgrades
184 Near Arvin	Route 223 to Panama Lane	widen to four lanes
223 Near Arvin	Route 184 to Route 99	widen to four lanes
395 South of Ridgecrest	South China Lake Blvd. to Route 178	widen to four lanes
395 Near Ridgecrest	1.25 miles South of Searles Road to 0.4 miles south of Randsburg Road	widen to four lanes
Bakersfield Impact Fee		
Allen Road Canal Bridge	@ Cross Valley Canal	construct four lane bridge
Allen Road	At the Kern River	construct four lane bridge
Allen Road	Ming Avenue to Panama Lane	construct two lanes
Allen Road	Stockdale Highway to Ming Avenue	construct two lanes
Buena Vista Road	Pacheco Road to White Lane	widen to four lanes
Fairview Road	Monitor Street to Union Avenue	widen to four lanes
Hosking Road	Stine Road to Akers Road	widen to four lanes
Morning Drive	Route 178 to College Drive	widen to four lanes
Old River Road	Panama Lane to Campus Park Drive	widen to four lanes
Pacheco Road	Buena Vista Road to Gosford Road	widen to four lanes
Rosedale Highway	Mohawk Street to Allen Road	widen to six lanes
Rosedale Highway	at At&sf Rr (Jewetta)	widen to six lanes

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Snow Road	Calloway Drive to Fruitvale Avenue	widen to four lanes
Stine Road	Taft Highway to Panama Lane	widen to four lanes
Rosamond Impact Fee		
Avenue A	10th Street West to 30th Street West	construct/widen to four lanes
Rosamond Blvd.	Route 14 to Sierra Highway	widen to six lanes

4th Quinquennium - 2015/2016 - 2019/20		
Facility Name	Project Limits	Project Description
Tehachapi on Red Apple Road	Tucker Road to Westwood Street	construct new four lane road
Near Delano on Garces Highway	Corcoran Road to Wildwood	widen to four lane expressway
Near Delano on Garces Highway	Wildwood Road to Route 43	widen to four lane expressway
Delano on Garces Highway	Route 43 to Hiett Avenue	widen to four lane expressway
Near Delano Garces Highway	Extend via Corcoran Road from Intersection of Corcoran Road and Garces Highway East to Twisselman Road	widen to four lane expressway
Near Shafter on Zachary Road	7th Standard Road to Lerdo Highway	widen first two miles to four lanes; last two miles new construction to four lanes
Near Delano on Garces Highway	Twisselman Road to Corcoran Road	widen to four lane expressway
Near Delano on Garces Highway	Hiett Avenue Extension to Route 99 (Ellington Street)	widen to four lane expressway
Near Delano Garces Highway	Extend via Twissleman Road from I-5 to Lost Hills Road	construct new four lane expressway
Near Shafter on 7th Standard Road	Route 43 to Santa Fe Way	widen to four lane expressway
Ridgecrest on Bowman Road	China Lake Blvd. To County Line Road -	reconstruct 1 mile and raise grade; add shoulders and drainage
Local Road In Ridgecrest on Mahan Street	Inyokern Road to South China Lake Blvd.	widen to four lanes
43	7th Standard Road to Euclid Avenue	widen to four lanes
46	Route 33 to I-5	widen to four lanes
46	Route 43 (North) to Route 99	widen to four lanes
58 West of the Bakersfield Area (Rosedale Highway)	I-5 to Rt. 43	widen to four lanes
119	Cherry Avenue to Route 33	widen to four lanes
119	Tupman Road to I-5	widen to four lanes
155	Route 99 to Browning Road	widen to four lanes conventional highway (Route 99 bridge widening); separation of grade at railroad
178	0.4 miles west of Oswell Street to 0.5 east of Fairfax Road	construct four lane freeway and interchange at Fairfax Road
184	Panama Lane to Route 178	widen to four lanes
223	Comanche Road to Route 184	widen to four lanes

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223	east city limits of Arvin east 4 1/4 miles east	widen to four lanes
223	4 1/4 miles east of eastern city limits of Arvin to Route 58	widen to four lanes
395	15 miles North of Johannesburg at Business Route 395 Turnoff to 1/4 Mile North of South China Lake Blvd.	widen to four lanes
Bakersfield Impact Fee		
Calloway Drive	7th Standard Road to Hageman Road	widen to four lanes
Calloway Drive	at Friant Kern Canal	widen canal bridge to six lanes
Casa Loma Drive	1/4 mile east of Madison Road	widen canal culvert to six lanes
Coffee Road	7th Standard Road to Norris Road	widen to six lanes
Fairfax Road	Panorama Drive to Niles Street	widen to six lanes
Fairfax Road	Redbank Road to Route 58	widen to four lanes
Fairfax Road	at Route 58	widen bridge to six lanes
Fairfax Road	Panorama Drive to Niles Street	widen to six lanes
Fruitvale Avenue	Snow Road to Norris Road	widen to four lanes
Morning Drive	at Route 178	construct interchange
Panama Lane	Renfro Road to Gosford Road	widen to four lanes
Rosedale Highway	Allen Road to 1.5 miles west of Renfro Road	widen to six lanes
Route 184	Edison Highway to Niles Street	widen to four lanes
Rosamond Impact Fee		
Rosamond Blvd.	35th Street W. to 45th Street West	widen to five lanes
10th Street West	Rosamond Blvd. To Avenue A	construct two lanes
Rosamond Blvd.	45th Street West to 65th Street West	widen to three lanes
30th Street	West from Rosamond Blvd. to Avenue A	widen to four lanes

5th Quinquennium - 2020/2021 - 2024/25		
Facility Name	Project Limits	Project Description
Near Shafter on 7th Standard Road	Palm Ave to Route 43	widen to four lane expressway
33 Maricopa to Taft	Welch Street (Maricopa) to Wood Street (Taft	widen to four lanes
33	0.2 miles west of 10th Street to 1.2 miles west of 10th Street	widen to four lanes
33	1.2 miles west of 10th Street to Midway Road	widen to four lanes
46	I-5 to Jumper Avenue	widen to four lanes
46	at Route 99 and Route 46 interchange	interchange and bridge work (realignment work only)
178	Kern Canyon Freeway	construct four lane freeway / expressway on new alignment

APPENDIX C

CMAQ & TEA

TRANSPORTATION CONTROL MEASURE PROJECTS

Lead	Location	Project Description
KCSS	IN BAKERSFIELD	CONSTRUCT NG FUELING STATION (PARTNERSHIP PROGRAM)
CSUB	IN BAKERSFIELD	RECONSTRUCT BUS TERMINAL AND DRIVEWAY CIRCLE AT CSUB
GET		PURCHASE FIVE CNG DEMAND RESPONSE VEHICLES FOR EXPANSION SERVICES
Kern Co.	ON OLIVE DRIVE FROM FRUITVALE AVENUE TO COFFEE ROAD	SIGNALIZATION, SYNCHRONIZATION, CHANNELIZATION AND RELATED SAFETY MODIFICATIONS
Kern Co.	ON OLIVE DRIVE FROM KNUDSEN AVENUE TO FRUITVALE AVENUE	SIGNALIZATION, SYNCHRONIZATION, CHANNELIZATION AND RELATED SAFETY MODIFICATIONS
Kern Co.	ON NORRIS ROAD FROM ROBERTS LANE TO MANOR STREET	SIGNALIZATION, SYNCHRONIZATION, CHANNELIZATION AND RELATED SAFETY MODIFICATIONS
Kern Co.		INSTALL BIKE CYCLE RACKS ON BUS FLEET
Bakersfield	AT HAGEMAN ROAD AND VERDUGO LANE	SIGNALIZATION, SIGNAL SYNCHRONIZATION, AND RELATED SAFETY MODIFICATIONS
Bakersfield	AT BRUNDAGE LANE AND WASHINGTON STREET	SIGNALIZATION, SIGNAL SYNCHRONIZATION, AND RELATED SAFETY MODIFICATIONS
Bakersfield	AT PLANZ ROAD AND WILSON ROAD	SIGNALIZATION, SIGNAL SYNCHRONIZATION, AND RELATED SAFETY MODIFICATIONS
Bakersfield	AT BEECHWOOD STREET AND STINE ROAD	SIGNALIZATION, SIGNAL SYNCHRONIZATION, AND RELATED SAFETY MODIFICATIONS
Bakersfield	AT SAN DIMAS STREET AND WEST COLUMBUS STREET	SIGNALIZATION, SIGNAL SYNCHRONIZATION, AND RELATED SAFETY MODIFICATIONS
Bakersfield	AT BRIMHALL ROAD AND MONDAVI WAY	SIGNALIZATION, SIGNAL SYNCHRONIZATION, AND RELATED SAFETY MODIFICATIONS
Ridgecrest	AT THE INTERSECTION OF FRENCH ST. AND DRUMMOND ST. (NON-CAPACITY PORTION ONLY)	SIGNALIZATION, CHANNELIZATION AND RELATED SAFETY MODIFICATIONS (PHASE 2)
Bakersfield	AT INTERSECTION OF CHESTER AVE. AND 8TH ST.	SIGNALIZATION AND SIGNAL SYNCHRONIZATION
Bakersfield	AT INTERSECTION OF MT. VERNON AND PANORAMA DR.	SIGNALIZATION AND SIGNAL SYNCHRONIZATION
Bakersfield	AT INTERSECTION OF AUBURN ST. AND EISSLER ST.	SIGNALIZATION AND SIGNAL SYNCHRONIZATION
Bakersfield	ON WEST COLUMBUS ST. FROM CHESTER AVE. TO UNION AVE	IN BAKERSFIELD - (TRUNK LINE) TRAFFIC SIGNAL WIRED INTERCONNECT.
Bakersfield	ON WEST. COLUMBUS ST. FROM UNION AVE. TO RIVER BLVD.	IN BAKERSFIELD -TRAFFIC SIGNAL WIRED INTERCONNECT
Bakersfield	ON BEALE AVE. FROM NILES ST. TO COLUMBUS ST.	IN BAKERSFIELD -TRAFFIC SIGNAL WIRED INTERCONNECT
Bakersfield	ON COLUMBUS ST. FROM RIVER BLVD. TO OSWELL RD	IN BAKERSFIELD -TRAFFIC SIGNAL WIRED INTERCONNECT.
Kern Co.	FAIRFAX RD. FROM BRUNDAGE LANE TO COLLEGE AVE.	SIGNAL SYNCHRONIZATION, CHANNELIZATION AND RELATED SAFETY MODIFICATIONS
Bakersfield	ON AUBURN ST. FROM COLUMBUS ST. TO FAIRFAX RD.	IN BAKERSFIELD -TRAFFIC SIGNAL WIRED INTERCONNECT

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Kern Co.	OSWELL ST. FROM BRUNDAGE LANE TO BERNARD ST.	SIGNALIZATION, SIGNAL SYNCHRONIZATION, CHANNELIZATION AND RELATED SAFETY MODIFICATIONS
Taft		PURCHASE ONE (1) 33-PASSENGER REPLACEMENT CNG BUS
GET		AREA VEHICLE LOCATOR (PHASE 2)
Cal. City		PURCHASE TWO (2) REPLACEMENT CNG DIAL-A-RIDE BUSES
Kern Co.		PURCHASE TWO (2) CNG MINIBUSES FOR MEDICAL DIAL-A-RIDE SERVICE
Kern Co.		2 REPLACEMENT CNG BUSES
Kern Co.		PURCHASE TWO (2) REPLACEMENT CNG BUSES
CTSA		PURCHASE ONE (1) REPLACEMENT 10-PASSENGER CNG BUS
Delano		PURCHASE TWO (2) 30-PASSENGER CNG BUSES
Ridgecrest		PURCHASE TWO (2) 16-PASSENGER REPLACEMENT DIESEL BUSES
Delano		IN DELANO - CONSTRUCT NEW TRANSFER STATION
Cal. City		IN CALIFORNIA CITY, CONSTRUCT CNG FUELING STATION (WITH MULTI-AGENCY ACCESSIBILITY)
Taft		CONSTRUCT CNG FUELING STATION (WITH MULTI-AGENCY ACCESSIBILITY)
Taft		IN THE CITY OF TAFT - CONSTRUCT TRANSIT TRANSFER STATION
Bakersfield	INTERSECTION OF WHITE LN. AND GRISSOM ST.	SIGNALIZATION AND SIGNAL SYNCHRONIZATION
Kern Co.	ALLEN RD. AT MEACHEM RD.	CHANNELIZATION AND RELATED SAFETY MODIFICATIONS
Bakersfield	INTERSECTION OF WILSON RD. AND SOUTH K ST	SIGNALIZATION AND SIGNAL SYNCHRONIZATION
Bakersfield	SOUTH H STREET FROM WHITE LANE TO PANAMA LANE	SIGNALIZATION, COMMUNICATION/SYNCHRONIZATION
Bakersfield	STINE ROAD FROM WHITE LANE TO HARRIS ROAD	SIGNALIZATION, COMMUNICATION/SYNCHRONIZATION
Bakersfield	ASHE ROAD FROM CLUB VIEW DRIVE TO NORTH HALF MOON BLVD.	SIGNALIZATION, COMMUNICATION/SYNCHRONIZATION
Bakersfield	VARIOUS LOCATIONS	SIGNALIZATION, COMMUNICATION/SYNCHRONIZATION OF MISC. BRANCH COMMUNICATIONS
Kern Co.	LOS FLORES STREET FROM MAHAN STREET TO BRADY STREET	SURFACING UNPAVED STREETS
GET		PURCHASE NINE REPLACEMENT CNG DEMAND RESPONSE VEHICLES
Delano		MODIFICATIONS TO EXISTING MAINTENANCE SHOP FOR CNG SAFETY
Ridgecrest	GRAAF AVENUE FOR 1/4 MILE BETWEEN NORMA STREET AND WAYNE STREET	SURFACING UNPAVED STREETS
Ridgecrest	SOUTH MAHAN STREET FOR 1/2 MILE BETWEEN UPJOHN BLVD. AND RIDGECREST BLVD.	SURFACING UNPAVED STREETS
Ridgecrest	REEVES AVENUE FOR 450 FEET BETWEEN NORMA STREET AND SIERRA VIEW STREET	SURFACING UNPAVED STREETS

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Wasco		CONSTRUCT NEW TRANSIT TRANSFER STATION
Kern Co.	WARD STREET FROM MAHAN STREET TO BRADY STREET	SURFACING UNPAVED STREETS
Kern Co.	DOLPHIN AVENUE FROM MAHAN STREET TO BRADY STREET	SURFACING UNPAVED STREETS
Kern Co.	WARD STREET FROM PINTO STREET TO STRECKER ROAD	SURFACING UNPAVED STREETS
Kern Co.	DRUMMOND AVENUE FROM MAHAN STREET TO BRADY STREET	SURFACING UNPAVED STREETS
Kern Co.		PURCHASE THREE REPLACEMENT DIESEL BUSES (20/25 PASSENGER)
Kern Co.		PURCHASE THREE REPLACEMENT MINI BUSES (14/20 PASSENGER) DIESEL
Kern Co.	CALIFORNIA AVENUE FROM WASHINGTON STREET TO EDISON HIGHWAY	SYNCHRONIZATION CHANNELIZATION AND RELATED SAFETY MODIFICATIONS
Bakersfield	AT CITY CORPORATION YARD	CONSTRUCT NG FUELING STATION
Wasco		CONSTRUCT NEW CNG FUELING STATION
Arvin		CONSTRUCT NEW TRANSIT TRANSFER STATION
Cal. City	NEURALIA ROAD FROM MOSS AVENUE TO REDWOOD BLVD.	SURFACING UNPAVED STREETS
Shafter		PURCHASE TWO CNG MINI-VANS FOR NEW SERVICE IN CITY LIMITS
Shafter		CONSTRUCT NEW CNG FUELING STATION
Kern Co.		PURCHASE THREE REPLACEMENT MINI BUSES (14/20 PASSENGER) DIESEL
Kern Co.		PURCHASE THREE REPLACEMENT CNG BUSES (20/25 PASSENGER)
Bakersfield	ON TRUXTUN AVENUE AT THREE INTERSECTIONS	CONSTRUCT RIGHT-TURN LANES
Ridgecrest	CHELSEA STREET	BICYCLE PATH EXTENSION PROJECT
Kern Co.	PANORAMA PARK	PANORAMA PARK EXPANSION PEDESTRIAN / LANDSCAPE - (FEDERAL RECREATIONAL TRAIL PROGRAM OF \$78,805 IN 99/00 SUBJECT TO 80/20 MATCH FORMULA)
Kern Co.	CALLOWAY DRIVE UNDERPASS	LANDSCAPE IMPROVEMENT PROJECT
Kern Co.	LAKE ISABELLA BLVD.	LANDSCAPE IMPROVEMENT
Kern Co.	LAMONT	MAIN STREET IMPROVEMENTS
Kern Co.	20 MULE TEAM ROAD	LANDSCAPING
Ridgecrest	DOWNS STREET	LANDSCAPE IMPROVEMENTS
Shafter		LERDO HIGHWAY BEAUTIFICATION (LANDSCAPING)
Tehachapi		RESTORATION OF TEHACHAPI TRAIN DEPOT
Tehachapi		TEHACHAPI BLVD. LANDSCAPING
Wasco		IN WASCO (PHASE 3) EAST/WEST ROUTE 46 LANDSCAPING AND ENTRY MONUMENTATION
Wasco		DOWNTOWN STREETSCAPE IMPROVEMENT PROJECT
Wasco		IN WASCO (PHASE 2) ROUTE 43 LANDSCAPING AND ENTRY MONUMENTATION