



Air Resources Board

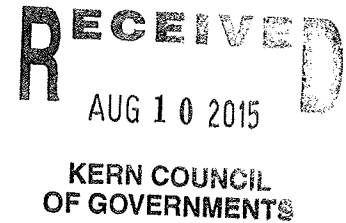


Matthew Rodriguez
Secretary for
Environmental Protection

Mary D. Nichols, Chair
1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.gov

Edmund G. Brown Jr.
Governor

August 5, 2015



Mr. Ahron Hakimi
Executive Director
Kern Council of Governments
1401 19th Street, Suite 300
Bakersfield, CA 93301

Dear Mr. Hakimi:

Congratulations on the Kern Council of Governments' (KernCOG) adoption of the region's first Sustainable Communities Strategy (SCS). The Air Resources Board (ARB) recognizes that this SCS represents many years of effort. We appreciate KernCOG's work to advance the sustainability of transportation and land use planning in Kern County. We would also like to thank you for joining us at the July 23, 2015 ARB Board meeting to discuss the SCS.

In accordance with the Sustainable Communities and Climate Protection Act of 2008, please find the enclosed Board Resolution Number 15-38. This Board Resolution accepts the determination by KernCOG that its 2014 Regional Transportation Plan/Sustainable Communities Strategy (SCS) would, if implemented, meet the 2020 and 2035 regional greenhouse gas reduction targets established by ARB.

If you have any questions or need further information, please contact Ms. Amy Volz, Air Pollution Specialist, at (626) 450-6195, or by email at amy.volz@arb.ca.gov.

Sincerely,



Richard W. Corey
Executive Officer

Enclosure

cc: See next page

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

Mr. Ahron Hakimi
August 5, 2015
Page 2

cc: The Honorable Jennifer Wood, Chair
Kern Council of Governments Board of Directors
1401 19th Street, Suite 300
Bakersfield, California 93301

Ms. Karen Magliano, Chief
Air Quality Planning and Science Division

Ms. Amy Volz
Air Quality Planning and Science Division

State of California
AIR RESOURCES BOARD

**ACCEPTANCE OF THE GREENHOUSE GAS QUANTIFICATION DETERMINATION
FOR THE KERN COUNCIL OF GOVERNMENTS' REGIONAL TRANSPORTATION
PLAN/SUSTAINABLE COMMUNITIES STRATEGY**

Resolution 15-38

July 23, 2015

Agenda Item No.: 15-6-5

WHEREAS, SB 375 (Steinberg, Chapter 728, Statutes of 2008), also known as the Sustainable Communities and Climate Protection Act, aims to reduce greenhouse gas (GHG) emissions from passenger vehicle travel through improved transportation and land use planning at the regional scale;

WHEREAS, SB 375 requires each of the State's 18 federally-designated Metropolitan Planning Organizations (MPO), including the Kern Council of Governments (KernCOG), to develop a Sustainable Communities Strategy (SCS), or an Alternative Planning Strategy that meets the regional GHG emission reduction targets for passenger vehicles set by the Air Resources Board (ARB or Board);

WHEREAS, on September 23, 2010, the Board set GHG reduction targets for 2020 and 2035, expressed as a per capita percentage reduction relative to 2005 levels, for each of the State's MPOs;

WHEREAS, the targets set for the KernCOG region are a 5 percent decrease in 2020 and a 10 percent decrease in 2035 relative to 2005 levels;

WHEREAS, KernCOG staff engaged the public by holding public workshops and community meetings between March 2012 and October 2013;

WHEREAS, in March 2014, KernCOG published a draft Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for 2014-2040 which was available for public review for 55 days;

WHEREAS, on June 19, 2014, the KernCOG Board of Directors approved the final RTP/SCS for 2014-2040 and the KernCOG Board resolution of adoption stated the SCS, if implemented, would meet the targets of 5 percent per capita reduction from 2005 levels in 2020 and 10 percent per capita reduction from 2005 levels in 2035;

WHEREAS, as required by California Government Code section 65080(b) (2) (J) (ii), KernCOG submitted the final SCS to ARB on June 4, 2015, for review of its GHG emissions quantification determination;

WHEREAS, the California Government Code section 65080(b)(2)(J)(ii) calls for ARB to accept or reject an MPO's determination that its submitted strategy would, if implemented, achieve the GHG emissions reduction targets established by the Board;

WHEREAS, ARB staff performed a technical evaluation of the approved 2014 SCS using ARB's methodology, published in July 2011, for review of GHG emissions calculation procedures for SCS plans;

WHEREAS, ARB staff's evaluation found that KernCOG used technical methodologies that would reasonably quantify GHG emissions reductions from the adopted SCS;

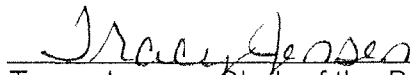
WHEREAS, ARB staff's technical evaluation of KernCOG's GHG emissions reduction quantification is contained in Attachment A, "Technical Evaluation of the Greenhouse Gas Emissions Reduction Quantification for the Kern Council of Governments' SB 375 Sustainable Communities Strategy," dated July 2015; and

WHEREAS, ARB staff's evaluation affirms that KernCOG's adopted 2014-2040 SCS would, if implemented, achieve the GHG emissions reduction targets that the Board established for the region for 2020 and 2035.

NOW, THEREFORE, BE IT RESOLVED that pursuant to California Government Code section 65080(b) (2) (J) (ii), the Board hereby accepts KernCOG's quantification of the GHG emission reductions from the final SCS adopted by the KernCOG Board of Directors on June 19, 2014, and accepts the MPO's determination that the SCS would, if implemented, achieve the region's GHG emissions reduction targets.

NOW, THEREFORE, IT IS ORDERED that ARB staff forward this Resolution to the KernCOG Board of Directors and Executive Director.

I hereby certify that the above is a true and correct copy of Resolution 15-38 as adopted by the Air Resources Board.


Tracy Jensen, Clerk of the Board

Resolution 15-38

July 23, 2015

Identification of Attachments to the Board Resolution

Attachment A: Technical Evaluation of Greenhouse Gas Emissions Reduction
Quantification for the Kern Council of Governments' SB 375
Sustainable Communities Strategy, July 2015.

Kern Council of Governments



2014 Regional Transportation Plan/Sustainable Communities Strategy

June 19, 2014



Kern Council
of Governments

www.kerncog.org



U.S. Department
of Transportation
**Federal Highway
Administration**

California Division

December 12, 2014

650 Capitol Mall, Suite 4-100
Sacramento, CA 95814
(916) 498-5001
916 498-5008 (FAX)

Mr. Ahron Hakimi
Executive Director
Kern Council of Governments
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Suite 300
Bakersfield, CA 93301

RECEIVED
DEC 15 2014

KERN COUNCIL
OF GOVERNMENTS

In Reply, Refer To:
HDA-CA

SUBJECT: Conformity Determination for the Kern Council of Governments' (Kern COG) 2014
Regional Transportation Plan

Dear Mr. Hakimi:

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have completed our review of the conformity determination for the Kern Council of Governments (Kern COG) 2014 Regional Transportation Plan (RTP). A FTA/FHWA air quality conformity determination is required for the new RTP pursuant to the Environmental Protection Agency's (EPA) *Transportation Conformity Rule*, 40 CFR Parts 51 and 93, and the United States Department of Transportation's *Final Rule on Statewide and Metropolitan Planning*, 23 CFR Part 450.

On June 19, 2014, Kern COG adopted the 2014 RTP and made the corresponding conformity determination via Resolution 14-19. The conformity analysis submitted indicates that all air quality conformity requirements have been met. Based on our review, and after consultation with the EPA Region 9 office, we find that the 2014 RTP conforms to the applicable State Implementation Plan in accordance with the provisions of 40 CFR Parts 51 and 93. This conformity determination will remain in effect for four (4) years from the date of this letter and replaces the previous determination made on December 14, 2010. In accordance with the July 15, 2004, *Memorandum of Understanding (MOU) between the Federal Highway Administration, California Division, and the Federal Transit Administration, Region IX*, the FTA has concurred with this conformity determination.

In accordance with the above MOU, the FHWA's single signature constitutes FHWA and FTA's joint air quality conformity determination for the Kern COG 2014 RTP. If you have any questions pertaining to this conformity finding, please contact Jack Lord, FHWA, at (916) 498-5888, or by email at jack.lord@dot.gov.

Sincerely,

For: Vincent Mammano
Division Administrator

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Kern Council of Governments



Executive Summary

June 19, 2014



Kern Council
of Governments

www.kerncog.org

INTRODUCTION

The 2014 Regional Transportation Plan (RTP) is a 26-year blueprint that establishes a set of regional transportation goals, policies, and actions intended to guide development of the planned multimodal transportation systems in Kern County. It has been developed through a continuing, comprehensive, and cooperative planning process, and provides for effective coordination between local, regional, state and federal agencies. New to the 2014 RTP, California's Sustainable Communities and Climate Protection Act, or Senate Bill (SB) 375, calls for the Kern RTP to include a Sustainable Communities Strategy (SCS) that reduces greenhouse gas (GHG) emissions from passenger vehicles and light-duty trucks by 5 percent per capita by 2020 and 10 percent per capita by 2035 as compared to 2005. In addition, SB 375 provides for closer integration of the RTP/SCS with the Regional Housing Needs Allocation (RHNA) ensuring consistency between low income housing need and transportation planning. The 2014 RTP exceeds SB 375 reduction targets for the region and is consistent with the RHNA.

Kern COG is a federally designated Metropolitan Planning Organization (MPO) and a state designated Regional Transportation Planning Agency (RTPA). These designations formally establish Kern COG's role in transportation planning. Preparing an RTP is one of Kern COG's primary statutory responsibilities under federal and state law.

Kern COG prepared a Program Environmental Impact Report (Program EIR), pursuant to the California Environmental Quality Act (CEQA), for the RTP. Individual transportation projects are preliminarily identified in the 2014 RTP; however, the Program EIR analyzes potential environmental impacts from a regional perspective, providing opportunities for streamlining the analysis required in project specific environmental documents. In addition the companion RTP conformity document demonstrates that the Plan will not delay attainment of federal air quality standards in the State Implementation Plans for air quality.

PUBLIC PARTICIPATION: Listening to the Citizens and Stakeholders

Public participation is encouraged at every stage of the planning process and all meetings are open to the public. Community engagement and outreach were fundamental to the development of the 2014 RTP/SCS. By nature, this plan represents the region's mutual vision for its future and was developed using a grassroots, bottom-up approach, garnering input from over 8,000 residents at over 30 meetings and events across the region. Kern COG's comprehensive community engagement process, Directions to 2050, was designed to solicit input from stakeholders and community members on priorities for the region's long-term future. The name "Directions to 2050" was meant to encourage participants to think long term into the future. The community engagement process extended from September 2011 to August 2013. The program provided various opportunities for community members, stakeholders, and local agencies and jurisdictions to participate. The program provided numerous public workshops, community event and interactive and educational booths at festivals and fairs, an interactive project website, two statistically valid phone surveys and presentations to various clubs and groups.

The vast majority of people want to maintain, fix and finish what we have. A discussion of Kern



EXECUTIVE SUMMARY

COG's public participation activities is provided in Chapter 2 of the RTP and a Summary of Findings is documented in Appendix C of the RTP.

OUR VISION: Maintain, Fix and Finish What We Have

In the past, Kern COG prepared the RTP with the primary goal of increasing mobility for the region's residents and visitors. While mobility is a vital component of the quality of life that the region deserves, it is by no means the only component. Kern COG has placed a greater emphasis than ever before on sustainability and integrated planning in the 2014 RTP/SCS. The intent of the SCS is to achieve the state's emissions reduction targets for automobiles and light trucks. The SCS will also provide opportunities for a stronger economy, healthier environment, and safer quality of life for community members in Kern County.

The RTP/SCS seeks to: improve economic vitality; improve air quality; improve the health of communities; improve transportation and public safety; promote the conservation of natural resources and undeveloped land; increase access to community services; increase regional and local energy independence; and increase opportunities to help shape our community's future.

Kern County is unlike any other region in California. Kern's large size and diverse valley, desert and mountain environs are dominated by agriculture, oil production, renewable energy, aerospace, military, recreation, transportation linkages and other activities that warrant unique and different approaches to address the SCS goals. These economic pursuits are the basis for dispersed rural centers and strategic locations for developments within the County that are unlike other areas of the State. Accordingly, unique strategies are needed to support Kern's economic, transportation and other needs. This uniqueness is reflected in the General Plans and programs of Kern County's local governments.

The 2014 RTP/SCS supports an improved quality of life for our residents by providing more choices for where they will live, work, and play, and how they will move around. The safe, secure, and efficient transportation systems will provide improved access to opportunities, such as jobs,

education and healthcare. The emphasis on transit and active transportation will allow our residents to lead a healthier, more active lifestyle.

CHALLENGES

Solutions for the Economy and Air Quality

Even though Kern County has already recovered all the jobs lost during the great recession, Kern continues to suffer from double-digit unemployment. The Federal Highway Administration estimates that every \$1 billion spent on transportation infrastructure creates 10,870 job years of which up to 4,000 can persist long after construction, generated by increased labor from better mobility and more efficient goods movement. This 26-year investment plan is projected to add over 80,000 job years (3,100 26-year jobs) from construction, maintenance, and better mobility, a 40% jump over the 2011 RTP. The plan could ultimately add 28,000 permanent jobs to the region increasing Kern's economic base, adding capacity to re-invest in an ever more efficient/cleaner transportation system, triggering an upward economic spiral for future generations.

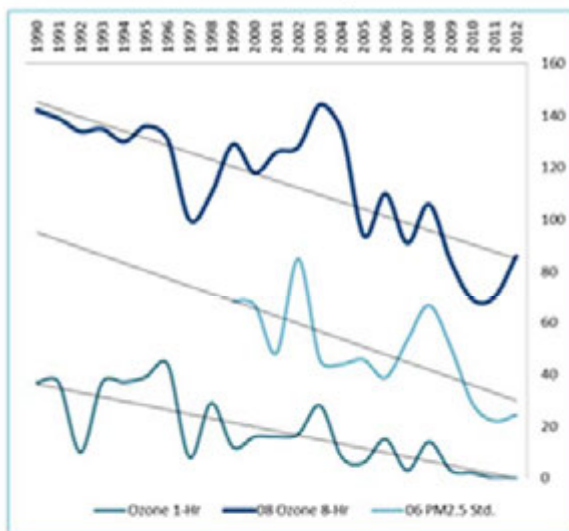


Since the 1990s, the Kern region has achieved consistent improvements in the number of days exceeding federal standards for ozone and particulate matter, generally defined as "fine dust". In 2012, Kern demonstrated attainment of the 1-hour ozone standard, and has made significant progress on the new 8-hour ozone and PM_{2.5} standards (figure ES-1). However, the air

EXECUTIVE SUMMARY

quality modeling forecast for this RTP showed that by 2040, if things didn't change and population and travel continue to grow, the NOx precursor component to PM_{2.5} begins to creep back up. To combat this effect the plan focuses new efforts to achieve and maintain the federal air quality standards, and in doing so also makes significant progress toward the new state climate change goals. These strategies such as improving transit, bike, walk, and housing options are included in the SCS in Chapter 4.

Figure ES-1: Number of Days Exceeding Federal Air Standards in Kern County 1990-2012



Note: In this air quality graph, lower PM_{2.5} and ozone numbers are equivalent to better air quality. Source: CARB iADAM data.

Financial Challenges

Of all the challenges facing us today, there is none more critical than funding. With the projected growth in population, employment and demand for travel, the costs of our multimodal transportation needs surpass projected revenues available from our historic transportation funding source – the gas tax. Maintaining the local transportation infrastructure is of critical importance for the entire region, and was ranked as the highest priority based on public outreach. Funding from the federal gas tax has traditionally been used to support the maintenance of these facilities; over time, however, gas tax revenues have failed to keep up with inflation. The increase

in the number of electric and hybrid vehicles that pay significantly less gas tax per mile traveled only exacerbates the problem.

As a result of years of underinvestment, a significant number of our roadways and bridges have fallen into a state of disrepair. It is imperative that this situation be addressed. The rate of deterioration will only accelerate with continued deferral, significantly increasing the cost of bringing our transportation assets back into a state of good repair. Furthermore, with recent declines in transit funding, the region's transit operators continue to face major obstacles to providing frequent and convenient transit services.

The region must consider ways to stabilize existing revenue sources and supplement them with reasonably available new sources. This region needs a long-term, sustainable funding plan that ensures the region receives its fair share of funding, supports an efficient and effective transportation system that grows the economy, provides mobility choices, and improves our quality of life.

PLANNING FOR OUR POPULATION

Population, Housing and Employment Forecasts

Population in the 8,200 square mile County of Kern surpassed 856,000 according to the 2011 American Community Survey, and Kern County was in the top ten fastest growing counties in California from 2012 to 2013. About one of every 44 people in California lives in Kern County. The Kern region is California's eleventh most populated of 58 counties, recently surpassing San Francisco and Ventura counties. The Kern region is forecasted to grow by more than ½ million persons to 1,444,100 in the forecast year 2040.

According to the California Employment Development Department (EDD) Kern County gained 75,000 jobs since 2000 and experienced an increase in per capita income. However, the unemployment in the Kern region in 2012 (13.3%) remains consistently higher than the state average (10.5%).

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The jobs/housing balance, which has historically fluctuated around 1.1 and 1.3 jobs per household is anticipated to continue to vary based on several factors including: fluctuations in the number of out-of-county commuter households; when employment levels do not keep up with baby booms; and Kern's latent supply of second homes in the mountain communities. Over the long term, we anticipate the jobs/housing balance to settle down to 1.1. Total employment is anticipated to grow to just over 500,000 by forecast year 2040.

Over the past decade, growth has concentrated in Metropolitan Bakersfield and the communities of Delano, Wasco, Ridgecrest, California City, Arvin, Shafter, Tehachapi, McFarland and the unincorporated communities around Tehachapi, Rosamond and Frazier Park.

Much of Kern's employment is dispersed, consequently, the Metropolitan Bakersfield area experiences a "reverse commute" whereby a segment of workers commute to outlying areas such as farm fields, food processing facilities, warehousing, wind farms, oil fields, prisons, power plants, and government installations.

Development

Land use is one of the most important elements of effective transportation planning. Kern COG does not have jurisdiction over land use planning, but the agency does advise and encourage dialogue among those involved in the decision making process. The RTP/SCS was developed in consultation with local jurisdictions and is consistent with existing adopted General Plans and Zoning. Kern COG will continue to use the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) to communicate with Kern cities and the county on issues of land use, transportation and air quality, to ensure that land use projects are environmentally sound.

At the core of the 2014 RTP are seven goals:

1. **Mobility** – Improve the mobility of people and freight;
2. **Accessibility** – Improve accessibility to major employment and other regional activity centers;

3. **Reliability** – Improve the reliability and safety of the transportation system;
4. **Efficiency** – Maximize the efficiency of the existing and future transportation system;
5. **Livability** – Promote livable communities;
6. **Sustainability** – Minimize effects on the environment; and
7. **Equity** – Ensure an equitable distribution of the benefits among various demographic and user groups.



STRATEGIC INVESTMENTS

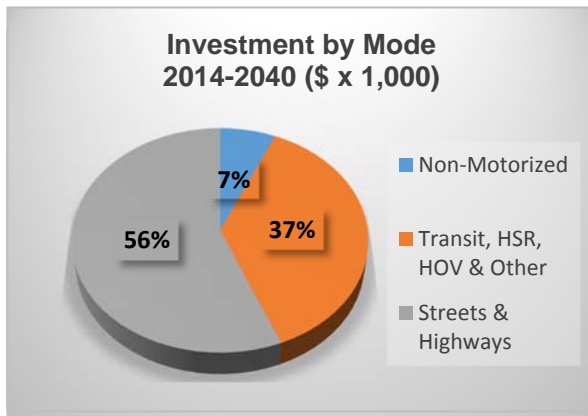
The 2014 RTP/SCS financial plan identifies how much money is available to support the region's transportation investments. The plan includes a core revenue forecast of existing local, state and federal sources along with funding sources that are considered to be reasonably available over the time horizon of the RTP/SCS. These new sources include adjustments to state and federal gas tax rates based on historical trends and recommendations from two national commissions (National Surface Transportation Policy and Revenue Study Commission and National Surface Transportation Infrastructure Financing Commission), leveraging of local sales tax measures, local transportation impact fees, potential national freight program/freight fees, future state bonding programs and mileage-based user fees.

The 2014 RTP promotes a more efficient transportation system that calls for fully funding alternative transportation modes, while emphasizing transportation demand and transportation system management approaches for new highway capacity. The Constrained

EXECUTIVE SUMMARY

Program of Projects includes projects that move the region toward a financially constrained and balanced system. Constrained projects have undergone air quality conformity analyses to ensure that they contribute to the Kern region's compliance with state and federal air quality rules.

MULTI-FUNCTIONING DOCUMENT



The RTP fulfills several requirements with one document:

- Congestion Management Program
- Sustainable Communities Strategy & Rural Urban Connectivity Strategy
- Regional Housing Needs Allocation
- Safety/Security Action Element
- Environmental Justice & Performance Measure Analysis

As the Congestion Management Agency, Kern COG has responsibility to ensure that all cities and the county are following the Congestion Management Program (CMP). Kern COG completes a coordinated and comprehensive review of current traffic data during each RTP update. Through the Kern Regional Traffic Count Program, the cities, County and Caltrans undertake annual traffic counts on their roads. Use of current peak-hour traffic counts to monitor congestion ensures that the review is based on observed traffic conditions and includes an innovative multi-model level of service analysis policy. The SCS includes a Rural Urban Connectivity Strategy analysis designed to ensure that the economic development of rural areas for agriculture, energy, tourism, military and

other activities are not left out of efforts to provide for a more efficient transportation system.



To ensure consistency requirements with the SCS, the draft Regional Housing Needs Allocation (RHNA) is incorporated into this document as an appendix. RHNA provides low income housing goals for each community in the region.

The Safety/Security Action Element fulfills a federal requirement for homeland security planning in the RTP as well as forwards the region's safety and emergency planning efforts.

Recognized as a national best practice, the Kern RTP includes an innovative integration of performance measure analysis with the environmental justice (EJ) analysis. The analysis advises our decision makers on the progress we are making toward our goals, while ensuring disadvantaged communities are not left behind.

MONITORING PROGRESS

Transportation planning for the Kern region requires continually improved information on the condition and use of the transportation system. The Highway Performance Monitoring System is a federally mandated program designed by the Federal Highway Administration to assess the performance of the nation's highway system. Chapter 8 discusses an array of monitoring efforts.

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SUMMARY OF BENEFITS

2014 Regional Transportation Plan

The region represented by the Kern Council of Governments is projected to add over ¼ million people by 2040. To protect to quality of life for future generations, the 2014 RTP is presented as an economic development strategy as well as a transportation, infrastructure and sustainability investment.

MOBILITY BENEFITS

- ✓ The plan improves overall mobility and provides needed congestion relief by maintaining, fixing and finishing what we have.
- ✓ This plan fully funds maintenance of the transportation system while increasing funding for bike, pedestrian, and transit facilities.
- ✓ Implementation of the plan will nearly double the number of homes within walking distance to quality transit. By integrating land use and transportation, 71% of homes will be near quality transit compared to 57% under the prior plan.

ECONOMIC BENEFITS

- ✓ The Federal Highway Administration estimates that every \$1 billion spent on transportation infrastructure creates 10,870 job years of which up to 4,000 can persist long after construction, generated by increased labor from better mobility and more efficient goods movement.
- ✓ This 26-year investment plan is projected to add over 80,000 job years (3,100 26-year jobs) from construction, maintenance, and better mobility, a 40% jump over the 2011 RTP.
- ✓ The plan could ultimately add 28,000 permanent jobs to the region increasing Kern's economic base, adding capacity to re-invest in an ever more efficient transportation system, triggering an upward economic spiral for future generations.

HEALTH BENEFITS

- ✓ Improves air quality and public health by reducing all criteria pollutants, emissions and their precursors – oxides of nitrogen (NO_x), reactive organic gases (ROG), particulate matter (PM₁₀), fine particulate matter (PM_{2.5}) and carbon monoxide (CO).
- ✓ 5% or more reduction in health expenditures because of improved air quality.
- ✓ Promotes more active transportation by increasing funding for bike and pedestrian facilities 700% over the 2011 RTP.

SUSTAINABILITY BENEFITS

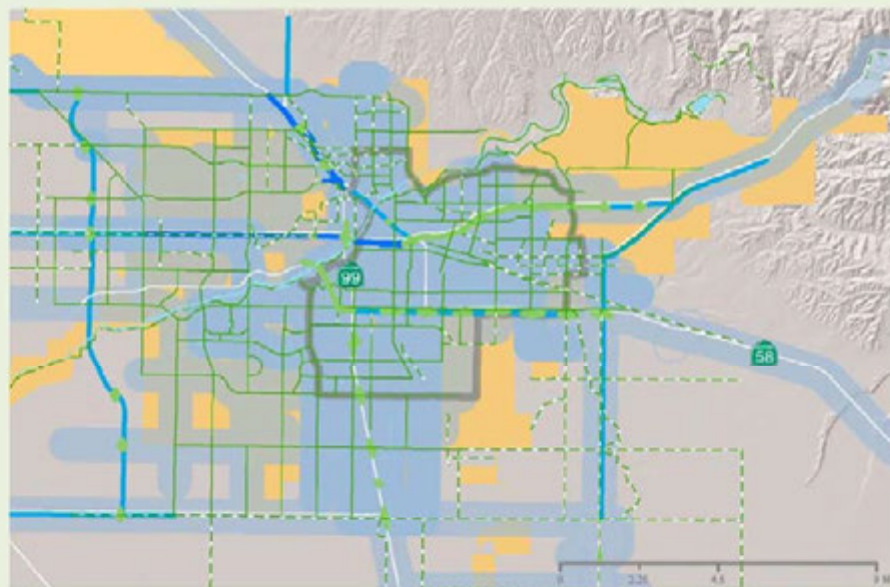
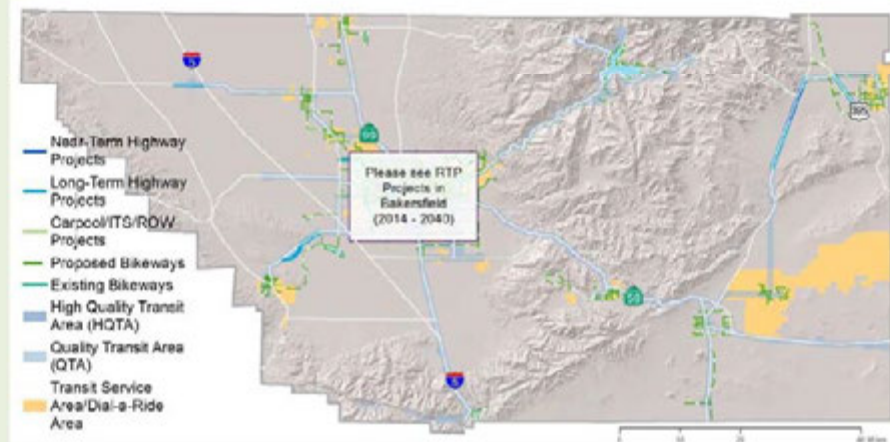
- ✓ 10% or more reduction in household water use by providing a full range housing choices.
- ✓ 11% or more reduction in infrastructure costs by revitalizing existing communities.
- ✓ 32% reduction in farmland converted to housing outside city spheres of influence.



TRANSPORTATION PROJECTS MAP

2014 Regional Transportation Plan

Reflecting diverse public input from over one percent of Kern's citizens, the 2014 Plan includes projects that reflect a more efficient transportation system that will benefit the mobility, economy, health and sustainability of the region (see summary of benefits on reverse side). The projects assume funding from traditional sources to continue at historic rates as well as a slight increase in additional funding from a variety of emerging new sources. Funding assumptions are updated every four years.



Kern Council of Governments



Chapter 1 Introduction

June 19, 2014



Kern Council
of Governments

www.kerncog.org

CHAPTER 1 INTRODUCTION

The 2014 Regional Transportation Plan (RTP) is a 26-year blueprint that establishes a set of regional transportation goals, policies, and actions intended to guide development of the planned multimodal transportation systems in Kern County. It has been developed through a continuing, comprehensive, and cooperative planning process, and provides for effective coordination between local, regional, state, and federal agencies. The Congestion Management Program (CMP) is designed to ensure that a balanced transportation system is developed, relating population and traffic growth, land use decisions, performance standards, and air quality improvements. New to the 2014 RTP, California's Sustainable Communities and Climate Protection Act, or Senate Bill (SB) 375, calls for the Kern County RTP to include a Sustainable Communities Strategy (SCS) that reduces greenhouse gas (GHG) emissions from passenger vehicles and light-duty trucks by 5 percent per capita by 2020 and 10 percent per capita by 2035 as compared to 2005. The California Air Resources Board (ARB) set the emissions reduction target for Kern County (and other areas of the state). Targets are reflective of conditions in each area of the state and are tailored to address conditions in each area. As will be discussed in more detail below, SB 375 will help meet the State goals included in Assembly Bill 32, the Global Warming Solutions Act of 2006. Meeting these targets will point the County toward overall sustainability and will provide benefits beyond reducing carbon emissions.

The California Transportation Plan (CTP) vision states the following:

California's transportation system is safe, sustainable, and globally competitive. It provides reliable and efficient mobility and accessibility for people, goods, and services while meeting our greenhouse gas emission reduction goals and preserving community character. This integrated, connected, and resilient multimodal system supports a prosperous economy, human and environmental health, and social equity.

Senate Bill 391 states the following:

Senate Bill 391 (SB 391, 2009), the California Transportation Plan, requires the California Department of Transportation to prepare the California Transportation Plan (CTP), the long-range transportation plan, by December 2015, to reduce GHG emissions.

This system must reduce GHG emissions to 1990 levels from current levels by 2020, and 80 percent below the 1990 levels by 2050 as described by AB 32 and Executive Order S-03-05. The upcoming CTP 2040 will demonstrate how major metropolitan areas, rural areas, and state agencies can coordinate planning efforts to achieve critical statewide goals.

REGIONAL PLANNING PROCESS

The Kern Council of Governments (Kern COG) is a federally designated Metropolitan Planning Organization (MPO) and a state-designated Regional Transportation Planning Agency (RTPA). These designations formally establish Kern COG's role in transportation planning. Kern COG's Board of Directors comprises elected representatives from the eleven incorporated cities within Kern County and two members of the County Board of Supervisors.

A Memorandum of Understanding between Kern COG and California Department of Transportation (Caltrans) District 6 also provides for a Transportation Planning Policy Committee, which is the existing Board plus ex officio members from Caltrans, Kern County's military bases, and the Golden Empire Transit District. The Transportation Technical Advisory Committee, comprising technical staff from member agencies, the Consolidated Transportation Services Agency, Caltrans, the Kern County Air Pollution Control District, and the San Joaquin Valley Air Pollution Control District provides support to the

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Board of Directors. In addition, the Social Services Transportation Advisory Committee also provides support to the Board by focusing on the needs of transit-dependent and transit disadvantaged persons, including the elderly, disabled, and persons of limited means. The Regional Planning Advisory Committee comprises representatives from local jurisdictions, the public transit agency (Golden Empire Transit), Caltrans, Local Agency Formation Commission, Kern Economic Development Corporation, and community members. Kern COG worked with the RPAC to develop a broad structure of Senate Bill 375 implementation as well as the *Directions to 2050* community engagement process.

As a regional transportation planning agency, Kern COG is mandated by California Government Code Section 65080 to prepare and periodically update the RTP. Indeed, regional transportation planning is a dynamic process requiring periodic refinement, monitoring, and amendment. The planning program for the next four-year period will continue with extensive evaluation of the RTP and the elements required by the federal surface transportation act, Moving Ahead for Progress in the 21st Century. Each component will be studied and modified consistent with RTP priorities as Kern County moves toward a more efficient, integrated and multimodal transportation system.

Public participation is encouraged at every stage of the planning process, and all meetings are open to the public. Kern COG performed extensive public outreach, and a discussion of Kern COG's public participation activities is provided in Chapter 2, while the Community Engagement Strategy for the 2014 RTP and summary of findings is documented in Appendix C.

The adopted RTP establishes a basis on which funding applications are evaluated. Use of any state or federal transportation funds by local governments must conform to the RTP, the State Implementation Plan (SIP) for air quality improvements, and the Federal Transportation Improvement Program (FTIP).

State transportation planning laws (Cal. Gov't Code § 65080 *et seq.*) also specify that actions by transportation agencies, such as Caltrans and Golden Empire Transit District, must be consistent with the RTP. Land use decisions should consider and accommodate transportation facilities and programs specified in the RTP whenever possible but are not required to be consistent with the RTP. The facilities listed in the RTP should be incorporated into city and county General Plans. Local transportation projects must be consistent with the RTP in order to obtain state or federal funding.

Kern COG has prepared this RTP to include the Sustainable Communities Strategy (SCS) within Chapter 4 and the Congestion Management Program and Transportation security Plan within Chapter 5, Strategic Investments. Kern COG prepared a Program Environmental Impact Report (Program EIR), pursuant to the California environmental Quality Act (CEQA), for the 2014 RTP. The Program EIR serves as an informational document to inform decision-makers and the public of the potential environmental consequences of approving the proposed plan. Because Kern COG has no land use authority, it cannot mandate changes to city or county land use policies and regulations, including general plans. The SCS was developed in consultation with local jurisdictions and is consistent with existing adopted General Plans and Zoning.

Based on the 2014 RTP, multimodal facilities will be constructed, and transportation services implemented, on a level consistent with projected funding. Funding projections are based on the assumption that current levels and sources of funding will continue throughout the planning time frame.

Using projected funding levels, each jurisdiction within Kern County, as well as Caltrans, the Kern County Air Pollution Control District, and the San Joaquin Valley Air Pollution Control District (the Air Districts), and other agencies, will implement transportation projects or transportation demand management strategies consistent with the goals and policies set forth in the 2014 RTP. The RTP supports maintaining the existing multimodal transportation system, improving the safety of the system, and increasing the system's efficiency as appropriate.

The Constrained Program of Projects, a complete list of planned improvements by mode, is provided in Table 5-1 and is consistent with those projects that have been evaluated according to Air Quality Conformity guidelines and have been found to improve air quality in Kern County. Table 5-2 provides the Unconstrained Program of Projects; these projects are important to the development of Kern County's transportation system but funding is not identified or available, and they are not included in the Air Quality Conformity model.

FEDERAL SURFACE TRANSPORTATION ACTS (SAFETEA-LU AND MAP-21)

On August 10, 2005, President George W. Bush signed into law the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU follows the landmark 1998 Transportation Equity Act for the 21st Century and the 1991 Intermodal Surface Transportation Equity Act (ISTEA) that brought a new emphasis to multi-modal transportation planning.

In addition to reauthorizing the funding levels for the various federal transportation programs, SAFETEA-LU also established new transportation planning and programming requirements that impact the Regional Transportation Plan and Federal Transportation Improvement Program.

A consensus by members of Congress indicates that major revisions will be required to revise (SAFETEA-LU) transportation funding mechanisms. Traffic congestion has increased, and while transit passenger numbers have increased, services are being cut because of funding shortfalls. Freight delays, both along highways and via rail, are costly. In addition, a significant amount of the nation's infrastructure has aged beyond its intended life, with highways, bridges, and tunnels in substantial disrepair.

On July 6, 2012, President Obama signed into law the Moving Ahead for Progress in the 21st Century Act (MAP-21). MAP-21 creates a streamlined, performance-based, and multimodal program to address the many challenges facing the U.S. transportation system. MAP-21 builds on and refines many of the highway, transit, bike, and pedestrian programs and policies established by its predecessor acts. Beginning October 1, 2012, the existing National Highway System (NHS) has been expanded to include all Principal Arterials (i.e., Functional Classifications 1, 2, and 3) to the new Enhanced NHS. The addition of Principal Arterials makes them eligible for National Highway Performance Programming funding.

In MAP-21, the metropolitan and statewide transportation planning processes are continued and enhanced to incorporate performance goals, measures, and targets into the process of identifying needed transportation improvements and project selection.

The RTP must also comply with Section 176 of the federal Clean Air Act which requires that no MPO may give its approval to any project, program, or plan which does not conform to the applicable State Implementation Plan (SIP) for air quality. See 42 U.S.C. § 7506(c).

OVERVIEW OF STATE REQUIREMENTS

MPOs and Regional Transportation Planning Agencies are required to adopt and submit an updated RTP to the California Transportation Commission (Commission) and Caltrans every four or five years depending on air quality attainment within the region. The State of California has adopted extensive RTP guidelines that largely mirror federal requirements. The recently modified and adopted 2010 Regional Transportation Plan guidelines, under the auspices of the California Transportation Commission, have been used to prepare this document.

In 2005, Governor Schwarzenegger's signed Executive Order (EO) S-3-05 which established a goal to reduce statewide GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050.

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In 2006, California became the first state in the country to adopt statewide GHG emissions reduction targets through AB 32. This law codifies the EO S-3-05 requirement goal to reduce statewide emissions to 1990 levels by 2020. In 2006, Assembly Bill 32 (AB 32) was signed into law. AB 32 codifies the EO S-3-05 goal to reduce statewide GHG emissions to 1990 levels by 2020. AB 32 resulted in CARB's 2008 adoption of a Climate Change Scoping Plan (Scoping Plan), outlining the State's plan to achieve emissions reductions through a combination of direct regulations, alternative compliance mechanisms, various incentives, voluntary actions, market-based mechanisms, and funding. The Scoping Plan identifies local governments as "essential partners" in the State's efforts to reduce emissions.¹

Passed in 2008, Senate Bill (SB) 375 supports the implementation of AB 32 and revises the planning requirements of the RTP. SB 375 targets regional emissions reductions from passenger vehicles and light-duty trucks through changes in land use and transportation development patterns. As a result, MPOs, in partnership with local governments, are now required to develop a Sustainable Communities Strategy to identify land use and transportation measures that will be used to meet regional emissions reduction targets established by the California Air Resources Board (ARB).

The RTP must be an "internally consistent" document, meaning that the contents of the Policy, Action, and Financial elements must be consistent with one another. As a result, transportation investments and the forecast development pattern in the SCS should be complementary. The Regional Transportation Plan Checklist, included in the 2010 RTP Guidelines, was used to ensure internal consistency in this 2014 RTP (refer to Appendix A).

SB 375 has also increased the minimum level of public participation required in the regional transportation planning process, requiring collaboration between regional partners during development of the SCS. SB 375 also offers California Environmental Quality Act (CEQA) incentives to encourage projects that are consistent with a regional plan which achieves emissions reductions and coordinates the regional housing needs allocation (RHNA) process with the regional transportation process.

In addition to SB 375, transportation plans must comply with CEQA, and the 2014 RTP meets this requirement. The first four years of plans must be consistent with the four-year State Transportation Improvement Program (STIP), which includes the Kern COG Regional Transportation Improvement Program (RTIP).² State guidelines call for program-level performance measures that include objective criteria to reflect the RTP's goals and policies. State guidelines also require regional plans to contain three specific chapters: a policy element (Chapter 2, Transportation Planning Policies), an action element (Chapter 5, Strategic Investments), and a financial element (Chapter 6, Financing Transportation).

PUBLIC OUTREACH

As the MPO, Kern COG is required to implement a public involvement process to provide complete information, timely public notice, and full public access to key decisions and to support early and continuing public involvement in developing its regional plans.

¹ Because the Scoping Plan time horizon is limited to 2020, analysis of the Scoping Plan is presented for the year 2020 only, not for 2035 or 2050. While EO-S-3-05 sets a goal that Statewide GHG emissions be reduced to 80 percent below 1990 levels by 2050, the EO does not constitute a "plan" for GHG reduction, and no State plan has been adopted to achieve the 2050 goal. Furthermore, the Kern COG planning process is not yet ready to address the year 2050 since it is anticipated that data collected from implementation of the 2014 RTP and possibly even 2018 RTP will be available before the RTP and SCS is ready to address the year 2050.

² The RTIP is the formal presentation of projects to the State that local agencies wish to implement within the next four years. Once projects are approved and presented in the STIP, the projects are then incorporated into the Federal Transportation Improvement Program (FTIP).

Kern COG formally adopted a Public Participation Program in May 2001, which was updated in 2005, 2007, 2010, and 2011 (refer to Appendix B for the complete Public Participation Plan). This program, Title VI of the Civil Rights Act of 1964, and associated regulations and policies, including President Clinton's 1994 Executive Order 12898 on Environmental Justice, seek to assure that minority, senior, and low-income populations are involved in the planning process. Kern COG's Public Participation Program seeks to encourage active participation of a broad range of stakeholder groups in the planning process.

Kern COG has used a combination of methods to stimulate public involvement. Although the planning horizon year for the 2014 RTP is 2040, the community engagement process was titled, *Directions to 2050*, in an effort to encourage long term brainstorming by participants and build on the Kern Regional Blueprint branding by the same name. The *Directions to 2050* community engagement program was designed to provide an opportunity for community members to learn about the RTP project and identify priorities for the region's future.

The community engagement strategy used a multifaceted approach to target all sectors of the community within the Kern region, including traditionally underrepresented groups. The following public outreach methods were used:

- RTP-specific presentations to community-based organizations.
- Nine RTP-specific stakeholder roundtable meetings with representatives from the business, industry, environmental justice advocacy, social services communities, and the Regional Planning Advisory Committee.
- Thirty RTP-specific community workshops throughout the Kern region.
- Six RTP-specific community events throughout the Kern region including the Tehachapi Mountain Festival, Ridgecrest Desert Empire Fair and the Great Kern County Fair. These events provided the most successful level of broad public participation.
- RTP-specific interactive project website, which included online activities and a survey, community workshop public meeting notices, background information, public outreach summaries, and the latest written information on the RTP.
- Social media was used to advertise the online activities, websites and events.
- Posting of all public outreach events on the Kern COG *Directions to 2050* project website (www.directionsto2050.com) and Kern COG Facebook page.
- Direct outreach to limited-English-proficiency, minority, senior, and low-income populations.
- Written materials (in both English and Spanish), and visual materials to communicate the status and content of the RTP, including fact sheets and presentations. A public comment form was used throughout the outreach program at public meetings as well as online.
- Kern COG's website, featuring a section dedicated to the 2014 RTP.
- Outreach to media, including frequent press releases and interviews.
- Kern COG staff was available to respond to comments via telephone and/or by e-mail.

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In addition to these targeted outreach efforts, all regular and special meetings of the Regional Planning Advisory Committee, Transportation Technical Advisory Committee, Congestion Management Agency Technical Advisory Committee, and Social Services Transportation Advisory Committee, as well as the Kern Transportation Planning and Policy Committee and Board of Directors, are publicly noticed and opportunities for public comment are provided. Kern COG coordinated with ARB and the California Department of Housing and Community Development (HCD) in the development of this RTP.

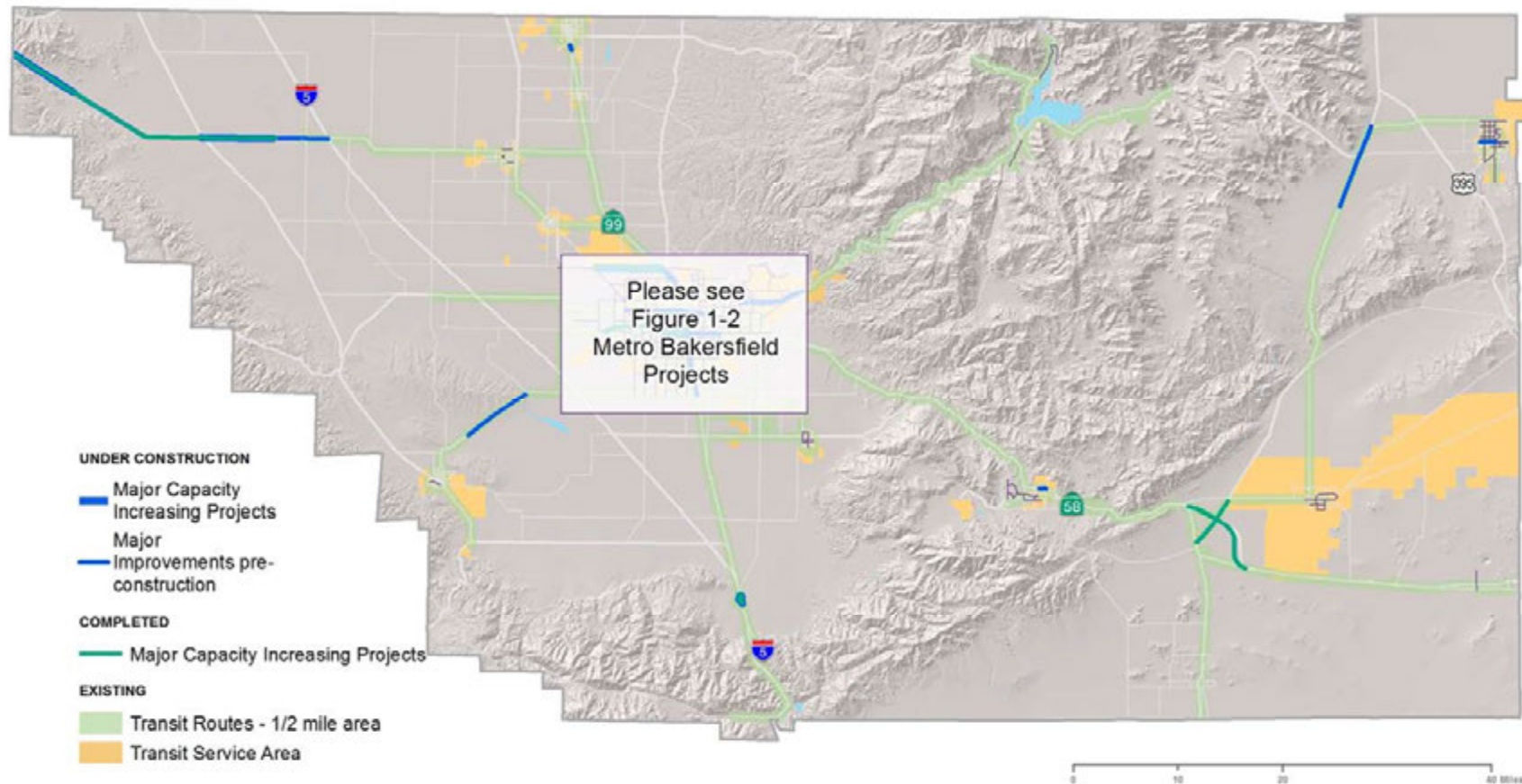
Input provided by elected officials, stakeholders, and community, agency, commission, committee, and state agency members was recorded and informed development of the 2014 RTP (see Appendix C for a summary of the Directions to 2050 community engagement process and results).

TRANSPORTATION PLANNING IN THE KERN REGION

Kern COG is responsible for developing, coordinating, monitoring, and updating the RTP for Kern County. Kern COG develops the RTP in coordination with the eleven cities of Kern County and the County of Kern, transit operators, and other transportation stakeholders. This section has summarized the planning environment and discussed how Kern COG integrates the planning activities of each of the cities and the County of Kern to ensure a balanced, multimodal plan that meets regional and county-specific goals, as well as emissions reduction targets.

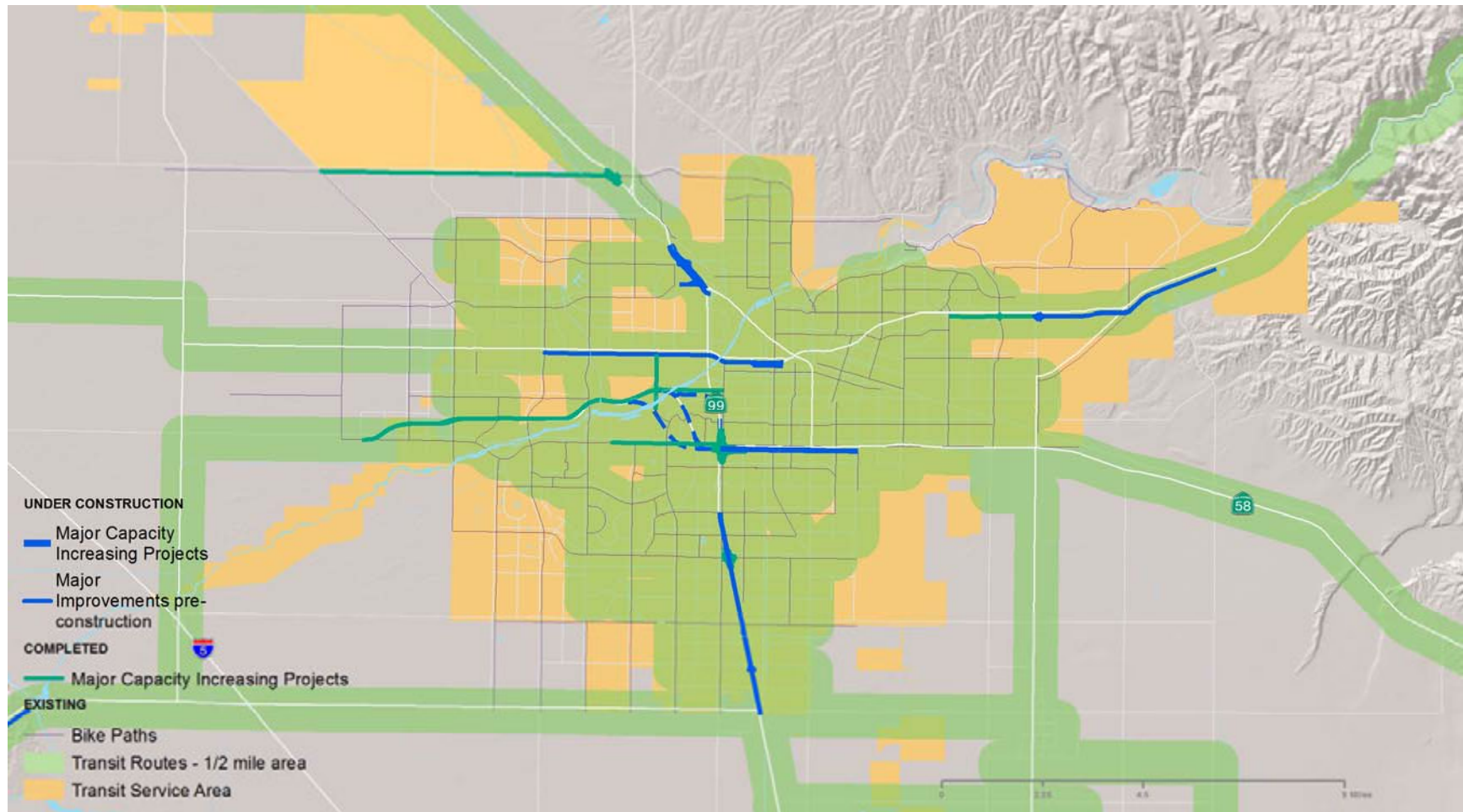
Over the past decade, Kern COG and its member agencies programed projects to benefit the traveling public throughout Kern County. Figure 1-1 and 1-2 portray projects that are currently under construction, completed or already existing. Projects ranged from transit projects, bike paths and performance increasing projects that mitigate congestion and enhance public safety.

Figure 1-1: Kern County Projects



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Figure 1-2: Metro Bakersfield Projects



The Kern region comprises two air basins and four air quality nonattainment or maintenance areas. Federal law requires that transportation and air quality planning are coordinated in these nonattainment and maintenance areas. In addition, the Kern region is part of Caltrans Districts 6 and 9.

In addition to two air basins, the Kern region is unique in that it contains the San Joaquin Valley, mountain and desert sub-regions. The region's large jurisdiction and dispersed centers support agriculture, oil and gas production, renewable energy, military, aerospace, recreation and other activities where abundant lands, unique geographic features and transportation linkages are important in supporting and enhancing the region's economic pursuits.

Given the challenges faced by our region, this RTP recognizes that our approach must be balanced, systematic, multimodal and at the same time focused to yield the best performance outcomes possible.

CONTENT OF THE 2014 RTP

The substantive portions of the 2014 RTP are structured as follows:

- Chapter 1: Introduction
- Chapter 2: Policy Element
- Chapter 3: Planning Assumptions
- Chapter 4: Sustainable Communities Strategy
- Chapter 5: Strategic Investment
- Chapter 6: Financial Element
- Chapter 7: Future Links
- Chapter 8: Monitoring Progress
- Chapter 9: Glossary & Acronyms
- Appendices

Policy Element

In Chapter 2, the Policy Element addresses legislative, planning, financial, and institutional issues and requirements, as well as areas of regional consensus (e.g., forecasted development patterns). This element provides guidance to decision-makers regarding the implications, impacts, opportunities, and forecasted options that will result from implementation of the RTP. In addition, the Policy Element is a resource that provides input and promotes consistency of actions taken by state, regional, and local agencies, such as transit agencies, congestion management agencies, and the California Highway Patrol.

Planning Assumptions

Chapter 3 describes the planning assumptions applied in developing the 2014 RTP. In 2001 the Kern COG Board adopted a policy to revisit the regional growth forecast every 3-5 years. The Board has adopted forecasts three times since that policy was implemented. The current forecast was originally adopted in 2005, and re-adopted in October 2009. The population forecast included an assumption for the economic downturn and was found to be within 1/10th of a percent of the observed 2010 census population for Kern County. In December 2011 the household and population distribution was updated using the 2010 Census block data and approved by the Kern COG Transportation Modeling Committee. The next scheduled update to the growth forecast will be after adoption of the 2014 RTP in fall of 2014.

Sustainable Communities Strategy

As discussed earlier, the 2014 RTP includes for the first time a Sustainable Communities Strategy – Chapter 4. The SCS includes land use planning strategies and policies to reduce air emissions from

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passenger vehicle and light duty truck travel by better coordinating transportation expenditures with forecasted development patterns in order to meet the GHG emissions reduction targets for the region.

Strategic Investment

Chapter 5, Strategic Investment sets forth plans of action for the region to pursue and meet identified transportation needs and issues. Planned investments are consistent with the goals and policies of the plan, the Sustainable Community Strategy element and must be financially constrained. These projects are listed in the Constrained Program of Projects (Table 5-1) and are modeled in the Air Quality Conformity Analysis.

Financial Element

RTPs must include a financial element – Chapter 6, that identifies monetary resources to implement the plan (23 USC 134(h)(2)(B)). This Chapter serves as the Financial Element to fulfill the federal requirement that the 2014 RTP be financially constrained (i.e., budgeted) and provides a cost analysis for implementing the program of projects included in the Strategic Investments (Action Element). It describes the anticipated financial situation that will exist between FY 2014 and FY 2040, the implementation period for this 2014 RTP.

Future Links

Chapter 7 – Future Links, addresses key future trends that may affect the RTP in future cycles. Forecasting for more than 5 years can be challenging; as such, forecasts should be updated regularly. The Future Links Chapter discusses some major game changers that need to be watched closely with each update of the RTP including corridor preservation, needed unfunded projects and financial mechanisms, adaptive cruise control/autonomous vehicle technology, high speed rail, air quality contingencies, and the San Joaquin Valley Regional Overview chapter.

Monitoring Progress

Chapter 8 deals with monitoring the progress of the transportation system. As the designated MPO for the Kern region, Kern COG monitors transportation plans, projects, and programs for consistency with regional plans. Kern COG also monitors the performance of the transportation system. This performance monitoring is especially important to inform the planning process for future RTPs. Regional transportation problems cannot be solved until they are identified and measured.

Glossary & Acronyms

A list of special terms and abbreviations used in the RTP with accompanying definitions.

Appendices

The following Appendices are included with the 2014 Regional Transportation Plan:

Appendix A	Regional Transportation Plan Checklist
Appendix B	Public Participation Plan
Appendix C	Outreach Results
Appendix D	Environmental Justice
Appendix E	A Great Start: Sustainable Community Success Stories
Appendix F	San Joaquin Valley Regional Transportation Overview
Appendix G	Regional Growth Forecast
Appendix H	Regional Housing Needs Allocation
Appendix I	Response to Comments (To Be Included with Final RTP)

Kern Council of Governments



Chapter 2 Transportation Planning Policies

June 19, 2014



Kern Council
of Governments

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CHAPTER 2 TRANSPORTATION PLANNING POLICIES

INTRODUCTION

The 2014 Regional Transportation Plan is Kern County's comprehensive area-wide transportation program to address the mobility challenges created by the region's growth. The policy element is one of 4 required elements for a Regional Transportation Plan as required by the adopted California Transportation Commission guidelines. This policy element contains an integrated set of goals, policies, actions and performance measures that are consistent with publicly vetted principles to guide and monitor the improvements to Kern's transportation system through 2040.

The Policy Element addresses legislative, planning, financial, and institutional issues and requirements, as well as areas of regional consensus (e.g., land use policies). This element provides guidance to decision-makers regarding the implications, impacts, opportunities, and forecasted options that will result from implementation of the RTP. In addition, the Policy Element is a resource that provides input and promotes consistency of actions taken by state, regional, and local agencies, such as transit agencies, congestion management agencies, and the California Highway Patrol.

This policy element contains an integrated set of goals, policies, actions and performance measures that are consistent with publicly vetted principles to guide and monitor the improvements to Kern's transportation system through 2040.

The policies and actions of the RTP are listed by goal and strategic action element (see Chapter 5) and are provided in Table 2-1. This table is supported by a Performance Monitoring section containing a system-wide set of measures to monitor progress toward these goals as well as an integrated environmental justice (EJ) analysis (see Appendix D). A description of the issues, needs, and actions is included in Chapter 5, Strategic Investments, for each transportation mode.

Goals, policies, actions, and performance measures are defined as follows:

A “**goal**” is the end toward which effort is directed; it is general in application and timeless.

A “**policy**” is a direction statement that guides present and future decisions on specific actions. Policies support the attainment of goals. In this document, policies have been merged with objectives to streamline the policy element.

An “**action**” is a specific activity in support of the policy. Actions are detailed in Chapter 5, Strategic Investments (Action Element).

A “**performance measure**” is a quantitative system-level indicator of how actions in the plan support the goals and are included in Appendix D.

In accordance with Government Code 65080(b)(1), all policies are relevant for both the near term (6 years) and long term (20+ years). Short- and long-range actions implementing these policies are identified in Chapter 5.

The following 2014 RTP goals and policies were derived from other Kern COG transportation plans and studies. This 2014 RTP stands on its own, and revisions to these other plans will not affect the content of this document.

CHAPTER 2 TRANSPORTATION PLANNING POLICIES

GOALS/POLICIES

At the core of the 2014 RTP are seven goals:

- 1) **Mobility** – Improve the mobility of people and freight.
- 2) **Accessibility** – Improve accessibility to, and the economic wellbeing of, major employment and other regional activity centers.
- 3) **Reliability** – Improve the reliability and safety of the transportation system.
- 4) **Efficiency** – Maximize the efficiency and cost effectiveness of the existing and future transportation system.
- 5) **Livability** – Promote livable communities and satisfaction of consumers with the transportation system.
- 6) **Sustainability** – Provide for the enhancement and expansion of the system while minimizing effects on the environment.
- 7) **Equity** – Ensure an equitable distribution of the benefits among various demographic and user groups.

While all goals are considered interrelated and important, mobility is considered the plan's highest goal. Identified in Table 2-1 are policy objectives for Kern COG and its member agencies categorized by the goals they help to advance. The table also references the strategic investment category in Chapter 5, Strategic Investments.

TABLE 2-1: REGIONAL TRANSPORTATION PLAN GOALS, POLICIES AND ACTIONS

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
1	Mobility, Accessibility	Enhance connectivity to Meadows Field and Inyokern Airport to accommodate future regional growth	Aviation
1.1		Work with Meadows Field and Inyokern Airport to obtain funding from the state and federal governments for their respective development programs.	Aviation
1.2		Work with local and regional transit providers to increase alternative mode ground access options at Meadows Field.	Aviation
1.3		Assist Meadows Field with planning related to high-speed rail connections.	Aviation
2	Mobility, Accessibility	Assist Kern County airports in expanding facilities to meet growing general aviation demands.	Aviation
2.1		Participate in master plan updates for various Kern County airports.	Aviation
2.2		Implement the Action Plan of the Central California Aviation System.	Aviation
2.3		Work with public airports to increase their access to federal and state funding.	Aviation
3	Mobility, Accessibility	Work with privately owned airports and local jurisdictions to support their operations and to maintain compatible uses within the airport area of influence.	Aviation

CHAPTER 2 TRANSPORTATION PLANNING POLICIES

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
3.1		Work with the JLUS committee to implement planning activities listed in the JLUS for R-2508 airspace (China Lake Naval Air Weapons Station and Edwards Air Force Base).	Aviation
3.2		Implement planning actions and strategies listed in the JLUS for R-2508.	
4	Mobility, Accessibility, Sustainability	Enhance and connect existing and future bikeways and pedestrian walkways in the Kern region.	Active Transport (AT), Air Emission
4.1		Seek and assist member agencies to apply for funding for bicycle and pedestrian projects from local, state, and federal sources.	AT
4.2		Seek and assist member agencies to apply for funding to maintain existing bikeways and pedestrian walkways.	AT
5	Mobility, Accessibility	Encourage and assist Kern COG member jurisdictions to implement their adopted local bicycle plans and to incorporate bicycle facilities into local transportation projects.	AT, Air Emissions
5.1		Fund updated bicycle plans for incorporated cities and unincorporated communities.	AT
5.2		Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, create and fund pedestrian/bicycle facilities.	AT
6	Mobility, Accessibility	Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, update and fund regional and local plans that promote bicycle and pedestrian travel.	AT, Air Emissions
6.1		Fund a Pedestrian facilities Plan for the County of Kern as well as incorporated cities.	AT
6.2		Periodically update the Kern Regional Bicycle Plan.	AT
7	Livability	Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, promote and fund sustainable community design that supports transit use and increases active transportation (AT) while still meeting the mobility needs of residents and employees.	AT, Public Transit, Air Emissions
7.1		Purchase and construct bicycle racks and lockers for Kern County multimodal stations.	AT
7.2		Purchase and construct bike tie-downs and racks on commuter trains and buses.	AT
7.3		Implement Rapid bus Improvements when financially feasible throughout the County.	Transit
7.4		Introduce Express bus service along SR 178/24th Street/Rosedale Highway and SR 99.	Transit
7.5		Consider Bus Rapid Transit in exclusive lanes with traffic signal priority.	Transit
7.6		Consider funding a feasibility study to explore additional Express bus service throughout the county.	Transit
7.7		Consider ramp metering.	Transit
7.8		Consider peak period only HOV lanes.	Transit
7.9		Consider converting BRT corridors to light rail transit.	Transit
7.10		Consider additional peak period HOV lanes.	Transit
7.11		Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, create and fund pedestrian/bicycle facilities	AT
8	Mobility, Accessibility	Identify additions and alternatives that would improve the overall quality of transit service in Kern County.	Transit, Air Emissions

CHAPTER 2 TRANSPORTATION PLANNING POLICIES

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
8.1		Assist KRT in refining KRT scheduling practices.	Transit
8.2		Encourage KRT to consider route reconfiguration within Downtown Bakersfield.	Transit
8.3		Assist KRT in analyzing stop placements.	Transit
8.4		Consider a new GET Transit Center at CSU Bakersfield.	Transit
8.5		Increase GET services to CSU Bakersfield and Bakersfield College.	Transit
8.6		Consider introducing “full” GET Bus Rapid Transit.	Transit
8.7		Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, create and fund pedestrian/bicycle facilities.	Air Emissions
8.8		Implement traffic flow improvements/railroad grade separations.	Air Emissions
8.9		Promote park and ride lots.	Air Emissions
8.10		Consider High Occupancy Vehicle (HOV) lane additions: Centennial Corridor provides room to accommodate HOV.	Air Emissions
8.11		Encourage transit providers to consider lower transit fares or transit subsidies.	Air Emissions
8.12		Implement flextime program.	Air Emissions
9	Mobility, Accessibility	Identify alternatives to traditional transit that address Kern County's regional transit (KRT) rural mobility needs.	Transit, Air Emissions
9.1		Assist KRT in refining KRT scheduling practices.	Transit
9.2		Consider KRT route reconfiguration within Downtown Bakersfield.	Transit
9.3		Assist KRT in analyzing stop placements.	Transit
9.4		Initiate discussions with the Southern California Regional Rail Authority regarding the extension of Metrolink from Lancaster to Rosamond.	Transit
9.5		Continue pursuing extension of Metrolink from Lancaster to Rosamond. (Transit)	Transit
9.6		Initiate discussions with the State regarding adding stops to Amtrak San Joaquin service between Bakersfield and Wasco.	Transit
9.7		Create and promote ridesharing and voluntary employer-based incentives.	Air Emissions
10	Mobility, Accessibility	Develop coordination alternatives that would realize improvements over current Golden Empire Transit (GET) and other transit operations.	Transit, Air Emissions
10.1		GET may consider decreasing emphasis on timed connections at transit centers.	Transit
10.2		GET may consider faster crosstown trips: <ul style="list-style-type: none"> • New Express routes • New “Rapid” routes • More direct routes 	Transit
10.3		GET may consider faster crosstown service connecting one side of Bakersfield to the other.	Transit
10.4		GET may consider circular services within neighborhoods or around outlying areas of Bakersfield.	Transit
10.5		Continuation of GET express routes.	Transit

CHAPTER 2 TRANSPORTATION PLANNING POLICIES

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
11	Mobility, Accessibility	Review, identify, and discuss alternative administrative and oversight models for transit services in Kern County.	Transit, Air Emissions
12	Mobility, Accessibility	Create strategies to increase the visibility and importance of transit in Kern County.	Transit, Air Emissions
12.1		Monitor advancement of the California High-Speed Rail (HSR) project.	Transit
12.2		Introduce GET hybrid Circulator/Express service.	Transit
12.3		Develop special presentations, workshops and studies for member agencies on transportation-related control measure strategies for air pollution emissions as new standard, technology, and funding opportunities evolve.	Transit
13	Mobility, Accessibility	Create partnerships between transit and social services agencies in addressing Kern County's transit needs.	Transit, Air Emissions
14	Mobility, Accessibility	Improve intercity connections and provide new services to expand the transportation alternatives in the Eastern Sierra region.	Transit, Air Emissions
14.1		Initiate discussions with the Southern California Regional Rail Authority regarding the extension of Metrolink from Lancaster to Rosamond.	Transit
14.2		Initiate discussions with the State regarding adding stops to Amtrak San Joaquin service between Bakersfield and Wasco.	Transit
14.3		Create ridesharing and voluntary employer-based incentives.	Air Emissions
14.4		Reassess feasibility of commuter rail in various corridors.	Transit
14.5		As HSR proceeds to construction: <ul style="list-style-type: none"> Identify preferred corridor to connect Bakersfield and Delano with commuter rail/HSR feeder service Identify potential funding for commuter rail operations Work with local transit providers to connect riders to commuter rail/HSR 	Transit
15	Mobility, Sustainability	Investigate new federal, state, and local funding opportunities to maintain the current transportation system and promote future transportation development.	Highways
15.1		Pursue ground access improvements for Meadows Field.	Highways
15.2		Upgrade the present highway maintenance system whenever feasible.	Highways
15.3		Maintain and enhance existing roadway infrastructure and provide for its efficient use.	Highways
16	Mobility, Accessibility, Sustainability	Work with Caltrans, COG member agencies, and other interested parties to prepare environmental studies and design engineering plans.	Highways
16.1		Widen State Route 119 near Taft	Highways
16.2		Widen State Route 14 near Freeman Gulch/Inyokern.	Highways
17	Mobility, Accessibility, Sustainability	Provide input to neighboring counties conducting Corridor Studies for routes significant to the Kern region.	Highways
17.1		Participate in San Bernardino County's study for the US Highway 395 corridor.	Highways
17.2		Review and analyze available rest areas, layover lots, and truck stops to determine needs for additional parking related to long-distance travel.	Highways
17.3		Implement the recommendations from completed transportation planning studies when appropriate and feasible.	Highways

CHAPTER 2 TRANSPORTATION PLANNING POLICIES

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
18	Mobility, Accessibility, Efficiency	Review countywide transportation impact fees and encourage member agencies to invest in active transportation, public transit and maintenance of local streets and roads.	Highways
18.1		Encourage local governments to consider pursuing alternative funding sources such as regional TIFs where justified as a necessary means to address transportation needs.	Highways
19	Livability	Delay the need for future increases in highway capacity and congestion through the implementation of measures that reduce transportation related air emissions.	Highways, Air Emissions
19.1		Pursuant to Transportation Development Act Statutes, encourage member agencies to improve public transit in all communities.	Air Emissions
19.2		Create ridesharing and voluntary employer-based incentives.	Air Emissions
19.3		Facilitate traffic flow improvements/railroad grade separation.	Air Emissions
19.4		Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, create pedestrian/bicycle facilities.	Air Emissions
19.5		Consider High Occupancy Vehicle (HOV) lane additions: Centennial Corridor provides room to accommodate HOV.	Air Emissions
19.6		Consider implementing flextime program.	Air Emissions
20	Mobility, Accessibility	Prepare a systems-level planning analysis of various transportation system alternatives using multimodal performance measures.	Highways, Air Emissions
20.1		Maintain Regional Traffic Models to aid in traffic and air quality analyses. Air emissions	Air Emissions
21	Mobility, Accessibility, Efficiency, Livability	Coordinate planning efforts to ensure efficient, economical, and environmentally sound movement of goods.	Highways, Freight
21.1		Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, prioritize and program the capital improvements for highways, regional roads, and interchanges for the RTP planning period, consistent with adopted goals and policies as feasible.	Highways
21.2		Support higher safety level requirement for hazardous material transport on interstates, state highways, and local roads.	Highways
21.3		Encourage coordination and consultation between the public and private sectors to explore innovative and efficient goods movement strategies.	Freight
21.4		Identify opportunities for truck-to-rail and truck-to-intermodal mode shifts, and evaluate the contributions of truck traffic on regional air quality.	Freight
21.5		Encourage the use of rail and air for goods movement to reduce impacts to state and inter county routes and lessen air quality impacts.	Freight
21.6		Oppose higher axle load limits for the trucking industry on general purpose roadways.	Freight
22	Mobility, Accessibility, Efficiency	Advocate programs and projects for the intermodal linkage of all freight transportation.	Highways, Freight
22.1		Consider constructing truck climbing lanes on eastbound SR 58 from General Beale Road to the Bena Road overcrossing. (Freight)	Freight, Highways

CHAPTER 2 TRANSPORTATION PLANNING POLICIES

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
22.2		Program Infrastructure improvements such as widening of Seventh Standard Road in response to proposed freight movements activities in the area. (Freight)	Freight
22.3		Widen State Route 184 to four lanes to respond to increasing agriculture trucking activity. (Freight)	Highways, Freight
22.4		Widen Wheeler Ridge Road to four lanes as a gap-closure measure to tie I-5 to SR 58 via SR184.	Highways, Freight
23	Mobility, Efficiency	Develop an annual freight movement stakeholders group for coordination and expansion efforts.	Freight
23.1		Encourage communication between short-line rail operators, shippers, and economic development agencies.	Freight
23.2		Explore options for potential uses of the southern portion of Arvin Subdivision as identifies in the Kern County Rail Study Phase 2.	Freight
24	Mobility, Reliability, Efficiency	Explore rail intermodal, transfer facility, and alternative transfer options for the region.	Freight
24.1		Continue development of the Paramount Logistics Park for intermodal freight transfer activities.	Freight
24.2		Continue development of the Delano RailEx Facility for intermodal freight shipping to the east coast.	Freight
24.3		Expand rail service to existing distribution centers throughout Kern County when feasible.	Freight
25	Mobility, Accessibility, Equity	Maintain liaison with Southern California Association of Governments and all San Joaquin Valley Councils of Government for efficient coordination of freight movement between regions and counties.	Freight
25.1		Work with other agencies to create an effective Central Valley-wide truck model to track regional commodity flows and to identify critical economic trends that will drive truck flows on regionally significant truck routes.	Freight
26	Mobility, Reliability, Accessibility, Equity	Provide heavy truck access planning guidance, including a review of the current surface transportation act route system, review of geometric issues, and signaling for all routes identified as major local access routes, as well as the development of performance standards.	Freight, Air Emissions
26.1		Add “missing links” (streets) to roadway network that reduce out of direction travel: Centennial Connector will provide a major free flow traffic connector that will improve air quality by reducing stop and go truck travel on local arterials. Hageman Flyover Project will provide another east/west connection over SR 99 to downtown Bakersfield central business district; Mohawk Street Extension provides an extension from Rosedale Highway south that connects to Truxtun Avenue accessing downtown Bakersfield.	Freight, Air Emissions
27	Accessibility, Reliability, Livability, Sustainability	Provide, as feasible, technical and planning assistance to local jurisdictions for land use, air quality and transportation planning.	Land Use, Air Emissions
27.1		Facilitate the Shafter Intermodal Rail Facility by programming infrastructure to service rail and truck traffic that may be generated by the facility.	Land Use, Air Emissions
27.2		Use the California Environmental Quality Act (CEQA) review process to inform stakeholders and decision makers on the impacts of sensitive land use developments near vital transportation infrastructure necessary to handle increasing air traffic and international cargo, as well as increasing inland port activity.	Land Use, Air Emissions

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Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
27.3		Work with the Kern County Department of Airports and local planning departments to preserve existing airports from encroachment by sensitive land uses to strategic global gateways.	Land Use
27.4		Use the CEQA review process to inform stakeholders and decision makers on the impacts of sensitive land use developments near vital transportation infrastructure necessary to handle increasing local, intercity, and interregional transit use.	Land Use, Air Emissions
27.5		Implement the long-range 2014 RTP in partnership with member agencies to preserve near- and long-term transportation infrastructure, thus promoting the gradual intensification of transit use when market demand for compact land uses increases.	Land Use, Air Emissions
27.6		Allow reduced parking requirements near transit centers that have alternative modes of access such as walking and bike paths, circulator buses, etc.	Land Use, Air Emissions
27.7		Monitor progress and allocate funding toward implementing principles developed by the Directions to 2050 outreach process pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013.	Land Use, Air Emissions
27.8		Encourage cities and the county to provide parking requirements (and parking provision) compatible with compact, pedestrian, and transit-supportive design and development. Requirements should account for mixed uses, transit access, and the linking of trips that reduce reliance on automobiles and total parking demand.	Land Use, Air Emissions
27.9		Promote land use along freight corridors that are compatible with goods movement traffic.	Land Use
28	Accessibility, Efficiency, Livability, Sustainability	Encourage land use planning by Kern COG local government member agencies that recognizes Kern's large area, dispersed centers and unique geographic features of the region.	Land Use, Air Emissions
28.1		Implement the Directions to 2050 Growth principles vision for economic vitality by planning and programming infrastructure to provide connectivity to air traffic and international cargo facilities.	Land Use
28.2		Monitor progress and allocate funding toward implementing regional principles developed by the Directions to 2050 visioning process consistent with local general plans pursuant to the project Delivery Policies and Procedures adopted November 21, 2013	Land Use
29	Accessibility, Efficiency, Livability, Sustainability	Promote land use patterns that support current and future investments in public transit and that might support future commuter- and high-speed rail alternatives.	Land Use, Air Emissions
29.1		Encourage the adoption of general plan circulation elements that address transit, bike, and pedestrian modes. Consider specific plan lines and form-based codes where appropriate to implement transit improvements along designated transit corridors that connect transit-priority place types and centers.	Land Use, Air Emissions
29.2		Work with Golden Empire Transit, Kern Regional Transit, other local transit providers, and local land use planners to preserve existing and future transit opportunities from the encroachment of low-density land uses within transit-priority place types and centers.	Land Use, Air Emissions
29.3		Encourage the expansion of transportation choices and transit usage by providing housing choices that include more compact and mixed land uses within walking distance to transit priority place types and centers.	Land Use, Air Emissions
29.4		Identify and space transit oriented village, town, and suburban/community centers a minimum of 1 to 4 miles apart.	Land Use, Air Emissions

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
29.5		Provide convenient and safe walking and bike paths to a fixed transit hub at each transit priority place type.	Land Use, Air Emissions
29.6		Promote more compact and mixed-use centers along transit corridors, where appropriate, to support more intense transit options such as Bus Rapid Transit, light rail and active transportation as areas become revitalized.	Land Use, Air Emissions
29.7		Land uses should be mixed both horizontally and vertically where appropriate. Vertical mixed use, with ground-floor retail in developed areas and activity centers as identified through local land use plans, can increase the vitality of the street and provide people with the choice of walking to desired services. More important for Bakersfield, mixing uses horizontally can prevent desolate, single-use areas and encourage increased pedestrian activity; scale of use and distance between uses are important to successful horizontal mixed-use development.	Land Use, Air Emissions
29.8		Support and enhance transit priority and strategic employment place types. These areas have a strong impact on transportation patterns as the major destinations. To make these places more transit-supportive, they should be enhanced by land use decisions that locate new housing and appropriately scaled retail and employment uses to diversify the mix, creating an environment that maximizes transportation choice.	Land Use, Air Emissions
29.9		Encourage cities and the county to provide land use intensities where appropriate at levels that will promote use of transit and support pedestrian and bicycle activity. A general threshold for transit-supportive residential uses is 10 to 15 units per acre within ½ mile of a high-frequency transit stop (15 min. headways or less). This density can be lower, however, if the urban environment supports easy pedestrian/bike access to transit. Nonresidential uses with a floor area ratio (FAR) of 0.5 provide a baseline that can support viable transit ridership levels. Local land use plans should provide flexibility to maximize the intensity of development in transit priority place types to be more responsive to changing market conditions.	Land Use, Air Emissions
29.10		Encourage the adoption of general plan circulation elements with specific plan lines as appropriate to preserve goods movement corridors and high frequency transit corridors.	Land Use, Air Emissions
29.11		The transportation and circulation framework should define compact districts and corridors that are characterized by high connectivity of streets to not overly concentrate traffic on major streets and to provide more direct routes for pedestrians, good access to transit, and streets that are designed for pedestrians and bicycles, as well as for vehicles.	Land Use, Air Emissions
29.12		New residential developments should include streets that provide connectivity. Cul-de-sacs and walls around communities are especially challenging for providing effective pedestrian and bike access to public transit.	Land Use, Air Emissions
29.13		Streets should be designed to support use by multiple modes, including transit, bicycles, and pedestrians, through proper scaling and provision of lighting, landscaping, and amenities. Amenities must be designed to provide comfortable walking environments.	Land Use, Air Emissions
29.14		Buildings should be human scaled, with a positive relationship to the street (e.g. entries and windows facing onto public streets, and appropriate articulation and signage). (Land Use – Highway/Road)	Air Emissions
29.15		The impact of parking on the public realm should be minimized by siting parking lots behind buildings or screening elements (walls or landscaping). Buildings should be close to the road so parking can be located on the side or in the rear.	Land Use, Air Emissions
30	Accessibility, Efficiency, Livability, Sustainability	Promote increased communication with neighboring jurisdictions on interregional land use issues, including the coordination of land use decisions and transportation systems.	Land Use, Air Emissions

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Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
30.1		Coordinate with the County of Kern, City of Bakersfield, and City of Shafter on the proposed expansion of Meadows Field in the County of Kern Airport Master Plan.	Land Use
30.2		Coordinate with the Southern California Association of Governments, the Metropolitan Transportation Commission, and the ports to minimize impacts of port activity through Kern County.	Land Use, Air Emissions
30.3		Coordinate with the Kern County Department of Airports, municipalities and airport districts to establish intermodal connectivity for rail, trucking, transit, and passenger vehicles.	Land Use, Air Emissions
30.4		Coordinate with Golden Empire Transit, Kern Regional Transit, and the Kern County Department of Airports to improve intermodal connectivity between transit systems and Meadows Field.	Land Use, Air Emissions
30.5		Continue to use the CEQA review process to inform stakeholders and decision-makers on the impacts of sensitive land use developments near vital transportation infrastructure.	Land Use, Air Emissions
30.6		Work with member agencies to preserve existing and future road and highway rights-of-way from the encroachment of sensitive land uses. (Land Use – Highway/Road)	Land Use, Air Emissions
30.7		Implement the long-range 2014 RTP in partnership with member agencies to preserve near- and long-term transportation infrastructure that promote the preservation of goods movement routes and facilities. (Land Use – Highway/Road)	Land Use, Air Emissions
30.8		Transit improvement projects should be targeted at areas with transit-supportive land uses (existing and planned) in and around key destinations and projects that can increase pedestrian activity. (Land Use – Highway/Road)	Land Use, Air Emissions
30.9		Relax roadway level of service (LOS) standards in high-priority transit corridors. In high-demand, high-capacity transit corridors.	Land Use, Air Emissions
30.10		Special presentations and workshops for member agencies on transportation-related emission reduction strategies for air pollution emissions as new standards, technology, and funding opportunities evolve.	Air Emissions
31	Mobility, Efficiency	Support more efficient use of the transportation system through the implementation of Intelligent Transportation Systems technology	Land Use, Air Emissions
31.1		Build upon the momentum and stakeholder coalition generated through the San Joaquin Valley Goods Movement Study to pursue Intelligent Transportation Systems, ITS commercial vehicle projects.	ITS
31.2		Investigate how ITS can support efforts to improve east/ west travel between the inland areas and coastal communities.	ITS
31.3		Use momentum from the valley-wide ITS planning effort in conjunction with federal rules (ITS architecture and standards conformity and statewide and metropolitan planning) to expand ITS actions.	ITS
31.4		Build upon the existing Caltrans District 6 Traffic Management Systems to fill gaps and complete coverage on major facilities, including expansion of their highway closures and restrictions database, to include other agencies.	ITS, Air Emissions
31.5		Capitalize on the extensive ITS technology testing and standards development conducted by Caltrans by using, where appropriate, Caltrans approaches for local traffic management systems.	ITS, Air Emissions
31.6		Build upon lessons learned from past and current transit ITS deployment experience in the San Joaquin Valley (Fresno Area Express, Golden Empire Transit, and San Joaquin Regional Transit).	ITS, Air Emissions

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Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
31.7		Build upon Caltrans District 6 experience with sharing facilities, equipment, and information between traffic management and California Highway Patrol staff.	ITS, Air Emissions
31.8		Provide traveler information for commercial vehicle operators at truck rest stops.	ITS, Air Emissions
31.9		Improve visibility and access to existing Caltrans' valley-wide alternate route plans.	ITS, Air Emissions
31.10		Coordinate the Bakersfield area Transportation Management Center with Caltrans' District 6 Transportation Management Center via satellite.	ITS, Air Emissions
31.11		Integrate the ITS capabilities being implemented at Golden Empire Transit (GET) with Bakersfield's traffic management system, including sharing information between the two centers during emergencies.	ITS, Air Emissions
31.12		Facilitate the transfer of lessons learned from GET ITS deployment to other area transit operators, and look for opportunities for those agencies to better coordinate with GET using its ITS capabilities.	ITS, Air Emissions
31.13		Expand the accident reduction campaigns on Kern's rural highways.	ITS, Air Emissions
32	Livability	Achieve national and state air quality standards for healthy air by the mandated deadlines.	Air Emissions
32.1		Maintain air quality coordination MOU with the San Joaquin Valley Metropolitan Planning Organizations, San Joaquin Valley and East Kern Air Pollution Control District, and Caltrans Districts 6 and 10.	Air Emissions
32.2		Identification of all Reasonably Available Control Measures (RACM) for ozone and all Best Available Control Measures (BACM) for PM10 by Kern COG's member agencies.	Air Emissions
32.3		Coordinate with all necessary responsible agencies to implement feasible transportation control measures that limit harmful air emissions.	Air Emissions
32.4		Support special presentations and workshops for member agencies on transportation-related emission reduction strategies for air pollution emissions as new standards, technology, and funding opportunities evolve.	Air Emissions
32.5		Seek funding options for Congestion Mitigation Air Quality Program (CMAQ), AB 2766 Motor Vehicle Emissions Reductions Program, and other sources that allow allocations for air emission reduction strategies.	Air Emissions
33	Equity	Take a proactive in implementing Federal Title VI Environmental Justice requirements to ensure non-discrimination.	Environ. Justice
33.1		Avoid, minimize, and/or mitigate disproportionately high and adverse human health or environmental effects, including social and economic impacts, on traditionally disadvantaged communities, especially racial minority and low-income communities.	Environ. Justice
33.2		Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.	Environ. Justice
33.3		Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.	Environ. Justice

CHAPTER 2 TRANSPORTATION PLANNING POLICIES

RELATIONSHIP OF RTP GOALS TO DIRECTIONS TO 2050

In preparation of the 2014 RTP, Kern COG undertook Directions to 2050, a comprehensive community engagement program that solicited input from over 5,000 stakeholders and community members in the Kern region. Building on the momentum of the 2008 Kern Regional Blueprint, the Directions to 2050 program revisited the nine adopted Blueprint principles for growth. It is important to note that the horizon year for the 2014 RTP is 2040. The theme “Directions to 2050” was used in the community engagement program to encourage participants to think well into the future.

Directions to 2050 community workshop participants as well as online participants throughout the region were invited to prioritize the principles for growth. Community members expressed continuing support for all nine principles for growth, indicating they are still relevant to the Kern region.

Workshop participants identified the following principles as the top three priorities for the region and their community’s future:

- Enhance economic vitality
- Provide adequate and equitable services
- Conserve energy and natural resources, and develop alternatives

Principle prioritization varied slightly by valley, mountain, and desert sub-regions as follows:

- Valley sub-region participants prioritized:
 - Conserve energy and natural resources, and develop alternatives
 - Provide adequate and equitable services
 - Provide a variety of transportation choices
- Mountain sub-region participants prioritized:
 - Enhance economic vitality
 - Conserve undeveloped land and spaces
- Desert sub-region participants prioritized:
 - Enhance economic vitality
 - Provide adequate and equitable services

Table 2-2 provides a comparison of the Directions to 2050 principles for growth and the RTP goals. The RTP is an extension of the Directions to 2050 community engagement process, providing mobility goals, policies, and actions for the region.

Examples of how the principles for growth interrelate with the RTP goals include the following:

- Improving mobility can include the addition of alternative fuels and modes that would help conserve energy and natural resources;
- Improving accessibility to major employment centers can make it more efficient to access and provide public services to these areas;
- Improving reliability and safety of the transportation system during peak periods can make it more convenient to do business in Kern, enhancing our region’s economic vitality;

- Maximizing efficiency of the transportation system can be improved by providing a variety of housing types and densities that are distributed to take optimum advantage of transit and highway infrastructure;
- Promoting livability can be assisted by building on a community's historic assets;
- Promoting sustainability can reduce long-term operating costs, enhancing the economic viability of a region; and
- Ensuring equity can be assisted by providing affordable transportation options such as biking, walking, and transit.

See Chapter 4, Sustainable Communities Strategy, for further information on the Directions to 2050 community engagement process.

CHAPTER 2 TRANSPORTATION PLANNING POLICIES

**TABLE 2-2: DIRECTIONS TO 2050 PRINCIPLES FOR GROWTH/
RTP GOALS COMPARISON MATRIX**

LINKS BETWEEN DIRECTIONS TO 2050 PRINCIPLES FOR GROWTH AND RTP GOALS	RTP Goals						
	1. Mobility – Improve the mobility of people and freight.	2. Accessibility – Improve accessibility to, and the economic wellbeing of major employment and other regional activity centers.	3. Reliability – Improve the reliability and safety of the transportation system.	4. Efficiency – Maximize the efficiency and cost effectiveness of the existing and future transportation system.	5. Livability – Promote livable communities and satisfaction of consumers with the transportation system.	6. Sustainability – Provide for preservation and expansion of the system while minimizing effects on the environment.	7. Equity – Ensure an equitable distribution of the benefits among various demographic and user groups.
Directions to 2050 Principles for Growth							
A. Conserve energy and natural resources, and develop alternatives	♦	♦	♦	♦	♦	♦	♦
B. Provide adequate and equitable public services	♦	♦	♦	♦	♦	♦	♦
C. Enhance economic vitality	♦	♦	♦	♦	♦	♦	♦
D. Provide a variety of housing choices				♦	♦	♦	♦
E. Use and improve existing community assets and infrastructure	♦	♦	♦	♦	♦	♦	♦
F. Use compact, efficient development and/or mixed land uses where appropriate	♦	♦	♦	♦	♦	♦	♦
G. Provide a variety of transportation choices	♦	♦	♦	♦	♦	♦	♦
H. Preserve undeveloped land and spaces				♦	♦	♦	♦
I. Increase civic and public engagement			♦		♦		♦

INTEGRATED PERFORMANCE MEASURES AND ENVIRONMENTAL JUSTICE ANALYSIS

In the 2010 California Regional Transportation Plan Guidelines, the Kern COG RTP is listed as a best practice for environmental justice analysis for small to mid-sized metropolitan planning organizations. The analysis is integrated with a system level performance measure analysis that measures progress toward the seven RTP goals, ensuring that progress toward goals is consistent with progress toward environmental justice requirements. Appendix D containing the integrated performance measures analysis indicates that this RTP is performing well for most transportation system and environmental justice measures compared to the base year and no-build alternatives.

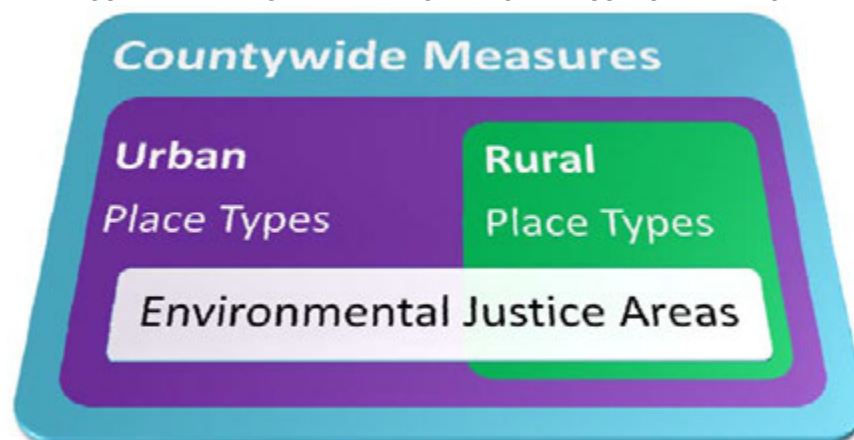
...the integrated performance measures analysis indicates that this RTP is performing well for most system-wide transportation and environmental justice measures compared to the base year and no-build alternatives.

An environmental justice analysis has been prepared consistent with Federal Title VI of the 1964 Civil Rights Act and Executive Order 12898 requiring metropolitan planning organizations to focus on environmental justice concerns in their planning processes. The analysis is part of a larger proactive planning effort to provide an intensive, proactive outreach to environmental justice communities. Garnering public input in the earliest planning stages from all communities can go a long way toward successfully delivering projects, and minimizes the potential for costly challenges late in the process. Appendix C summarizes the RTP outreach effort. In concert with the public input from environmental justice communities as a result of the outreach, the environmental analysis provides important feedback to policy makers on how well the regional transportation plan performs in areas that tie to the Regional Transportation Plan Goals. The results of the analysis indicate that with the implementation of the plan, environmental justice communities will be better off than in most measures of performance than the region as a whole.

Performance Measures Analysis Methodology

Kern COG has developed an integrated framework for eleven performance measures to demonstrate consistency of the RTP and SCS with its seven established goals. Some of the performance measures comply with as many as five goals.

FIGURE 2-1: INTEGRATED PERFORMANCE MEASURES FRAMEWORK



This figure illustrates the overlap among the eleven performance measures used for countywide analysis, the two smart mobility framework place types, and environmental justice areas. For example, some

CHAPTER 2 TRANSPORTATION PLANNING POLICIES

measures are the same for environmental justice, urban and rural place types, and countywide, while other measures may only be used in two of the three categories. The following table contains a breakdown of which measure applies to which categories and goals.

**TABLE 2-3: RTP GOALS, PERFORMANCE MEASURES
AND SMART MOBILITY FRAMEWORK PLACE TYPES ADAPTED FOR KERN COUNTY**

	RTP Goal/Measure Category	Performance Measure Description	Performance Target	Applicability by Smart Mobility Place Types/ Geographic Coverage
1	Mobility	Average Travel Time – Peak Highway Trips, Peak Transit Trips	Improvement over No Project Base Line	Urban, Rural, Countywide
2	Accessibility/economic well being	Average Travel Time to Job Centers – Highway Trips, Transit Trips	Improvement over No Project Base Line	Urban, Rural, Countywide
3	Reliability/congestion	Average Level of Congestion in Hours	Improvement over Base Year	Urban, Rural, Countywide
4	Reliability/safety	Annualized Accident Statistics for Annual Average Daily Traffic	Improvement over Base Year	Urban, Rural, Countywide
5	Efficiency/cost effectiveness	Average Daily Investment per Passenger Mile Traveled – Highways, Transit	Improvement over Countywide Average	Urban, Rural, Countywide
6	Livability/customer satisfaction	Average Trip Delay Time in Hours	Improvement over Base Year	Urban, Rural, Countywide
7	Environment/health	Percentage Change NOx/PM by air basin	Improvement over Base Year	Air Basins (San Joaquin Valley, Mojave Desert, Indian Wells Valley)
8	Environment/health	Percentage Change in Households within 150' of Roadway Volumes Greater than 100,000	Improvement over Base Year	Urban, Rural, Countywide
9	Sustainability/preservation	Percentage Change in Maintenance Dollars Per Lane Mile	Improvement over Base Year	Countywide
10	Equity	Percentage of Expenditures versus Passenger Miles Traveled in 2035 – Highways, Transit	Improvement over Countywide Average	Urban, Rural, Countywide
11	Land Consumption	Percentage of Farmland outside City Spheres of Influence	Improvement over No Project Baseline	Countywide

**Due to the limitations of the analysis methodology, Environmental Justice areas were not able to be analyzed for Performance Measures 7, 9 and 11.*

For the performance measure results see the Integrated Performance Measures and Environmental Justice Analysis in Appendix D.

Kern Council of Governments



Chapter 3 Planning Assumptions

June 19, 2014



Kern Council
of Governments

www.kerncog.org

CHAPTER 3 PLANNING ASSUMPTIONS

The Kern Council of Governments (Kern COG) is the state affiliate data center for Kern County, and oversees transportation plans, programs, and transportation-related projects for its eleven cities: Arvin, Bakersfield, California City, Delano, Maricopa, McFarland, Ridgecrest, Shafter, Taft, Tehachapi, and Wasco. In addition, Kern COG has oversight of similar plans, programs, and projects within the unincorporated areas of Kern County.

In 2001 the Kern COG Board adopted a policy to revisit the regional growth forecast every 3-5 years. The Board has adopted forecasts three times since that policy was implemented. The current forecast was originally adopted in 2005, and re-adopted in October 2009. The population forecast included an assumption for the economic downturn and was found to be within 1/10th of a percent of the observed 2010 census population for Kern County. In December 2011 the household and population distribution was updated using the 2010 Census block data and approved by the Kern COG Transportation Modeling Committee. The next scheduled update to the growth forecast will be after adoption of the 2014 RTP in fall of 2014.

The current forecast was originally adopted in 2005 and re-adopted in 2009. The population forecast included an assumption for the economic downturn and was found to be within 1/10th of a percent of the observed 2010 census population for Kern County.

The highly successful forecast and planning assumptions process is implemented by joint subcommittees: the Kern COG Transportation Technical Advisory Committee (TTAC), the Regional Planning Advisory Committee (RPAC) and the Transportation Modeling Committee (TMC). The Kern COG Board set up the TMC in May 2001 with the adoption of the Transportation Modeling Policy and Procedure. This procedure was re-confirmed with the adoption of a Memorandum of Understanding on Transportation Modeling Coordination between Caltrans, City of Bakersfield, Kern County and Kern COG on January 15, 2004.

The TMC consists of the technical staff from Kern COG member agencies planning and public works departments. The committee is also responsible for sub-area distribution of the growth forecast as well as numerous other regional transportation modeling issues. As part of the development of the SCS, the TMC has been meeting jointly with the RPAC.

GROWTH TRENDS

Population in the 8,200-square-mile County of Kern has surpassed 856,000 (*Source: U.S. Census Bureau, 2012 American Community Survey*), and Kern County was in the top ten fastest growing counties in California from 2012 to 2013 with the 5th fastest growth rate at 1.25%. About one in every 44 people in California lives in Kern County. The Kern region grew by almost 200,000 persons since 2000 and is California's eleventh most populated of 58 counties, recently surpassing San Francisco and Ventura counties.

Regional Population, Housing, and Employment Forecasts

The California Department of Finance (DOF) estimated that population in the Kern region increased at an average annual compounded rate of 2.1% between July 2000 and July 2013, more than double the rate for California as a whole (0.9%). Even with the economic slowdown beginning in 2007, the region gained more than 15,000 people annually during this time, up from 12,000 annually during the 1990s.

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Over the next 26 years, growth in the Kern region could vary widely based on a host of factors, including spillover from Southern California, water availability, employment opportunities, housing costs, interest rates, high-speed rail, air quality regulations, and land availability. The combined general plans within the Kern region designate sufficient land to absorb growth at twice the rate forecasted by 2035, assuming water and urban services are available. Past growth in the region and in Southern California as a whole would indicate that the question is not “if” but “when” Kern’s population will double. At current growth rates that will likely not happen until after 2050. As with any forecast beyond 5 years, it is important to revisit the forecast often to adjust for the most recent observed changes in factors affecting trends.

In October 2009, Kern COG reanalyzed and readopted the July 2005 forecast. Distribution of the 2009 forecast was completed in December 2011. The forecast anticipates population to increase by approximately 67% or 577,100 persons by 2040. When adopted, the forecast assumed a rebound from the economic downturn beginning in 2010. Kern regained all the jobs lost during the economic downturn by 2012 and recovery continues. The latest DOF projections released in 2013 assume that the population will rebound and surpass the Kern adopted forecast by 2015. Again, the regional growth forecast is reviewed and revised every three to five years.

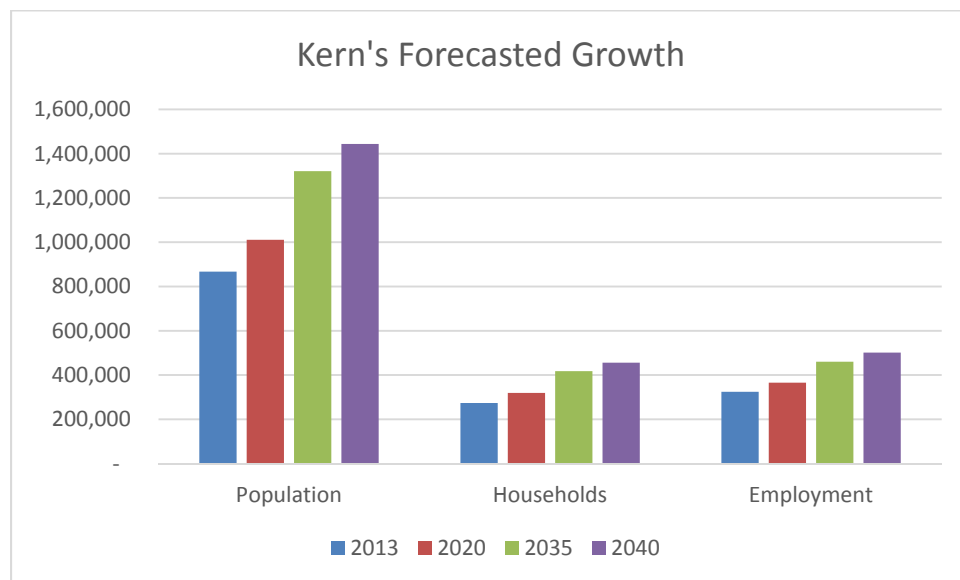
In the near term, natural increases will continue to fuel the bulk of the population growth; Kern’s population consists of more than 50% Hispanic/Latino ethnicity (*Source: US Census Bureau, 2012 American Community Survey*). At the same time, a huge “baby boomer” population group is retiring and has set the stage for conversion of existing vacation homes in the mountain areas to primary residences. The increase of telecommuting workers will also allow more remote locations to become primary residences. At some point, significant spillover from the Southland will be felt first in the Rosamond and Frazier Park areas. Centennial - a new proposed community of 23,000 housing units on Tejon Ranch in northern Los Angeles County - may siphon some of the anticipated growth from southern Kern as the development comes online; however, this project will likely have growth-inducing effects in the Frazier Park area as well. The most recent forecast assumes that growth’s positive and negative factors will ultimately cancel each other out, causing long-term growth to reflect historic boom/bust trends.

According to the California Employment Development Department (EDD) Kern County gained 75,000 jobs since 2000 and experienced an increase in per capita income. However, the unemployment rate in the Kern region in 2012 (13.3%) remains consistently higher than the state average (10.5%).

The jobs/housing balance, which has historically fluctuated around 1.1 and 1.3 jobs per household, is anticipated to continue to vary based on several factors. First, fluctuations in the number of out-of-county commuter households affect the jobs housing balance. Second, when employment levels do not keep up with baby booms - like the echo boomer generation now entering the workforce - the jobs housing balance goes down as unemployment goes up and/or out-migration increases. The third factor affecting the jobs housing balance is Kern’s latent supply of second homes in the mountain communities. As the baby boomers retire we anticipate an increase in households that will be supported by a pension/retirement savings rather than a job in the region, lowering high vacancy rates in the mountain communities. This trend factor is difficult to detect because no building permit is required to convert a second home to a primary residence. Over the long term we anticipate the jobs/housing balance to settle down to 1.1. Total Employment is anticipated to grow to just over 500,000 by forecast year 2040.

Figure 3.1 depicts forecasted population, household and employment growth to 2040. Additional growth forecast data and modeling assumptions are available in Appendix G.

Figure 3-1: Kern's Forecasted Growth



Sub Regional Forecast Distributions

Over the past decade, growth has concentrated in Metropolitan Bakersfield and the communities of Delano, Wasco, Ridgecrest, California City, Arvin, Shafter, Tehachapi, McFarland and the unincorporated communities around Tehachapi, Rosamond and Frazier Park. In addition, strategic growth occurred at Kern's southern gateway to Los Angeles County involving the Tejon Ranch Commerce Center and related development that supports transportation, logistics, commercial, tourism and other sustainable uses important to the region's economy.

In Metropolitan Bakersfield, approximately 80% of the new housing has been built on the west side, with approximately 40% north of the Kern River and another 40% in the southwest. The northeast has begun to see activity with completion of a new water delivery system.

After 2035, an increase in population growth in Southeast Kern is expected to begin to absorb spillover from the Palmdale/Lancaster market area. This coincides with a planned Metrolink station in Rosamond and potential completion of a high speed rail station in Palmdale. The growth is anticipated to syphon off some of the demand for housing in other areas of the County, consistent with existing long term forecasts.

Over the past two decades, Kern workers commuting to Los Angeles County (3%) have kept pace with the county's growth rate, reflecting Kern's self-contained labor market. If you live in Kern, you work in Kern. Of those who commute out of county, most commute to Los Angeles County from communities along the southern edge of the county, such as Rosamond, Tehachapi, and Frazier Park. However, more commuters live in Los Angeles County and work in Kern than the reverse. Most of the imported workers commute to Edwards AFB, Kern's largest employer with over 10,000 jobs.

Much of Kern's employment is dispersed. Consequently, the Metropolitan Bakersfield area experiences a "reverse commute" whereby a segment of workers commute to outlying areas such as farm fields, food processing facilities, warehousing, wind farms, oil fields, prisons, power plants, and government installations. Historically, this reverse commute created a centrifugal force on Metropolitan Bakersfield's housing development where purchasing housing on the urban fringe often reduces a commuter's trip, even though it may increase trip lengths for other purposes such as shopping and services. For those working in

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the metropolitan area, growth in the suburban areas may also be fueled by the attractiveness of newer and perceived better schools.

Table 3-1 provides anticipated population and housing forecasts distribution for the county and its incorporated cities through 2040.

Employment distribution used EDD, InfoUSA data and the U.S. Census Longitudinal Employer-Household Dynamics (LEHD). Both employment and household distributions use the latest planning assumptions from local governments in Kern, including local general plan data shown in Figure 3-2.

Table 3-1: Growth Trends for Kern County

										1980-2010 Historic/ Growth Average Annual		2010-2040 Forecast Growth Average Annual	
		Census	Census	Census	Census	Forecast	Forecast	Forecast	Forecast	Rate	Increase	Rate	Increase
	Year	1980	1990	2000	2010	2020	2030	2035	2040				
Kern County	Population	403,089	543,477	661,653	839,600	1,010,800	1,208,200	1,321,000	1,444,100	2.4%	14,550	1.8%	20,150
	Households	139,881	181,480	208,655	254,610	319,200	381,600	417,200	456,100	2.0%	3,824	1.9%	6,716
Metro Bakersfield	Population	228,000	329,100	409,800	533,500	640,500	764,900	848,500	939,700	2.8%	10,183	1.9%	13,540
	Households	89,500	120,000	134,100	168,400	203,800	244,700	269,800	297,200	2.1%	2,630	1.9%	4,293
Arvin	Population	6,863	9,286	12,956	19,304	23,800	29,300	32,500	36,000	3.4%	415	2.1%	557
	Households	1,946	2,385	3,010	4,228	5,300	6,700	7,500	8,400	2.6%	76	2.3%	139
Bakersfield	Population	105,611	174,820	247,057	347,483	443,500	566,000	639,400	719,500	3.9%	8,062	2.4%	12,401
	Households	39,602	62,516	83,441	111,132	143,900	186,300	212,000	240,100	3.4%	2,384	2.5%	4,299
California City	Population	2,743	5,955	8,385	14,120	17,300	21,300	23,600	26,100	5.3%	379	2.0%	399
	Households	990	2,119	3,067	4,102	5,200	6,700	7,500	8,400	4.6%	104	2.4%	143
Delano	Population	16,491	22,762	38,824	53,041	60,100	68,100	72,500	77,300	3.8%	1,218	1.2%	809
	Households	4,912	6,236	8,409	10,260	11,600	13,000	13,800	14,700	2.4%	178	1.2%	148
Maricopa	Population	946	1,193	1,111	1,154	1,170	1,190	1,200	1,210	0.7%	7	0.2%	2
	Households	338	416	404	414	410	420	420	420	0.7%	3	0.0%	0
McFarland	Population	5,151	7,005	9,618	12,707	14,600	16,800	18,000	19,300	3.0%	252	1.4%	220
	Households	1,399	1,685	1,990	2,599	2,900	3,100	3,300	3,500	2.0%	40	1.0%	30
Ridge crest	Population	15,929	28,295	24,927	27,616	30,500	33,600	35,500	37,600	1.8%	390	1.0%	333

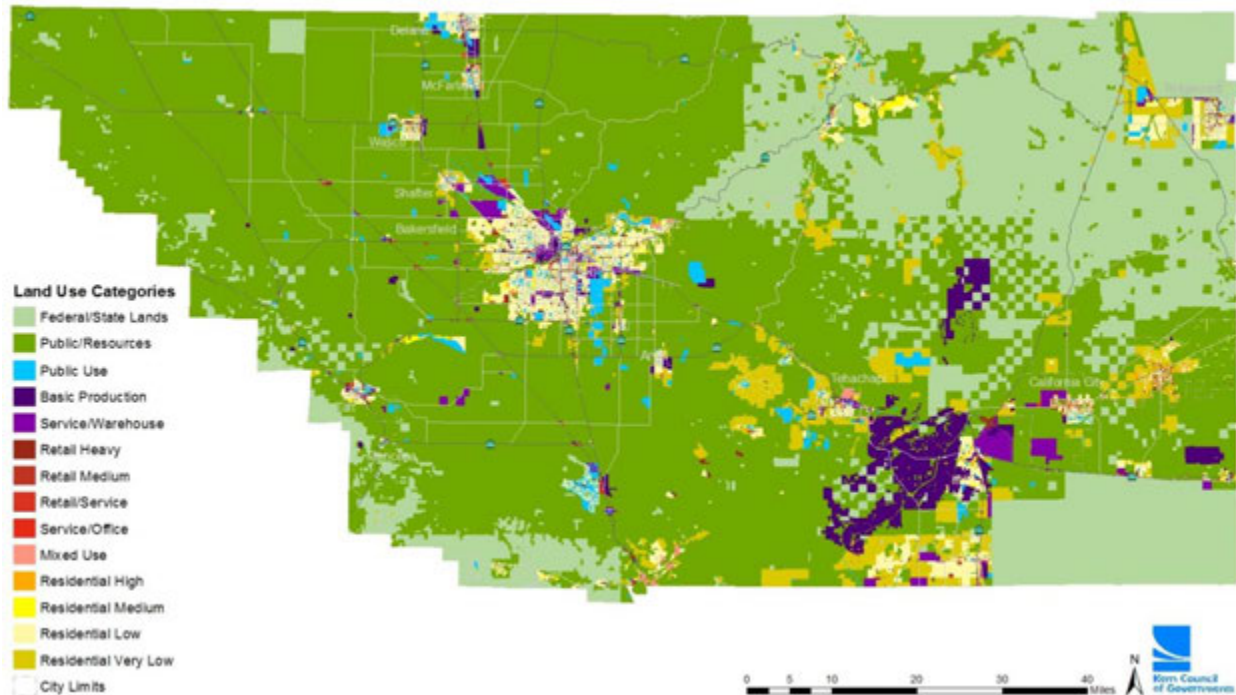
CHAPTER 3 PLANNING ASSUMPTIONS

										1980-2010 Historic/ Growth		2010-2040 Forecast Growth	
										Average Annual		Average Annual	
	Year	Census 1980	Census 1990	Census 2000	Census 2010	Forecast 2020	Forecast 2030	Forecast 2035	Forecast 2040	Rate	Increase	Rate	Increase
Shafter	Households	5,762	10,349	9,826	10,781	12,000	13,400	14,200	15,100	2.1%	167	1.1%	144
	Population	7,010	8,409	12,731	16,988	23,700	33,100	39,900	47,300	2.9%	333	3.4%	1,010
	Households	2,284	2,558	3,292	4,230	6,100	8,700	10,600	12,700	2.0%	65	3.6%	282
Taft	Population	5,316	5,902	6,400	9,327	10,900	12,800	14,000	15,300	1.9%	134	1.6%	199
	Households	2,096	2,209	2,233	2,254	2,400	2,700	2,800	2,900	0.2%	5	0.8%	22
Tehachapi	Population	4,126	5,791	10,957	14,414	16,000	17,800	18,900	20,100	4.1%	343	1.1%	190
	Households	1,534	2,335	2,533	3,121	3,600	4,200	4,600	5,000	2.3%	53	1.6%	63
Wasco	Population	9,613	12,412	21,263	25,545	31,200	38,100	42,600	47,500	3.2%	531	2.0%	732
	Households	3,001	3,471	3,971	5,131	6,500	8,200	9,300	10,500	1.8%	71	2.4%	179
Unincorporated	Population	223,290	261,647	264,111	297,901	338,030	370,110	382,900	396,890	1.0%	2,487	1.0%	3,300
	Households	75,947	85,201	86,474	96,358	119,290	128,180	131,180	134,380	0.8%	680	1.1%	1,267

Sources: 1980-2010 (April) data from US Bureau of the Census; 2010 forecast based on 2009 California Department of Finance E-5 Report (2010 Census not yet available); 2020-35 (July) Kern COG growth forecast by Regional Statistical Areas (RSA), adopted October 2009; Note: City trends subject to periodic annexation and de-annexation activity, population includes prisons; see local jurisdictions for most recently adopted local forecasts.

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FIGURE 3-2: GENERALIZED KERN COUNTY REGIONAL LAND USE MAP



DEMOGRAPHICS

The Kern region has a slight ethnic majority with Hispanics/Latinos making up 50.3% of the total population. Non-Hispanic Whites account for 37.4% of the population, down from 50% in 2000. The rise and shift in population makeup in the Kern region is primarily because of births along with an influx of new immigrants. The African American, Asian, and American Indian populations make up 5.1%, 4.7% and .7% of the population respectively. Population growth in Kern mirrors the rest of the state, which is one of the most diverse in the nation. Population growth results from large net increases in three population groups: aging baby boomers, their young children - the echo-boomers - and immigrants, mostly from Mexico and Central America. Net migration (people moving to the county minus those moving away) accounted for most of the population gain between 2000 and 2010, i.e. 54%. Nearly 30% of the net migration was the result of immigration from outside the United States. Natural increase (births minus deaths) accounted for 45% of the population gain.

Housing, Households, and Group Quarters

Nearly 52,800 housing units were added between 2000 and 2010. This brought the housing stock in the Kern region up to 280,400 units. Population growth exceeded household growth, and the average persons per unit increased from 3.03 in 2000 to 3.15 in 2010. This was in sharp contrast to a decade-to-decade drop in household size experienced by the nation overall.

Contrary to a decreasing trend at the national level, the percentage of housing considered crowded increased in the Kern region over the past decade. Almost 9% of the households lived in crowded housing in 2006–10, compared to only 8% in 1990. Nationally, overcrowding was at 3% in 2006–10. Kern still maintains the most affordable housing stock for any Metropolitan Statistical Area in California; however,

high unemployment and relatively low-paying jobs appear to be fueling an increase in overcrowded conditions.

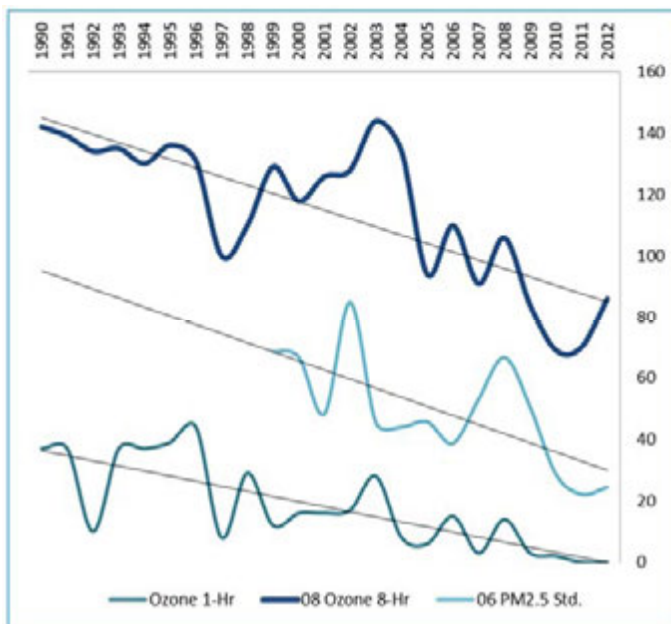
Eleven percent of Kern's population growth was in group quarters between 2000 and 2010. This growth was fueled by the opening and/or expansion of eight federal, state, and privately operated prisons in the outlying communities of Delano, California City, McFarland, Shafter, Taft, Tehachapi, and Wasco. Since 2010 several of the private prisons lost their contracts to house prisoners; however, it is anticipated that as the state budget improves, these contracts will be re-instated. Group-quartered residents grew from 3% to nearly 5% of Kern's total population. Even with this population increase in the outlying communities, the Metropolitan Bakersfield planning area grew from 62% to 64% of the total county population during the same period. Also included in group quarters growth is an increased nursing home and dormitory population.

FIGURE 3-3: NUMBER OF DAYS EXCEEDING FEDERAL AIR STANDARDS IN KERN COUNTY 1990-2012

MOBILITY AND AIR QUALITY

From 1998 to 2009, the region's congestion as measured by passenger vehicle travel has increased at a faster rate (40%) than the population (25%) and maintained road miles (6.8%). During the same period, the average annual growth in passenger vehicle travel increased from 500,000 miles traveled per year to 580,000 miles traveled per year. In 2006–2008, transit commuters averaged a modest 1.1% of all workers, a decrease from 1.4% in the 2000 Census. The overall mode choice to work revealed a 1% increase in those who commuted alone to work.

Since the 1990s, the Kern region achieved consistent improvements in the number of days exceeding federal or state standards for ozone and particulate matter, generally defined as "fine dust." The San Joaquin Valley Air Basin exceeded the federal one-hour ozone standard for 37 days in 2003, dropping to 13 days in 2007. While the Air Basin exceeded the federal PM₁₀ standard for 60 days in 1990, it dropped to 8 days in 2002. A region cannot have more than three exceedances per year for three consecutive years to comply with the standard. New 8-hour ozone and PM_{2.5} standards were released by the federal government that may be more difficult for the Valley to achieve in light of the current growth forecast. These new standards will pose an issue for the mountain and desert areas of the region as well.



Note: In this air quality graph, lower PM_{2.5} and ozone numbers are equivalent to better air quality. Source: CARB iADAM data.

On-road mobile sources create approximately 30% of the ozone-precursor emissions and 40% of the PM₁₀ emissions in Kern County. Cleaner-burning fuels and zero-emission vehicles will likely significantly reduce ozone emission from mobile sources, but not for several decades. PM₁₀ and PM_{2.5}, however, are more potentially problematic. As passenger vehicle travel increases, so does on-road dust, especially after a rainstorm when dirt is washed onto the roadway and eventually dries. One of Kern's long-range air quality challenges will be to sustain the forecast population and employment growth while controlling fine dust particles in order to meet the evolving federal standards.

CHAPTER 3 PLANNING ASSUMPTIONS

LAND USE NEXUS

The Metropolitan Bakersfield General Plan Land Use Element contains a program that encourages infill development and designates key transportation corridors that support land use intensification, thereby allowing transit-compatible development. The livable communities component identifies specific incentives to encourage infill development and a more flexible mix of land uses that reduces the overall number of vehicle trips as well as the average length of trips. The element also distinguishes geographic limits (i.e., service area boundaries) that Golden Empire Transit serves in the metropolitan area.

Sprawling low-density development, with widely separated land uses, creates extra vehicular trip-making and longer trip lengths for all trip categories. For the most part, residents in these low-density areas are unable to walk to shopping, recreation, or entertainment; they must use their automobiles for these trips. This extra travel also has detrimental effects on the community's air quality and livability. Residents will spend more time in traffic and have less time for more enjoyable activities.

Many of Kern COG's member agencies' land use elements have incorporated policies and programs that support development and forecasted development patterns which maximize the efficient use of land and promote reduced vehicle trips by encouraging: balanced jobs and housing, walkable spaces, infill development, mixed use development, and/or development along transit routes.

Sustainable Communities Strategy

The Kern Region's Sustainable Communities Strategy (SCS) supports a forecasted development pattern and corresponding transportation network that encourages the location of housing near jobs and transportation corridors to reduce regional passenger vehicle travel and resulting emissions while providing sufficient and affordable housing options to accommodate a growing population and preserving Kern County's agricultural economic base, sensitive habitats, and resource areas. This strategy is focused on changing the character of traditional low-density sprawl to create community centers throughout the region composed of targeted mixes of housing and employment. For additional discussion, see Chapter 4, Sustainable Communities Strategy.

Kern Council of Governments



Chapter 4 Sustainable Communities Strategy

June 19, 2014



Kern Council
of Governments

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CHAPTER 4 SUSTAINABLE COMMUNITIES STRATEGY

A SUSTAINABLE COMMUNITIES STRATEGY FOR THE KERN REGION

This 2014 Regional Transportation Plan (RTP) seeks to guide the Kern region toward a stronger economy, healthier environment and improved quality of life for everyone, while ensuring each community's independence to determine the best path to that future. This Chapter outlines the required Sustainable Communities Strategy (SCS) component of the 2014 RTP. The following section describes what an SCS is, how the Kern region is unique in comparison to any other in California, and key lessons learned in other California metropolitan planning organizations (MPOs) completing sustainable communities strategies that are addressed by the Kern region SCS.

What Is the Sustainable Communities Strategy?

The SCS strives to reduce air emissions from passenger vehicle and light duty truck travel by better coordinating transportation expenditures with forecasted development patterns and, if feasible, help meet California Air Resources Board (CARB) greenhouse gas targets for the region. Under California law, an SCS must:

The SCS strives to reduce air emissions from passenger vehicle and light duty truck travel by better coordinating transportation expenditures with forecasted development patterns

- Utilize the most recent planning assumptions, considering local general plans and other factors (Government Code (GC) Section 65080(b)(2)(B)).
- Identify the general location of uses, residential densities, and building intensities within the region (GC Section 65080(b)(2)(B)(i)).
- Identify areas within the region sufficient to house all the population of the region, including all economic segments of the population over the course of the planning period of the RTP, taking into account net migration into the region, population growth, household formation and employment growth (GC Section 65080(b)(2)(B)(ii)).
- Identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region pursuant to GC Section 65584 (GC Section 65080(b)(2)(B)(iii)).
- Identify a transportation network to service the transportation needs for the region (GC Section 65080(b)(2)(B)(iv)).
- Gather and consider the best practically available scientific information regarding resource areas and farmland in the region as defined in subdivisions (a) and (b) of GC Section 65080.01 (GC Section 65080(b)(2)(B)(v)).
- Consider the state housing goals specified in GC Section 65580 and 65581 (GC Section 65080(b)(2)(B)(vi)).
- Set forth a forecast development pattern for the region which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas (GHG) emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the GHG emissions reduction targets approved by the state board (GC Section 65080(b)(2)(B)(vii)).

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- Allow the regional transportation plan to comply with Section 176 of the federal Clean Air Act (GC Section 65080(b)(2)(B)(viii)).
- Consider spheres of influence that have been adopted by the Local Agency Formation Commission (LAFCo) within its region (GC Section 65080(b)(2)(G)).
- Quantify the reduction in GHG emissions projected to be achieved by the SCS and set forth the difference, if any, between the amount of that reduction and the target for the region established by CARB (GC Section 65080(b)(2)(H)).
- Consider any adopted multiregional goals and policies, such as the Directions to 2050 Principles for Growth, in the development of an SCS (GC Section 65080(b)(2)(N)).

California law (GC Section 65080(b)(2)(K)) specifically, states that neither a sustainable communities strategy nor an alternative planning strategy regulates the use of land, nor is it subject to any state approval. Nothing in an SCS supersedes the exercise of the land use authority of cities and counties within the region, and a city's or county's land use policies and regulations, including its General Plan, are not required to be consistent with the RTP.

This Chapter outlines how the Kern region will integrate its transportation network and related strategies with a forecasted development pattern for the region that responds to housing needs, changing demographics, and transportation demands. This SCS demonstrates how integrated land use and transportation planning can reduce local and regional GHG emissions from passenger vehicles and light-duty trucks, and shows how the various strategies and programs elsewhere in this RTP document are interrelated and work together to achieve lasting benefits for the region.

The SCS for the Kern region identifies the following:

- A forecasted development pattern to accommodate the region's future transportation, employment, and housing needs, while promoting conservation of natural resources and open space areas.
- A transportation network comprising well-maintained public transit, local streets and roads, managed lanes and highways, and bikeways and walkways.
- Strategies to manage demands on the region's transportation roadway system (also known as transportation demand management, or TDM) in ways that reduce or eliminate traffic congestion during peak periods of demand.
- Strategies to manage operations of the region's transportation system (also known as transportation system management, or TSM) to maximize the efficiency of the network and reduce congestion.

The Kern SCS will be updated every four years in conjunction with the RTP updates. Revisions will reflect amendments to local government General Plans and other factors that respond to the changing needs of the cities and the county.

What is the Purpose of the Sustainable Communities Strategy?

The intent of the SCS is to achieve the state's emissions reduction targets for automobiles and light trucks. The SCS will also provide opportunities for a stronger economy, healthier environment and improved quality of life for community members in Kern County. The SCS seeks to:

Improve economic vitality

Our transportation system will be increasingly efficient and cost-effective in the future. The 2014 RTP will generate construction jobs for transportation projects and additional jobs in a broad cross-section of industries as a result of the improved transportation system. This SCS seeks to reduce obstacles to development and reduce infrastructure costs for new development, which will enable appropriate development that supports the community's vision for the future. With a more efficient transportation system, our region will be more mobile and our roadways will be less congested, enabling the efficient movement of goods through the region. With increased maintenance of streets and roads, and more transit and active transportation options, Kern region transportation costs will be lower and community members will have more resources to spend on themselves and their families.

Improve air quality

The RTP/SCS seeks to improve air quality in the Kern region by reducing emissions. The SCS component of the RTP will work in tandem with other RTP policies to reduce not only CO₂ emissions but also federal criteria pollutant emissions. We will achieve and exceed our CO₂ emissions reduction target set by CARB by achieving more than a 5% reduction by 2020 and more than a 10% by 2035 compared to the 2005 16.7 lbs. per capita. The RTP/SCS meets criteria pollutant emission budgets set by the Environmental Protection Agency. By improving air quality, the RTP/SCS helps to remove San Joaquin Valley's \$29 million fine and to meet very fine dust (particulate matter—PM_{2.5}) attainment plan goals as well as attain the emission reduction for the other health based criteria pollutants in Kern. In 2013, the San Joaquin Valley portion of Kern went from extreme non-attainment to attainment of the one-hour ozone standard. Continued progress in this area may positively affect climate change impacts. With each passing year, Kern region community members should expect to breathe cleaner air and live healthier lives.

By improving air quality, this SCS helps to remove San Joaquin Valley's \$29 million fine and to meet very fine dust (particulate matter—PM_{2.5}) attainment plan goals as well as attain the emission reduction for the other health based criteria pollutants in Kern.

This air quality benefit is made possible largely by integrating transportation and land use to allow Kern region residents to live closer to where they work and play and closer to high-quality transit service, bicycle paths, and sidewalks.

Improve communities' health

Our region's bicycle and pedestrian facilities will expand, providing more opportunities to bike and walk to work, school, the park, the store, the bank, etc. In the future, Kern region residents will be able to live closer to where they work and play. The share of households living within bike or walk distance from where they work and play will increase from 84% to 93% by 2035 compared to the old plan¹, signaling a more efficient overall development pattern in the future. As a result, more residents will be able to use transit and active transportation as a safe and attractive means of travel. Active transportation helps to maintain our communities' health and well-being. In addition, less vehicle trips will result in better air quality and healthier lives.

¹ Analysis used methodology suggested by Kern COG RPAC participants based on Human Impact Partners (humanimpact.org) SB 375 Health & Equity Metrics. Kern COG GIS analyzed public services within a 10 min. walk or bike of public services (transit, parks, schools, hospitals). Access to private services remained at 90% between the two alternatives.

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Increase transportation and public safety

Our local transit service and intercity transit services will be expanded and our transit system efficiency will be improved. Kern region community members will be safer as the RTP/SCS seeks to lower accident rates on highways and local streets and roads.

Promote the conservation of natural resources and undeveloped land

Our military air space, recreation, and agricultural lands are an important resource. Our economic resource areas are an important part of the region's economic base. This SCS acknowledges existing local General Plan policies promoting resource conservation and supports Kern's agricultural sector by maintaining existing streets and roads and focusing appropriate compact and in-fill development in urban areas. Kern County has begun planning efforts to create a Natural Community Conservation Plan that combines existing Habitat Conservation Plans in San Joaquin Valley portion of Kern.

Increase access to community services

In the future, Kern region residents will have more access to comprehensive community services for health, education, safety, and recreation. By improving transportation infrastructure, such as highways and local streets and roads, and increasing transit and active transportation options, traveling to these services will be more convenient.

Increase regional and local energy independence

The Kern region will continue to increase its regional and local energy independence. With more transit and active transportation options and by living closer to where they work, community members will have alternatives to driving their cars. Additionally, this SCS seeks to promote conservation of our natural resources and open spaces, providing opportunities to invest in renewable energy production and distribution. Increased energy independence means less dependence on foreign oil, decreased payments to foreign countries, reduced trade imbalances and an improved economy.

Increased energy independence means less dependence on foreign oil, decreasing payments to foreign countries, reducing trade imbalances and improving the economy.

Increase the opportunities to help shape our community's future

Kern region community members will continue to have ample opportunities to provide input in the transportation planning process. We value each person's opinion and will continue to solicit feedback from the public.

The Kern Region: Unlike Any Other in California

Kern County is unlike any other region in California. Kern's large size and diverse valley, desert and mountain environs are dominated by agriculture, oil production, renewable energy, aerospace, military, recreation, transportation linkages and other activities that warrant unique and different approaches to address the SCS goals. These economic pursuits are the basis for dispersed rural centers and strategic locations for developments within the County that are unlike other areas of the State. Accordingly, unique strategies are needed to support Kern's economic, transportation and other needs. This uniqueness is reflected in the General Plans and programs of Kern County's local governments.

LOCAL AND REGULATORY FRAMEWORK FOR THE KERN REGION SUSTAINABLE COMMUNITIES STRATEGY

The framework for the Kern region SCS is established by two key California laws: Assembly Bill (AB) 32 and Senate Bill (SB) 375, described later in this section. The SCS is now a required component of RTPs and must identify how the region will meet GHG emissions reduction targets. One of the factors leading to adoption of AB 32 and SB 375 was the success of numerous grassroots “blueprint” planning efforts throughout the state, including in Kern County. Blueprints bring regional land use and transportation planning efforts together to accommodate future growth in California communities in ways that reflect grassroots values of local communities. The 2014 RTP presents goals and policies to achieve the region’s mutual vision of a stronger economy, healthier environment and improved quality of life for everyone, while ensuring each community’s independence to determine the best path to that future.

This SCS Chapter of the 2014 RTP includes a strong commitment to reduce emissions from transportation sources to comply with California state regulations, improve public health, and meet national air quality standards.

The following section describes:

- Directions to 2050 and blueprint planning efforts that preceded the SCS.
- Kern COG’s SB 375 Framework.
- The legal and regulatory authority for the SCS.
- Regional emissions and affordable housing targets for the SCS.

Laying the Groundwork for the Sustainable Communities Strategy

The Kern Regional Blueprint (2008), San Joaquin Valley Regional Blueprint (2009), and Kern SB 375 Framework (2012) laid much of the groundwork for the Kern COG 2014 RTP.

Kern Regional Blueprint

Adopted in November 2008, the Kern Regional Blueprint, based on the local General Plans of the cities and the county, established a grassroots vision, guiding principles, and an alternative growth scenario for the region as it progresses towards the year 2050. The Blueprint provides the foundation for advancing decision-making for growth management at the local and regional levels. It was developed to shape the region’s future and as a tool for each community to inform how they shape their local community’s future

Directions to 2050 Principles for Growth

The SCS employs the vision, guiding principles, and growth scenario developed at the grassroots level as part of the Kern Regional Blueprint and updated as part of the Directions to 2050 outreach process. These guiding principles are really more like broad categories of principles supporting the RTP goals and policies expressed in Chapter 2, Transportation Planning Policies.

Enhance economic vitality

Conserve energy and natural resources, and develop alternatives

Provide adequate and equitable services

Provide a variety of transportation choices

Provide a variety of housing choices

Use and improve existing community assets and infrastructure

Use compact, efficient development and/or mixed land uses where appropriate

Conserve undeveloped land and spaces

Increase civic and public engagement

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in the coming decades. Approximately 3,500 community members of all interests and backgrounds participated in the Blueprint development process. The Blueprint public involvement process began in 2006 when the economy fared considerably better than it does in 2014 and included two statistically valid, 1,200-person quality-of-life phone surveys.

The mutual vision for the future of the Kern region includes:

- Economic development opportunities linked to the education system and current and future industries to build strong local economies and diverse employment opportunities.
- Livable and safe communities for everyone.
- Unique natural resources and open spaces—a healthy environment in which to explore and recreate.

Blueprint participants crafted a set of principles for growth in the Kern region that will help inform decision-making in local communities. These principles for growth are:

- Enhance economic vitality
- Conserve energy and natural resources, and develop alternatives
- Provide adequate and equitable services
- Provide a variety of transportation choices
- Provide a variety of housing choices
- Use and improve existing community assets and infrastructure
- Use compact, efficient development and/or mixed land uses where appropriate
- Conserve undeveloped land and spaces
- Increase civic and public engagement

These principles were reconfirmed as part of the Directions to 2050 outreach process and are supported by the goals of this 2014 RTP (see Chapter 2, Transportation Planning Policies, Table 2-2). Directions to 2050 community participants expressed continuing support for all nine principles for growth, indicating they are still relevant to the Kern region. The Directions to 2050 community engagement program is described in detail later in this Chapter. It is important to note that the horizon year for the 2014 RTP is 2040; planning efforts consider progress towards 2050 but are not yet to the year 2050 as it is anticipated that lessons learned from the current SCS will be incorporated in to future planning efforts for the year 2050.

Since the initial Blueprint process, Kern COG has completed annual statistically valid, quality-of-life phone surveys to track changes in public opinion. The most recent survey (2013) found that providing job opportunities is now the highest ranking issue on which local governments should be focused.

See Chapter 2, Transportation Planning Policies, for further information on the Directions to 2050 community engagement.

San Joaquin Valley Regional Blueprint

The San Joaquin Valley Regional Blueprint stitched together the Kern Blueprint with the seven other county grassroots blueprint efforts, developed by the eight regional planning agencies (RPAs). The RPAs collaborated to develop a long-term strategy for the future of the eight-county region.

Adopted in 2009 by the San Joaquin Valley Regional Policy Council, the San Joaquin Valley Regional Blueprint effort included Kern Council of Governments, Fresno Council of Governments, Kings County Association of Governments, Madera County Association of Governments, Merced County Association of Governments, San Joaquin Council of Governments, Stanislaus Council of Governments, and Tulare County Association of Governments to develop voluntary, long-term regional growth principles for the future of the eight-county region.

The valley-wide Blueprint identified 12 voluntary growth principles that were consistent with the nine Kern Regional Blueprint principles for growth:

- Create a range of housing opportunities and choices
- Create walkable neighborhoods
- Encourage community and stakeholder collaboration
- Foster distinctive, attractive communities with a strong sense of place
- Make development decisions predictable, fair, and cost-effective
- Mix land uses
- Reserve open space, farmland, natural beauty, and critical environmental areas
- Provide a variety of transportation choices
- Strengthen and direct development toward existing communities
- Take advantage of compact building design
- Enhance the economic vitality of the region
- Support actions that encourage environmental resource management

Kern COG SB 375 Framework

In February 2012, the Kern COG Board of Directors adopted the SB 375 Framework for this SCS. Kern COG's Regional Planning Advisory Committee (RPAC), a committee comprised of local government, agency, and stakeholder representatives, worked together to develop the framework. The framework's purpose is to guide the development and implementation of this SCS with agreed-upon core values and core actions.

The SB 375 Framework Core Values are:

- 1) The Sustainable Communities Strategy relies on the existing and planned circulation networks and land use designations for Kern County and its eleven (11) incorporated cities.

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- 2) The Sustainable Communities Strategy shall not hinder the local land use authority of Kern County and its eleven (11) incorporated cities,
- 3) The Sustainable Communities Strategy shall allow Kern County and its eleven (11) incorporated cities to continue the pursuit and promotion of a diversified economic base.
- 4) Kern County shall continue to discuss cooperation and coordination with the seven (7) other counties located in the Central San Joaquin Valley, while recognizing the Kern region's unique qualities and developing appropriate strategies for Kern County.

The SB 375 Framework Core Actions are:

- 1) Identify Kern County's existing and planned transportation and circulation network as the Sustainable Communities Strategy (SCS) network.
- 2) Identify and model transportation measures with the purpose of reducing vehicle trips and vehicle miles travelled for Kern County's existing and planned transportation and circulation network to determine anticipated effectiveness.
- 3) Include clean fuel and clean technology (Pavely) regulations when evaluating any measures that may reduce vehicle trips and vehicle miles traveled.
- 4) Use the adopted land uses that may be amended from time to time, of Kern County and its eleven (11) incorporated cities as the forecasted development patterns.
- 5) Base all models utilized by Kern COG on locally adopted General Plans and identified regional economic centers. Any request to change the baseline model will require approval of the local city and/or county whichever has the appropriate authority.
- 6) Consistent with adopted General Plans, model strategic locations for new retail and employment uses to determine whether they reduce vehicle trips and vehicle miles traveled.
- 7) Allow for the flexibility to amend the adopted land use elements of Kern County and its eleven (11) incorporated cities based on market demands and market responses.
- 8) Identify local, community oriented, alternative feasible transportation strategies such as enhancing biking and walking within established communities.
- 9) Respect the uniqueness of Kern County when the California Air Resources Board considers revising the targets.
- 10) Strive to achieve an acceptable SCS to allow for the use of CEQA streamlining by the development community.
- 11) Identify regional modeling baseline information and provide updates for the eight (8) sub-regions of Kern County to provide feedback on progress towards achieving the state targets.
- 12) Develop two types of strategies within the plan: (1) strategies that reduce emissions county-wide; and (2) strategies that reduce emissions sub-regionally.
- 13) Explore the potential of establishing modeling budgets for each sub-region of the county.

Regulatory Framework

California Greenhouse Gas Emissions Legislation

Kern COG's SCS must be set within the context of the eight-county Central Valley and the state, where much of the momentum for climate change legislation in the United States originates. Kern COG's SCS must also recognize the significant portion of Kern County that is not in the Central Valley i.e. the desert of eastern Kern and the mountain portions of Kern County.

California has long been a sustainability leader, as illustrated by Governor Schwarzenegger's signing Executive Order (EO) S-3-05 in 2005. EO S-3-05 recognized California's vulnerability to reduced snowpack, exacerbation of air quality problems, and other issues that may require adaptive strategies. To address these concerns, the Executive Order set a goal to reduce statewide emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050.

In 2006, California became the first state in the country to adopt a statewide reduction target through AB 32. This law codifies the EO S-3-05 goal to reduce statewide emissions to 1990 levels by 2020. AB 32 resulted in CARB's 2008 adoption of a Climate Change Scoping Plan (Scoping Plan), outlining the State's plan to achieve emissions reductions through a combination of direct regulations, alternative compliance mechanisms, various incentives, voluntary actions, market-based mechanisms, and funding.² The Scoping Plan identifies local governments as "essential partners" in the State's efforts to reduce emissions.

AB 32 engendered several companion laws that can assist the Kern region in reducing transportation-related emissions, including, but not limited to, AB 1493 emissions performance standards for motor vehicles and EO S-1-07 performance standards for the carbon intensity of transportation fuels.

Senate Bill 375 Requirements

SB 375, adopted in 2008, represents the latest in a series of actions at the state level to address California's contributions to global climate change. Building on AB 32, SB 375 seeks to coordinate land use decisions made at the local (city and county) level with regional transportation planning. By coordinating these efforts, it is envisioned that vehicle congestion and travel can be reduced resulting in a corresponding reduction in emissions. SB 375 directed CARB to set regional targets to reduce emissions; regional plans are required to identify how they will meet these targets.

SB 375 has three major components:

- Using the regional transportation planning process to achieve reductions in emissions consistent with AB 32's goals.
- Offering California Environmental Quality Act (CEQA) incentives to encourage projects that are consistent with a regional plan that achieves emissions reductions.

² Because the Scoping Plan time horizon is limited to 2020, analysis of the Scoping Plan is presented for the year 2020 only, not for 2035 or 2050. While EO-S-3-05 sets a goal that Statewide GHG emissions be reduced to 80 percent below 1990 levels by 2050, the EO does not constitute a "plan" for GHG reduction, and no State plan has been adopted to achieve the 2050 goal. Furthermore, the Kern COG planning process is not yet ready to address the year 2050 since it is anticipated that data collected from implementation of the 2014 RTP and possibly even 2018 RTP will be available before the RTP and SCS is ready to address the year 2050.

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- Coordinating the Regional Housing Needs Allocation (RHNA) process with the regional transportation process while maintaining local authority over land use decisions.

An SCS is a required component of the RTP. The SCS is an emissions reduction strategy for the region which, in combination with transportation policies and programs, strives to reduce emissions and, if feasible, helps meet CARB's targets for the region. See the discussion above under "What Is the Sustainable Communities Strategy?"

An alternative planning strategy (APS) must be prepared if the SCS is unable to reduce emissions and achieve the emissions reduction targets established by CARB. The APS is separate from the RTP, but it may be adopted concurrently with the RTP.

The following is a further discussion of the State-mandated requirements for the RTP and SCS.

Meeting Federal Air Quality and Transportation Requirements

The SCS must allow the RTP to comply with Section 176 of the federal Clean Air Act (42 USC 7506) requiring that the RTP demonstrate that it conforms with the state implementation plan, and that it will not cause or contribute to any new violation of any standard, increase the frequency or severity of any existing violation of any standard, or delay timely attainment of any standard or any required interim emission reductions or other milestones in each air basin. In addition, GC Section 65584.01(i)(1) states that it is the intent of the legislature that planning for housing be coordinated and integrated with the RTP. To achieve this goal, the regional housing needs allocation plan shall allocate housing units within the region consistent with the development pattern included in the SCS.

Kern COG prepares and adopts concurrently with the RTP an air quality conformity analysis to ensure that the RTP/SCS meets the federal conformity requirements.

Greenhouse Gas Emissions Inventory, Projections, Targets

The purpose of SB 375 is to implement the state's emissions reduction goals for cars and light-duty trucks. This mandate requires CARB to determine per capita emissions reduction targets for each MPO in the state at two points in the future: 2020 and 2035. The 2014 RTP must achieve emissions reductions of 5% per capita in 2020 and 10% per capita in 2035. Because emissions in the transportation sector are closely related to passenger vehicle travel, a mandated reduction essentially requires Kern COG to devise a regional plan and a series of strategies that will produce a per capita reduction in passenger vehicle travel.

Regional Housing Needs Allocation

SB 375 combines transportation and housing planning by integrating the RHNA process with the 2014 RTP. Specifically, GC Section 65080(b)(2)(B), subparagraphs (iii) and (vi), requires that the SCS identify areas within the region sufficient to accommodate an eight-year projection of the regional housing need and consider the state housing goals specified in GC Sections 65580 and 65581. Kern COG has been engaged in the RHNA process concurrently with the development of the 2014 RTP. This process requires Kern COG to work with its member agencies to identify areas within the region that can provide sufficient housing for all economic segments of the population and ensure that the state's housing goals are met.

COMMUNITY ENGAGEMENT

State and federal regulations require comprehensive public participation as part of the Global Warming Solutions Act of 2006 (AB 32) and the Sustainable Communities and Climate Protection Act of 2008

(SB 375). The Code of Federal Regulations—Title 23: Highways requires metropolitan planning agencies, such as Kern COG, to enable public participation in the RTP planning process, as well as to facilitate interagency coordination during SCS development. This section describes:

- SB 375 public participation and agency consultation requirements.
- Community engagement activities supporting development of the Kern region SCS.
- A summary of community input used to develop the SCS.

Public Participation Requirements

The public participation requirements for development of the SCS, pursuant to the requirements of SB 375, can be incorporated into an existing plan. Kern COG currently has a public participation plan that meets federal and state requirements.

SB 375 increased the minimum level of public participation required in the regional transportation planning process, including collaboration between partners in the region during the development of an SCS. Pursuant to GC Section 65080(b)(2)(F), each MPO shall adopt a public participation plan, which shall include:

- Outreach effort to encourage the active participation of a broad range of stakeholder groups in the planning process, consistent with the agency's adopted Federal Public Participation Plan (GC Section 65080(b)(2)(F)(i)).

Kern COG's Directions to 2050 Outreach process was successful in receiving input from the broadest range of stakeholder groups and the public resulting in input from over 1% of the county population (8,000 participants).

- Consultation with congestion management agencies, transportation agencies, and transportation commissions (GC Section 65080(b)(2)(F)(ii)).

Kern COG serves as the congestion management agency for Kern County and includes Caltrans as an ex-officio member of the Board.

- Workshops throughout the region to provide the public with the information and tools necessary to provide a clear understanding of the issues and policy choices. At least one workshop shall be held in each county in the region. For counties with a population greater than 500,000, at least three workshops shall be held. Each workshop to the extent practicable shall include urban simulation computer modeling to create visual representations of the SCS and the APS, if one is prepared (GC Section 65080(b)(2)(F)(iii)).

Kern COG held over 40 public workshops in 16 communities, greatly exceeding the statutory requirement.

- Preparation and circulation of a draft SCS (or an APS if one is prepared) not less than 55 days before adoption of a final regional transportation plan (GC Section 65080(b)(2)(F)(iv)).

The draft SCS public review includes a 55 day review period prior to final adoption.

- At least three public hearings on the draft SCS in the regional transportation plan and APS, if one is prepared. If the MPO consists of a single county, at least two public hearings shall be held. To the

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maximum extent feasible, the hearings shall be in different parts of the region to maximize the opportunity for participation by members of the public throughout the region (GC Section 65080(b)(2)(F)(v)).

Public hearings were held on April 15, 2014, in the City of California City and April 17, 2014, in Bakersfield.

- A process for enabling members of the public to provide a single request to receive notices, information, and updates (GC Section 65080(b)(2)(F)(vi)).

The Kern COG Directions to 2050 website (<http://www.directionsto2050.com/>) was established in 2012, and provides an opportunity for interested persons to sign up for notices related to the RTP/SCS development and the public review process.

Agency Input and Consultation with Local Elected Officials

The Kern County RTP/SCS outreach effort was expanded beyond SB 375 requirements as follows:

- During the development of the SCS, Kern COG must conduct at least two informational meetings in each county for members of the board of supervisors and city councils. Only one informational meeting is needed in each county if it is attended by representatives of the county board of supervisors and city councils that represent a majority of the cities representing a majority of the population in the incorporated areas of that county. (GC Section 65080(b)(2)(E))

Kern COG staff conducted 12 informational meetings with all 11 city councils and the Kern County Board of Supervisors in spring of 2013.

- The meeting (or meetings) shall be to discuss the SCS, including the key land use and planning assumptions, with the members of the board of supervisors and city council members in that county and to solicit and consider their input and recommendations. Notices of these meetings are to be sent to the clerk of the board of supervisors and city councils and local elected officials as key stakeholders in the regional transportation system. While local elected officials serve on regional agency boards, expanded consultation is required pursuant to GC Section 65080(b)(2)(E) and (F) to provide outreach to all local elected officials and their member jurisdictions affected by the SCS (and APS if applicable).

The meeting presentation to local elected leaders discussed strategies and land use planning assumptions for the purpose of soliciting their input and recommendations which Kern COG considered in developing the RTP/SCS. The meetings were fully noticed as part of each agenda sent out by the clerk of the Board and city councils.

- Pursuant to GC Section 65080(b)(2)(G), in preparing an SCS, Kern COG shall consider spheres of influence that have been adopted by LAFCos within the region. Kern COG should also consult with LAFCOs regarding special districts within the region that provide property-related services such as water or wastewater services, and should consult with these regional special districts, as appropriate, during development of an SCS (and APS if applicable).

The Executive Officer of LAFCo is a member of the RPAC which provides oversight to the development of the RTP/SCS. In addition, the Kern COG land use model includes proximity to existing water and wastewater services. Kern COG consulted with special districts to develop the water and wastewater service areas.

- Based on the 2010 California Regional Transportation Plan Guidelines, Kern COG is encouraged to share data on growth projections and consult with school districts in the development of the SCS (and APS if applicable), especially with respect to land uses and the regional transportation system. Where possible, an SCS should incorporate current and future school needs into the RTP. School-related trips constitute a significant portion of all vehicle trips.

Kern COG consulted with the Kern County Superintendent of Schools to identify existing and forecasted locations of schools and enrollment.

California Air Resources Board Review

Prior to starting the public participation process, the MPO shall submit a description to the state board of the technical methodology it intends to use to estimate the emissions from its SCS (GC Section 65080(b)(2)(J)(i)). In 2011 Kern COG and the 7 other Valley COGs provided a technical methodology on development for the 2011 interim target setting data. Since the target setting, Kern COG has communicated regularly with CARB during the development of the RTP to obtain their input. The technical methodology (MIP model documentation) for estimating travel and emissions has been on the Kern COG website since January 2012 and was updated in July 2013 to reflect final revisions to the travel model methodology. In addition, the 8-COGs submitted a draft methodology for using EMFAC 2011 to estimate SB375 related CO₂ emissions and received approval of the methodology in April 2012. CARB has had numerous conference calls and has met in person with Kern COG staff to discuss the methodology. CARB has regularly participated in the RPAC which is providing oversight for development of the RTP/SCS. In addition, Kern COG coordinated development of the SCS with the 7 other counties that contain portions of the San Joaquin Valley which also provided regular meetings and correspondence with CARB on technical methodologies and outreach. In September 2013 CARB received preliminary results from our modeling and verified that the methodology Kern COG used applied is consistent with the agreed upon methodology. Following June 2014 scheduled adoption, Kern COG shall submit the SCS to the state board for review (GC Section 65080(b)(2)(J)(ii)).

Kern COG Public Involvement Procedure

The Kern COG public involvement procedure was updated in September 2011 to reflect SB 375 outreach and review period requirements. The procedure provides guidance for Kern COG's elected officials and staff in public participation and interagency consultation throughout the regional planning process. Beyond SB 375 requirements, it also contains the policies, guidelines, and procedures Kern COG uses in developing the metropolitan planning process. This includes the development and approval of the RTP, Regional Transportation Improvement Plan (RTIP), and environmental review documentation related to growth, transportation, and air quality, and any product prepared by Kern COG staff that statutorily requires public participation or when public participation is directed by the Kern COG Board.

The public involvement process is guided by the following principles:

- It is the right and responsibility of citizens to be involved in the transportation planning process.
- Citizens should be educated about the needs and issues and encouraged to participate in finding solutions.
- Early and timely involvement of citizens is necessary to build community agreement on the needs and solutions before alternatives are proposed.
- Agreement on the final product is a desirable goal, but agreement does not mean 100% unanimity by all parties. Negotiation and compromise are essential ingredients to building agreement.

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- The process by which a decision is reached is just as important as the product. Citizens should end the process satisfied that they had the opportunity to be significantly involved and that their voices were heard and reflected in the final document.
- After decisions are made, actions should follow to maintain confidence in the community involvement process.

The public involvement procedure identifies partner agencies with which Kern COG staff maintains regular contact and encourages participation in the development of local, regional, and state plans. The plan provides procedures and responsibilities for informing and engaging community members in various agency plans, programs, declarations, and policy evaluation. The plan also identifies media resources to use and legal display ad requirements to follow when posting public notices.

Summary of Activities

Community engagement and outreach were fundamental to the development of this 2014 RTP. By nature, this plan represents the region's mutual vision for its future and was developed using a grassroots, bottom-up approach.

Regional Planning Advisory Committee

Formed by the Kern COG Board in 2011, the RPAC was created to provide a forum to review and develop recommendations on key activities associated with regional transportation plans and other planning issues, including SB 375 implementation. The Kern COG RPAC reviews and develops recommendations on the following topics:

- Appropriate planning-related sections of the RTP.
- Blueprint planning.
- Climate change planning.
- Sustainable communities planning.
- Regional Housing Needs Allocation.
- Land use and population projections.
- Studies related to the environment (air, water, habitat conservation).
- Rural-urban connections strategy.
- Appropriate studies for inclusion in the annual Overall Work Program.
- Regional Energy Action Planning.
- Other matters as referred by the Kern COG Board.

Members of the RPAC are planning directors, community development directors, or their designees from each Kern COG member jurisdiction. Additional voting members include the public transit agency (Golden Empire Transit) and Caltrans District 6. Community at-large voting members represent varied economic, social, and geographic sectors and are appointed by the Kern COG Board. They include business groups

(Kern Home Builders Assoc.), nonprofit organizations (Bike Bakersfield, Kern River Valley Revitalization, Inc.), military agencies, and tribes. Non-voting members consist of the executive officer of the LAFCo and the president/CEO of the Kern Economic Development Corporation. Representatives from the regional air districts, the San Joaquin Valley Air Pollution Control District (APCD) and the Eastern Kern APCD, participate in most RPAC meetings.

The RPAC formulated a SB 375 SCS Framework with values and actions that were approved by the Board of Directors in February 2012. The RPAC developed a broad structure of SB 375 implementation for the entire county that included solutions for the region's unique geographic and economic features.

Transportation Modeling Committee and Kern Climate Change Task Force

The Kern Regional Transportation Modeling Committee was established in 2001 to provide oversight for the Kern Regional Travel Demand Model. After the adoption of the Kern Regional Blueprint in 2008, the Kern COG Board established the Kern Climate Change Task Force. These two committees merged in 2010 to form the Transportation Modeling Committee. Made up primarily of member agency traffic engineers, transportation model users, and other stakeholders, the committee serves as a subcommittee to the RPAC and the Transportation Technical Advisory Committee dealing with technical modeling and forecasting issues.

Kern COG worked with the Transportation Modeling Committee and RPAC to develop and implement the Directions to 2050 community engagement process and the RTP/SCS.

Directions to 2050

The Directions to 2050 program, Kern COG's comprehensive community engagement process, was designed to solicit input from stakeholders and community members on priorities for the region's long-term future. The name "Directions to 2050" was meant to encourage participants to think long term into the future, but as noted above, Kern COG anticipates incorporating data from the current, and possibly 2018 RTPs, before planning for the year 2050.. The Directions to 2050 community engagement process extended from September 2011 to August 2013. Over 8,000 community members participated in the Directions to 2050 process. The program provided various opportunities for community members, stakeholders, and local agencies and jurisdictions to participate in the process, including:

- Six stakeholder roundtable meetings with business and industry, environmental and social equity and environmental justice stakeholders.
- 32 Community workshops hosted in 16 different local communities with small group discussions and interactive strategy prioritization exercises. Each workshop included visual simulation computer modeling to create visual representations of regional growth and transportation projects. Workshop presentations and activities were designed to provide community members with the information and tools necessary to provide a clear understanding of the issues and policy choices.
- Two workshops in Metropolitan Bakersfield to look specifically at scenarios more appropriate for a larger urban area. Approximately 70 participants attended the meetings.
- Six community event interactive and educational booths at the Great Kern County Fair, the Tehachapi Mountain Festival, and the Desert Empire Fair. Opinions were collected on transportation funding priorities from over 6,000 people.
- Presentations and discussions with existing community-based organizations including the following: Greater Tehachapi Chamber of Commerce; Greenfield Walking Group; Kern River Valley

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Revitalization, Inc.; Kiwanis Club of Shafter; California City Chamber of Commerce, McFarland Chamber of Commerce; Mountain Communities Chamber of Commerce (Frazier Park/Pine Mountain Club); Ridgecrest Chamber of Commerce; Rosamond Municipal Advisory Council; Taft Service Clubs; and Wasco Rotary.

- Interactive and educational workshop with students of the Frontier High School ASB Leadership.
- An interactive project website (www.directionsto2050.com) served as a communication and education tool and included interactive online prioritization and resource allocation activities, a survey, and project resources.
- Two statistically valid phone surveys of 1,200 residents each of Kern County to assess residents' overall opinion of the quality of life in their city or town, to survey the importance of issues related to the future, and to understand the daily commute for the average resident.
- Promotional efforts: Kern COG personally contacted stakeholders, such as city staff, agencies, health organizations, environmental groups, and community-based organizations, distributed fliers advertising community workshops, and posted advertisements and shared press releases with various media resources including social media outreach promoting the website and online game/survey tool.
- 12 publically advertised presentations were made to each of the 11 incorporated cities and the County Board of Supervisors to receive input from local elected officials.
- Additional presentations on the RTP/SCS were made to: state recognized Tubatulabal Tribe of the Kern Valley, federally recognized Tejon Tribe, Guardians of Delano, Golden Empire Transit Board, Bakersfield Chamber of Commerce Government Review Committee, Bakersfield Association of Realtors, and The Bakersfield Planning Commission, to receive input from these groups.

In total over 8,000 people provided input into the RTP/SCS, representing 2% of the adult population in Kern County.

Overview of Community Input

Overwhelmingly, the number one priority from the extensive two year Directions to 2050 community engagement process can be summarized in one small phrase, "maintain, fix and finish what we have." Maintenance of the existing transportation system was clearly the priority of a majority of participants in the public participation process. The outreach demonstrated general support for other secondary priorities including: bike, pedestrian, transit facilities, carpooling and providing housing close to shopping, jobs and transit to increase transportation choice. This input has helped shape the strategies included in the SCS.

Environmental and Social Equity Roundtable

As outlined above, Kern COG conducted six meetings with business/industry and environmental/social equity groups. Three meetings were specifically held with the Environmental and Social Equity Stakeholder Roundtable to comply with the seven goals that are the core of the 2014 RTP. One of the goals is to ensure an equitable distribution of the benefits among various demographic and user groups. To that end, Chapter 2 outlines three policies:

- Avoid, minimize, and/or mitigate disproportionately high and adverse human health or environmental effects, including social and economic impacts, on traditionally disadvantaged communities, especially racial minority and low-income communities.
- Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.

The purpose of the three meetings was to continue to share information about the outreach process, provide an overview of recent studies conducted by Kern COG, present/discuss regional housing needs, and present/discuss the environmental justice methodology to be used in the 2014 RTP/SCS. As a result of the meeting the environmental justice methodology was revised to reflect input from the stakeholders. For more information on performance measures related to social equity, see Chapter 2 and Appendix D – Environmental Justice Analysis.

SUSTAINABLE DEVELOPMENT PATTERN

One of the key components of the SCS is a sustainable regional forecasted development pattern that when integrated with the transportation network enables the region to accommodate future growth in a manner that reduces passenger vehicle emissions, enhances economic vitality, promotes housing affordability, and encourages resource land conservation while preserving private property rights and local land use decision making authority. This forecasted development pattern is the basis for development of the regional transportation system described throughout the 2014 RTP and summarized in this SCS. Kern County has a unique pattern that is dominated by rural, outlying areas. This section describes:

- Current development patterns, urban/rural connectivity, residential densities, and building intensities in the Kern region.
- Anticipated future population, jobs, and housing in the region.
- A forecasted development pattern, regional housing needs, and strategies to promote conservation of resource areas and farmland.

Current Uses, Residential Densities, and Building Intensities

GC Section 65080(b)(2)(B)(i) requires MPOs to identify the general location of uses, residential densities, and building intensities in the region. The assessment of existing conditions, based on local General Plans and planning assumptions, provides the foundation for the Kern COG SCS.

See Chapter 3, Planning Assumptions, for further information on current land uses, residential densities, and building intensities.

Existing Conditions: Putting the SCS into Perspective

Kern County is unlike any other region in California. From an overall perspective, Kern County, consisting of 8,200 square miles (the size of New Jersey), is the third largest county in California. Kern County is 159 miles in length from the northwestern boundary to the southeastern boundary. The population is currently 850,000 and is expected to grow by 55% over the next 20 years and nearly double by 2050. Although two-thirds of Kern's population lives within 1/20th of the area of the county known as

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Metropolitan Bakersfield, many of the economic centers require long exurban commutes to areas that may not be conducive to urban development.

There are 11 incorporated cities within Kern County: Arvin, Bakersfield, California City, Delano, Maricopa, McFarland, Ridgecrest, Shafter, Taft, Tehachapi and Wasco. Kern County comprises separate regions based on significant variations in terrain, climate, geographic and environmental factors. The regions are identified as follows:

Valley Region: The southern San Joaquin Valley below an elevation of 1,000 feet mean sea level.

Mountain Region: The westernmost and central portion of the county above the 1,000-foot mean sea level contour in the valley and western region of the county and west of the primary alignment of the Los Angeles Aqueduct in the eastern county, including the southernmost portion of the county.

Desert Region: The eastern section of the county, east of the primary alignment of the Los Angeles Aqueduct.

Kern County has six significant industry clusters:

Value-Added Agriculture is the leading employment cluster with the bulk of the state's agricultural operations concentrated throughout the Valley. The cluster builds on Kern's historic role as a leading center for crop production, particularly vegetables, nuts, citrus, dairy, and cotton. The cluster also benefits from the food processing component, particularly carrot and tomato processing.

Transportation and Logistics is a fast-growing industry with tremendous potential within Kern. This is a leading cluster and supports the competitiveness of the Energy and Natural Resources and Value-Added Agriculture clusters through the use of warehousing and distribution services. Given Kern's location at the geographic population center of California, logistically and environmentally Kern is the best location in the state to centralize distribution services to the rest of the state with the lowest carbon footprint. Kern also serves as the immediate northern gateway to Los Angeles County. With California's two major north-south freeways running through the county as well as the only year-round pass over the Sierra Nevada Mountain Range in the San Joaquin Valley, it is a natural place for growth in transportation and logistics. Kern has become the location for major distribution centers.

Energy and Natural Resources production is the cornerstone and foundation of Kern County. Historically oil production has driven energy development. Kern County is the top oil-producing county in California. This county alone produces 76% of California's total oil. If Kern County were a state, it would be the third largest oil-producing state in the U.S., behind Alaska and Texas. Kern County has four giant oil fields (greater than 1 billion barrels of cumulative production) and as a whole produces 445,000 barrels per day. In terms of future production, Kern County is leading the state in development and production of renewable energy. Over 7,000 megawatts of renewable energy in the form of wind, solar, geothermal, biogas, and gasification production have been permitted countywide. The county's dependence on energy and natural resource production as part of our economic structure is reflective in the fact that all 10 of the county's top tax payers are either oil-producing and/or processing companies, renewable energy producers or mining operations. For the year 2013–2014, these companies made up an overall assessed value of over 31% of all general taxes owed and paid to the county.

Aerospace and Defense remains a leading industry cluster for the county and particularly for eastern Kern County where the economy of most of the communities is dependent on the strength of the aerospace and defense industries. The county has some of the best natural assets in the western United States for continued expansion in aerospace and defense. The 2005 Base Realignment and Closure process resulted in the decision to consolidate naval weapons and armament research development and testing at the US Naval Air Weapons Station at China Lake, resulting in a projected 1,400 new direct jobs. The potential for space tourism continues to be great, though other states are fiercely competing for this business.

Tourism, Recreation and Entertainment suggests continued growth opportunities in both annual expenditures and employment. This includes the generation of tourism and visit activity from people traveling between major cities in Northern and Southern California as well as those from large metro areas in Southern California seeking a close weekend get-away destination.

Healthcare Services has been recast to reflect the vast array of services and networks in the county. Throughout the San Joaquin Valley, population growth has resulted in major increases in hospital and healthcare employment. In addition, the general growth in healthcare spending has served as the catalyst for the recent or planned expansion of several regional facilities.

Rural/Urban Connectivity Strategy

California Government Code 65080(b)(4)(C) states, "The metropolitan planning organization ... shall consider financial incentives for cities and counties that have resource areas or farmland, as defined in Section 65080.01, for the purposes of, for example, transportation investments for the preservation and safety of the city street or county road system and farm to market and interconnectivity transportation needs." Kern has developed a guideline to direct funding to outlying rural areas to promote safety and interconnectivity in accordance with SB 375. A more complete discussion can be found in Section VII. of the SCS under the Project Selection Criteria. This goes into greater detail on

FIGURE 4-1A: KERN COUNTY 2011 CROPS

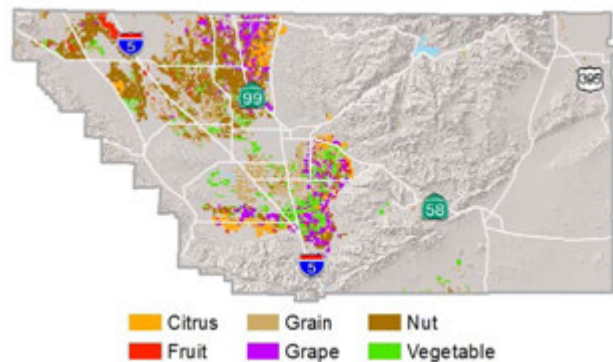


FIGURE 4-1B: KERN COUNTY 2011 TRIPS

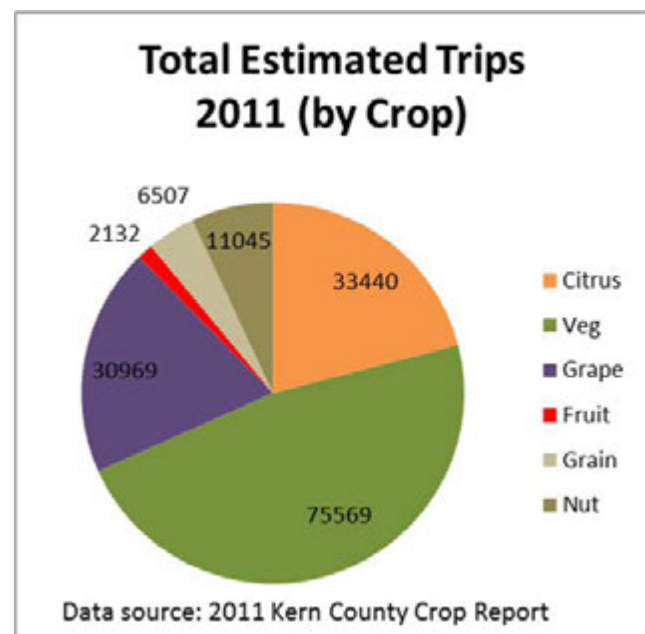
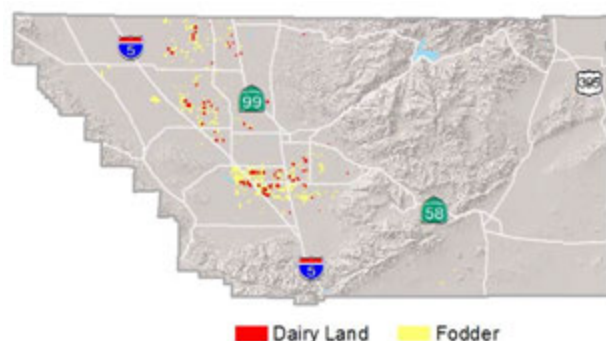


FIGURE 4-2: KERN COUNTY DAIRIES



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the nature of Kern's unique resource areas and farmland.

Rural, resource areas represent the vast majority of Kern County land uses. Kern's rural lands hold diverse resources strategic to Kern and California's growth and success. For example, Kern County produces 76% of all oil produced in California, has over 7000 MW of operating and permitted renewable energy with a 10,000 MW in production goal by 2015, meeting the majority of California's 33% renewable goal for electricity generation. In addition, one in six jobs in Kern County are directly related to the resource sectors of forestry, fishing, hunting, mining (esp. oil/gas) and agriculture. Growing interest in ecotourism, from white water rafting to farmer's markets, offers an insight into the development of a diverse and vibrant economy.

Kern strives to provide feasible solutions to transportation, land use and air quality issues that connect these strategic rural employment areas with the major urban areas of the County. The Blueprint, adopted in 2008 by the Kern COG Board made up of local officials from 11 cities and the County of Kern, provides information to assist in the formation of strategies that enhance strategic agriculture, rural communities, resource conservation, recreation, quality of life, and regional sustainability.

Agricultural Resource Areas (Farmland) - Residential rural areas of Kern County number 38,700 acres. Semi-agricultural lands, like warehousing and packaging facilities, yield less than 12,000 additional acres. The combination of which are roughly a third of the 142,000 acres of urban land. When taking inventory of agricultural land, however, the ratio inverts dramatically. Farmland as defined by GC Section 65080.01 (b) is classified as prime, of statewide importance, or otherwise unique in character outside all existing city spheres of influence or city limits; the combination of these lands exceeds 900,000 acres. Additionally, designated grazing land provides a stunning 1.8 million acres. From these lands, Kern County's agricultural revenues topped \$5 billion in 2011.

Another significant portion of Kern's rural economy is dairies. Kern accounted for 10% of California's milk production, ranking fifth among California's counties which, collectively, account for 21% of the nation's milk. Not including fodder

TABLE 4-1: FARMERS MARKETS IN THE KERN REGION

LOCATION	SEASON	DAY	TIME
Brimhall Farmers' Market NE Corner of Brimhall & Calloway, 9500 Brimhall Rd.	Year – Round	Sat	9 am - 1 pm
Clinica Sierra Vista/Delano Community Health Center, 1508 Garces Hwy. Delano	May–Nov	Tues	3 pm – 5 pm
Clinica Sierra Vista/East Bakersfield Community Health Center, 815 Dr. Martin Luther King Jr. Blvd.	May – Nov	Thu	10 am – 12 pm
Clinica Sierra Vista/Lamont Community Health Center, 8787 Hall Rd	May–Nov	Tues	9 am – 11 am
Haggin Oaks Farmers' Market Corner of Ming & Haggin Oaks, 8800 Ming Ave.	Year – Round	Sun	9 am - 2 pm
Lakeshore Farmers' Market Lakeshore Lodge, 7644 Wofford Heights Blvd.	Year – Round	Sat	9 am – 1 pm
Nuui Cunni Farmers' Market Lake Isabella 2600 Highway 155	Year – Round	Sat	9 am – 2 pm
Paramount Produce Day Lost Hills Recreation Center, Lost Hills Rd. & Hwy 46	Year – Round	Fri	3 pm – 7 pm
Taft Farmers' Market 5th Street Plaza between Center St. & Main St.	Jun – Sep	Thu	5 pm – 8 pm
Tehachapi Farmers' Market Green St. between E & F St.	Jun – Aug	Thu	4 pm – 7 pm
Valley Farmers' Market Golden State Hwy. & F St.	Year – Round	Sat	8 am – 12 pm

production, over 7,500 acres of Kern dairy land net almost \$750 million - placing milk market & manufacturing as Kern's agriculture sector leader in 2011. As seen in Figure 4-2, fodder production is mostly concentrated around dairies. Milking equipment is central to farm operations. Due to milk being highly perishable, quick processing and transportation is essential. Milk haulers transport milk from farm tanks by bulk tanker truck to processors. Due to high transportation costs associated with refrigerated transport, local consumption of fluid milk (> 17 million gal.) is fulfilled by the local production of nearly a half billion gallons, with fluid milk consumption by the population at just 3.6% of what it produced. Kern's 55 dairies' 168,000+ cows present a cows/dairy ratio that is the highest in the state (3,069), over 50% greater than the next, Imperial County (1,966). With over 4 billion pounds of milk produced in Kern, conservative estimates indicate over 77,000 trips generated for milk hauling alone. (US Dept of Agriculture, 2012)

Farm to Market Needs - Metropolitan Bakersfield's geographic location at the center of farm production, provides ideal connectivity for the transportation of agricultural products to markets, both local and statewide. The proportion of locally grown produce destined for local markets is low. Due to the economies of scale delivery networks often find it more economical to send produce to distant distribution facilities, often resulting in local markets being provided with products not only distributed from other areas, but sourced from them as well. It's estimated that 2% of regional consumption is locally produced. See Figure 4-3:

Farmland Needs for Local Food - Despite low consumption of local-sourced fare, direct markets continue to grow and thrive. Kern County's farmers' markets (see Table 4-1) provide area residents access to a variety of locally-farmed products. Additional forms of agritourism flourish among many local farms that provide retail outlets at the farms themselves. The recently enacted SB 551 will likely accelerate the proliferation of community gardens and markets in urban settings.

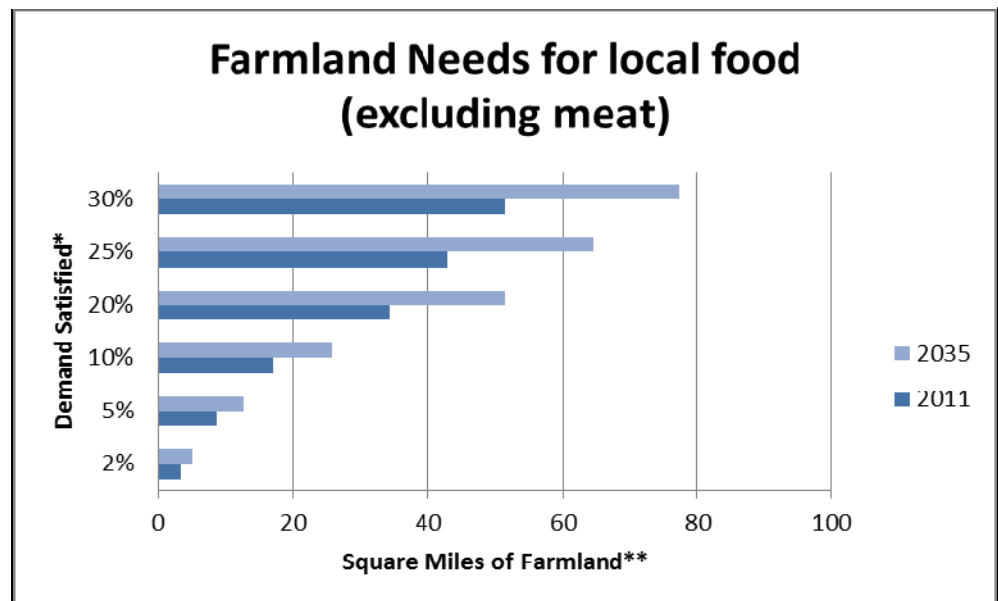
From this inventory come a variety of themes to which rural development strategies are focused: *Production, Infrastructure and Consumption.*

Production: Connect farmers to available markets & provide business training opportunities to farmers.

Infrastructure: Increase local processing capacity & distribution

Consumption: Increase the number and types of food outlets, promote local food sourcing.

FIGURE 4-3: FARMLAND NEEDS FOR LOCAL FOOD



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Oil, Gas and Mineral Resources - Perhaps one of Kern County's most well-known features is oil and gas production—for good reason. Kern County's 880 square miles of oil fields account for 76% of the oil and gas reserves in California.

Kern County led the state in 2011 with over 60,000 employed in the Natural Resource and Mining industry. Of those, nearly 40% are occupations which are directly related to production and extraction. Consequently, heavy commute traffic is experienced both within adjacent rural areas and between urban and rural areas. This commute traffic is the primary consideration as, unlike agricultural products, petroleum products are transported primarily by rail and pipeline.

East Kern also includes gold and other mining operations. The largest borax mining operation in the world is located at the east edge of the county next to Boron, employing 600 working three shifts per day, seven days per week. An average of 5 trains per week transport the mineral to a bulk transload facility at the Port of Long Beach.

Wind Energy - Kern's energy resources extend beyond the traditional—it also hosts one of the first wind farms in the nation. Situated to the east of the mountain city of Tehachapi, the Tehachapi Pass Wind Farm is a pioneering effort at wind power generation beginning in the 1980's. Thanks to intensive maintenance, research and development, several generations of turbines coexist and continue to provide power as long as the wind blows. Maintenance, research and development jobs are expected to be a persistent traffic concern in these rural areas, but they aren't the only problem. Further development within the farm's 50 square-mile boundary had been limited by fully utilized transmission lines. However, to meet the State's renewable energy requirements, construction of upgraded transmission lines in Kern County began in 2008, and were completed in 2013. As many as 2,000 additional turbine installations are expected by 2020, providing 4,500 megawatts of power; meaning new installation-related traffic can be expected to continue into the near future and likely well-beyond.

Military/Civilian Aerospace Testing Complex - In Kern's eastern half, the mountainous shadow of the southern San Joaquin Valley harbors the desert communities of California City, Ridgecrest, Inyokern, Mojave, Rosamond and Boron.

FIGURE 4-4: OIL AND GAS RESOURCES

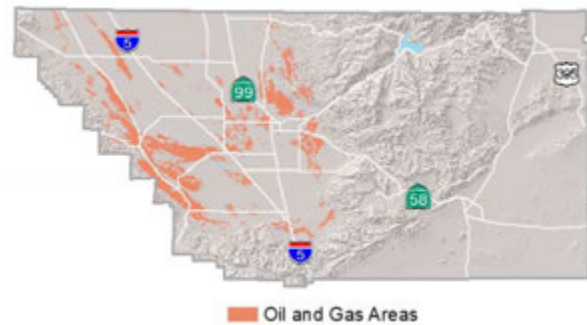


FIGURE 4-5: KERN COUNTY WIND FARMS

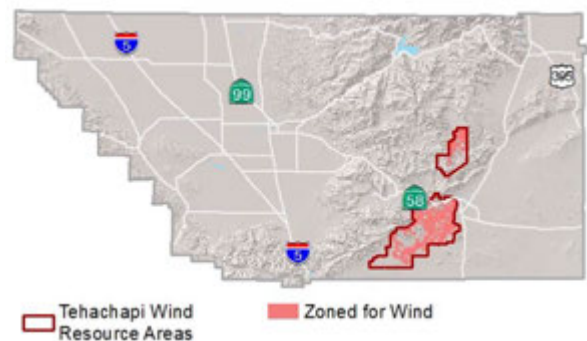


FIGURE 4-6: KERN COUNTY MILITARY INSTALLATIONS



FIGURE 4-7: KERN COUNTY CORRECTIONAL FACILITIES



Kern County's eastern region boasts not one, but two United States' Military Air bases: Edwards Air Force Base and Naval Air Weapons Center China Lake. Surrounding communities benefit directly and indirectly from their proximity to these bases. The aerospace industry and its service and support-related personnel represent a significant interest to Kern's eastern regional communities, as well as its southern neighbors. As these areas continue to grow eastern Kern will require its own rural and urban policy considerations.

Correctional Facilities - Another significant rural transportation issue is correctional institutions. Kern County has five public and private high-security institutions that house over 20,000 federal, state and local inmates. There are a number of low and medium "community" correctional institutions located in urban areas (not shown). To manage these facilities, Kern County has almost 5000 correctional officers and first-line supervisors who commute by auto and vanpool for each shift.

Rural Resource Area Transportation Safety - Alternative transportation connectivity to these resource areas are dominated by regional transit and vanpooling. The rural job market plays an important role among rural and urban residents alike. As rural lands transition into non-agricultural uses, commute and other high speed auto traffic will experience conflicts with slow moving farm vehicles. In addition, vehicle miles driven are appreciably higher than in urban settings due to the lower population density of rural areas. This results in a disproportionately higher number of accidents per capita in rural settings than urban. A sustainable community strategy is required to address rural highway safety issues and provide financial incentives to address them.

Forecast Development Pattern

GC Section 65080(b)(2)(B)(vii) requires MPOs to set forth a forecasted development pattern for the region, which when integrated with the transportation network and other transportation measures and policies will reduce emissions from automobiles and light-duty trucks to achieve, if there is a feasible way to do so, the emissions reduction targets approved by CARB.

Housing the Kern Region's Population

The SCS Strategy Maps (Figures 4-8 and 4-9) have been developed by Kern COG staff and show both the place types reflecting forecasted development patterns and Kern COG modeling assumptions, and the planned transportation investments from this RTP. The maps show how investments in transportation are being coordinated with forecasted development patterns to reduce emissions from automobiles and light-duty trucks. The maps contain transit priority and strategic employment areas and transportation infrastructure that are existing, planned or proposed and have been grouped by Kern COG staff into descriptive types. The maps were developed with input from the Transportation Modeling Committee and the RPAC but there are currently no General Plans adopted that use these terms or categories.

The following place types employed in the RTP are not intended to represent detailed land use designations or policies, but are used to describe the general conditions likely to occur within a specific generalized area based on the assumptions made by local authorities. The place types are each comprised of specific characteristics related to jobs and housing intensity, urban design and transportation choices. It is important to note that these maps are only a snap shot of forecasted development patterns and Kern COG modeling assumptions to be updated every 4 years. For the latest information on land use, land use designations and transit concepts, please refer to the appropriate local jurisdictions.

Metropolitan (Metro)

Metro areas are the regions primary business, civic, commercial and cultural centers that can exceed 60,000 in population. These districts have significant amounts of employment and corresponding

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residential uses and retail, typically clustered in multistory buildings and include easy access to neighboring residential and employment areas. Metro areas are served by numerous transportation choices. Existing and planned enhancements may include easy walk/bike design and improved transit. Metro areas are also typically located at the convergence of a number of high-capacity transit facilities such as passenger rail. The proposed Bakersfield metro center for Kern is also the planned location for the enhanced passenger rail service such as high-speed rail. In East Kern, the closest metro place type is Palmdale/Lancaster in Northern L.A. County.

Community

Community place types feature subregional business, civic, commercial and cultural centers and draw activity from the subregional area. These areas may range from 15,000 to 60,000 persons or more and contain significant employment centers and a mix of housing choices, supported by retail and daily services. Existing and planned community enhancements may include easy walk/bike design and improved transit.

Town

Town place types feature business activity, local-serving retail, daily services, housing choices, and may include a civic and cultural center and draws activity from the town and immediate area. These areas may range from 5,000 to 15,000 people or more. Existing and planned enhancements may include easy walk/bike design and improved transit.

Village

Village place types feature business activity and essential local services, and housing choices. These areas may range from 50 to 5,000 people or more. Existing and planned enhancements may include easy walk/bike design and improved transit as appropriate.

Strategic Employment (Rural/Urban)

Strategic employment areas can be found in rural and more urban areas and may include both jobs and housing, though these two uses are rarely found in close proximity to each other. These areas often contain employment in isolated resource areas with sporadic activity dependent on the strategic resource (wind energy, agriculture, etc.). Many strategic employment areas are characterized by large operations located in close proximity to a resource to minimize transportation costs and the carbon footprint. In urban areas, existing and planned enhancements may include easy walk/bike design and improved transit. In rural strategic employment areas, regional transit and or vanpooling are existing or planned along with interconnectivity and safety projects.

The transit priority and strategic employment areas were jointly adopted by the city and county into the Metropolitan Bakersfield General Plan in 1982 and are found in the community plans for most of the outlying communities. The concepts have a distinct advantage over a corridor and strip commercial development pattern in that it provides for activity nodes around which future transit, and vanpooling services can be planned for in a way that is supportive of forecasted development patterns.

Figure 4-10 depicts a forecasted development pattern based on local area planning assumptions consistent with the transit priority and strategic employment areas. The map also indicates a network of Quality Transit Areas (QTA). These are areas within one-half mile of fixed route transit service based on planned transit expenditures. Nearly all of the region's planned highway projects will benefit the QTA routes. In addition the rural strategic employment areas outside the QTAs will also have access to carpool, vanpool and the HOV network being developed to benefit the resource areas consistent with SB 375.

Existing
Planned
Potential

PLACE TYPES

Transit Priority

- Village (Neighborhood)
~ 50 to 5,000 population
- Town (Grocery)
~ 5,000 to 15,000 population
- Community (Major Retail)
~ 15,000 to 60,000 population

Strategic Employment

- Education Center
- High School
- Metropolitan Center
~ Greater than 60,000 population

Transit Service

- <2,000 Employees
- 2,000-7,500 Employees
- >7,500 Employees
- Passenger Rail Stations
- Bus Transit Center
- Passenger/Commuter Rail
- Feeder Bus
- Express Bus
- BRT Route
- High Speed Rail Alignments

Resource and Other Layers

- Urban, Built Up, Sphere of Influence
- Irrigated Farmland
- Public/Resources
- Federal Lands
- Major Routes
- Rail Service

REFER TO:
Conceptual View - Transit Priority and
Strategic Employment
Place Types Map

Lancaster Metro Link

Palmdale Metro Link/
Future High Speed Rail Station

0 2 4 8 12 16
Miles

Kern Council of Governments (Kern COG)
June 2014

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FIGURE 4-9: TRANSIT PRIORITY & STRATEGIC EMPLOYMENT PLACE TYPES – METRO BAKERSFIELD

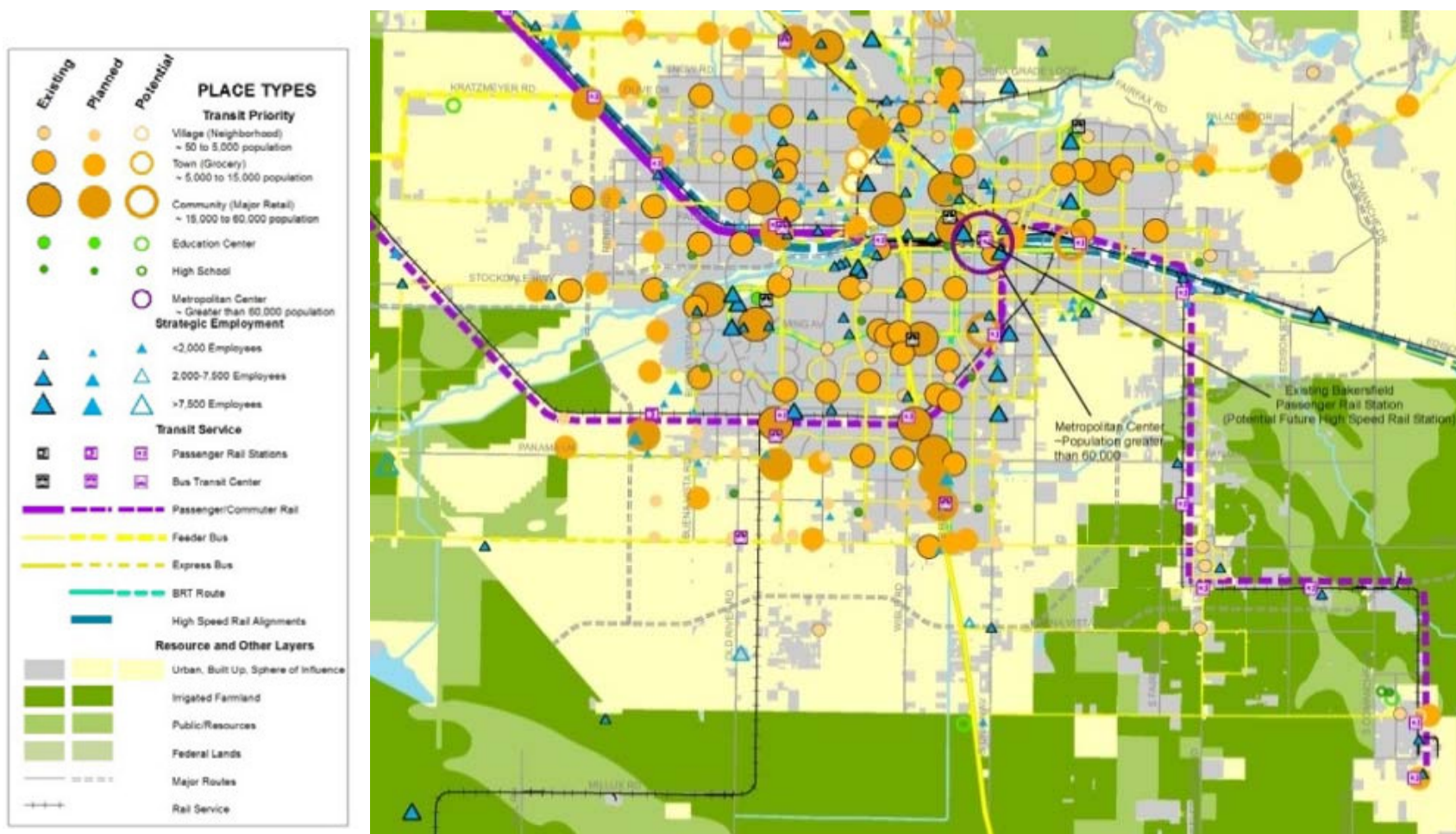
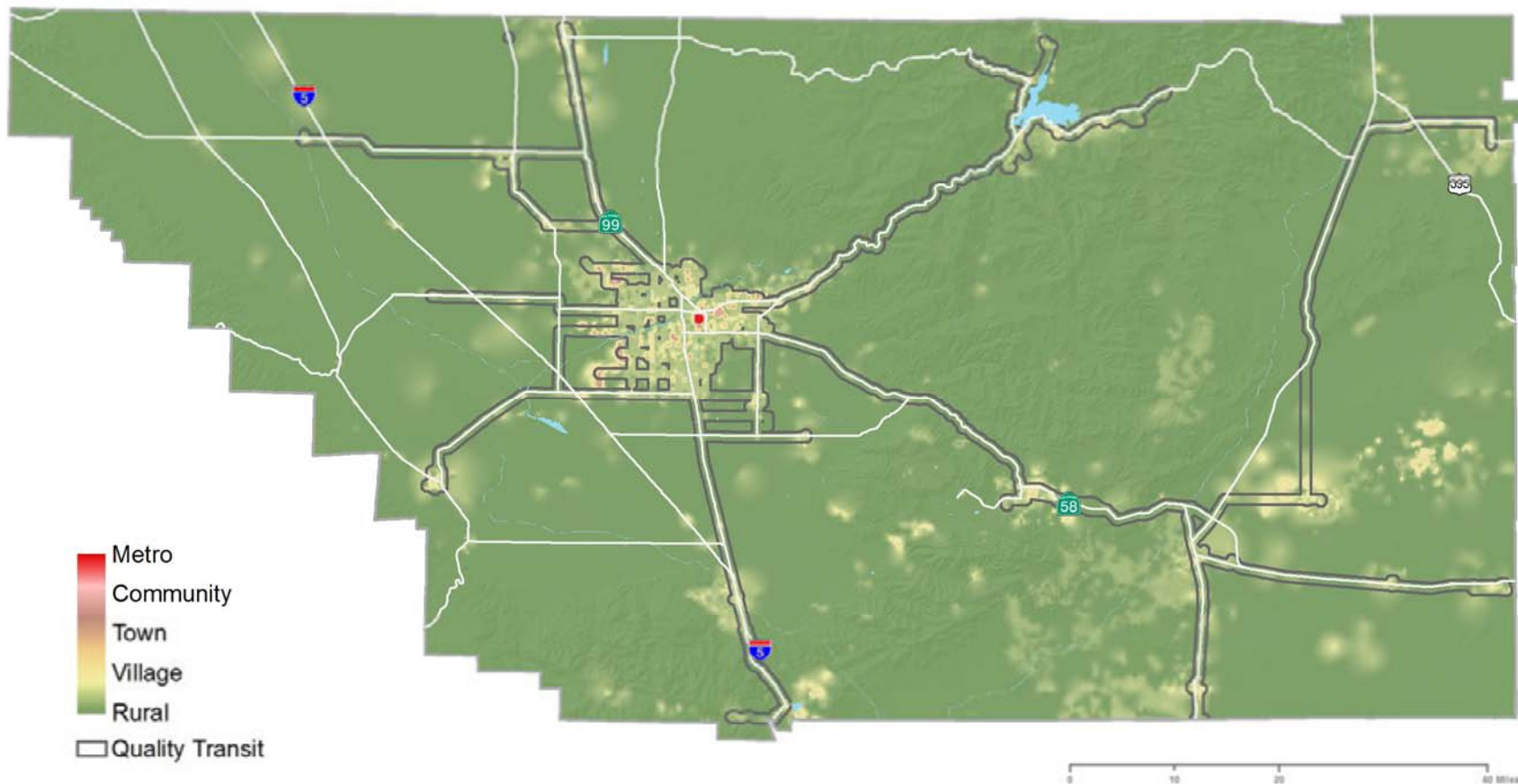


FIGURE 4-10: FORECASTED DEVELOPMENT PATTERN MAP – KERN REGION 2035



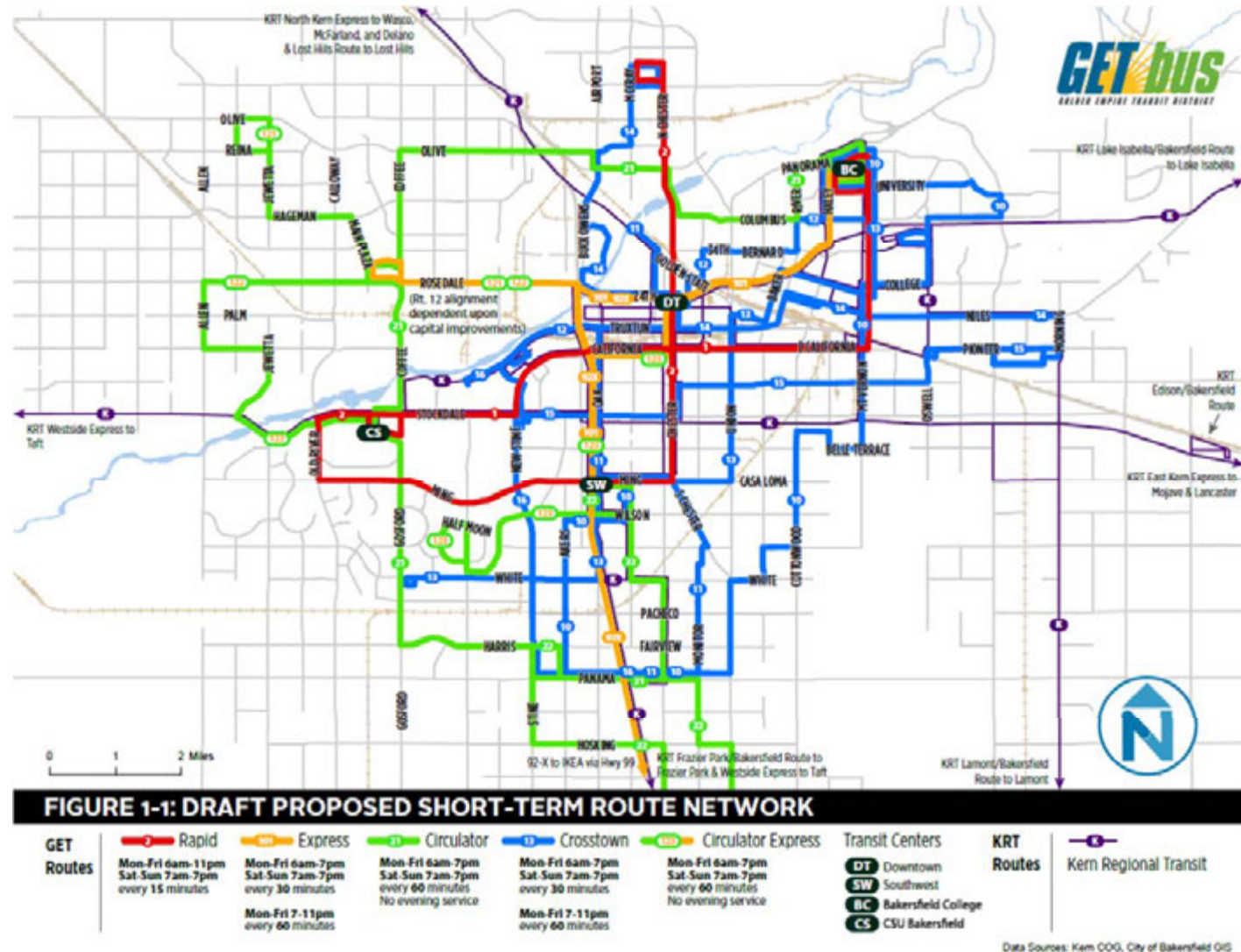
DISCLAIMER: These maps are for conceptual purposes only. The RTP is updated every 4 years. Local general plans and other data can be updated more frequently. For more detailed information on the latest planning assumptions, please refer to the latest locally adopted general plan for each community or other latest data source. Local general plans and other data updates will be incorporated into the next RTP update every 4 years.

CHAPTER 4 SUSTAINABLE COMMUNITIES STRATEGY

Transit Priority Areas

The SCS identifies Quality Transit Areas (QTAs) as being located within ½ mile of fixed route transit service along the length of existing and planned routes. The SCS also identifies illustrative Transit Priority and Strategic Employment Place Types which are primarily strategic employment areas characterized by concentrations of residential uses and jobs in close proximity to transit stations to minimize transportation costs and the carbon footprint. Transit Priority Areas (TPAs) combine these two concepts. TPAs are locations within ½ mile of transit stations where urban uses exist or may be planned. Not all of these areas have been identified, as station planning is in the early stages for some routes. The Golden Empire Transit (GET) Long Range Transit

FIGURE 4-11: 2012 METRO BAKERSFIELD SHORT-TERM TRANSIT IMPROVEMENTS



Plan, adopted in June 2012, was developed in anticipation of Kern COG's SCS. The plan provides for gradual phasing of near-, mid- and long-term improvements. The plan supports the centers concept by providing improved service to Transit Priority Areas in Metropolitan Bakersfield. The red line on the map indicates the new rapid bus service, which provides regular service at each stop every 15 minutes. In addition, stops are spaced approximately one-half mile apart to better service the centers concept. Figures 4-11 and 4-12 illustrate phased improvements to regional transit service.

Figure 4-12A: 2020 Mid/Long-Term Transit Improvements

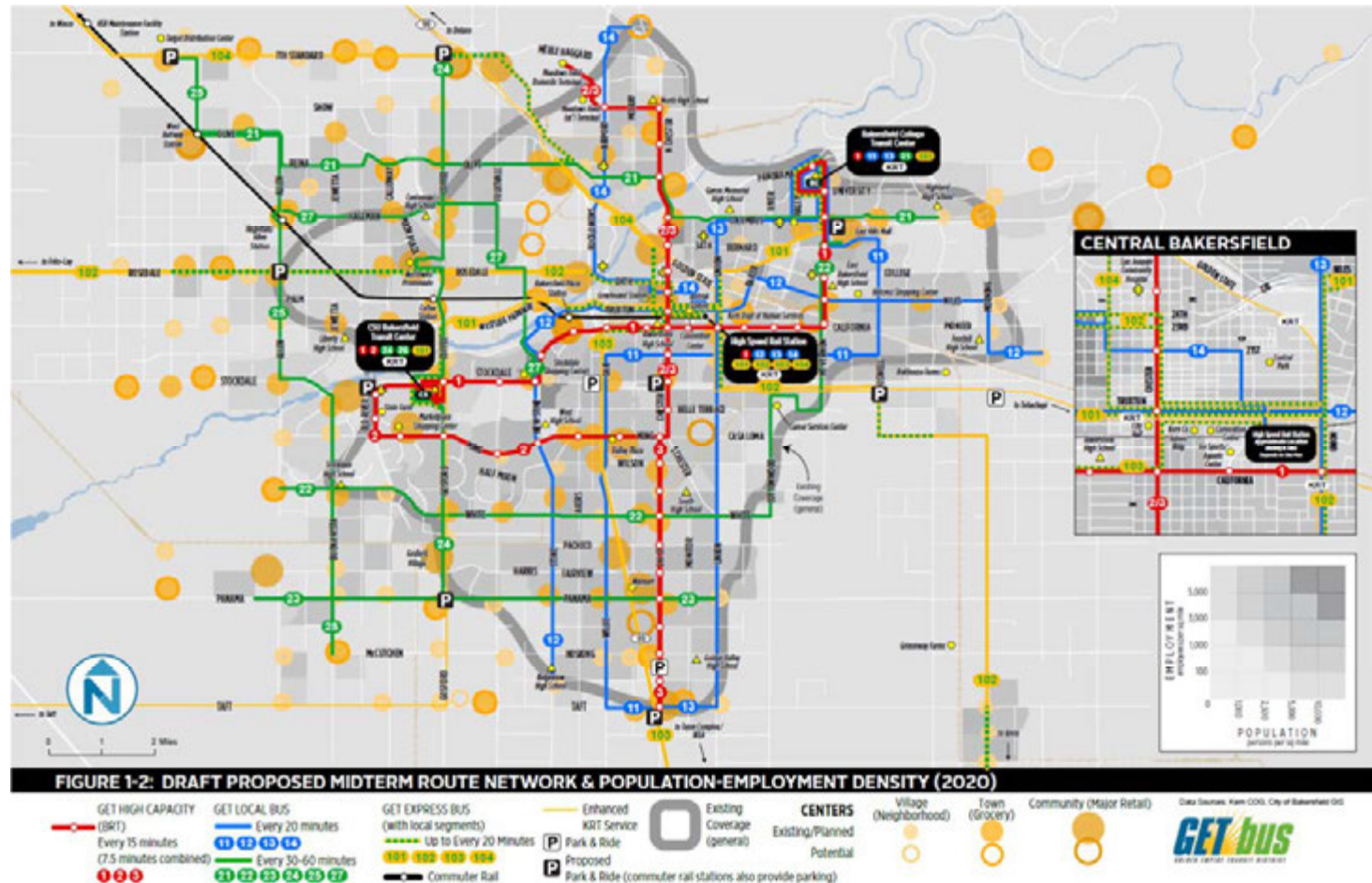
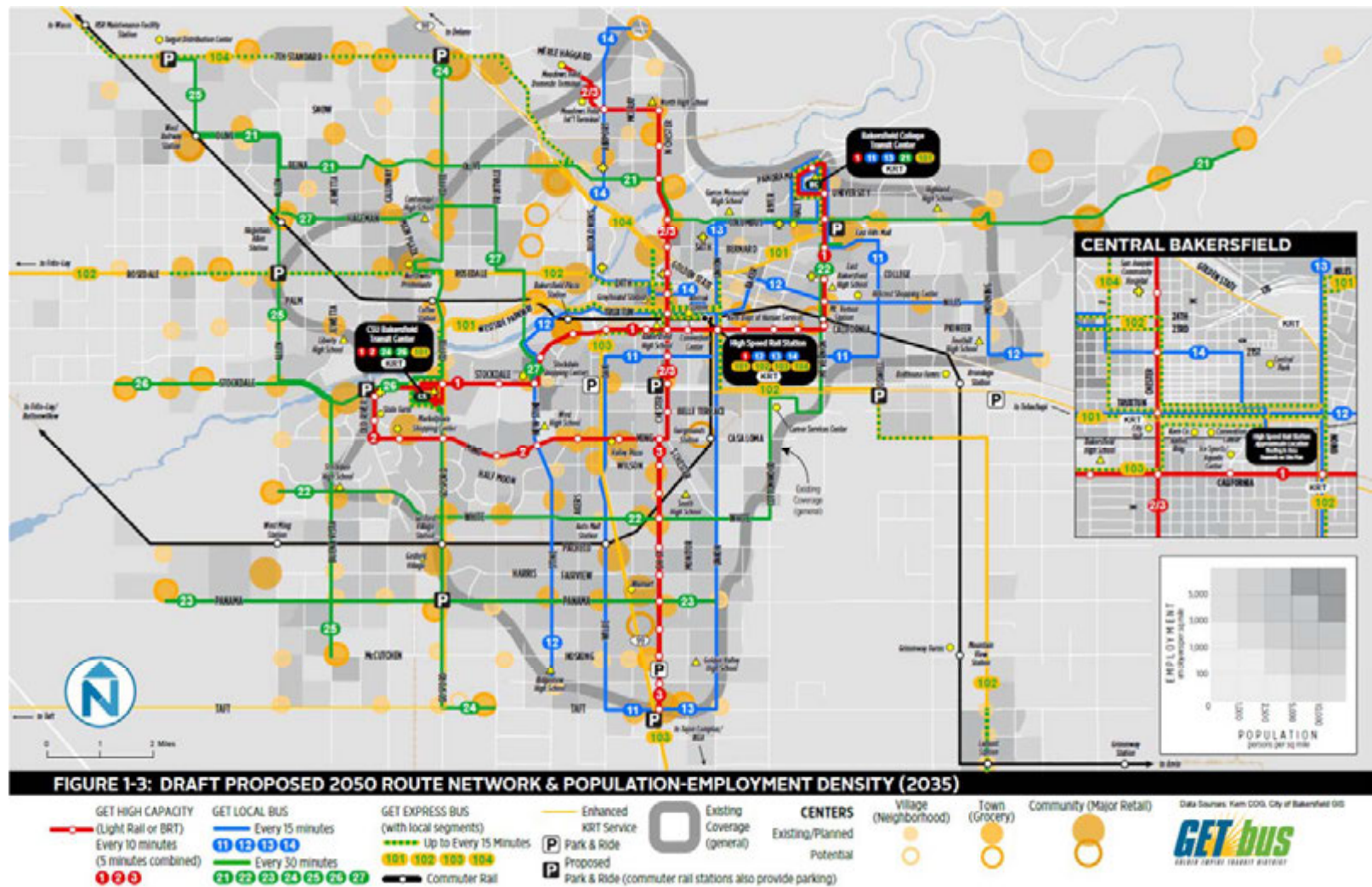


FIGURE 4-12B: 2035 MID/LONG-TERM TRANSIT IMPROVEMENTS



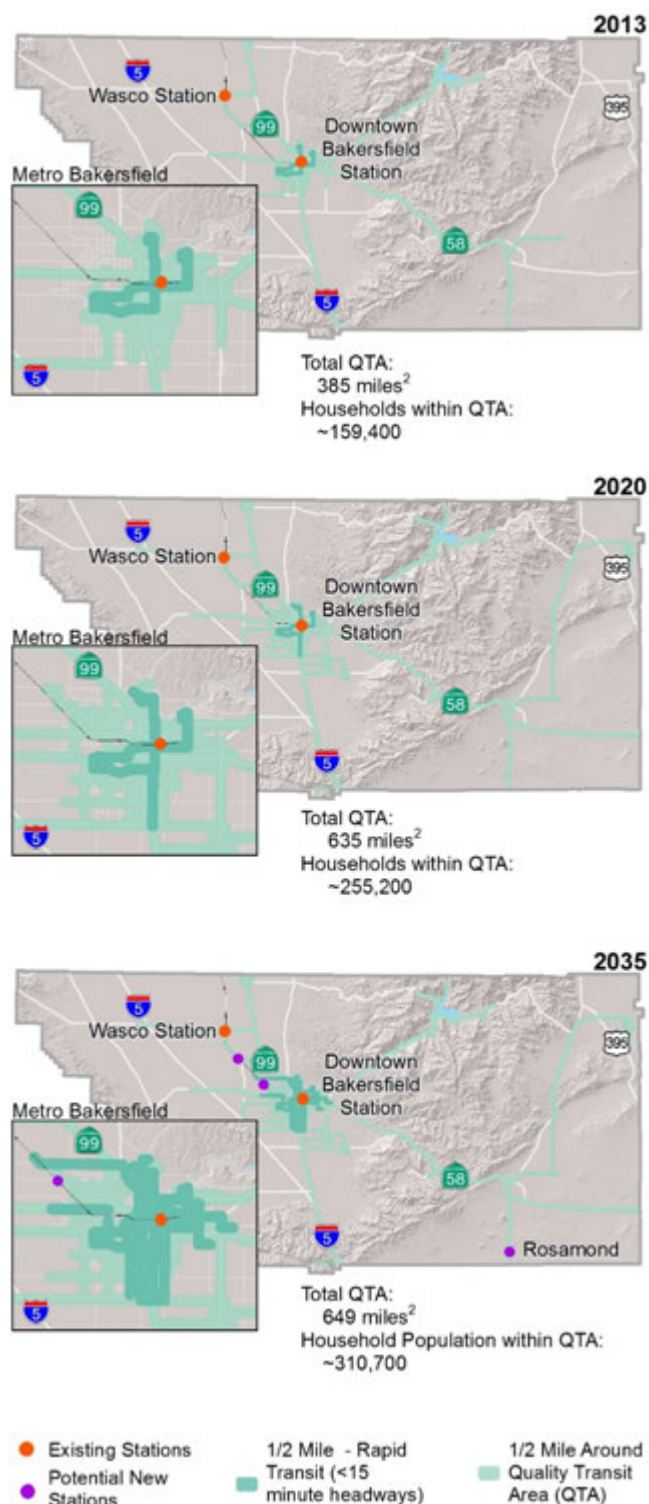
The Long-Range Transit Plan provides for an expansion of transit priority areas that are eligible for environmental streamlining provisions under SB 375. The maps in Figure 4-13 illustrate the expansion of areas within one-half mile of passenger rail service or rapid bus service (15-minute headways), bus rapid transit, and/or light rail. Prior to 2012, only 5,600 people lived within one-half mile of high-quality transit areas. The Kern region has been proactive in expanding high-quality transit service since SB 375 passed in 2008. With the implementation of short-term transit improvements in 2012, population served by transit priority areas has already expanded more than 20 times. Another 38% increase is anticipated by 2020, and an increase of up to 225% is anticipated by 2035 over 2012 service areas. The long-range transit plan assumes passage of a local transportation measure.

The Long-Range Transit Plan also analyzed improvements to the Kern Regional Transit (KRT) express bus system that services outlying communities. The plan found that KRT can achieve operating efficiencies by interfacing with GET at its outlying transfer centers, reducing operating costs and allowing service improvements to outlying communities.

In addition, 2012 saw the finalization of the Kern Commuter Rail Study. The study called for consideration of extending L.A. Metrolink service from Lancaster north to Rosamond and Edwards AFB in eastern Kern. The study recommended additional passenger rail stops on the Burlington Northern Santa Fe (BNSF) Railway alignment in northwest Bakersfield. The stops may become part of a future passenger feeder rail system for Express Amtrak service and for the high-speed rail project, should it move forward.

These transit improvements are subject to the voluntary application of the centers concept or other similar concepts in local General Plans. In addition, other factors include removal of barriers to develop these centers and a healthy, diverse housing market demand, and the resources necessary to improve transit. Incorporating these efforts in the SCS will provide a voluntary catalyst to make sure that these factors are addressed.

FIGURE 4-13: EXPANDING TRANSIT PRIORITY AREAS TO POPULATIONS WITHIN ONE-HALF MILE OF HIGH QUALITY TRANSIT



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Local Agency Formation Commissions' Spheres of Influence

During development of the SCS, MPOs are required by GC Section 65080(b)(2)(G) to consider spheres of influence that have been adopted by Local Agency Formation Commissions (LAFCOs) within the region. MPOs should consult with LAFCOs regarding municipal service review boundaries, foreseeable changes to those boundaries, and service capacities over the period covered by the RTP as well as any local LAFCo-adopted policies regarding conservation of agricultural and open space land, island annexations, annexations, service extensions, and sphere changes. MPOs are encouraged to request the most recent Municipal Service Reviews for local agencies providing services in the region, as well as LAFCo-prepared GIS maps, if available, for all local agency boundaries and spheres of influence in the region. The Executive Officer of LAFCo is a member of the RPAC which provides oversight to the development of the RTP/SCS.

What Is LAFCO?

Kern County LAFCo was established December 10, 1963, pursuant to provisions of Chapter 1808 enacted by the 1963 California Legislature and Section 56000 (prior code 54780, et seq.) of the Government Code. The duties of LAFCo are to review and approve or disapprove with or without amendment, wholly, partially, or conditionally, proposals for the incorporation of cities, formation of special districts, annexation of territory to local agencies, exclusion of territory from a city, disincorporation of a city, consolidation of two or more cities, and the development of a new community.

Spheres of Influence

The Transit Priority and Strategic Employment Areas map includes the latest spheres of influence areas adopted by LAFCo, and are consistent with the Forecasted Development Pattern Map. It is important to note that the SCS is a snap shot of the latest available information and will be updated every 4 years, and at that time any new annexations to spheres of influence will be incorporated in the SCS.

Regional Housing Needs

Accommodating Eight-Year Regional Housing Needs

Kern COG prepares the RHNA of low- and very low-income housing for each jurisdiction in the region that must be approved by the California Department of Housing and Community Development (HCD). Each jurisdiction is assigned a forecast of housing need that is used in local General Plan housing elements. SB 375 requires local jurisdictions to zone sufficient land to accommodate their low-income housing needs by 2015. The law's intent is that all cities provide sufficient housing to accommodate forecast growth in an effort to slow increases in migration from coastal communities to inland communities. The increasing need for lower-income housing may require jurisdictions to consider strategies such as more affordable, compact housing around transit centers. The five recent studies on housing market demand (see Appendix G – Forecast and Modeling Assumptions) indicate a growing interest for higher-density housing and mixed-use development in certain areas. With enough land identified in local general plans to accommodate significantly more than the total forecasted housing need by 2023 and local plans and zoning that are

With enough land identified in local general plans to accommodate significantly more than the total forecasted housing need by 2023 ... the Kern region continues to have little difficulty in providing adequate acreage for low-income housing.

flexible and responsive to changing market trends, the Kern region continues to have little difficulty in providing adequate acreage for low-income housing.

The Kern region's official 5th cycle regional housing need from the California Department of Housing and Community Development (HCD) for the projection period January 2013 – December 2023 is a minimum of 67,675 housing units. This RTP/SCS exceeds and is consistent with the minimum required by the HCD 5th Cycle Regional Housing Need Determination. Of these, approximately 41% are expected to be in the very low- and low-income category (affordable to those who make less than 80% of area median income), 17% are expected to be in the moderate-income category (affordable to those who make between 80% and 120% of median income) and 42% are expected to be offered at the above moderate-income category (Table 4-2). The allocation represents the minimum housing need that Kern COG's RHNA plan must address in total and also for very-low, low, and moderate income ranges. The SCS incorporates the overall RHNA target for the Kern region and provides a forecasted development pattern that shows where new housing growth can be accommodated in the future.

TABLE 4-2: RHNA BY INCOME CATEGORY

Regional Housing Need Determination by Income Category for Projection Period: January 1, 2013 through December 31, 2023		
Income Category	Percent (minimum)	Housing Units (rounded)
Very –Low	24.9	16,850
Low	15.6	10,555
Moderate	16.6	11,235
Above-Moderate	42.9	29,035
Total	100.0	67,675

The RHNA allocation was developed with reliance on local input on projected household growth and responses to local surveys. Results from the surveys support consistency with the state housing goals by encompassing a variety of planning factors that identify opportunities and constraints for jurisdictions to plan for housing at all income levels. These factors include the availability of suitable land, market demand for housing, distribution of household growth along transit corridors, and replacement need. To address increasing concerns regarding affordability, each jurisdiction's future housing need is adjusted to balance the proportion of affordable housing by county across the region. This adjustment considers areas that have a high proportion of certain income groups and adjusts future household growth toward a goal of social equity. This mitigates overconcentration of income groups and encourages planning for affordable housing in areas with limited opportunities in affordable housing.

Pursuant to Section 65584, the SCS must identify areas within the region sufficient to house an eight-year projection of the regional housing need. Table 4-3 shows the Kern region has more than enough vacant land capacity for housing at a variety of densities to accommodate the regional housing needs for the existing and projected housing population. It is also important to note that in most communities in the region, low density housing rents and are affordable to low and very-low income households. For more information on this issue, the Draft RHNA document is included as Appendix H and is scheduled to be adopted concurrently with the RTP/SCS.

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TABLE 4-3: VACANT LAND CAPACITY FOR HOUSING UNITS BY JURISDICTION

Jurisdiction	Existing Housing Units (2013)	Residential Units Capacity* (Vacant)		
		Medium, High, and Mixed Use Density	Very-Low and Low Density	Total
Arvin	4,568	702	2,517	3,219
Bakersfield	123,066	26,791	94,112	120,903
California City	5,226	51,264	38,300	89,564
Delano	10,831	741	5,472	6,213
Maricopa	464	168	644	812
McFarland	2,755	413	877	1,290
Ridgecrest	12,088	2,239	3,511	5,750
Shafter	4,612	1,085	19,452	20,537
Taft	2,522	978	4,443	5,421
Tehachapi	3,622	1,254	2,702	3,956
Wasco	5,649	382	4,203	4,585
Unincorporated County	113,221	65,993	344,204	410,197
County Total	288,624	152,010	520,437	672,447

**The residential units capacity used a GIS analysis of each jurisdiction's latest general plan information outside urban/built-up areas, and demonstrates sufficient existing capacity to accommodate a variety of density ranges to meet each jurisdiction's housing need.*

Conserving Resource Areas and Farmland

The 2014 RTP forecasted development pattern and transportation system attempts to minimize negative impacts on various natural and manmade resources, by acknowledging local General Plan policies and strategies related to conservation of these resources. There is acknowledgement around the region of the need to maintain a balance between the need to urbanize and the need to conserve rural lands and their uses while ensuring land use decisions remain local and private property rights are protected.

Agriculture and Farmland

Agriculture has deep roots in the region's history and future. The Kern region has some of the most productive farmland in the world. According to the 2011 Kern County Agricultural Crop Report, Kern County Agriculture reached a milestone in 2011 by topping the \$5 billion dollar gross production value for the first time. The 2011 gross value of all agricultural commodities produced in Kern County is \$5,364,538,600. This represents an increase (12.8%) from the revised 2010 crop value (\$4,757,416,700).

Kern County's agricultural areas also provide benefits such as habitat, flood control, groundwater recharge, and energy production. Loss of these lands for agricultural purposes has economic, environmental, and social impacts. In developing the 2014 RTP forecasted development pattern and

transportation system, Kern COG relied on the policies of local governments to develop urbanization assumptions based on the most recent information available. Local land use policies related to agricultural preservation were of particular importance in this effort.

The California Department of Conservation maps farmland throughout California under the Farmland Mapping and Monitoring Program (FMMP). Figure 4-14 shows a 2010 FMMP map of these farmlands outside the spheres of influence boundaries. Table 4-4 presents an acreage summary of the FMMP mapping categories countywide and outside the spheres of influence. As the table shows, 1.4 square miles per year of important farmland will be consumed by 2040, of which less than 1/10th of 1% (1 square mile) is consumed outside the cities spheres of influence. The definition of farmland under Government Code Section 65080.01 (b) excludes farmland from spheres of influence boundaries. In the 22 year period from 1988 to 2010, an average of 1.8 square miles of farmland per year was converted to urban use. With this RTP, farmland consumption may be reduced as much as 40% to an average of 1.1 square miles per year through 2035.

During the period from 1988 to 2010, the region grew by 65% or 330,000 people and urban/built-up areas grew at a similar rate of 68%. In the same timeframe, approximately 240 square miles of farmland was converted to urban and other uses (14% of total important farmland). Surprisingly the majority of this conversion was outside spheres of influence to other non-urban uses (fallow/no water available, groundwater recharge, habitat etc.). Over the past two decades water availability has had a significantly greater impact on farmland conversion than urbanization.

For the 2014-2040 planning period (26 years), this RTP/SCS forecasts the addition of 602,900 people and the conversion of 24 square miles, less than 2% of important farmland and 1/10th the conversion compared to the previous 22 years. This significantly lower rate of conversion is due largely to local government efforts to balance urban expansion with the conservation of economically viable farmland. This decrease in the impact to farmland from the RTP is important, as the viability of the agriculture industry is correlated with the amount of land in production and the type of production. Limited farmland conversion outside identified areas for economic growth can help to maintain the economic output related to agriculture in the Kern region and protect employment in the agricultural industry.

The California Legislature passed the Williamson Act in 1965 to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. An agricultural preserve defines the boundary of an area within which a city or county will enter into Williamson Act contracts with landowners. The Williamson Act creates an arrangement whereby private landowners contract for a minimum of 10 years with counties and cities to voluntarily restrict their land to agricultural and compatible open-space uses. In return, restricted parcels are assessed for property tax purposes at a rate consistent with their actual use, rather than potential market value.

Farmland Security Zones are another vehicle to preserve agricultural and open space lands. Farmland Security Zones offer landowners greater property tax reduction than that of the Williamson Act. Land restricted by a farmland security zone contract is valued for property assessment purposes at 65% of its Williamson Act valuation, or 65% of its Proposition 13 valuation, whichever is lower. The minimum initial term for a farmland security zone contract is 20 years.

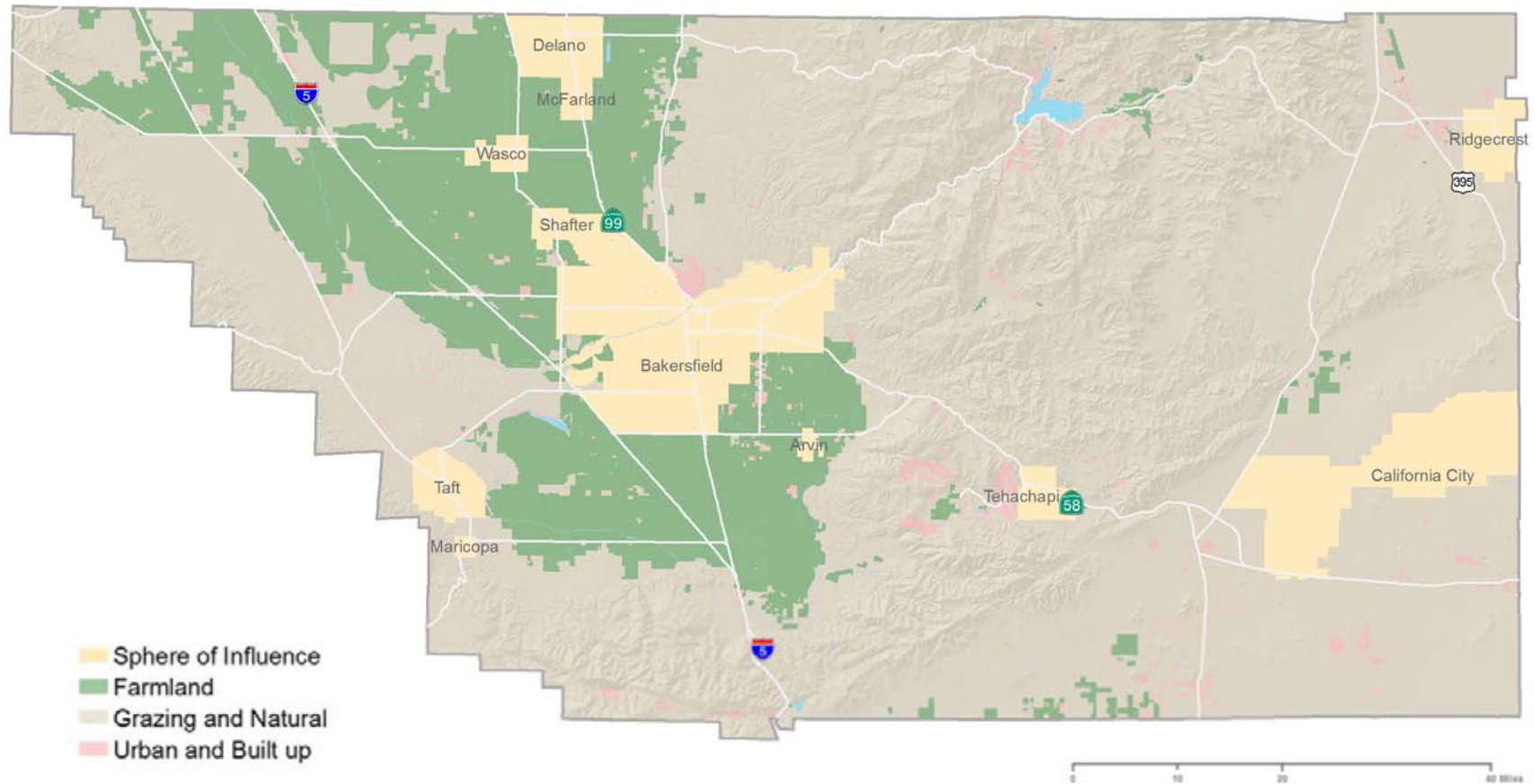
Though state subventions to backfill lost property tax revenue have been eliminated, the program is still embraced by the County and remains an important part of its farmland conservation strategy. Private land use agreements, such as the Tejon Ranch Conservation and Land Use Agreement, are another alternative method to conserve the right to continue farming agricultural lands.

A Notice of Conservation Easement can be placed on land to retain land predominantly in its natural, scenic, historical, agricultural, forested, or open-space condition. A conservation easement is a voluntary agreement between a landowner and a land trust or government agency that permanently limits the uses

CHAPTER 4 SUSTAINABLE COMMUNITIES STRATEGY

of the land to protect its conservation or agricultural value. The landowner retains ownership of the land, but certain restrictions are agreed on through the easement, and recorded on the deed. Eleven land trusts currently operate in Kern County, covering thousands of acres of land.

FIGURE 4-14: KERN COUNTY IMPORTANT FARMLAND 2010



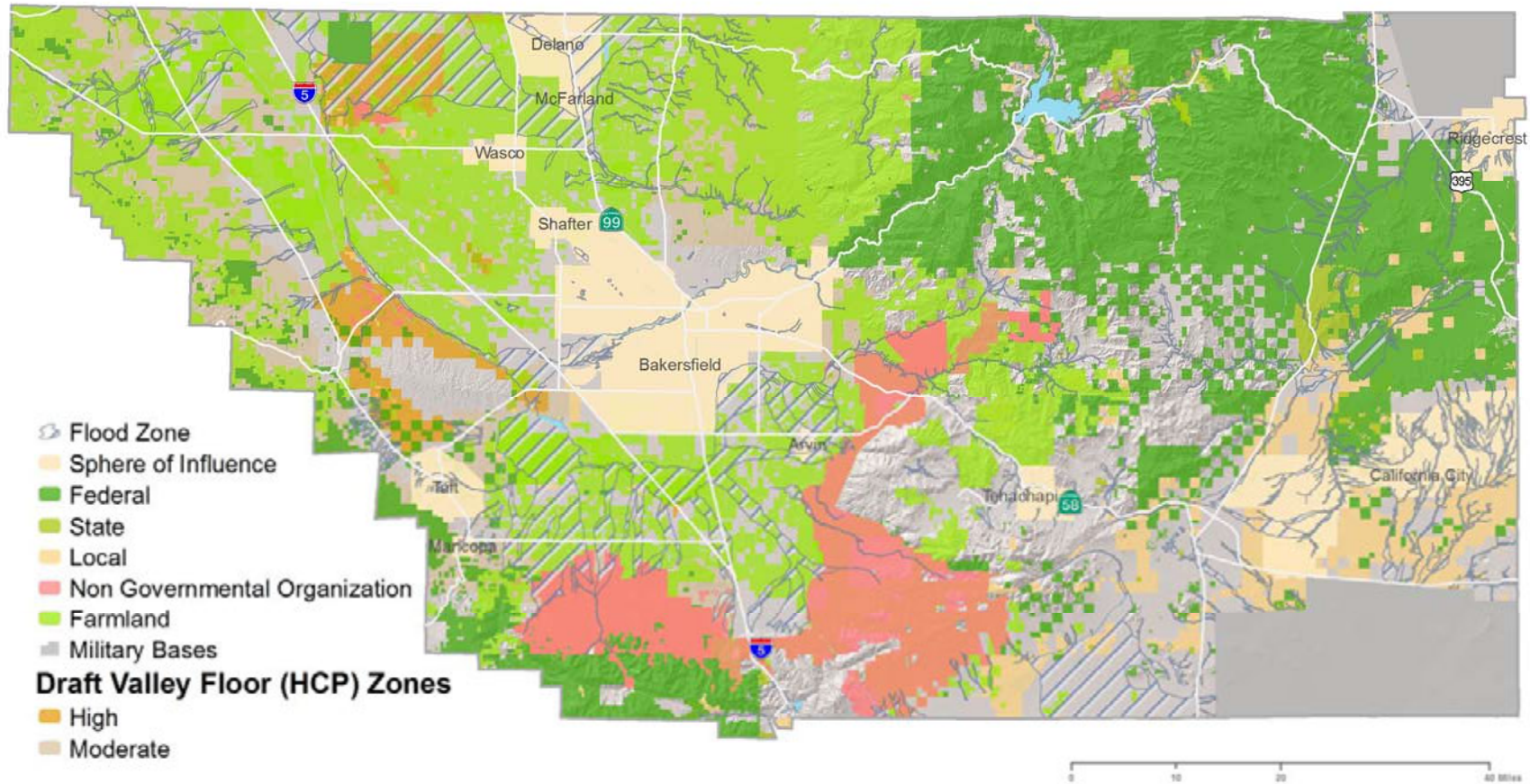
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Table 4-4: Kern County Important Farmland Conversion 1988-2040

	Historic Trend				Forecast						Annual Average		
Year	1988	2010	1988-2010	% Change	2035	2010-2035	% Change	2040	2010-2040	% Change	1988-2010	2010-2035 ¹	2010-2040 ¹
Kern County Population	511,200	841,200	330,000	64.6%	1,321,000	479,800	57.0%	1,444,100	602,900	71.7%	15,000	19,192	20,097
Land Including City Spheres of Influence² (square miles)													
Urban/Built-Up	132	222	90	68.2%	294	72	32.4%	313	91	41.0%	4.1	2.9	3.0
Total Important Farmland³	1668	1428	-240	-14.4%	1404	-24	-1.7%	1402	-26	-1.8%	-10.9	-1.1	-1.0
Farmland to urban/ built-up	1668	1428	-40	-2.4%	1404	-24	-1.5%	1402	-26	-1.6%	-1.8	-1.1	-1.0
Farmland to other⁴	1668	1428	-200	-12.0%	1404	0	0.0%	1402	0	0.0%	-9.1	0.0	0.0
SB 375 Defined Land Outside City Spheres of Influence (square miles)													
Urban/Built-Up	39	77	38	97.4%	83	5.8	7.5%	84	7.2	8.7%	1.7	0.2	0.2
Total Important Farmland³	1407	1226	-181	-12.9%	1226	-1.1	-0.1%	1227	-1.4	-0.1%	-8.2	-0.1	-0.1
Farmland to urban/ built-up	1407	1226	-8	-0.6%	1226	-1.1	-0.1%	1227	-1.4	-0.1%	-0.4	-0.1	-0.1
Farmland to other⁴	1407	1226	-173	-12.3%	1226	0.0	0.0%	1227	0.0	0.0%	-7.9	0.0	0.0

Source: California Department of Conservation FMMP (1988-2010), Kern COG Land Use Model (2013-2040); ¹FMMP data was unavailable from 2010-13; ²analysis used 2013 city sphere boundaries; ³identification of important farmland in 2035/40 includes areas designated for agriculture by the local general plans; ⁴conversion of farmland to other uses include fallow/no water available, groundwater recharge, habitat and other uses not analyzed with the Kern COG land use model. This land use forecast is limited to land lost from future urbanization. Figures may not add due to independent rounding.

FIGURE 4-15: RESOURCE AREAS: FARMLAND, HABITAT, OPEN SPACE AND GOVERNMENT LANDS 2012



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Recreation and Open Space

Beyond agriculture, open space includes forestry, parks, trails, and wildlife areas that provide habitat and support recreational activities, educational opportunities, and the connection and transition between built and natural environments. Kern COG's inventory of these lands currently account for roughly 3,580 square miles of parks and conservation lands or 43% of the total area of the county. Only one percent of these lands (49 square miles) are in city spheres of influence. (Figure 4-15).

Habitat

According to federal and state requirements, every land development and transportation project must mitigate, or compensate for, the effects on sensitive habitat and open space. In response to the mandate to conserve natural resources in a more systematic manner, several jurisdictions in the region have developed habitat conservation plans (HCPs) and natural communities conservation plans (NCCPs). In the Valley area, the Valley Floor HCP, which covers over 2.8 million acres is now being coordinated with the 409 square mile new Metropolitan Bakersfield HCP to replace the current Metro HCP which expires in 2014. These two HCPs which are under consideration to become California NCCPs are in addition to the Chevron Lokern HCP and the Occidental Elk Hills HCP. This extensive planning effort includes cities, water districts and private industry and will address the remaining 1.2 million acres of conservation land remaining in the Valley portion of Kern County. In the desert area of Kern County, the Desert Renewable Energy Conservation Plan (DRECP) includes Kern County and encompasses over 22 million acres of public and private land to streamline renewable energy development. This focused effort will provide recommendations that could inform planning for the desert areas of Kern County. Draft boundaries of the Valley Floor HCP are depicted in Figure 4-15.

During implementation of specific projects, an activity subject to Section 10 of the Endangered Species Act (ESA) and considered a covered project under the implementing rules of an adopted HCP or NCCP may be able to participate in the plan. To the extent possible, Kern COG and local jurisdictions work with federal agencies and regional partners regarding proposed development in areas containing federally or state protected natural resources. Kern COG gathers and considers information on the timing of any applicable permits and their relationship to HCP and NCCP planning efforts to feed into phasing assumptions for the RTP land use forecast. Given available data, mapping, and HCP and/or NCCP status, Kern COG recognizes the constraints imposed by the federal and state Endangered Species Laws. The ultimate resolution of the many ongoing natural resources planning efforts will have a major influence on future growth patterns in the region. The forecasted development pattern in this RTP considered the uncertainties associated with these ongoing efforts throughout the region. The progress of these planning initiatives will be carefully monitored, and it is expected that once the HCPs/NCCPs are adopted and being implemented, their provisions will have a significant influence on the land use forecasts in future RTPs/SCSs.

It is important to point out that the land use modeling used for the RTP/SCS is constrained to the local adopted General Plans which implement the HCPs/NCCPs. This ensures that the SCS adopted forecasted development pattern will not plan for growth in areas identified in the HCPs/NCCPs for conservation. The County of Kern is scheduled to begin the next major General Plan update in 2014. The update will address land use conservation issues such as habitat and farmland. Appropriate changes to the County's update will be reflected in future RTPs/SCSs.

In June 2008, Tejon Ranch Co. and Audubon California, Endangered Habitats League, Natural Resources Defense Council, California's Planning and Conservation League, and the Sierra Club unveiled the landmark Tejon Ranch Conservation and Land Use Agreement (Agreement). The Agreement provides for the permanent protection of 240,000 acres (approximately 90%) of the historic Tejon Ranch. The lands to be conserved under the Agreement will be overseen by the independent non-

profit Tejon Ranch Conservancy. The Agreement represents the largest conservation and land use Agreement in California history and represents the region's commitment to conservation efforts

Framework and Funding for Streamlined Land Conservation

The Kern region is committed to funding conservation easements on a project by project basis and has implemented an innovative process for this effort. This commitment is exhibited in three ongoing efforts:

- **Framework for Coordinating Strategic Investments in Land Conservation** – Kern COG provided \$300,000 in planning funds to the Metropolitan Bakersfield HCP and Valley floor HCP in an effort to streamline mitigation of habitat land for transportation projects in the region. They provide a tool to integrate conservation data into project level alternative selection and development, and coordinate strategic investments in mitigation.
- **Funding Program for Conservation Easements** – Habitat mitigation has become a major cost in the development of transportation projects, sometimes as high as 20% of the project cost. A typical widening project in flat rural areas averages about 3% in habitat mitigation in the Kern region. With \$2.55 billion in highway capital costs (see Chapter 6, Table 6-1) approximately \$77 million will be used to acquire conservation easements. Assuming a typical easement is estimated at \$13,000 per acre, enough transportation funding will be available to purchase approximately 26 square miles by 2040. High speed rail could add up to 4.5 square miles in the San Joaquin Valley and habitat and farmland mitigation from future land development, energy production and other uses will provide significant funding streams to ensure conservation goals in the region.
- **Addressing Farmland and Habitat in the Kern County General Plan Update** – The County of Kern has scheduled a major General Plan update beginning in 2014. County land use authority makes this General Plan update the appropriate venue to comprehensively address farmland and habitat conservation efforts. The results of those efforts will be reflected in the next RTP update as appropriate.

MOVING PEOPLE AND GOODS IN KERN COUNTY: A SUSTAINABLE TRANSPORTATION NETWORK

The RTP is at its core a transportation plan. The SCS seeks to better coordinate the process that Kern COG and local agencies use to prioritize long-range transportation investments by ensuring that they are aligned with the forecasted development patterns which achieve RTP goals. This section discusses the following components of a sustainable transportation system to serve the needs of the Kern region:

- A revenue-constrained transportation network funded by financial resources expected between now and 2035.
- Transportation demand management (TDM) measures.
- Transportation system management (TSM) measures.
- Pricing measures.

Each of these four components is explained in further detail in Chapter 5, Strategic Investments.

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Revenue-Constrained Network

Important parts of the revenue-constrained transportation network, which is described more fully in Chapter 5, Strategic Investments, includes an emphasis on maintenance, global gateways, a significant investment in public transit (rail and bus), and facilities that encourage walking and bicycling as forms of active transportation. The aim of these investments is to significantly increase the attractiveness of public transit, walking, and bicycling. Investments in the Kern region's local streets and roads, including access to regional airports, goods movement projects, and TDM and TSM projects and programs, also are integral to the overall transportation network.

Rail/Public Transit

The overarching goal of the rail and public transit investments detailed in the 2014 RTP is to provide high-volume rail and transit corridors to move goods and people in and through the region. The objective is to efficiently move goods to and through the region, while connecting homes to the major regional employment centers and high-speed connections to destinations beyond the region.

Rail and public transit measures identified in the 2014 RTP (see Chapter 5) include:

- 120 new buses in the region including Bus Rapid Transit, Rapid Bus, and Express Bus Service
- Extension/enhancement of transit service to new and intensified centers
- Addition of up to six passenger rail stops
- Ridesharing and voluntary employer-based incentives
- Traffic flow improvements/railroad grade separations
- Park and ride lots and vanpooling

Figures 4-8 through 4-12 show the high level of integration between the planned transit system and the forecasted development pattern consistent with the Long Range Transit Plan adopted in 2012.

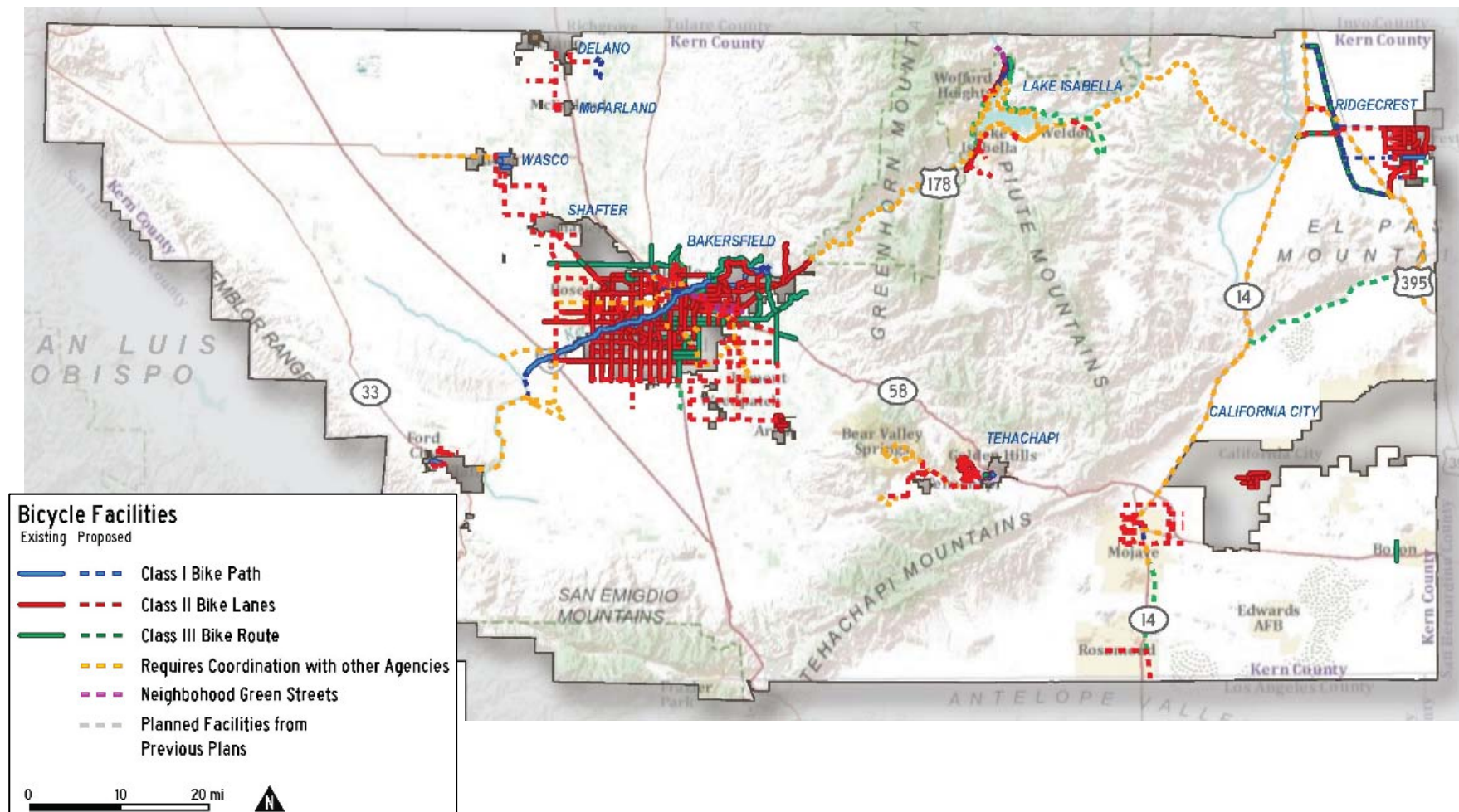
Bicycles and Pedestrians

Investments that promote bicycling and walking also are an important part of the revenue-constrained transportation network. In 2012, Kern COG completed the Kern County Bicycle Master Plan and Complete Streets Recommendations to enhance bike, pedestrian, and transit use of the transportation network in the unincorporated portion of Kern County. The plan calls for an additional 751 miles of new bikeways in the Kern region as well as other improvements to get the bike mode share up to 5% by 2035. The Plan was unanimously adopted by the Kern COG Board in November 2012.

Bicycle and pedestrian measures identified in the 2012 Bicycle Master Plan include:

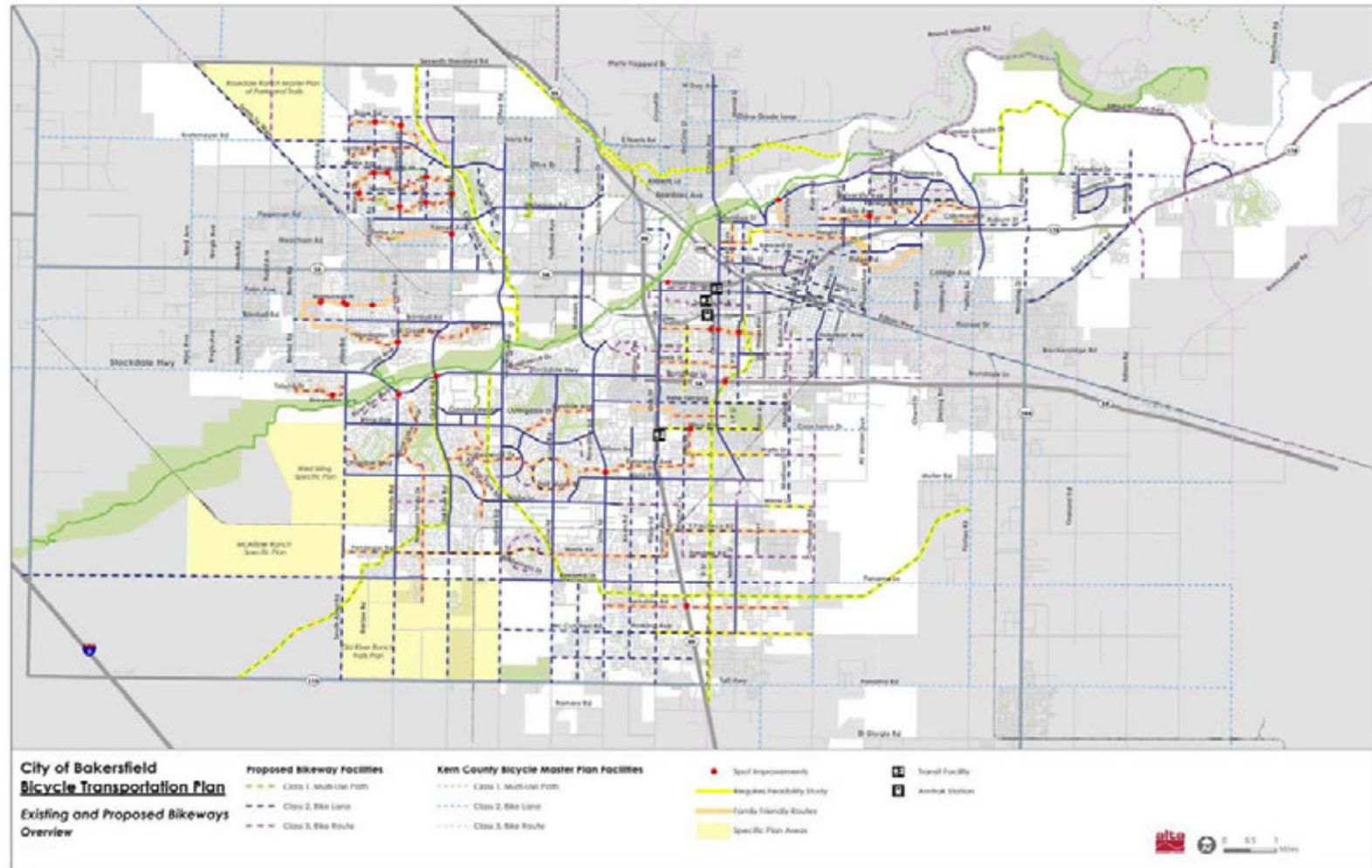
- 41 miles of Class I bike paths
- 291 miles of Class II bike lanes
- 287 miles of Class III bike routes
- Bike parking facilities
- 16 miles of neighborhood green streets
- Pedestrian facilities as part of local transportation projects and developments
- 116 miles of Canal Bike Paths

FIGURE 4-16: PROPOSED BICYCLE FACILITIES IN 2012 KERN COUNTY BIKE MASTER PLAN



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Figure 4-17: Proposed Bicycle Facilities in the 2013 City of Bakersfield Bicycle Transportation Plan



In November 2013 the Bakersfield City Council approved the City of Bakersfield Bicycle Transportation Plan. The City of Bakersfield Bicycle Transportation Plan guides the future development of bicycle facilities and programs in the City. The recommendations in this Plan will help the City create an environment and develop programs that support bicycling for transportation and recreation, encourage fewer trips by car and support active lifestyles.

Bikeway miles recommended in the 2013 City of Bakersfield Bicycle Transportation Plan include:

- 44.55 miles of Class I multi-use bike paths
- 111.07 miles of Class II bike lanes
- 104.03 miles of Class III bike routes

Planned bicycle travel facility mileage by community in Kern County is provided in Table 4-5.

**TABLE 4-5: BICYCLE TRAVEL FACILITY MILEAGE IN KERN COUNTY
(EXISTING/PLANNED ESTIMATED FROM 2012 & 2013 BIKE PLANS)**

	Existing	Planned
Unincorporated County	97	604
Arvin	5	22
Bakersfield	143	260
California City	10	25
Delano	0	13
Maricopa	0	0
McFarland	0	2
Ridgecrest	26	24
Shafter	0	17
Taft	1	18
Tehachapi	4	15
Wasco	2	11
Total	288	1,011

Bicycle and pedestrian measures identified in the 2014 RTP (see Chapter 5) include:

- Encourage member jurisdictions to implement their adopted local bicycle plans and to incorporate bicycle facilities into local transportation projects.
- Continue to seek funding for bicycle projects from local, state, and federal sources.
- Continue to seek funding to maintain existing bikeways.
- Promote the purchase and construction of bicycle racks and lockers for Kern County multimodal stations.

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- Promote the inclusion of bike tie-downs and racks on commuter trains and buses.
- Fund updated Bicycle Facilities Plans for the incorporated cities.

Highway/Road Facilities and Complete Streets

The Complete Streets Act of 2008 requires local jurisdictions in California to plan for the needs of all transportation system users with every major revision to General Plan local circulation elements. Highways and roads can be designed to optimize pedestrian, bike, and transit usage. The complete streets approach affords policymakers, planners, and engineers with the opportunity to carefully evaluate and accommodate the needs of motorists, pedestrians, cyclists, transit vehicles and transit users, the young and old, and the able-bodied and physically challenged through the entire project development process. This ensures that the needs of all users of the public right-of-way are properly accommodated based on informed decisions about existing and future demand and that proper accommodations are designed into the project from the outset.

Highway/road facilities and complete streets measures identified in the 2014 RTP (see Chapter 5) include:

- As roads are maintained, bikeways should be implemented and upgraded per local development standards.
- Fund a Pedestrian Facilities Plan for the County of Kern and the incorporated cities.
- Encourage COG member jurisdictions to implement adopted local bicycle plans and incorporate bicycle facilities into local transportation projects.

Transportation Demand Management Measures

TDM measures are important in helping to improve the efficiency of the region's regional transportation system. These measures help reduce or eliminate vehicle trips during peak periods of demand. They typically offer programs and incentives to encourage the use of modes of transportation other than driving alone or to encourage people to shift their trips to times when demand on the transportation system is low. Examples of current TDM measures are employer-sponsored transportation benefits, regional transit and vanpool subsidies, and carpool and biking incentives.

TDM measures identified in the 2014 RTP (see Chapter 5) include:

- Free car-pool and van-pool programs
- Transit
- Park and ride lots
- Encourage flextime programs
- Intelligent transportation system technologies

Transportation System Management Measures

TSM measures also help to maximize the efficiency of existing and future transportation facilities. A combination of programs—including signal and ramp metering coordination and optimization, improved performance monitoring, and advanced vehicle and roadside communication platforms—will increase the

ability of operators to monitor the performance of the transportation system, manage our system better, and improve efficiency.

TSM measures identified in the 2014 RTP (see Chapter 5) include:

- Carpool facilities where appropriate
- Traffic signalization and synchronization
- Ramp metering where appropriate
- Truck auxiliary lanes on major inclines
- Railroad grade separations

Pricing Measures

Pricing assumptions are also used to reduce the demand on the Kern region's transportation system. On major freeway and highway facilities, HOV lanes, bus lanes, and toll lanes can be used to fund new capacity for non-single-occupant vehicle traffic. In other California regions, odometer-based tolling (i.e., a passenger vehicle travel fee) is also being considered to fund and maintain infrastructure that support goods movement activity. Variable parking cost can also be used as a strategy to reduce congestion during peak periods. The rising cost of fuel in the Kern region can act as a TSM measure.

Pricing measures identified in the 2014 RTP (see Chapter 5) include:

- Assume 2/3rds increase in fuel and vehicle operating costs by 2035 consistent with the 2009 Metropolitan Transportation Commission target modeling assumptions and the MPO-State Agency SB 375 Modelers Group.
- Continue timed parking and parking pricing in downtown Bakersfield parking structures.

REDUCING GREENHOUSE GAS EMISSIONS IN KERN COUNTY

The key purpose of SB 375 and the Kern region SCS is to reduce per capita emissions originating from passenger vehicles and light trucks. This section:

- Compares the emissions reductions anticipated with implementation of the SCS with the regional targets.
- Quantifies the effect of policies and programs in the RTP that reduce transportation-related emissions in the region.
- Describes sources of emissions in the Kern region, 2020 and 2035 emission reduction targets established by CARB for the San Joaquin Valley, and modeling techniques used to estimate and forecast emissions.
- Identifies statewide strategies to reduce transportation-related emissions and their anticipated effect within the Kern region.

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- Identifies regional strategies that complement the SCS by reducing emissions in other sectors (e.g., energy consumption).

Comparison to Reduction Targets.

On September 23, 2010, CARB set targets for lowering emissions in the San Joaquin Valley. The targets call for a 5% reduction in per capita emissions from passenger vehicles and light trucks by 2020, and a 10% reduction by 2035 through land use and transportation planning.

Based on the analysis of strategies included in the SCS, CO₂ emissions are anticipated to be 14.1% lower than 2005 levels by 2020 and 16.6% lower by 2035, exceeding the targets established by CARB in 2010 as illustrated by Table 4-6.

TABLE 4-6: RESULTS OF GREENHOUSE GAS EMISSIONS AND VEHICLE TRIPS REDUCTIONS

Indicators & Measures	2005	2020	2035	2040
Total Population	762,000	1,010,800	1,321,000	1,444,100
Vehicle Miles Traveled (VMT)				
VMT per Weekday (Miles, in Thousands)	22,236	27,508	35,560	38,197
VMT by Passenger Vehicles per Weekday (-XX, Miles, in Thousands)	18,452	20,947	26,452	28,837
Per Capita VMT (All Travel)	29.18	27.21	26.92	26.45
Per Capita VMT SB 375	24.22	20.72	20.02	19.97
Difference between 2005 Base Per Capita VMT (24.22 miles)	0.0%	-14.4%	-17.3%	-17.5%
SB 375 CO ₂ Emissions				
Total SB 375 CO ₂ Emissions	6,357	7,253	9,196	10,039
Per Capita SB 375 CO ₂ Emissions by Passenger Vehicles per Weekday (lbs)	16.70	14.35	13.92	13.90
Difference between 2005 Base Per Capita CO ₂ (16.7 lbs)	0.0%	-14.1%	-16.6%	-16.7%
SB 375 Targets (9/23/10)	0.0%	-5.0%	-10.0%	n.a.

Modeling

The analysis of strategies for the SCS used the UPlan land use model, a significantly improved travel demand model, and the CARB Emission Factor model (EMFAC 2011). The modeling methodology was developed in close coordination with CARB and the 7 other San Joaquin Valley COGs using the best available information and best modeling practices. The modeling reflects all the strategies that are technically feasible to model. No off-model adjustments have been made as part of this analysis. A more detailed discussion of modeling assumptions and forecasts can be found in Chapter 3 and Appendix G Regional Growth Forecast Modeling Assumptions.

State-Level Strategies

For SB 375, the State of California has implemented numerous strategies that are assisting the region in attaining the SCS targets. For example:

- AB 118 – Air Quality Improvement Program
- AB 2766 – Motor Vehicle Fee Program
- CalStart

- Cap and Trade Program
- Clean Diesel
- Clean Vehicle Rebate Project
- Caltrans Funded High-Occupancy Vehicle Facilities
- Incident Management/Caltrans Traffic Information Center
- Inspection & Maintenance Programs
- Moyer Program
- Caltrans Funded Park-and-Ride Facilities
- Shifting/Separation Freight Movements
- Caltrans Funded Signal Synchronization and Roadway Intersection Improvements

Note that the methodology for calculating emissions does not include strategies that are accounted for separately under AB 32.

Regional Strategies

The air district has implemented numerous strategies that are assisting the region in attaining the SB 375 targets as well as other district goals. Kern COG and other entities have also promoted strategies/programs that help with attainment of the SCS targets. For example:

- CalVans Vanpool Program
- Kern COG Commute Kern TDM Programs/Incentives
- Kern Energy Watch and Kern Region Energy Action Planning
- San Joaquin Valley Air Pollution Control District (SJVAPCD) Diesel Engine Retrofits Incentive Program
- SJVAPCD Drive Clean Rebate Program
- IdleAir Idling Reduction Facilities
- Project Clean Air (PCA)
- SJVAPCD REMOVE II Programs
- SJVAPCD Retirement/Replacement of Heavy-Duty Trucks Incentives Program
- SJVAPCD Rule 9310 (SJVAPCD) School Bus Fleets: Retirement/Replacement of Buses
- SJVAPCD Rule 9410 (SJVAPCD) Employer-Based Trips Reduction (eTRIP)
- SJVAPCD Rule 9510 (SJVAPCD) Indirect Source Review: Infill Incentive Zone Transportation Impact Fee Land Use Strategies.
- Valley Clean Air Now (CAN)

Note that many of these strategies reduce emissions from trucks and other areas accounted for separately under AB 32.

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INCENTIVES AND OTHER APPROACHES

The Kern Region SCS provides for an incentive based approach to help achieve the state greenhouse gas emission goals. This section:

- Describes steps Kern COG and local jurisdictions in Kern County will take to implement the SCS.
- Outlines new CEQA streamlining and other key local provisions afforded to projects that meet certain criteria established in the SCS.

Promoting Sustainability through Incentives and Collaboration

The 2014 RTP is first and foremost a transportation plan. However, the transportation network and forecasted development patterns envisioned must complement each other. Integration of transportation and land use is essential for improved mobility and access to transportation options.

SB 375 calls for the integration of forecasted development patterns with transportation investments and asks that MPOs identify, quantify, and highlight co-benefits throughout the process. SB 375 provides CEQA incentives for development projects that are consistent with the regional SCS and help meet GHG emissions reduction targets. Kern County and the cities maintain their existing authority over local planning and land use decisions, including discretion in certifying the environmental review for a project, regardless of eligibility for streamlining.

To achieve the goals of the 2014 RTP, public agencies at all levels of government may implement a wide range of strategies that focus on four key areas:

- A transportation network that consists of public transit, highways, local streets, bikeways, and walkways.
- TDM measures that reduce peak-period demand on the transportation network.
- TSM measures that maximize the efficiency of the transportation network.
- A forecasted development pattern that accommodates the region's future employment and housing needs, especially in rural outlying areas while protecting habitat and resource areas.

The following tables list specific implementation strategies that local governments, Kern COG, and other stakeholders may consider in order to successfully implement the SCS.

TABLE 4-7: PROPOSED GREENHOUSE GAS EMISSIONS AND VEHICLE TRIPS REDUCTION STRATEGIES

Strategy	Responsible Party(ies)	Notes
Transit:		Notes
Construct new transit lines	COG, Transit Agencies, Local Jurisdictions	see GET 2012 Long Range Transit Plan (LRTP)
Expanded Bus Routes Coordinated with Planned Centers	COG, Transit Agencies, Local Jurisdictions	see LRTP
Expand Passenger Rail Service (Metrolink, Amtrak, HSR)	COG, State, Metrolink, SJV JPA, HSRA	see 2012 Kern Commuter Rail Study (KCRS)
Increase service (e.g., change transit headways, increase network connectivity)	Transit Agencies	see LRTP

Strategy	Responsible Party(ies)	Notes
Expanded Transit Service Area	Transit Agencies	see LRTP
Rapid Bus/Shorter Wait Times	Transit Agencies	see LRTP
Upgrade transit service (e.g., improve service to express bus, etc.)	Transit Agencies	see LRTP
Express Transit	Transit Agencies	see LRTP
Bus Rapid Transit	Transit Agencies	see LRTP
Improve accessibility (e.g., change bike/walk access distance to transit stations, change auto access distance to transit stations)	COG, Transit Agencies, Local Jurisdictions	see LRTP
Optimized Bus Routes	Transit Agencies	see LRTP
Transportation Demand Management:		
Promote carpooling, vanpooling, telecommuting and teleconferencing	COG, Local Jurisdictions	Commute Kern and E-Trips programs
Expand Vanpools	COG, CalVans, Local Jurisdictions	see 2012 Kern MOU with CalVans
Promote walking and biking (e.g., new class I bicycle facilities, inter-city bikeways)	COG, Local Jurisdictions	see 2012 Kern Bikeway Master Plan (BMP) - accelerated in intensified alternative
Implement employer-based trip reduction strategies and Indirect Source Rule	COG, Air Districts	SJVAPCD Rules 9410 & 9510
Pricing:	-	-
Change in auto operation cost/user fees	COG, State	2/3rds Increase in fuel cost
Increase the cost of parking	Local Jurisdictions	parking rates downtown
Change in transit fares	Transit Agencies	reduced fares for seniors/ADA
Transportation System Management:		
Implement Intelligent Transportation Systems (ITS)/Traffic management (e.g., change auto travel times, change highway free-flow speed, 511 travel info, signalization/ synchronization, etc.)	COG, Caltrans, Local Jurisdictions	new Kern 511 travel info system, continued signalization/synchronization program
Add HOV facilities	COG, Caltrans, Local Jurisdictions	Caltrans ramp metering plan
Road Projects:		
Delay capacity increasing project (e.g., new beltway)	COG, Local Jurisdictions	S. & W. Beltways delayed
Add general purpose lanes (e.g., reduce congestion and out-of-direction travel)	COG, Caltrans, Local Jurisdictions	includes Centennial connector and Hageman flyover projects
Land Use:	-	-
Modify distribution of households, population, jobs or other variables (infill along major transit corridor consistent with GP)	Local Jurisdictions	limited to Bakersfield - Consistent with Core Area Impact Fee Development Incentive.

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Strategy	Responsible Party(ies)	Notes
Rebalance housing closer to employment/shopping areas	Local Jurisdictions	assumes more shopping opportunities and housing in outlying communities near jobs
Market based demand shift to smaller lots/multifamily	Local Jurisdictions	limited to Bakersfield
Improve the pedestrian environment (walk distance to transit centers)	COG, Local Jurisdictions, Air District	incentivized by Air District ISR rule
Goods Movement (non SB 375):		
Relief of Tehachapi Pass rail bottleneck	State, Class I Railroads	increase class 1 rail capacity by 30%
Increase activity at intermodal rail freight facilities	COG, Local Jurisdictions	Delano RailEx, and Shafter PLP intermodal
Smoother traffic flows through major highway corridors	COG, Caltrans, Local Jurisdictions	SR58 and SR99 improvements
Distribution centers closer to center of population	Local Jurisdictions	geographic center of pop. for CA is in Kern

Other Sustainable Practices

Along with the rest of the state the County of Kern is increasing sustainable practices. Through information sharing, coordination among agencies and other feasible means, including provision of funds as appropriate, Kern COG will continue to work to encourage and facilitate:

- energy and water conservation
- protection of open space
- protection of sensitive uses from noise and air quality impacts
- increased permeable surfaces
- improved stormwater management and protection of water resources
- quality design
- other measures to minimize impacts on natural and man-made resources and promote increased livability in Kern County.

SB 375 Streamlining the CEQA Process

SB 375 provides incentives in the form of CEQA streamlining to encourage community design that supports reductions in per capita emissions. Generally, two types of projects are eligible for streamlined CEQA review once a compliant RTP has been adopted: (1) residential/mixed-use projects (consistent with the SCS) or (2) a transit priority project (TPP).

Residential/Mixed-Use Projects

Residential and mixed-use projects (projects where at least 75% of the total building square footage consists of residential use or TPPs) that are consistent with the use designation, density, building intensity, and applicable policies specified for the project area in an SCS and are consistent with an approved SCS may qualify for streamlined CEQA review. If a project meets these requirements and if the project incorporates the mitigation measures required by an applicable prior environmental document,

any environmental review conducted will not be required to discuss growth-inducing impacts, any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on climate change or the regional transportation network, or a reduced-density alternative.

Transit Priority Projects

A TPP is eligible for CEQA streamlining if it is consistent with an approved SCS, contains at least 50% residential use, is proposed to be developed at a minimum 20 dwelling units per acre, and is located within a half-mile of a major transit stop or high-quality transit corridor that is included in the RTP.

If a project meets these criteria, it may be analyzed under a new environmental document created by SB 375, called the Sustainable Communities Environmental Assessment, or through an environmental impact report for which the content requirements have been reduced. Alternatively, a TPP can be considered a Sustainable Communities Project and be eligible for a new full CEQA exemption if it further meets the additional requirements beyond the base criteria.

Lead agencies (including local jurisdictions) maintain the discretion and will be solely responsible for determining consistency of any future project with the SCS. Kern COG staff may provide a lead agency at the time of its request readily available data and documentation to help support its finding.

Other CEQA Streamlining Strategies

CEQA guidelines section 15332 for In-Fill Development Projects is used extensively by the local governments in Kern as an exemption for approving infill development. The guidelines state that “*class 32 consists of projects characterized as in-fill development meeting the conditions described in this section.(a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.(b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.(c) The project site has no value, as habitat for endangered, rare or threatened species.(d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.(e) The site can be adequately served by all required utilities and public services.*” This CEQA exemption coupled with other infill incentives are providing significant opportunities for infill development in Kern.

Transportation Impact Fee Infill Incentive Zones

Both Tehachapi and Bakersfield, jointly with the County of Kern, adopted transportation impact fees for new development in the greater Tehachapi and greater Bakersfield areas. Both impact fee ordinances have identified core areas where the impact fee is almost half what the fee is on the periphery of the community. The incentive takes into account the higher cost of providing infrastructure on the periphery of a community while providing a financial incentive for infill development.

Indirect Source Review (ISR) Rule

The San Joaquin Valley Air Pollution Control District is the only region in the State that has implemented a rule to require new development to pay a fee for offsite travel emissions. Called the indirect source review (ISR) rule, the fee uses a modeling tool call URBEMIS to quantify emissions from a proposed

development. The tool can account for the incorporation of pedestrian, bike, transit and other strategies to reduce travel. Developments that are successful in providing these strategies could receive reductions or elimination of the fee. This incentive is already resulting in new developments that are designed to be more pedestrian, bike and transit friendly in the Kern region.

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Project Selection Criteria

The 2012 update to the Kern COG policy for the project selection process incorporates additional Kern Regional Blueprint growth management and SB 375 SCS framework concepts into the project selection process to:

Influence local government land use policy by giving priority to transportation projects that reduce vehicle miles traveled (VMT) and/or promote livable communities or transit oriented development (TOD) as applicable;

Leverage additional funding sources, including new funding sources, by modifying project performance measurement requirements for large projects to allow them to better compete for state and federal discretionary funds.

Table 4-8 summarizes consistency between the goals of the Kern COG RTP and the performance measures/outcomes of the Kern COG funding programs included in this document. The table also demonstrates that all programs include performance measures and outcomes that give priority to projects that reduce VMT, reduce emissions and improve livability consistent with SB 375.

Table 4-10 illustrates the consistency between the project selection criteria outcomes from the various Kern COG funding programs with the Kern COG SCS Framework Strategies.

TABLE 4-8: CONSISTENCY OF RTP GOALS WITH PERFORMANCE MEASURES/OUTCOMES

Funding Programs	KCOG RTP Goals							
	SB 375-Related Outcomes			Congestion Relief	Cost-Effectiveness	Safety	Sustainability/State of Good Repair	Economic Well-Being
	VMT Reduction	Emissions Reduction	Livability ¹					
RTIP	✓	✓	✓	✓	✓	✓	✗	✓
RSTP		✗					✗	✗
CMAQ	✓	✓	✓	✓	✓	✓		✗
TE	✗	✗	✗	✗		✗		
TDA	✓	✓	✓	✓		✓	✗	

✓ = Performance measure included in the project ranking criteria

✗ = Outcomes derived from eligible projects

¹ Livability includes enhancing or reducing the average cost of user mobility through the creation of more convenient transportation options for travelers; improving existing transportation choices by enhancing points of modal connectivity, increasing the number of modes accommodated on existing assets, or reducing congestion on existing modal assets; improving travel between residential areas and commercial centers and jobs; improving accessibility and transportation services for economically disadvantaged populations, non-drivers, senior citizens, and persons with disabilities, or make goods, commodities, and services more readily available to these groups.

TABLE 4-9: CONSISTENCY OF SCS FRAMEWORK STRATEGIES WITH FUNDING PROGRAM OUTCOMES
(THIS CHART IS AN ILLUSTRATION FROM THE KERN COG PROJECT DELIVERY POLICIES AND PROCEDURES)

Outcomes from KCOG Transportation Funding Programs	KCOG SCS Framework Strategies																		
	Modify Distribution of households, population, and jobs	Rebalance the mix of land uses	Increase the level of density	Improve the pedestrian environment	Road	Transit	Pricing	TDM											
					Add HOV lanes	Implement ITS / Traffic management	Add general purpose roadway lanes	Construct new transit lines	Increase transit service	Upgrade transit service	Improve accessibility	Develop tolls and toll roads	Implement HOT lanes	Increase the cost of parking	Change in transit fares	Change in auto operation cost	Promote car/vanpooling, telecommuting/teleconferencing	Promote walking and biking	Implement employer-based trip reduction strategies
VMT Reduction				✓	✓			✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Emissions Reduction				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Livability				✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓
Congestion Relief				✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
Cost-Effectiveness				✓	✓	✓	✓	✓	✓	✓	✓		✓				✓	✓	✓
Safety				✓	✓	✓	✓						✓					✓	✓
State of Good Repair				✓	✓	✓	✓			✓								✓	✓
Economic Well-Being					✓	✓	✓	✓	✓		✓	✓	✓						

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In addition to providing performance measures that reward projects that further the goals of SB 375, the new project selection process includes “Regional Priorities and Equity Guidance” that provides for a financial incentive for safety and connectivity projects in resource areas by targeting 40% of the Regional Improvement Program funding for rural resource areas consistent with sec. 65080(b)(4)(C) of SB 375.

Community Travel Feedback Monitoring System

The Kern Transportation Modeling Committee is developing an innovative tool to track progress toward the California SB 375 related passenger vehicle and light duty truck travel. The process will incorporate a feedback by community and sub area of the county to track progress on reducing travel per capita. Kern COG will provide updated travel statistics by community for the Kern region. The Transportation Modeling Committee and the Regional Planning Advisory Committee envision a method to assist communities that are having difficulty reducing emissions per capita. This method may be developed in future cycles of the RTP.

A GREAT START: SUSTAINABLE COMMUNITY SUCCESS STORIES

In order to help demonstrate our region’s extensive efforts to comply with state climate change goals, Kern COG has identified activities that demonstrate the progress our member agencies have already made toward achieving AB 32 and SB 375 goals. Following is a list of success stories that can be found in Appendix E:

- City of Tehachapi General Plan (Form-Based Code, Transect Zone, Mobility Element, Town Form Element)
- Transportation Impact Fee Core Area (City of Bakersfield and City of Tehachapi)
- City of Taft General Plan
- City of Ridgecrest General Plan and Circulation Element
- Metropolitan Bakersfield General Plan Sewer Policies
- City of Bakersfield Minimum Lot Area Zoning
- San Joaquin Valley Air District's Indirect Source Review
- City of Bakersfield Redevelopment Projects
- Transit Priority Areas
- Metropolitan Bakersfield General Plan Centers Concept – Transit Priority & Strategic Employment Types
- Commuter Rail Feasibility Study
- Rideshare Program – Commute Kern
- Park and Ride Lots
- GET Short-Term Service Plan (2012–2020)
- GET X-92 Route Commute Kern
- Dial-A-Ride and Local Transportation Services
- Kern County Bicycle Master Plan & Complete Streets Recommendations/City of Tehachapi Bicycle Master Plan
- City of Bakersfield Bicycle Facilities
- California City Multi-modal Transit Center
- Kern County 511
- Cal Vans
- San Joaquin Valley Blueprint Integration Project
- Caltrans Vehicle Detection System
- California Highway Patrol's Safety Corridors
- Kern County Wind Farm Area
- Purchase of CNG Buses
- The Electric Cab Company of Delano
- Shafter Intermodal Rail Facility Expansion
- Downtown Elementary School Expansion (Bakersfield)
- Intersection Signalization
- Traffic Control Devices
- Kern Region Energy Action Planning
- Tejon Ranch Conservation and Land Use Agreement
- Kern County Community Revitalization Program

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ADAPTIVE PLANNING FOR CLIMATE CHANGE

The California Resources Agency produces a guide on planning for adaptive climate change available at http://resources.ca.gov/climate_adaptation/local_government/adaptation_planning_guide.html. The guide is an excellent resource for communities interested in planning for the effects of climate change. The Resources Agency has identified the need to evaluate vulnerability for the following impacts for the three Southern Central Valley counties (Kern, Tulare, Kings):

- Temperature increases
- Reduced precipitation
- Reduced water supply
- Reduced agricultural productivity
- Flooding
- Decrease in tourism – Sierra Nevada foothills
- Wildfire risk in the Sierra Nevada foothills

Although not a comprehensive listing, the Kern region has identified several projects that will address the effects of climate change.

- Kern County has established public cooling centers with “temperature triggers” indicating when they become active. This program was funded through a grant from PG&E and Southern California Edison and includes sites in Metro Bakersfield and outlying communities that service agricultural workers and seniors. (<http://www.co.kern.ca.us/pio/coolingcenters.asp>)
- The Kern Water Agency and its member districts continue to implement and expand the largest water banking operation in the state, providing agriculture and urban users greater storage and a more reliable water supply during dry years.
- U.S. Army Corp of Engineers is implementing the Lake Isabella Dam retrofit project that will strengthen and increase the height of the dam by 16 ft. to accommodate larger spring run-off volumes than originally anticipated when the dam was designed in the 1950s. The project will increase storage, protect from flooding and improve recreational and tourism opportunities in the Southern Sierra Nevada.
- The State of California is working on the Bay Delta Conservation Plan to provide improved water delivery through the delta to Southern California.

In addition, Kern COG member agencies receive energy related adaptive climate planning information through the Kern Region Energy Action Plan and Kern Energy Watch programs. The outreach for these programs was held jointly with outreach for this SCS (see Appendix C). Many of the communities that have participated in the programs are developing climate action plans or at a minimum, energy action plans. The climate action planning process may include includes adaptive planning.

Kern Council of Governments



Chapter 5 Strategic Investments

June 19, 2014



Kern Council
of Governments

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CHAPTER 5 STRATEGIC INVESTMENTS

INTRODUCTION

This Chapter sets forth plans of action for the region to pursue and meet identified transportation needs and issues. Planned investments are consistent with the goals and policies of the plan, the Sustainable Community Strategy element (see Chapter 4), and must be financially constrained. These projects are listed in the Constrained Program of Projects (Table 5-1) and are modeled in the Air Quality Conformity Analysis.

Forecast modeling methods in this Regional Transportation Plan primarily use the “market-based approach” based on demographic data and economic trends (see Chapter 3). The forecast modeling was used to analyze the strategic investments in the combined action elements found in this Chapter.

Alternatives are not addressed in this document; they are, however, addressed and analyzed for their feasibility and impacts in the Environmental Impact Report prepared for the 2014 Regional Transportation Plan, as required by the California Environmental Quality Act (State CEQA Guidelines Sections 15126(f) and 15126.6(a)).

The 2014 Regional Transportation Plan promotes a more efficient transportation system that calls for fully funding alternative transportation modes, while emphasizing transportation demand and transportation system management approaches for new highway capacity.

The Constrained Program of Projects (Table 5-1) includes projects that move the region toward a financially constrained and balanced system. Constrained projects have undergone air quality conformity analyses to ensure that they contribute to the Kern region’s compliance with state and federal air quality rules. The Unconstrained Program of Projects (Table 5-2) incorporates the region’s unbudgeted “vision.” These projects represent alternatives that could be moved to the constrained program if support for an individual project remains strong and if project funding is identified.

Status as an unconstrained project does not imply that the project is not needed; rather, it simply cannot be accomplished given the fiscal constraints facing Kern County. Kern Council of Governments (Kern COG) is vigilant in its search for funding to support these projects.

No unconstrained projects are included in the air quality conformity analysis. In the future, as the funding picture changes and community values and priorities for transportation projects are honed, unconstrained projects may be moved to the constrained program. Should this occur, the RTP would be amended and a new assessment of the plan’s conformity with state and federal air quality rules and standards would be made.

For this Regional Transportation Plan, the Unconstrained Program of Projects reflects the vision for Kern County’s ideal system. Dialogue is ongoing with business, government, social services, and agriculture interests to improve everyone’s understanding of how the transportation system impacts the region’s quality of life. The participation process sheds light on important values such as mobility choice and accessibility, travel time reliability, cost effectiveness, and environmental sensitivity.

The planning process is iterative. System-wide performance measures have been developed and will be used to help policymakers and the community-at-large evaluate tradeoffs among transportation

The 2014 Regional Transportation Plan promotes a more efficient transportation system that calls for fully funding alternative transportation modes, while emphasizing transportation demand and transportation system management approaches for new highway capacity.

CHAPTER 5 STRATEGIC INVESTMENTS

improvement alternatives. Performance measures will also be used to help evaluate how the 2014 RTP contributes to the Kern region's quality of life. Refer to Chapter 2 for additional information about the performance measures.

Each element in this Chapter addresses proposed actions to implement the goals and policies of Chapter 2. These actions outline specifically how the goals of the plan will be accomplished. This Chapter contains the following action elements:

- Freight Movement Action Element
- Public Transportation Action Element
- Active Transportation Action Element
- Transportation Air Emissions Reduction Action Element
- Intelligent Transportation Systems Action Element
- Congestion Management Program Action Element
- Regional Streets and Highways Action Element
- Aviation Action Element
- Safety/Security Action Element
- Land Use Action Element

In the following Constrained Program of Projects, major highway improvements are divided into five chronological groupings to facilitate estimations of project completion. Highway improvements that cannot be constructed within the financial constraint of any one group may be repeated in later groups. If a project is not fully funded within the five-year time frame, it would require phasing over a longer time frame. The entire corridor, however, would be environmentally assessed during the preliminary engineering phase.

Figure 5-1A: Constrained Projects Countywide

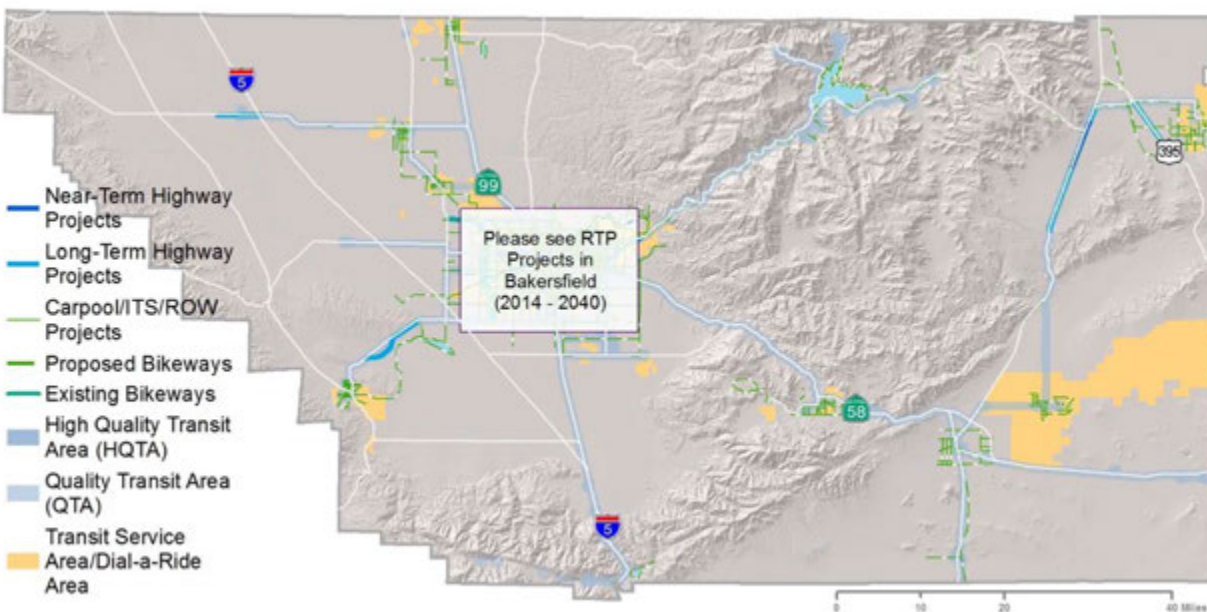
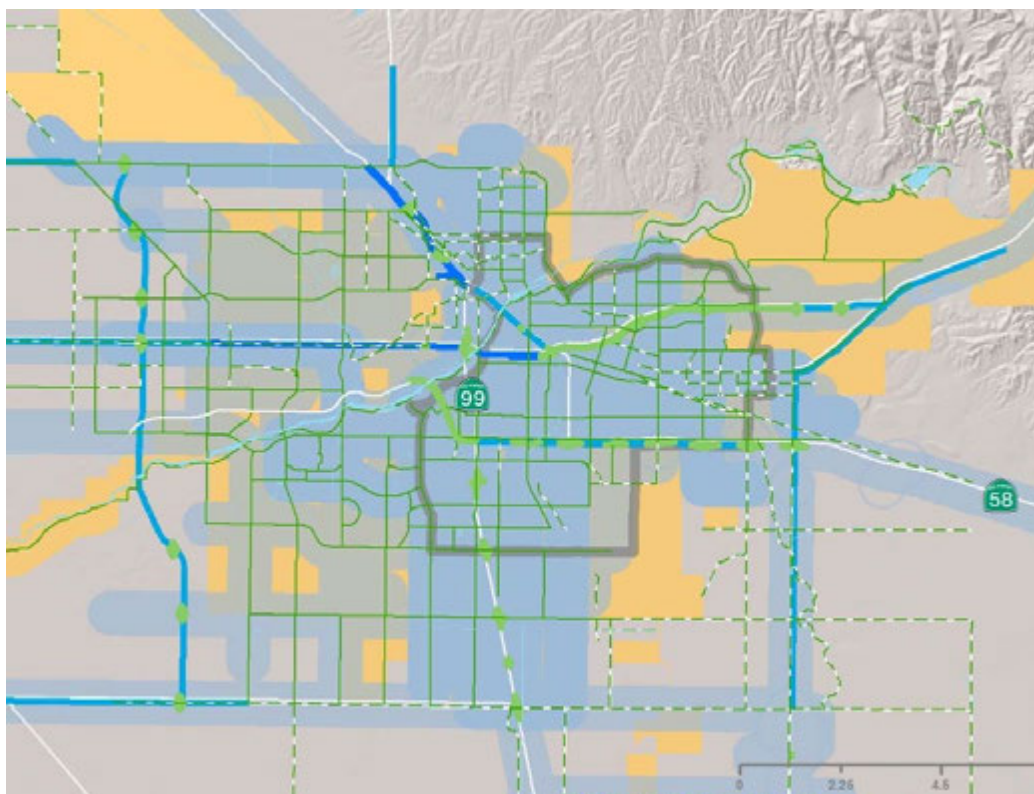


Figure 5-1B: Constrained Projects Metro Bakersfield



CHAPTER 5 STRATEGIC INVESTMENTS

PROJECT LISTING - TABLE 5-1: CONSTRAINED PROGRAM OF PROJECTS

2014 through 2040 - Transit & Other				
Project	Location	Scope	YOE Cost	
Vanpool	Countywide	Vanpools - build and maintain fleet of 500 Vans by 2040	48,000,000	
Park and Ride	Various	Park and Ride Lots (1,500 spaces)	6,000,000	
Bus Service	Metro Bkd	Full size natural gas buses	232,500,000	
		Full size natural gas buses - 120 replacement buses		
		Full size natural gas buses - Fixed Routes - 130 new buses		
		Full size natural gas buses - Bus Rapid Transit - 24 new buses		
		Full size natural gas buses - Express Service - 36 new buses		
Bus Service	Countywide	Full, midsize and mini-van size natural gas buses	34,700,000	
		Full size natural gas buses - Express Service - 10 new buses		
		Midsize natural gas buses - 120 replacement buses		
		Midsize natural gas buses - 120 new buses		
		Mini van / buses - 45 replacement buses		
Bus Service	Metro Bkd	2 Transit Maintenance Stations	10,000,000	
Bus Service	Metro Bkfd	3 transfer stations	15,000,000	
ITS	Countywide	ITS related improvements / upgrades	3,000,000	
Aviation	Countywide	Capital, Maintenance and Operational Improvements	48,000,000	
Passenger Rail	Rosamond	Metrolink extension - Palmdale/Lancaster to Rosamond	112,000,000	
Passenger Rail	Bakersfield	Amtrak Station - Phase II	13,000,000	
Passenger Rail	Bakersfield	High Speed Rail Station - Bakersfield	50,000,000	
Passenger Rail	Region	High Speed Rail Alignment and Facilities Fresno to Bakersfield	1,000,000,000	
Passenger Rail	Shafter/Wasco	High Speed Rail Heavy Maintenance Facility	450,000,000	
		Sub-total	\$2,022,200,000	
2014 through 2040 - Highway Operational Improvements				
Project	Location	Scope	YOE Cost	
HOV Lanes	Bakersfield	Various State Routes - HOV lanes	149,000,000	
		Westside Parkway - Heath Road and Stockdale Highway to SR 58 at Fairfax		
		State Route 178 - Existing west freeway terminus to Oswell Street		
HOV Ramps	Bakersfield	Install HOV Ramps and metering improvements at various locations	148,000,000	
		SR 99 Interchange at Snow Road - HOV Ramp Metering		
		SR 99 Interchange at Olive Drive - HOV Ramp Metering		
		SR 99 Interchange at Rosedale Hwy - HOV Ramp Metering		
		SR 99 Interchange at California Ave - HOV Ramp Metering		
		SR 99 Interchange at Ming Ave - HOV Ramp Metering		
		SR 99 Interchange at White Lane - HOV Ramp Metering		

Project Listing - Table 5-1: Constrained Program of Projects Continued

2014 through 2040 - Highway Operational Improvements (Continued)					
Project	Location	Scope	YOE Cost		
		SR 99 Interchange at Panama Lane - HOV Ramp Metering			
		SR 99 Interchange at SR 119 - HOV Ramp Metering			
		SR 58 Interchange at Oak Street - HOV Ramp Metering			
		SR 58 Interchange at H-Chester Ave - HOV Ramp Metering			
		SR 58 Interchange at Union Street - HOV Ramp Metering			
		SR 58 Interchange at Cottonwood Road - HOV Ramp Metering			
		SR 58 Interchange at Mount Vernon - HOV Ramp Metering			
		SR 58 Interchange at Oswell Street - HOV Ramp Metering			
		SR 58 Interchange at Fairfax Road - HOV Ramp Metering			
		SR 58 Interchange at Weedpatch Hwy - HOV Ramp Metering			
		SR 178 Interchange at SR 204 - HOV Ramp Metering			
		SR 178 Interchange at Beale Avenue - HOV Ramp Metering			
		SR 178 Interchange at Haley Street - HOV Ramp Metering			
		SR 178 Interchange at Mount Vernon Street - NOV Ramp Metering			
		SR 178 Interchange at Oswell Street - HOV Ramp Metering			
		SR 178 Interchange at Fairfax Road - HOV Ramp Metering			
		SR 178 Interchange at Morning Drive - HOV Ramp Metering			
		West Beltway Interchange at 7th Standard Road - HOV Ramp Metering			
		West Beltway Interchange at Olive Drive - HOV Ramp Metering			
		West Beltway Interchange at Rosedale Hwy - HOV Ramp Metering			
		West Beltway Interchange at Stockdale Hwy - HOV Ramp Metering			
		West Beltway Interchange at Ming Avenue - HOV Ramp Metering			
		West Beltway Interchange at White Lane - HOV Ramp Metering			
		West Beltway Interchange at SR 119 - HOV Ramp Metering			
Sub-total			\$297,000,000		
*the Passenger Rail Program is partially funded through the High Speed Rail Authority and is provided as information. The funding summary includes a portion of \$5 billion of the constrained revenue estimates for work expected between Fresno County and Kern County. The constrained amount of \$1.5 Billion is for work in the Kern region. The remaining \$13 billion is unconstrained for work in the Kern Region and is reflected in Table 4.2. \$26 Billion is the current cost estimate.					

CHAPTER 5 STRATEGIC INVESTMENTS

PROJECT LISTING - TABLE 5-1: CONSTRAINED PROGRAM OF PROJECTS CONTINUED

2014 through 2040 - Non-motorized				
Project	Location	Scope	YOE Cost	
Various locations	Countywide	Construct Class I, II or Class III Bike Path; striping; signage	\$85,500,000	
	Arvin	Main Street from Panama Road to Di Giorgio Road- 1 Mile - Class II		
	Arvin	E Bear Mountain Blvd from S Comanche Drive to Weedpatch Hwy - 4.1 miles		
Bakersfield	Incorporated	Baker Street from Bernard Street to California Avenue - 1.57 miles - Class II		
Bakersfield	Incorporated	Potomac Avenue from S. King Street to Monticello Avenue - 0.82 miles - Class II		
Bakersfield	Incorporated	River Bike Trail Connection from Kern River Parkway to Elm Street - 0.26 miles - Class I		
Bakersfield	Incorporated	Baker Street from California Avenue to S. King Street - 0.35 miles - Class III		
Bakersfield	Incorporated	E. Pacheco Road from Hughes Lane to Cottonwood Road - 2.52 miles - Class III		
Bakersfield	Incorporated	Belle Terrace from Stine Road to Madison Street - 3.04 miles - Class II		
Bakersfield	Incorporated	Pin Oak Boulevard from Bear Creek Road to District Boulevard - 1.14 miles - Class III		
Bakersfield	Incorporated	Ewoldsen Class III Route from Oak Grove Street to N. Half Moon Drive - 1.43 miles - Class III		
Bakersfield	Incorporated	Harris Road from Ashe Road to Akers Road - 1.51 miles - Class III		
Bakersfield	Incorporated	Harris Road from Ashe Road to Wible Road - 0.5 miles - Class II		
Bakersfield	Incorporated	Hughes Lane from Ming Ave to E. Pacheco Road - 1.5 miles - Class II		
Bakersfield	Incorporated	Harris Road from S. Allen Road to Ashe Road - 4.08 miles - Class II		
Bakersfield	Incorporated	Haley Street from Panorama Drive to Columbus Street - 0.87 miles - Class II		
Bakersfield	Incorporated	E. Pacheco Road from Gasoline Alley to Monitor Street - 1.33 miles - Class II		
Bakersfield	Incorporated	Akers Road from Wilson Rd to McKee - 3.99 miles - Class II		
Bakersfield	Incorporated	Arvin-Edison Canal Path from Stockdale Highway to Cottonwood Road - 9.54 miles - Class I		
Bakersfield	Incorporated	17th Street from A Street to Truxtun Avenue - 1.26 miles - Class III		
Bakersfield	Incorporated	M Street from 30th Street to 17th Street - 0.85 miles - Class II		
Bakersfield	Incorporated	Sillect Avenue from Buck Owens Boulevard to Kern River Parkway - 1.33 miles - Class II		
Bakersfield	Incorporated	H Street Canal Path from Railroad Bridge to Highway 99 - 7.97 miles - Class I		
Bakersfield	Incorporated	Friant-Kern Canal from Seventh Standard Road to Kern River - 6.1 miles - Class I		
Bakersfield	Incorporated	Beale Avenue from Grace Street to 21st Street - 1 mile - Class II		
Bakersfield	Incorporated	Q Street from Columbus Street to Highway 178 - 1.12 miles - Class II		
Bakersfield	Incorporated	Haggin Oaks Blvd from Camino Media to Limoges Way - 0.74 miles - Class III		
Bakersfield	Incorporated	Kentucky Street from Alta Vista Drive to Mt. Vernon Avenue - 1.81 miles - Class II		
Bakersfield	Incorporated	Flower Street from Alta Vista Drive to Owens Street - 0.64 miles - Class III		
Bakersfield	Incorporated	S. King Street from California Avenue to Brundage Lane - 1 mile - Class III		

PROJECT LISTING - TABLE 5-1: CONSTRAINED PROGRAM OF PROJECTS CONTINUED

2014 through 2040 - Non-motorized				
Project	Location	Scope	YOE Cost	
Bakersfield	Incorporated	4th Street from Union Avenue to City Limits - 1.25 miles - Class III		
Bakersfield	Incorporated	Watts Drive from Cottonwood Road to Madison Street - 0.5 miles - Class III		
Bakersfield	Incorporated	Brundage Lane from Union Avenue to Oswell Street - 5.08 miles - Class III		
Bakersfield	Incorporated	Niles Street from Alta Vista Drive to Virginia Street - 1.28 miles - Class II		
Bakersfield	Incorporated	Bernard Street from Chester Avenue to Mt. Vernon Avenue - 2.95 miles - Class II		
Bakersfield	Incorporated	Berkshire Road from Stine Road to Santana Sun Drive - 1.5 miles - Class III		
Bakersfield	Incorporated	21st Street from King Street to Washington Street - 0.89 miles - Class II		
Bakersfield	Incorporated	178 Overcrossing from Height Street to Mirador Drive - 0.1 miles - Class I		
Bakersfield	Incorporated	Laurelglen Boulevard from Pin Oak Park Boulevard to Gosford Road - 0.48 miles - Class III		
Bakersfield	Incorporated	Mountain Oak - McInnes Rt from Park Path to McInnes - Westwold Path - 0.59 miles - Class III		
Bakersfield	Incorporated	22nd Street from Elm Street to F Street - 0.72 miles - Class III		
Bakersfield	Incorporated	Christmas Tree Lane from Mt. Vernon Avenue to Panorama Drive - 1.65 miles - Class III		
Bakersfield	Incorporated	Madison Street from Belle Terrace to White Ln - 1 mile - Class II		
Bakersfield	Incorporated	Park Path from Mountain Oak Road to Broad Oak Avenue - 0.19 miles - Class I		
Bakersfield	Incorporated	Wible Road from Planz Road to Taft Highway - 4 miles - Class II		
Bakersfield	Incorporated	Pacific Street from Union Avenue to Alta Vista Drive - 0.36 miles - Class III		
Bakersfield	Incorporated	Chinon - Limoges Route from McInnes Boulevard to Haggins Oaks Boulevard - 0.37 miles - Class III		
Bakersfield	Incorporated	Maywood - Charger Route from Oswell Street to Piper Way - 1.85 miles - Class III		
Bakersfield	Incorporated	McInnes - Westwold Path from McInnes Boulevard to Westwold Drive - 0.08 miles - Class I		
Bakersfield	Incorporated	Riverlakes Drive from Olive Drive to Coffee Road - 1.57 miles - Class II		
Bakersfield	Incorporated	Stine Road from Panama Lane to Taft Highway - 2 miles - Class II		
Bakersfield	Incorporated	Noriega Road from Renfro Rd to Calloway Drive - 2.01 miles - Class II		
Bakersfield	Incorporated	Marella Class III from Garnsey Avenue to Montclair Street - 0.55 miles - Class III		
Bakersfield	Incorporated	Marella Way from California Avenue to Montclair Street - 1 mile - Class III		
Bakersfield	Incorporated	Hosking Avenue from Wible Rd to Cottonwood Road - 3.03 miles - Class II		
Bakersfield	Incorporated	P Street from Brundage Lane to Belle Terrace - 0.5 miles - Class II		
Bakersfield	Incorporated	Sundale Avenue from La Puente Drive to New Stine Road - 0.91 miles - Class III		
Bakersfield	Incorporated	Palm Street from Real Road to P Street - 1.79 miles - Class III		
Bakersfield	Incorporated	Verdugo Lane from Olive Drive to Hagaman Road - 1.22 miles - Class II		
Bakersfield	Incorporated	A St/Hughes Ln from California Ave to Terrace Way - 1.26 miles - Class II		
Bakersfield	Incorporated	Raider Drive from Planz Road to Merrimac Avenue - 0.25 miles - Class III		
Bakersfield	Incorporated	University Avenue from Haley Street to River Boulevard - 0.58 miles - Class III		
Bakersfield	Incorporated	Quailwood - Quailridge from Truxtun Avenue to Stockdale Highway - 1.02 miles - Class III		

CHAPTER 5 STRATEGIC INVESTMENTS

PROJECT LISTING - TABLE 5-1: CONSTRAINED PROGRAM OF PROJECTS CONTINUED

2014 through 2040 - Non-motorized				
Project	Location	Scope	YOE Cost	
Bakersfield	Incorporated	School House Road from Ming Ave to Ashe Road - 1.33 miles - Class III		
Bakersfield	Incorporated	18th St - 19th St Route from 21st Street to 17th Street - 1.01 miles - Class III		
Bakersfield	Incorporated	Calloway Drive from Snow Road to Norris Road - 0.5 miles - Class II		
Bakersfield	Incorporated	Panama Lane from H Street to Cottonwood Road - 2.03 miles - Class II		
Bakersfield	Incorporated	Broad Oak - Oak Grove Rt from Park Path to Westwood Drive - 0.2 miles - Class III		
Bakersfield	Incorporated	Ridge Oak Drive from Rose Petal Street to Mountain Oak Road - 0.42 miles - Class III		
Bakersfield	Incorporated	Harris Rd-Gasoline Alley from Wible Road to Pacheco Road - 0.7 miles - Class III		
Bakersfield	Incorporated	White Lane from Dovewood Street to Hughes Lane - 1.22 miles - Class III		
Bakersfield	Incorporated	Morning Drive from Auburn Street to Willis Avenue - 1.38 miles - Class II		
Bakersfield	Incorporated	Snow Road from Allen Road to Verdugo Lane - 1.5 miles - Class II		
Bakersfield	Incorporated	Clay Patrick Farr Way from Hageman Road to Granite Falls Dr - 0.83 miles - Class II		
Bakersfield	Incorporated	Buena Vista Canal Path from Ming Ave to Taft Hwy - 8.29 miles - Class I		
Bakersfield	Incorporated	Merrimac Avenue from Raider Drive to Monitor Street - 0.06 miles - Class III		
Bakersfield	Incorporated	Monitor Street from Merrimac Avenue to White Lane - 0.25 miles - Class III		
Bakersfield	Incorporated	Spring Creek Loop from Wilderness Drive to Reliance Drive - 1.03 miles - Class III		
Bakersfield	Incorporated	Mountain Vista Drive from Grand Lakes Avenue to Berkshire Road - 2.73 miles - Class III		
Bakersfield	Incorporated	Half Moon Drive from Ashe Rd to Ashe Rd - 1.15 miles - Class II		
Bakersfield	Incorporated	Bakersfield Commons Conn. from Coffee Road to Friant-Kern Canal - 0.44 miles - Class I		
Bakersfield	Incorporated	Madison Street from Brundage Lane to Belle Terrace - 0.49 miles - Class III		
Bakersfield	Incorporated	Jewetta Avenue from Palm Avenue to Brimhall Road - 0.5 miles - Class III		
Bakersfield	Incorporated	University Avenue from Columbus Street to Panorama Drive - 0.68 miles - Class II		
Bakersfield	Incorporated	Coffee Road Path Widening from Truxtun Avenue to Kern River Parkway - 0.06 miles - Class I		
Bakersfield	Incorporated	Gosford Road from Harris Road to Taft Highway - 2.5 miles - Class II		
Bakersfield	Incorporated	Comanche Drive from City Limit to Highway 178 - 0.16 miles - Class III		
Bakersfield	Incorporated	Campus Park from Buena Vista Road to Old River Road - 1.06 miles - Class III		
Bakersfield	Incorporated	Patton Way from Weldon Avenue to Hageman Road - 0.28 miles - Class II		
Bakersfield	Incorporated	Morning Drive from Paladino Drive to Morningstar Avenue - 0.8 miles - Class II		
Bakersfield	Incorporated	Auburn Street from Morning Drive to Fairfax Road - 0.92 miles - Class II		
Bakersfield	Incorporated	Highway 178 from City Limits to Masterson Street - 6.6 miles - Class III		
Bakersfield	Incorporated	Allen Road from Ming Avenue to White Lane - 1.52 miles - Class II		
Bakersfield	Incorporated	Olive Drive from Santa Fe Way to Allen Road - 1.52 miles - Class II		
Bakersfield	Incorporated	Claymore Extension from Eissler Street to Piper Way - 0.11 miles - Class I		
Bakersfield	Incorporated	Paladino Drive from Rivani Drive to Grand Canyon Drive - 1.87 miles - Class II		

PROJECT LISTING - TABLE 5-1: CONSTRAINED PROGRAM OF PROJECTS CONTINUED

2014 through 2040 - Non-motorized				
Project	Location	Scope	YOE Cost	
Bakersfield	Incorporated	Kern Canyon Road from Masterson Street to Morning Drive - 2.66 miles - Class II		
Bakersfield	Incorporated	North Rosedale Park Path from Campfire Drive to Jewetta Avenue - 0.18 miles - Class I		
Bakersfield	Incorporated	Jewetta Avenue from Bernard Street to 30th Street - 0.27 miles - Class III		
Bakersfield	Incorporated	Jewetta Avenue from Columbus Street to Bernard Street - 0.52 miles - Class III		
Bakersfield	Incorporated	36th Street from Chester Avenue to San Dimas Path - 0.59 miles - Class III		
Bakersfield	Incorporated	La France Drive from Castro Lane to El Toro Drive - 1.03 miles - Class III		
Bakersfield	Incorporated	Park/Blanch/11th/10th Route from Oak Street to Union Ave - 1.08 miles - Class III		
Bakersfield	Incorporated	Bank Street 2nd Street Road from Oak Street to S. P Street - 1.59 miles - Class III		
Bakersfield	Incorporated	White Lane from Union Street to Cottonwood Road - 0.99 miles - Class II		
Bakersfield	Incorporated	Ming Avenue from Oak Street to Union Avenue - 2.03 miles - Class II		
Bakersfield	Incorporated	McKee Rd from Ashe Rd to SH 99 - 2.76 miles - Class II		
Bakersfield	Incorporated	Polo Drive from Dapple Avenue to Meadow Creek Street - 0.26 miles - Class III		
Bakersfield	Incorporated	Wilderness Drive from Harris Road to Reliance Drive - 0.54 miles - Class III		
Bakersfield	Incorporated	Garnsey Avenue from Garnsey Lane to Stockdale Highway - 0.57 miles - Class III		
Bakersfield	Incorporated	Height Street from River Boulevard to 178 Overcrossing - 0.75 miles - Class III		
Bakersfield	Incorporated	W. Jeffrey Street from Overcrossing to River Boulevard - 1.1 miles - Class III		
Bakersfield	Incorporated	Grand Lakes Avenue from Rosslyn Lane to Brandy Rose Street - 1.83 miles - Class III		
Bakersfield	Incorporated	Almondale Pk Shared Path from Meadow Creek Street to Verdugo Lane - 0.14 miles - Class I		
Bakersfield	Incorporated	San Dimas Path from 36th Street to Jeffrey Street - 0.43 miles - Class I		
Bakersfield	Incorporated	China Grade Loop from City Limit to Panorama Drive - 0.11 miles - Class III		
Bakersfield	Incorporated	Half Moon Drive from Ashe Road to Ashe Road - 0.96 miles - Class III		
Bakersfield	Incorporated	Hughes Lane from E Pacheco Rd to Fairview Road - 1 mile - Class III		
Bakersfield	Incorporated	Coventry - Benton Route from Ming Avenue to Oak Street - 1.4 miles - Class III		
Bakersfield	Incorporated	Noble Avenue Route from River Boulevard to Columbus Street - 2.3 miles - Class III		
Bakersfield	Incorporated	Old Farm Road from Snow Road to Hageman Road - 2 miles - Class II		
Bakersfield	Incorporated	Buena Vista Road from Panama Lane to Highway 119 - 2 miles - Class II		
Bakersfield	Incorporated	Mt. Vernon Avenue from Panorama Drive to Flower Street - 2.19 miles - Class II		
Bakersfield	Incorporated	Old River Road from Harris Road to Taft Highway - 2.5 miles - Class II		
Bakersfield	Incorporated	Emerald Cove Park Path from Vaquero Avenue to Hageman Road - 0.23 miles - Class I		
Bakersfield	Incorporated	Polo Park Shared Path from Old Farm Road to Grazing Avenue - 0.37 miles - Class I		
Bakersfield	Incorporated	21st St from Oak St to Westwind Dr - 0.13 miles - Class II		
Bakersfield	Incorporated	Panama Lane from Dennen Street to Colony Street - 0.33 miles - Class II		

CHAPTER 5 STRATEGIC INVESTMENTS

PROJECT LISTING - TABLE 5-1: CONSTRAINED PROGRAM OF PROJECTS CONTINUED

2014 through 2040 - Non-motorized				
Project	Location	Scope	YOE Cost	
Bakersfield	Incorporated	Berkshire Road from Colony Street to Madison Street - 1.81 miles - Class III		
Bakersfield	Incorporated	Fairview Road from Hughes Lane to Cottonwood Road - 2.53 miles - Class III		
Bakersfield	Incorporated	21st St from Westwind Dr to Kern River Bike Path - 0.06 miles - Class I		
Bakersfield	Incorporated	Hosking Avenue from Wible Rd to Gosford Rd - 2.99 miles - Class II		
Bakersfield	Incorporated	Verdugo Lane from Seventh Standard Road to Snow Road - 1 mile - Class II		
Bakersfield	Incorporated	Edison Road from Highway 178 to End of Street - 1.15 miles - Class III		
Bakersfield	Incorporated	Patton Way from Weldon Avenue to Hageman Road - 0.28 miles - Class II		
Bakersfield	Incorporated	Rudd Avenue from Seventh Standard Road to Santa Fe Way - 1.5 miles - Class III		
Bakersfield	Incorporated	Alfred Harrell Highway from Morning Drive Bike Path to Highway 178 - 3.32 miles - Class III		
Bakersfield	Incorporated	Oswell Street from Columbus Street to City Limits - 0.66 miles - Class II		
Bakersfield	Incorporated	Masterson Street from Highway 178 to Alfred Harrell Highway - 1.43 miles - Class II		
Bakersfield	Incorporated	NE Bakersfield Path from Paladino Drive to Morning Drive Path - 2.7 miles - Class I		
Bakersfield	Incorporated	Columbus Path from Kern River Parkway to Columbus Street - 0.37 miles - Class I		
Bakersfield	Incorporated	Real Road from Garnsey Lane to Palm Street - 0.08 miles - Class III		
Bakersfield	Incorporated	Ridge Road from Camino Real to Mt. Vernon Avenue - 0.16 miles - Class III		
Bakersfield	Incorporated	Chippewa - Yorkshire from Jewetta Avenue to Verdugo Lane - 0.88 miles - Class III		
Bakersfield	Incorporated	Chamber Boulevard from S. Allen Road to Grand Lakes Avenue - 1.45 miles - Class III		
Bakersfield	Incorporated	Laurel Park - Wrangler from Bay Meadows Lane to Calloway Drive - 1.83 miles - Class III		
Bakersfield	Incorporated	Iron Creek Goose Creek CT from Allen Road to Coffee Road - 3.66 miles - Class III		
Bakersfield	Incorporated	Wenatchee Avenue from Panorama Drive to Columbus Street - 1.02 miles - Class II		
Bakersfield	Incorporated	Ashe Road from Panama Lane to Taft Highway - 2 miles - Class II		
Bakersfield	Incorporated	Alfred Harrell Highway from City Limit to Panorama Drive - 0.1 miles - Class III		
Bakersfield	Incorporated	Toluca Drive Route from Renfro Road to Allen Road - 1.48 miles - Class III		
Bakersfield	Incorporated	Panama Lane from Mountain Vista Road to Gosford Road - 1.5 miles - Class II		
Bakersfield	Incorporated	Overcrossing from Willow Drive to Rio Mirada - 0.17 miles - Class I		
Bakersfield	Incorporated	Allen Road from Pensinger Road to Highway 119 - 2.75 miles - Class II		
Bakersfield	Incorporated	Mohawk Street from Hageman Road to Rosedale Highway - 1.26 miles - Class II		
Bakersfield	Incorporated	Panama Lane from Interstate 5 to Gosford Road - 2.02 miles - Class II		
Bakersfield	Incorporated	Camino Grande from Alfred Harrell to NE Bakersfield Path - 1.29 miles - Class III		
Bakersfield	Incorporated	Patton Way Shared Path from Weldon Avenue to Hageman Road - 0.27 miles - Class I		
Bakersfield	Incorporated	Appletree - Hahn Route from Wilson Road to Wible Road - 1.8 miles - Class III		
Bakersfield	Incorporated	Cottonwood Road from Casa Loma Drive to E. Panama Lane - 3 miles - Class III		

PROJECT LISTING - TABLE 5-1: CONSTRAINED PROGRAM OF PROJECTS CONTINUED

2014 through 2040 - Non-motorized				
Project	Location	Scope	YOE Cost	
Bakersfield	Incorporated	S. H Street from Panama Lane to Taft Highway - 2 miles - Class III		
Bakersfield	Incorporated	Greenw ich - Balvanera from Verdugo Lane to Callow ay Road - 0.55 miles - Class III		
Bakersfield	Incorporated	Arvin-Edison Canal Path from Cottonw ood Road to Fairfax Road - 3.77 miles - Class I		
Bakersfield	Incorporated	Sage Drive from Half Moon Bay Drive to Wilson Road - 0.2 miles - Class III		
Bakersfield	Incorporated	Stellar Avenue from Old Farm Road to Campfire Drive - 0.34 miles - Class III		
Bakersfield	Incorporated	Westholme Boulevard from Ming Avenue to Wilson Road - 0.4 miles - Class III		
Bakersfield	Incorporated	El Capitan Bike Route from Noriega Road to Polo Park Path - 0.44 miles - Class III		
Bakersfield	Incorporated	Allegheny Court from Old Walker Pass Road to Rivers Edge Park - 0.44 miles - Class III		
Bakersfield	Incorporated	Olympia Drive from S. Laurel Glen Boulevard to Half Moon Bay Drive - 0.49 miles - Class III		
Bakersfield	Incorporated	Old Walker Pass Road from Comanche Drive to Rancheria Road - 1.46 miles - Class III		
Bakersfield	Incorporated	Knudsen Drive from Olive Drive to Hageman Road - 0.47 miles - Class II		
Bakersfield	Incorporated	Brimhall Road from Renfro Road to Allen Road - 1.01 miles - Class II		
Bakersfield	Incorporated	Santa Fe Way from 7th Stnard Road to Hageman Road - 4.14 miles - Class II		
Bakersfield	Incorporated	Rail ROW Path from 7th Standard Road to E. Norris Road - 2.23 miles - Class I		
Bakersfield	Incorporated	Kahala - Constitution Rou from Haw aii Lane to Jew etta Avenue - 1.34 miles - Class III		
Bakersfield	Incorporated	Mezzadro/Alderbrk/Lavina from Allen Road to Allen Road - 3.63 miles - Class III		
Bakersfield	Incorporated	Panorama Class I Connecti from Kern River Parkw ay to Panorama Drive - 0.06 miles - Class I		
Bakersfield	Incorporated	Mountain Ridge Rd from Panama Ln to Taft Hw y - 2 miles - Class II		
Bakersfield	Incorporated	Reina Road from Renfro Road to Verdugo Lane - 2.04 miles - Class II		
Bakersfield	Incorporated	Callow ay Shared Path from Balvanera Drive to Noriega Road - 0.28 miles - Class I		
Bakersfield	Incorporated	Yarnell Bike Route from Paul Avenue to Callow ay Drive - 0.31 miles - Class III		
Bakersfield	Incorporated	Haw aii - Wailea from Allen Road to Noriega Road - 0.38 miles - Class III		
Bakersfield	Incorporated	Allen Road from Snow Road to Hageman Road - 1.89 miles - Class II		
Bakersfield	Incorporated	Mountain Park Dr from Kern River Parkw ay to River Run Boulevard - 0.18 miles - Class III		
Bakersfield	Incorporated	Rose Petal Street from Brandy Rose Street to Ridge Oak Drive - 0.2 miles - Class III		
Bakersfield	Incorporated	River Run Boulevard from Ming Avenue to Buena Vista Road - 0.93 miles - Class III		
Bakersfield	Incorporated	Truxtun Shared Path link from Coffee Road to Quailridge Road - 0.15 miles - Class I		
Bakersfield	Incorporated	Panama Lane from Interstate 5 to Gosford Road - 2.02 miles - Class II		
Bakersfield	Incorporated	Various Feasibility Studies for Other Bike and Pedestrian Related Improvements		
Bakersfield	County Area	Union Avenue from Panama Road to Bear Mountain Blvd - 4 miles - Class II		
Bakersfield	County Area	Santa Fe Way from Driver Road to Riverside Street - 3.6 miles - Class II		

CHAPTER 5 STRATEGIC INVESTMENTS

PROJECT LISTING - TABLE 5-1: CONSTRAINED PROGRAM OF PROJECTS CONTINUED

2014 through 2040 - Non-motorized				
Project	Location	Scope	YOE Cost	
Bakersfield	County Area	Rudd Avenue from Palm Avenue to Brimhall Road - 0.5 miles - Class II		
Bakersfield	County Area	Roberts Lane from Norris Road to Washington Avenue - 0.5 miles - Class II		
Bakersfield	County Area	Roberts Lane from Washington Avenue to Stanford Drive - 0.7 miles - Class II		
Bakersfield	County Area	River Blvd from Panorama Drive to Bernard Street - 1.3 miles - Class II		
Bakersfield	County Area	Pioneer Drive from Oswell Street to Morning Drive - 2 miles - Class II		
Bakersfield	County Area	Pegasus Road from Merle Haggard Drive to Norris Road - 1.8 miles - Class II		
Bakersfield	County Area	Patton Way from Snow Road to Hageman Road - 1.8 miles - Class II		
Bakersfield	County Area	Panama Road from Weedpatch Hwy to S Comanche Drive - 4 miles - Class II		
Bakersfield	County Area	Palm Avenue from Heath Road to Renfro Road - 1 miles - Class II		
Bakersfield	County Area	Palm Ave (Country Breeze & Slikker Drive) from Old Farm Road to Country Breeze Place - 1.7 miles - Class II		
Bakersfield	County Area	Old River Road from Taft Hwy to Shafter Road - 3 miles - Class II		
Bakersfield	County Area	Old Farm Road from Palm Avenue to Brimhall Road - 0.5 miles - Class II		
Bakersfield	County Area	Old Farm Road from Good Place to Rosedale Hwy - 0.5 miles - Class II		
Bakersfield	County Area	Norris Road from Snow Road to Roberts Lane - 0.7 miles - Class II		
Bakersfield	County Area	Nord Avenue from Kratzmeyer Road to Stockdale Hwy - 4.5 miles - Class II		
Bakersfield	County Area	Niles Street from Virginia Street to Morning Drive - 3.5 miles - Class II		
Bakersfield	County Area	Muller Road from S Oswell Street to Weedpatch Hwy - 2 miles - Class II		
Bakersfield	County Area	Merle Haggard Drive from South Granite Road to N Chester Avenue - 1 miles - Class II		
Bakersfield	County Area	McCray Street from Merle Haggard Drive to China Grade Loop - 1 miles - Class II		
Bakersfield	County Area	Landco Drive from Calloway Canal to Rosedale Highway - 0.7 miles - Class II		
Bakersfield	County Area	Kratzmeyer Road from Santa Fe Way to Enos Lane - 4.5 miles - Class II		
Bakersfield	County Area	Knudsen Drive from Norris Road to Hageman Road - 0.9 miles - Class II		
Bakersfield	County Area	Hageman Road from Wegis Avenue to Nord Road - 0.5 miles - Class II		
Bakersfield	County Area	Flower Street from Owens Street to Mt Vernon Avenue - 1 miles - Class II		
Bakersfield	County Area	Enos Lane from Beech Avenue to Panama Lane - 11.3 miles - Class II		
Bakersfield	County Area	Decatur Street from Airport Drive to Sequoia Drive - 0.3 miles - Class II		
Bakersfield	County Area	Day Avenue from N Chester Avenue to Manor Street - 0.5 miles - Class II		
Bakersfield	County Area	Comanche Drive from E Panama Lane to Varsity Avenue - 5.5 miles - Class II		
Bakersfield	County Area	Buena Vista Blvd from S Union Avenue to S Comanche Drive - 9.1 miles - Class II		

PROJECT LISTING - TABLE 5-1: CONSTRAINED PROGRAM OF PROJECTS CONTINUED

2014 through 2040 - Non-motorized				
Project	Location	Scope	YOE Cost	
Bakersfield	County Area	Brimhall Road from Enos Lane to Superior Road - 1 miles - Class II		
Bakersfield	County Area	Brimhall Road from Wegis Avenue to Rudd Avenue - 1 miles - Class II		
Bakersfield	County Area	Brae Burn Drive from Country Club Drive to College Avenue - 0.6 miles - Class II		
Bakersfield	County Area	Beech Avenue from E Los Angeles to Enos Lane - 2.3 miles - Class II		
Bakersfield	County Area	Airport Drive from China Grade Loop to Roberts Lane - 1.3 miles - Class II		
Bakersfield	County Area	Olive Drive from Victor Street to SR 99 - 0.3 miles - Class III		
Bakersfield	County Area	N Chester Avenue from Existing Bike Route to Merle Haggard Drive - 0.3 miles - Class III		
Bakersfield	County Area	Rosedale Hwy from Enos Lane to Mohawk Street - 10.9 miles - Caltrans Shoulder		
Bakersfield	County Area	Woodrow Ave from Roberts Lane to N Chester Ave - 1.8 miles - Neighborhood Green Streets		
Bakersfield	County Area	Wilson Avenue - Castaic Ave from Roberts Lane to North Chester Avenue - 1.9 miles - Neighborhood Green Streets		
Bakersfield	County Area	Valencia Drive from College Ave to Pioneer Drive - 1 miles - Neighborhood Green Streets		
Bakersfield	County Area	Shalimar Drive from Niles Street to Pioneer Drive - 0.5 miles - Neighborhood Green Streets		
Bakersfield	County Area	Pesante Road from Cul-de-sac to Pioneer Drive - 1 miles - Neighborhood Green Streets		
Bakersfield	County Area	Jeffrey Street from Union Ave to River Blvd - 0.2 miles - Neighborhood Green Streets		
Bakersfield	County Area	Jeffrey Street from Loma Linda Drive to River Blvd - 0.7 miles - Neighborhood Green Streets		
Bakersfield	County Area	Height Street from River Blvd to Haley Street - 0.5 miles - Neighborhood Green Streets		
Bakersfield	County Area	Decatur Street from Sequoia Drive to Chester Ave - 0.8 miles - Neighborhood Green Streets		
Bakersfield	County Area	Country Club Drive - Horace Mann Ave- Pentz St from College Ave to Center St - 0.8 miles - Neighborhood Green Streets		
Bakersfield	County Area	Center Street/Rosewood Avenuenue from Shalimar Drive to Monica Street - 1.8 miles - Neighborhood Green Streets		
Bakersfield	County Area	Center Street from Oswell Steet to Pesante Road - 0.8 miles - Neighborhood Green Streets		
Bakersfield	County Area	Tupman Path from Enos Lane to Moose Street - 5.6 miles		
Bakersfield	County Area	Stine Canal from Stockdale Hwy to Belle Terrace - 0.5 miles - Other		
Bakersfield	County Area	Lake Evans Loop from Lake Evans to Lake Evans - 2.7 miles - Other		
Bakersfield	County Area	Enos Lane Path from Panama Lane to Buena Vista Rec Area Loop - 4.5 miles - Other		
Bakersfield	County Area	East Side Canal from Kentucky Street to Fairfax Road - 2.7 miles - Other		
Bakersfield	County Area	East Side Canal from E Brundage Lane to Panama Road - 7.9 miles - Other		
Bakersfield	County Area	East Branch Canal from Belle Terrace to Casa Loma Drive - 0.7 miles - Other		
Bakersfield	County Area	Cumberland Road from Bear Valley Road to Bear Valley Springs - 3.6 miles - Other		
Bakersfield	County Area	Central Branch Canal from Ming Avenue to Union Avenue - 1.3 miles - Other		
Bakersfield	County Area	Central Branch Canal from E Pacheco Road to Buckley Avenue - 0.8 miles - Other		
Bakersfield	County Area	Central Branch Canal from E Panama Lane to Berkshire Road - 0.5 miles - Other		
Bakersfield	County Area	Calloway Canal from Coffee Road to Hwy 99 - 3.8 miles - Other		
Bakersfield	County Area	Buena Vista Rec Area Loop from Lake Buena Vista to Lake Buena Vista - 7.7 miles - Other		
Bakersfield	County Area	Beardsley Canal from Fruitvale Avenue to Manor Street - 4 miles - Other		

CHAPTER 5 STRATEGIC INVESTMENTS

PROJECT LISTING - TABLE 5-1: CONSTRAINED PROGRAM OF PROJECTS CONTINUED

2014 through 2040 - Non-motorized (Continued)				
Project	Location	Scope	YOE Cost	
Bakersfield	County Area	Arvin-Edison Canal from S Oswell Street to Marion Avenue - 1.5 miles - Other		
Bakersfield	County Area	Arvin-Edison Canal from Central Branch Canal to Mount Vernon Avenue - 1.3 miles - Other		
Bakersfield	County Area	Lake Ming Loop from Kern River Parkway to Campground Road - 2.6 miles - Class I		
Bakersfield	County Area	Airport Drive from Manor Street to W China Grade Loop - 1 miles - Class II		
Bakersfield	County Area	Unknown Bike Path from Knudsen Drive to SR 99 - 0.7 miles - Class I		
Bakersfield	County Area	Unknown Bike Path from Arrow Street to May Street - 0.6 miles - Class I		
Bakersfield	County Area	Unknown Bike Path from Beardsley Avenue to Kern River Parkway - 0.5 miles - Class I		
Bakersfield	County Area	Weedpatch Hwy from SR 58 East Hwy to Panama Road - 6 miles - Class II		
Bakersfield	County Area	Taft Hwy from Heath Road Extension to Buena Vista Road - 3 miles - Class II		
Bakersfield	County Area	Standard Street from Rio Mirador Drive to Gilmore Avenue - 1.1 miles - Class II		
Bakersfield	County Area	Panama Road from Buena Vista Road to Weedpatch Hwy - 12.1 miles - Class II		
Bakersfield	County Area	Muller Road from Weedpatch Hwy to S Comanche Drive - 4 miles - Class II		
Bakersfield	County Area	Gilmore Avenue from Mohawk Street to Standard Street - 1 miles - Class II		
Bakersfield	County Area	Fairfax Road from E Brundage Lane to Panama Road - 6 miles - Class II		
Bakersfield	County Area	Edison Hwy from Washington Street to S Comanche Drive - 7.8 miles - Class II		
Bakersfield	County Area	E Panama Lane from Cottonwood Road to S Comanche Drive - 8.1 miles - Class II		
Bakersfield	County Area	E Norris Road from Roberts Lane to N Chester Avenue - 2.1 miles - Class II		
Bakersfield	County Area	Cottonwood Road from E Panama Lane to Panama Road - 2 miles - Class II		
Bakersfield	County Area	SH Street from Taft Hwy to Shafter Road - 3.2 miles - Class II		
	Bear Valley	Bear Valley Road from Cumberland Road to Hwy 202 - 6.8 miles - Other		
	County	Kern River Parkway from Western end of Path to Lake Buena Vista - 2.9 miles - Class I		
	County	Sierra Hwy from Rosamond Blvd to LA County Line - 3 miles - Class II		
	County	Rosamond Blvd from 60th Street to Sierra Hwy - 4.2 miles - Class II		
	County	Kiddyland Drive from River Crossing to Alfred Harrel Hwy - 0.3 miles - Class II		
	County	SR 178 from SR 14 to Sierra Hwy - 32.3 miles - Caltrans Shoulder		
	County	SR 178 from Bakersfield City Limits to Kern River Valley - 26.4 miles - Caltrans Shoulder		
	County	SR 14 from SR 178 to Mojave - 46.6 miles - Caltrans Shoulder		
	County	202 Hwy from Tehachapi Blvd to Bear Valley Road - 5.7 miles - Caltrans Shoulder		
	County	Weedpatch Hwy from Di Giorgio Road to E Bear Mountain Blvd - 3 miles - Class II		
	Delano	Lake Woollomes Loop from Lake Woollomes to Lake Woollomes - 5.3 miles - Class I		
	Delano	Stradley Avenue from SR 155 to Sherwood Avenue - 6 miles - Class II		
	Delano	Pond Road from Benner Avenue to Stradley Avenue - 3 miles - Class II		
	Delano	Mast Avenue from Garces Hwy to Airport Avenue - 1 miles - Class II		
	Delano	Airport Avenue from Mast Avenue to Proposed Woollomes - 2.7 miles - Class II		
	Golden Hills	Woodford Tehachapi Road from Valley Blvd to Highline Road - 1 miles - Class II		
	Golden Hills	Valley Blvd from Tucker Road to Woodford Tehachapi Road - 1.5 miles - Class II		

PROJECT LISTING - TABLE 5-1: CONSTRAINED PROGRAM OF PROJECTS CONTINUED

2014 through 2040 - Non-motorized (Continued)				
Project	Location	Scope	YOE Cost	
	Golden Hills	SR 202 from Bear Valley Road to Woodford Tehachapi Road - 5.7 miles - Class II		
	Golden Hills	Pellisier Road from Banducci Road to Giraudo Road - 2 miles - Class II		
	Golden Hills	Old Town Road from Mariposa Road to Tehachapi Road - 0.7 miles - Class II		
	Golden Hills	Highline Road from Tucker Road to Banducci Road - 3.1 miles - Class II		
	Golden Hills	Golden Hills Blvd. from Santa Barbara Drive to Highline Road - 1.1 miles - Class II		
	Golden Hills	Giraudo Road from Pellisier Road to Bailey Road - 0.5 miles - Class II		
	Golden Hills	Cummings Valley Road from Bailey Road to Bear Valley Road - 1 miles - Class II		
	Golden Hills	Cummings Valley Road from Bailey Road to SR 202 - 0.4 miles - Class II		
	Golden Hills	Bear Valley Road from SR 202 to Proposed Road - 1.5 miles - Class II		
	Golden Hills	Banducci Road from SR 202 to Highline Road - 0.2 miles - Class II		
	Golden Hills	Banducci Road from Comanche Point Road to Pellisier Road - 2.5 miles - Class II		
	Golden Hills	Bailey Road from Giraudo Road to Cummings Valley Road - 1.5 miles - Class II		
	Golden Hills	Stallion Springs Road/Comanche Point Road from Banducci Road to Banducci Road - 3.1 miles - Other		
	Indian Wells	Brown Road from SR 14 to US 395 - 20 miles - Class III Signage Only		
	Indian Wells	Brown Road from US 395 Northern Overpass to US 395 Southern Overpass - 0.3 miles - Class III Signage Only		
	Indian Wells	Athel Avenue from US 395 to Brown Road - 2.6 miles - Class III Signage Only		
	Indian Wells	US 395 from Brown Road to China Lake Blvd. - 10.1 miles - Caltrans Shoulder		
	Indian Wells	US 395 from Brown Road to Inyo County Line - 10.4 miles - Caltrans Shoulder		
	Indian Wells	SR 14 from Athel Avenue to SR 178 - 5.9 miles - Caltrans Shoulder		
	Indian Wells	SR 14 from US 395 to Athel Avenue - 1 miles - Caltrans Shoulder		
	Indian Wells	Brown Road from US 395 to Ridgecrest Blvd. - 8.2 miles - Pave Shoulder		
	Indian Wells	Brown Road from Athel Avenue to US 395 - 7.8 miles - Pave Shoulder		
	Indian Wells	Brown Road from US 395 Northern Overpass to US 395 Southern Overpass - 0.3 miles - Pave Shoulder		
	Indian Wells	Inyokern Road from SR 178 Ridgecrest City Limits to SR 14 - 9.2 miles - Other		
	Inyokern	Broadway from Orchard Avenue to Plains Avenue - 0.5 miles - Class II		
	Kern River	Lake Isabella Blvd from Nugget Ave to Erskine Creek Road - 2.2 miles - Class II		
	Kern River	Kelso Valley Road from SR 178 to Adams Drive - 1.8 miles - Class II		
	Kern River	Kelso Valley Rd / Kelso Valley Creek Road from SR 178 to Loops Back to SR 178 - 9.7 miles - Class III		
	Kern River	SR 178 from Kelsy Valley Creek Road to Kelso Valley Road - 1.2 miles - Caltrans Shoulder		
	Kern River	Lake Isabella Loop from Loop to - 30.1 miles - Other		
	Kernville	Kern River/Lake from Riverside Park to Wofford Heights Park - 4.3 miles - Class I		
	Kernville	Sierra Way from Valley View Drive to Cyrus Canyon Road - 2.2 miles - Class III		
	Kernville	Sirretta Street from Burlando Road to Existing Class II - 1 miles - Neighborhood Green Streets		

CHAPTER 5 STRATEGIC INVESTMENTS

PROJECT LISTING - TABLE 5-1: CONSTRAINED PROGRAM OF PROJECTS CONTINUED

2014 through 2040 - Non-motorized (Continued)				
Project	Location	Scope	YOE Cost	
	Kernville	Burlando Road from Rio Del Loma/Whiskey Flat to Kernville Road - 2.1 miles - Neighborhood Green Streets		
	Kernville	Burlando Road from Kernville to Wofford Heights - 3 miles - Class I		
	Lake Isabella	Wofford Road Lake Isabella 2.0 from Burlando Road to SR 155 - 2 miles - Class II		
	Lake Isabella	McCray Road from SR 178 to Dogwood Road - 0.4 miles - Class II		
	Lake Isabella	Erskine Creek Road from Lake Isabella Blvd to Pasadena Lane - 1.4 miles - Class II		
	Lake Isabella	Bodfish Canyon Road from Lake Isabella Blvd to End of Road - 2.9 miles - Class II		
	Lake Isabella	Sierra Way from Kernville Airport to SR 178 - 11.2 miles - Class III		
	Lake Isabella	Hwy 155 from Wofford Road to Lake Isabella Blvd - 5.5 miles - Class III		
	Lake Isabella	SR 178 from SR 155 to Sierra Way - 11.4 miles - Caltrans Shoulder		
	Lake Isabella	SR 178 from Mobile Drive to Poplar Street - 0.8 miles - Caltrans Shoulder		
	Lake Isabella	Lynch Canyon Drive from SR 178 to Poplar Street - 0.7 miles - Neighborhood Green Streets		
	McFarland	Sherwood Avenue from Stradley Avenue to S Garzoli Avenue - 1 miles - Class II		
	McFarland	Perkins Avenue from Stradley Avenue to S Garzoli Avenue - 1 miles - Class II		
	Mojave	Sierra Hwy from Oak Creek Road to Purdy Avenue - 2.4 miles - Class I		
	Mojave	Rosewood Blvd from Kyle Street to 5th Street - 5 miles - Class II		
	Mojave	Purdy Ave from 45th Street to Town Limits - 6.8 miles - Class II		
	Mojave	Oak Creek Road from 45th Street to K Street - 2.3 miles - Class II		
	Mojave	O Street from Inyo Street to Park Street - 0.4 miles - Class II		
	Mojave	Kock Street from Arroyo Avenue to Purdy Avenue - 3.1 miles - Class II		
	Mojave	K Street from Oak Creek Road to Inyo Street - 0.5 miles - Class II		
	Mojave	Inyo Street from K Street to O Street - 0.3 miles - Class II		
	Mojave	Holt Street from Arroyo Avenue to Purdy Avenue - 3 miles - Class II		
	Mojave	Denise Avenue from 5th Street to Town Limits - 1.5 miles - Class II		
	Mojave	Camelot Blvd from 45th Street to Holt Street - 1.6 miles - Class II		
	Mojave	Butte Avenue from 5th Street to Town Limits - 1.5 miles - Class II		
	Mojave	Arroyo Avenue from 5th Street to Town Limits - 1.5 miles - Class II		
	Mojave	Arroyo Avenue from 45th Street to SR 58 - 1.9 miles - Class II		
	Mojave	5th Street from Rosewood Blvd to Purdy Avenue - 5.1 miles - Class II		
	Mojave	40th Street from Arroyo Avenue to Purdy Avenue - 3.1 miles - Class II		
	Mojave	Sierra Hwy from Rosamond Blvd to Silver Queen Road - 9.3 miles - Class III		
	Mojave	SR 58 from SR 14 (Sierra Hwy) to 5th Street - 2.9 miles - Caltrans Shoulder		
	Ridgecrest	Javis Avenue Parkway from China Lake Blvd to S Downs St Parkway - 1.2 miles - Class I		
	Ridgecrest	Indian Wells Valley Parkway Trail from N Jacks Rancho Road to N Jacks Rancho Road - 12.6 miles - Class I		
	Ridgecrest	Bowman Road from Jacks Ranch Road to Brady Street - 1 miles - Class I		

PROJECT LISTING - TABLE 5-1: CONSTRAINED PROGRAM OF PROJECTS CONTINUED

2014 through 2040 - Non-motorized (Continued)				
Project	Location	Scope	YOE Cost	
	Ridgecrest	Springer Avenue from College Heights Blvd to Gateway Blvd - 1 miles - Class II		
	Ridgecrest	Springer Avenue from Downs Street to Norma St Parkway - 0.5 miles - Class II		
	Ridgecrest	Springer Ave from Jacks Ranch Road to Brady Street - 1 miles - Class II		
	Ridgecrest	S Downs Street from S China Lake Blvd to E Jarvis Ave - 1.1 miles - Class II		
	Ridgecrest	J Jarvis Ave from South China Lake Blvd to Norma St Parkway - 1.8 miles - Class II		
	Ridgecrest	Jacks Ranch Road from Ridgecrest Blvd to Springer Avenue - 2 miles - Class II		
	Ridgecrest	Drummond Avenue from Jacks Ranch Road to Downs Street - 1 miles - Class II		
	Ridgecrest	Brady Street from Inyokern Road (SR 178) to South China Lake Blvd - 4.7 miles - Class II		
	Ridgecrest	E Dolphin Avenue from Gateway Blvd to Lumill Street - 0.5 miles - Class III		
	Ridgecrest	E Belle Vista Parkway from Gateway Blvd to Summit Street - 0.4 miles - Class III		
	Ridgecrest	US 395 from China Lake Blvd to San Bernardino Cty Line - 14 miles - Caltrans Shoulder		
	Shafter	Shafter Avenue from Sierra Avenue (Shafter) to Kimberlina Road - 3.3 miles - Class II		
	Shafter	Riverside Street from Central Valley Hwy to Driver Road - 2.6 miles - Class II		
	Shafter	Riverside Street from Poplar Avenue to Charry Avenue - 2.5 miles - Class II		
	Shafter	Poplar Avenue from Fresno Avenue to Riverside Street - 2 miles - Class II		
	Shafter	Palm Avenue from Kimberlina Road to Fresno Avenue - 3 miles - Class II		
	Shafter	Palm Avenue from Lupine Court to Kimberlina Road - 1.5 miles - Class II		
	Shafter	Magnolia Avenue from McCombs Road to Kimberlina Road - 4 miles - Class II		
	Shafter	Kimberlina Road from Magnolia Avenue to Shafter Avenue - 5.1 miles - Class II		
	Shafter	Fresno Avenue from Palm Avenue to Shafter Avenue - 4.1 miles - Class II		
	Wasco	Central Avenue from Filburn Avenue to Kimberlina Road - 1.5 miles - Class II		
	Taft	Pico Street from S 6th Street to Asher Way - 0.1 miles - Class II		
	Taft	Olive Avenue from Supply Row to Wood Street - 0.3 miles - Class II		
	Taft	Harding Avenue from A Street to E Street - 0.2 miles - Class II		
	Taft	Grevillea Street from Division Road to Harrison Street - 0.5 miles - Class II		
	Taft	General Petroleum from 2nd Street to Wood Street - 0.4 miles - Class II		
	Taft	Elm Street from Division Road to Harrison Street - 0.5 miles - Class II		
	Taft	E Street from Harding Avenue to 10th Street - 0.6 miles - Class II		
	Taft	E Ash Street from Adams Street to Airport Road - 0.9 miles - Class II		
	Taft	Division Road from Grevillea Street to Ash Street - 0.7 miles - Class II		
	Taft	Cedar Street from Harrison Street to Airport Road - 1.6 miles - Class II		
	Taft	Cedar Street from Division Road to Tyler Street - 0.4 miles - Class II		

CHAPTER 5 STRATEGIC INVESTMENTS

Project Listing - Table 5-1: Constrained Program of Projects Continued

2014 through 2040 - Non-motorized (Continued)					
	Taft	Asher Avenue from Supply Row to South Street - 0.5 miles - Class II			
	Taft	Ash Street from Emmons Park to Harrison Street - 0.2 miles - Class II			
	Taft	A Street from Arroyo Drive to Hilard Street - 0.3 miles - Class II			
	Taft	Taft Path from Kern River Parkway to Gardner Field Road - 10.6 miles - Other			
	Taft	Gardner Field Road from County to Aqueduct - 1.5 miles - Other			
	Tehachapi	White Pine Drive from Tehachapi Blvd to Mariposa Road - 0.4 miles - Class II			
	Tupman	Tule Elk Reserve Path from Tupman Path to Tule Elk Reserve State Park - 1.3 miles - Other			
	County	Garlock Road from Redrock-Randsburg Road to US 395 - 18 miles - Class III			
	Wasco	Hwy 46 from Gun Club Road to Magnolia Ave - 8 miles - Caltrans Shoulder			
Various locations	Countywide	Construct Pedestrian Enhancement Improvements	77,500,000		
Various locations	Countywide	Construct Complete Streets Improvements	261,000,000		
		Sub-total	\$424,000,000		
2014 through 2040 - Freight Rail					
Project	Location	Scope	YOE Cost	Project ID	Start
Freight Rail	Tehachapi	Double-track sections from Bakersfield to Mojave	\$111,700,000		In Progress
Freight Rail	Shafter	Shafter Intermodal Rail Facility	30,000,000		In Progress
		(Information only) Sub-total	\$141,700,000		
2014 through 2020 - Major Highway Improvements					
Project	Location	Scope	YOE Cost	Project ID	Start
Route 14	Inyokern	Redrock / Inyokern Rd to Rt 178 - widen to four lanes (Phase1)	42,000,000	KER08RTP006	2016
Route 46	Lost Hills	Brown Material Rd to I-5 - interchange upgrade at I-5 - Phase 4A	27,000,000	KER14RTP001	2016
Route 58	Metro Bkfd	Rosedale Hwy - Calloway Dr to Rt 99 - widen existing highway	29,000,000	KER08RTP007	2014
Route 99	Metro Bkfd	Hosking Ave - construct interchange	31,000,000	KER08RTP009	2014
Route 99	Bakersfield	Olive Drive - construct interchange upgrades	6,100,000	KER08RTP091	2016
Route 178	Bakersfield	Vineland Rd to east of Miramonte Dr - widen existing highway	54,000,000	KER08RTP011	2014
Hageman Flyover	Bakersfield	Knudsen Dr to Rt 204 - construct extension	68,900,000	KER08RTP013	2016
7th Standard Rd	Shafter/Bkfd	Rt 43 to Santa Fe Way - widen existing roadway	14,000,000	KER08RTP113	2018
24th St Improvements	Bakersfield	Rt 178 (24th/23rd St) from SR-99 to M Street - widen existing highway	55,000,000	KER08RTP014	2015
Centennial Corridor	Bakersfield	I-5 to Rt-58/Cottonwood Rd - element of the Bakersfield Beltway System - construct new freeway and/or operational improvements	698,000,000	KER08RTP020	2016
		Sub-total	\$1,025,000,000		

Project Listing - Table 5-1: Constrained Program of Projects Continued

2021 through 2025 - Major Highway Improvements					
Project	Location	Scope	YOE Cost	Project ID	Start
Route 14	Inyokern	Redrock / Inyokern Rd to Rt 178 - widen to four lanes (Phase 2)	42,000,000	KER08RTP017	2021
Route 58	Bakersfield	Rosedale Hwy - Rt 43 to Allen Rd - widen existing highway	59,000,000	KER08RTP092	2025
Route 58	Metro Bkfd	Rosedale Hwy @ Minkler Spur / Landco - construct grade separation	27,000,000	KER08RTP118	2025
Route 58	Bakersfield	Union Ave to Fairfax Rd - widen to eight lanes	47,400,000	KER08RTP093	2025
Route 65	Bakersfield	James Rd to Merle Haggard Dr - widen to four lanes	3,000,000	KER08RTP094	2021
Route 119	Taft	Cherry Ave to Elk Hills Rd (Phase 1, bypass) - widen to four lanes	115,000,000	KER08RTP022	2022
Route 178	Bakersfield	At Rt 204 - construct interchange	25,700,000	KER08RTP095	2025
Route 184	Bakersfield	At Union Pacific Railroad - construct grade separation	26,400,000	KER08RTP108	2025
7th Standard Rd	Shafter/Bkfd	Rt 43 to Santa Fe Way - widen existing roadway	14,000,000	KER08RTP113	2025
West Beltway	Metro Bkfd	Rosedale Hwy to 1/2 mile north of 7th Standard Rd - construct new facility	115,793,000	KER08RTP102	2025
West Beltway	Metro Bkfd	Rosedale Hwy to Westside Parkway - construct new facility	93,500,000	KER08RTP016	2025
Sub-total			\$568,793,000		
2026 through 2030 - Major Highway Improvements					
Project	Location	Scope	YOE Cost	Project ID	Start
Route 14	Inyokern	Redrock / Inyokern Rd to Rt 178 - widen to four lanes (Phase 3)	\$32,000,000	KER08RTP024	2026
Route 119	Bakersfield	I-5 to Buena Vista - widen to four lanes	31,300,000	KER08RTP099	2026
Route 178	Metro Bkfd	Near Oswell St to Vineland Rd - widen existing freeway	17,000,000	KER08RTP111	2028
Route 178	Bakersfield	Existing west terminus to Oswell St - widen to eight lanes (HOV)	140,500,000	KER08RTP026	2026
Route 184	Bakersfield	Panama Rd to Rt 58 - widen to four lanes	10,500,000	KER08RTP100	2029
Route 184	Bakersfield	Morning Dr to Rt 178 - widen to four lanes	5,000,000	KER08RTP101	2026
Route 184	Lamont	Rt 58 to Rt 178 - widen to four lanes	90,000,000	KER08RTP045	2028
Route 204	Bakersfield	Airport Drive to Rt 178 - widen existing highway	55,000,000	KER08RTP083	2030
Route 204	Bakersfield	F St - construct interchange	36,000,000	KER08RTP081	2030
US 395	Ridgecrest	Between Rt 178 and China Lake Blvd - construct passing lanes	20,000,000	KER08RTP089	2026
Sub-total			\$437,300,000		

CHAPTER 5 STRATEGIC INVESTMENTS

Project Listing - Table 5-1: Constrained Program of Projects Continued

2031 through 2035 - Major Highway Improvements					
Project	Location	Scope	YOE Cost	Project ID	Start
Route 46	Lost Hills	Brown Material Rd to I-5 - interchange upgrade at I-5 - Phase 4B	\$70,000,000	KER08RTP018	2035
Route 58	Bakersfield	At various locations - ramp improvements (HOV - ramp metering)	\$32,600,000	KER08RTP103	2033
Route 99	Bakersfield	Beardsley Canal to 7th Standard Rd - widen to eight lanes	90,800,000	KER08RTP138	2033
Route 99	Bakersfield	At Olive Drive - reconstruct interchange	108,000,000	KER08RTP021	2033
Route 99	Bakersfield	At Snow Rd - construct new interchange	138,200,000	KER08RTP115	2033
Route 99	Bakersfield	At various locations - ramp improvements (HOV - ramp metering)	37,000,000	KER08RTP105	2033
Route 178	Metro Bkfd	Vineland to Miramonte - new interchange; widen existing freeway	119,000,000	KER08RTP025	2033
Route 178	Bakersfield	Miramonte to Rancheria - widen existing highway	19,800,000	KER08RTP084	2033
Route 178	Bakersfield	At Rt 204 and 178 - reconstruct freeway ramps (HOV - ramp metering)	50,000,000	KER08RTP085	2033
Route 178	Bakersfield	At various locations - ramp improvements (HOV - ramp metering)	37,000,000	KER08RTP106	2033
West Beltway	Metro Bkfd	Pacheco Rd to Westside Parkway - construct new facility	115,793,000	KER08RTP139	2033
West Beltway	Metro Bkfd	Taft Hwy to Pacheco Rd - construct new facility	90,000,000	KER08RTP097	2033
Sub-total			\$908,193,000		
2036 through 2040 - Major Highway Improvements					
Project	Location	Scope	YOE Cost	Project ID	Start
Route 119	Taft	Elk Hills - County Rd to Tupman Ave - widen to four lanes (Phase 2)	48,000,000	KER08RTP086	2036
Sub-total			\$48,000,000		
Total Major Highway Improvements			\$2,690,186,000		

NOTE: \$77 MILLION OR 3% OF THE TOTAL ESTIMATE FOR MAJOR HIGHWAY PROJECTS IS EXPECTED TO FINANCE LAND CONSERVATION MITIGATION

PROJECT LISTING - TABLE 5-1: CONSTRAINED PROGRAM OF PROJECTS CONTINUED

2014 through 2040 - Local Streets and Roads					
Project	Location	Scope	YOE Cost	Project ID	Start
Various Locations	Metro Bkfd	Bridge and street widening; reconstruction	\$540,000,000		
Various Locations	Metro Bkfd	Signalization	15,000,000		
Various Locations	Rosamond	Street widening; signalization	112,000,000		
Various Locations	Countywide	Transportation Control Measures	386,000,000		
Various Locations	Countywide	Bridge and street widening; reconstruction; signalization	632,000,000		
Sub-total			\$1,685,000,000		
* Note: Adjustments to programming were made regarding the overlap of HOV related improvements listed separately from regionally significant highway improvements.					
2014 through 2040 - Summary of Constrained Projects					
Program Category			Totals		
Transit / Rail / High Speed Rail			2,022,200,000		
Operational Improvements - HOV Lanes / Ramp Metering			297,000,000		
Pedestrian Complete Streets and Bicycle Improvements			424,000,000		
Local Streets and Roads			1,685,000,000		
Major Highway Improvements 2014-2020			\$1,025,000,000		
Major Highway Improvements 2021-2040*			1,793,286,000		
Freight Rail			141,700,000		
Grand Total			\$7,388,186,000		

CHAPTER 5 STRATEGIC INVESTMENTS

TABLE 5-2: Unconstrained Program of Projects

Beyond 2040 - Transit					
Project	Location	Scope			YOE Capital Cost
Local Passenger Rail	Shafter, Bakersfield	Amtrak San Joaquins stop in North/West Bakersfield - platform, track turnout, park&ride, ticket both, RoW (2012 Commuter Rail Study)			\$5,000,000
Local Passenger Rail	Delano, Shafter, Bakersfield	Up to 4 Amtrak San Joaquins stops on BNSF - platform, track turnout, park&ride, ticket both, RoW (2012 Commuter Rail Study)			\$20,000,000
Local Passenger Rail	Wasco, Bakersfield	Positive Train Control Port Chicago - Bakersfield (Draft 2012 State Rail Plan)			\$24,000,000
Local Passenger Rail	Shafter, NW Bakersfield	Double Track BNSF Jastro/Landco to Shafter (Draft 2012 State Rail Plan)			\$71,300,000
Local Passenger Rail	Shafter, Wasco	Double Track BNSF Shafter to Wasco (Draft 2012 State Rail Plan)			\$37,000,000
Local Passenger Rail	NW Bakersfield	Jastro Curve Realignment (Draft 2012 State Rail Plan)			\$50,000,000
Local Passenger Rail	Wasco, Bakersfield	Corridor Wide Signal Upgrades to 90 MPH - Oakland to Bakersfield (Draft 2012 State Rail Plan)			\$55,000,000
Local Passenger Rail	Wasco, County	Double Track BNSF Wasco to Corcoran (Draft 2012 State Rail Plan)			\$200,000,000
Commuter Rail	Buttonwillow, SW Bakersfield	Metro/Southeast Corridor (2012 Commuter Rail Study)			\$158,300,000
Commuter Rail	Arvin, Lamont, SE Bakersfield	Metro/Southeast Corridor (2012 Commuter Rail Study)			\$162,400,000
Commuter Rail	Wasco, Shafter, NW Bakersfield	Metro/Northeast Corridor (2012 Commuter Rail Study)			\$220,600,000
Commuter Rail	Mojave, Cal City, Tehachapi	Metrolink Service Extension - Tehachapi Corridor (2012 Commuter Rail Study)			\$231,300,000
Commuter Rail	Delano, McFarland	Metro/Airport, Delano Corridor (2012 Commuter Rail Study)			\$317,800,000
Local Passenger Rail	Eastern California	Mammoth Lakes to Lancaster/Palmdale (2005 E. Sierra Public Transit Study)			\$3,335,000,000
Light Rail	Bakersfield	Metropolitan Bakersfield Light Rail System (2012 Long Range Transit Plan)			\$4,000,000,000
High Speed Rail	Kern, L.A. County	Northwest of Bakersfield to Palmdale (potential early initial operating segment from Madera to Palmdale Metrolink Service)			\$20,000,000,000
		Sub-total			\$28,887,700,000

TABLE 5-2: UNCONSTRAINED PROGRAM OF PROJECTS CONTINUED

Beyond 2040 - Freight rail							
Project	Location	Scope				YOE Cost	Project ID
Intermodal hub	Delano	RailEx Expansion Phase 2 (Draft SJV Interregional Goods Movement Plan IGM)					
Intermodal hub	Shafter	Shafter Inland Port Phases 2 & 3 (Draft SJV IGMP)				\$60,000,000	
shortline rail	Delano, Shafter, McFarland	Shortline Rail Rehabilitation and Gap Closure (Draft SJV IGMP)					
shortline rail	Bakersfield	SJVR - Expand Bakersfield Yard Capacity (Draft SJV IGMP)					
shortline rail	Arvin, Buttonwillow	SJVR - Shortline Rail Improvements (Draft SJV IGMP)					
shortline rail	Mojave	Mojave - Airport Rail Access Improvements (Draft SJV IGMP)					
		Sub-total				\$60,000,000	
Beyond 2040 - Active Transportation							
Project		Scope				YOE Cost	Project ID
Future long-range non-motorized updates for bicycle and pedestrian related infrastructure may indicate a greater need for capital improvements. During the life of this plan, current expectations may be met as outlined in recent long-range bike and pedestrian studies and reflected in Table 5.1. Should these expectations change in the future this plan will be updated.							
		Sub-total				\$0	

CHAPTER 5 STRATEGIC INVESTMENTS

TABLE 5-2: UNCONSTRAINED PROGRAM OF PROJECTS CONTINUED

Beyond 2040 - Aviation								
Airport			Scope				YOE Cost	Project ID
Delano Municipal			Capital Improvements				\$180,000	
Elk Hills - Buttonwillow			Capital Improvements				930,000	
Inyokern			Capital Improvements				2,651,000	
Kern Valley			Capital Improvements				3,672,000	
Lost Hills			Capital Improvements				1,300,000	
Meadows Field			Capital Improvements				7,250,000	
Mojave			Capital Improvements				3,388,000	
Poso			Capital Improvements				2,045,000	
Shafter - Minter Field			Capital Improvements				3,630,000	
Taft			Capital Improvements				5,498,000	
Tehachapi Municipal			Capital Improvements				6,212,000	
Wasco			Capital Improvements				1,315,000	
California City			Capital Improvements				6,607,000	
			Sub-total				\$44,678,000	

TABLE 5-2: UNCONSTRAINED PROGRAM OF PROJECTS CONTINUED

Major Highway Improvements							
Project	Location	Scope				YOE Cost	Project ID
Beyond 2040 - Major Highway Improvements							
Interstate 5	Kern	From Fort Tejon to Rt 99 - w iden to ten lanes				\$86,000,000	KER08RTP027
Interstate 5	Kern	7th Standard Rd Interchange - reconstruct				54,000,000	KER08RTP028
Route 33	Maricopa	Welch St to Midw ay Rd - w iden to four lanes				88,000,000	KER08RTP029
Route 43	Shafter	7th Standard Rd to Euclid Ave - w iden to four lanes				37,000,000	KER08RTP030
Route 46	Wasco	I-5 to Juniper Ave - w iden to four lanes				118,000,000	KER08RTP031
Route 46	Wasco	Juniper Ave (North) to Rt 43 - w iden to four lanes				130,000,000	KER08RTP079
Route 46	Wasco	Rt 46 @ BNSF - construct grade separation				39,500,000	KER08RTP119
Route 46	Kern	Near Lost Hills at Interstate 5 - upgrade and w iden interchange				130,000,000	KER08RTP033
Route 46	Wasco	Rt 43 to Rt 99 - w iden to four lanes				70,000,000	KER08RTP032
Route 58	Kern	Rosedale Highw ay - I-5 to Rt 43 - w iden to four lanes				31,000,000	KER08RTP038
Route 58	Bakersfield	Future Rt 58 from I-5 to Heath Rd at Stockdale Hw y - construct new freev				500,000,000	KER08RTP114
Route 58	Tehachapi	Dennison Rd - construct interchange				33,000,000	KER08RTP036
Route 58	Bakersfield	Near General Beale Rd - new truck w eigh station				11,000,000	KER08RTP034
Route 58	Kern/Tehachapi	East of Tehachapi to General Beale Rd - truck auxillary lanes / escape ran				86,000,000	KER08RTP035
Route 58	Bakersfield	General Beale Rd - construct new interchange				54,000,000	KER08RTP037
Route 65	Kern	Merle Haggard Dr to County Line - w iden to four lanes				216,000,000	KER08RTP039
Route 99	County/Bkfd	Rt 99 @ Minkler Spur - construct grade separation				69,000,000	KER08RTP134
Route 119	Taft	Rt 33 to Cherry Ave - w iden to four lanes				54,000,000	KER08RTP040
Route 119	Taft	Tupman Rd to I-5 - w iden to four lanes				60,000,000	KER08RTP041
Route 155	Delano	Rt 99 to Brow ning Rd - four lanes; reconstruct				32,000,000	KER08RTP042
Route 155	Delano	Rt 155 @ UPRR - construct grade separation				39,500,000	KER08RTP120
Route 166	Maricopa	Basic School Rd - reconstruct intersection grade				517,582	KER08RTP043
Route 178	Kern Canyon	Vineland to China Garden - new freeway				500,000,000	KER08RTP044
Route 204	Bakersfield	(Golden State Ave) Rt 99 to M St - construct operational improvements				100,000,000	KER08RTP082
Route 184	Bakersfield	Rt 184 / Morning Dr. @ UPRR - construct grade separation				69,000,000	KER08RTP122
Route 202	Tehachapi	Tucker to Woodford-Tehachapi Rd - w iden to four lane				9,704,661	KER08RTP047
Route 223	Near Arvin	Rt 99 to Rt 184 - w iden to four lanes				69,010,921	KER08RTP048
Route 223	Arvin	East Arvin city limits to Rt 58 - w iden to four lanes				64,697,738	KER08RTP049
US 395	Johannesburg	San Bdo County Line to Rt 14 - w iden to four lanes				244,000,000	KER08RTP050

CHAPTER 5 STRATEGIC INVESTMENTS

TABLE 5-2: UNCONSTRAINED PROGRAM OF PROJECTS CONTINUED

Major Highway Improvements							YOE Cost	Project ID
Project	Location	Scope						
Beyond 2040 - Major Highway Improvements								
South Beltw ay	Bakersfield	I-5 to Rt 58 - new expressway					\$610,000,000	KER08RTP074
Santa Fe Way	Bakersfield	Hageman to Los Angeles Ave - w iden to four lanes					127,238,885	KER08RTP051
East Beltw ay	Bakersfield	Rt 58 to Morning Drive - construct new expressway					200,000,000	KER08RTP078
Beale Road	Bakersfield	L St/Beale @ BNSF - construct grade separation					69,000,000	KER08RTP127
Q Street	Bakersfield	Q St @ UPRR near Golden State Hw y - construct grade separation					59,000,000	KER08RTP136
Comanche Drive	Cnty/Bkfd	Comanche Dr. @ UPRR - construct grade separation					59,000,000	KER08RTP123
Olive Drive	County/Bkfd	Olive Dr. @ UPRR - construct grade separation					69,000,000	KER08RTP129
Renfro Road	County/Bkfd	Renfro Rd @ BNSF - construct grade separation					59,000,000	KER08RTP130
California City Blvd	California City	Rt 14 east six miles - w iden to four lanes					22,000,000	KER08RTP052
Twenty Mule Team Rd	California City	California City Blvd to Rt 58 - w iden to four lanes					21,565,913	KER08RTP053
North Gate Road	California City	California City Blvd to North Edw ards - construct new four lane road					60,384,555	KER08RTP054
Woollomes Ave.	Delano	Rt 99 - w iden bridge to four lanes; reconstruct ramps					134,000,000	KER08RTP056
Garces Highw ay	Delano	Interstate 5 to Rt 99 - w iden to four lanes					288,983,230	KER08RTP057
Cecil Ave.	Delano	Wasco Pond Rd to Albany St - w iden to four lanes					17,800,000	KER08RTP055
Kimberlina Road	Kern / Wasco	Kimberlina Rd @ BNSF - construct grade separation					59,000,000	KER08RTP132
Red Apple Rd	Kern	Tucker Rd to Westw ood Blvd - w iden to four lanes					4,313,183	KER08RTP058
Sierra Way	Kern	Lake Isabella at South Fork Bridge - reconstruct bridge					51,758,190	KER08RTP059
Frazier Park	Kern	Park and Ride facility near Frazier Park Blvd					12,939,548	KER08RTP060
Wheeler Ridge Rd	Kern	I-5 to Rt 223 - w iden to four lanes					129,395,476	KER08RTP061
K Street	Kern	Mojave - extend K St to Rt 14					12,939,548	KER08RTP063
Kratzmeyer Road	Kern	Kratzmeyer Rd @ BNSF - construct grade separation					59,000,000	KER08RTP128
Airport Drive	Kern	Airport Dr. @ UPRR - construct grade separation					69,000,000	KER08RTP131
Rosamond Blvd	Kern	Rosamond Blvd @ UPRR - construct grade separation					69,000,000	KER08RTP133
K Street	Kern / Mojave	K St @ UPRR - construct grade separation					69,000,000	KER08RTP135
Elmo Highw ay	McFarland	Elmo Hw y @ UPRR - construct grade separation					69,000,000	KER08RTP124
Dennison Road	Tehachapi	Green St/ Dennison Rd @ UPRR - construct grade separation					69,000,000	KER08RTP121
Teh. Willow Springs Rd	Tehachapi	Rt 58 to Rosamond Blvd - w iden to four lanes					150,961,389	KER08RTP064
Valley Blvd	Tehachapi	Tucker Rd to Curry St - w iden to four lanes					23,722,504	KER08RTP065
Kern Ave.	McFarland	Pedestrian bridge at Rt 99 - reconstruct					5,391,470	KER08RTP066
Mahan St	Ridgecrest	Inyokern to South China Lake Blvd - w iden to four lanes					32,348,869	KER08RTP067
Richmond Rd	Ridgecrest	E Ridgecrest Blvd - w iden to four lanes					6,469,774	KER08RTP068
Bow man Rd	Ridgecrest	China Lake to San Bernardino Blvd - reconstruct					4,313,183	KER08RTP069

TABLE 5-2: UNCONSTRAINED PROGRAM OF PROJECTS CONTINUED

Major Highway Improvements							
Project	Location	Scope				YOE Cost	Project ID
Beyond 2040 - Major Highway Improvements							
S. China Lake Blvd	Ridgecrest	Rt 395 to College Heights - reconstruct				\$36,662,052	KER08RTP070
Lerdo Highway	Shafter	Lerdo Hwy / Beech Ave @ BNSF - construct grade separation				69,000,000	KER08RTP125
Burbank Street	Shafter	Burbank St @ BNSF - construct grade separation				59,000,000	KER08RTP126
7th Standard Rd	Shafter	I-5 to Santa Fe Way - widen to four lanes				90,576,833	KER08RTP072
Zachary Rd	Shafter	7th Standard Rd to Lerdo Hwy - widen to four lanes				34,505,460	KER08RTP073
West Beltway-South	South metro	Taft Hwy to I-5 - extend freeway				100,000,000	KER08RTP075
West Beltway-North	North metro	7th Standard Rd to Rt 99 -extend freeway				100,000,000	KER08RTP076
		Sub-total				\$6,179,200,961	
Beyond 2040 - Local Streets and Roads							
Project	Location	Scope				YOE Cost	Project ID
Various Locations	Region	Bridge and street widening; reconstruction; signalization				\$500,000,000	
		Sub-total				\$500,000,000	
Beyond 2040 - Summary of Unconstrained Projects							
	Program Category					Totals	
	Major Highway Improvements					\$6,179,200,961	
	Local Streets and Roads					500,000,000	
	Transit					28,887,700,000	
	Active Transportation					0	
	Aviation					44,678,000	
	Grand Total					\$35,611,578,961	

(ACTIVE TRANSPORTATION PROJECTS ARE FOUND IN TABLE 5.1)

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FREIGHT MOVEMENT ACTION ELEMENT

See the *Land Use Action Element – Highway/Road Land Use Actions*, *Land Use Action Element – Rail/Transit Land Use Actions*, *Land Use Action Element – Global Gateways Land Use Actions*, *Land Use Action Element for freight movement proposed actions*. See Chapter 4, *Sustainable Communities Strategy*, for further discussion on sustainable land use decisions relative to freight movement.

Efficient freight transportation is critical to the economic health of the Kern region. As one of the prime agricultural regions in the nation, the intra-county road linkage of goods to processing plants, and the intercounty linkage of goods to other regions, manufacturers, and shipping ports is essential. Not only is Kern County a leading agricultural producer, it is also a prominent producer of oil and other minerals. These industries rely heavily on bulk movement by truck, rail and pipeline.

The San Joaquin Valley is also becoming a prominent location for regional distribution centers of consumer products, providing service to coastal population centers as well as its own growing population. In addition, the manufacturing and employment base of the valley is increasing. All these factors contribute to increasing demand for freight transportation.

Existing System

Rail

Trains provide an economical means of transporting bulk goods over long distances. Their ability to haul large amounts of cargo make for an overall low energy requirement per unit of weight when compared to truck or air transport. The cost and labor associated with loading and unloading trains inhibits use of rail for short hauls within the state and locally.

Two major rail companies, Union Pacific (UP) and Burlington Northern Santa Fe (BNSF), serve Kern County. UP representatives report that they operate an average of 19 trains per day through the San Joaquin Valley carrying food products, general freight, grain, and lumber. UP and CSX Transportation have teamed with RailEx, a refrigerated railcar and warehousing service, to offer perishable goods transportation from the San Joaquin Valley to New York. RailEx unit trains from Delano transport over \$500 Million annually of produce from California's growers that might otherwise have been shipped by truck, or worse, result in reduced exports and lost income/jobs to California.

Figure 5-2: Delano RailEx – Rail Gateway for California's Produce via Union Pacific/CSX to the East Coast

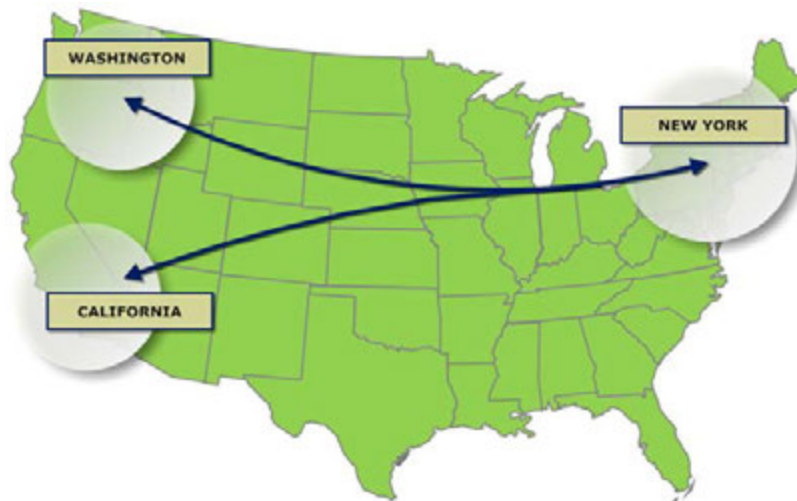
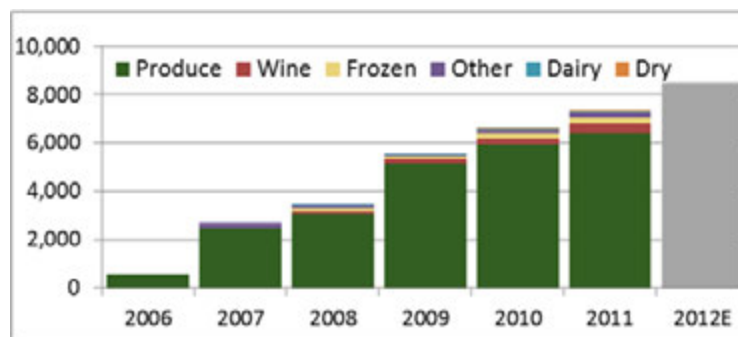


Figure 5-3: Delano RailEx Ships 8,000 Rail Cars Per Year Eliminating 20,000 Long Haul Truck Trips Per Year



The San Joaquin Valley Railroad operates a regional freight service between Tulare, Fresno, and Kern counties on leased UP and BNSF branch lines connecting outlying areas to mainline carriers. They move freight comprised primarily of agricultural and petroleum-based products.

Most cargoes shipped by rail to and from Kern are bulk items such as grains, food products, and oil products. Rail transport provides the option of specialized rail cars such as flatbeds, refrigerated boxcars, fuel tankers, and piggyback cars. These specialized rail cars allow transport to move a large variety of goods, giving rail an advantage over other transportation modes for distances over 500 miles. Transport by rail is generally less expensive for long hauls than air or truck transport; however, rail is limited by speed, by fixed track, and by scheduling.

Figure 5-4:

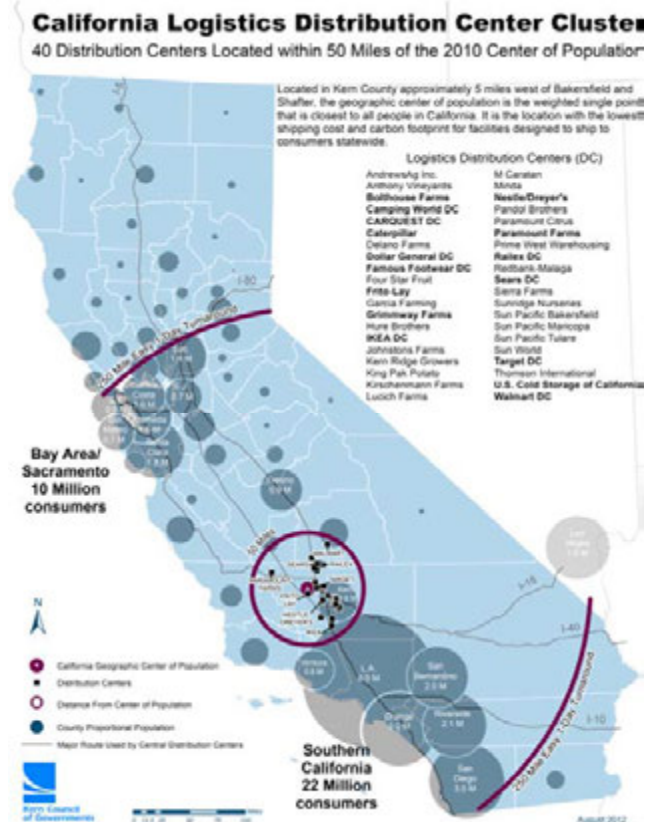
A major example of rail limitation is the route over Tehachapi Summit. Part of the route is single track, and although tunnels have been modified to allow double-stacked containers to pass through, traffic in the opposite direction is often diverted to sidings, creating a congested bottleneck. With the planned Tehachapi Pass capacity improvement project jointly funded by the State of California and the BNSF, the current 35 trains that pass through the summit daily, are forecasted to increase to 50 trains per day over the next five years.

Inland Port and Intermodal Rail Facilities

Intermodal rail terminals are the starting and ending points for trains, as well as the sites of crucial distribution between modes. Terminals vary widely in configuration, capacity, and operations. Kern's location at the geographic center of population for California, as well as being located at the central crossroads of the state, has seen the development of intermodal rail facilities, distribution centers, and value-added production facilities.

In the 1980s, railroads consolidated their intermodal service networks into fewer, larger hubs. Railroads saw an opportunity to consolidate facilities through mergers, and a need to consolidate sufficient volume in one location to justify lift machines. The forecasted growth of intermodal traffic, double-stacked container trains, and the current entry of piggyback rail/truck trailer initiatives all raise questions about the adequacy of intermodal terminals to handle rail traffic increases efficiently and effectively. In 2006, RailEx and UP opened a transload facility for shipping perishable goods to Albany, New York for distribution to eastern grocery chains. This facility operates like an intermodal facility except truck loads are loaded onto railcars instead of using containerized transfers. Other intermodal distribution facilities include locations for bulk shipping of agricultural products such as grains, coal, propane, and specialty oil products.

The Paramount Logistics Park (PLP) in the City of Shafter, is currently servicing 1,500 rail cars per year, and is also capable of servicing existing customers, performing manifest work, handling grain trains as well as TOFC and DST trains subject to BNSF providing service. In 2014 the City of Shafter will complete a \$3 million expansion funded with Congestion Mitigation and Air Quality funds that will enable the facility to handle all levels of service including intermodal, boxcar, tankers, hoppers and gondolas. The City of Shafter



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is also investing in a Container Freight Station and a Container Yard. The facility services the PLP which includes major retail distribution centers such as Target, Ross, American Tire, Bakersfield Pipe and Supply. Expansion plans include establishing a grain transload facility that would bag and load into shipping containers, bulk grain shipments from the Midwest. The containerized unit trains could include additional products from the region ranging from almonds to specialized oilfield equipment. Two key elements for the success of an inland port are 1) sufficient distance to warrant the cost of loading and unloading trains, and 2) a supply of empty containers nearby. PLP is ideally located approximately 300 miles by rail from both the Port of Oakland and 150 miles from the Ports of L.A./Long Beach, and has a ready supply of empty shipping containers collecting at 40 distribution centers within 50 miles of the facility.

Figure 5-5: Paramount Logistics Park Rail Connection from the BNSF



An inland port would serve as a cargo facilitation center, where a number of import, export, manufacturing, packing, warehousing, forwarding, customs, and other activities could take place in close proximity or at the same site. This facility could function as an inland sorting and depository center for ocean containers transported to the inland port via truck or rail. A major issue regarding the rail facility is the need for rail shuttle service to the ports.

The City of Shafter is proposing the PLP to foster inland port status. The facility's first phase would include a container hub allowing distributors to drop empty trailers at the site that other drivers can pick up. This has the potential of eliminating a large number of truck trips over the Grapevine and through the Los Angeles basin. The plan would benefit regional air quality in addition to creating jobs.

The City of Delano has worked closely with RailEx to expand the existing rail spurs at that facility. The resulting capacity increase could allow shipments to and from this facility to double to nearly \$1 billion in gross shipments annually, further benefiting air quality and job creation. In August 2013, Delano received a Federal EDA grant of \$1.8 million to expand the facility by adding additional rail sidings. The expansion is expected to double the capacity of the facility.

The Tejon Ranch Commerce Center (TRCC) is the site of the largest activated Foreign Trade Zone (FTZ) in California at 177 acres and has the ability to expand to 500 acres. FTZ's are sites near ports of entry where foreign and domestic merchandise considered international trade can provide important cost-savings benefits involving customs duties and other charges. Users can obtain permission from customs to move merchandise directly from the port of arrival to the FTZ avoiding delays at congested ports. SIRF, RailEx and TRCC are strategically located proximate to major transportation routes serving both Northern and Southern California as well as the regions to the east.

Other intermodal rail hubs include the Grimmway packing facility in southeast Bakersfield and numerous bulk shippers including expanding oil and gas refining operations that receive oil shipments from North Dakota and send refined products as far away as New England.

Another transfer facility worth exploring is a RoadRailer facility, where custom truck trailers designed to connect directly to rail wheelsets can easily switch from truck to rail; many RoadRailers use existing rail yards as transfer points.

Trucks

Trucking is the most commonly used mode for transporting freight; its popularity stems from its flexibility, timely delivery, and efficiency for hauling distances up to 600 miles. Trucking, however, can be more expensive than rail for longer hauls because of its higher energy costs. In addition, trucking is a major cause of street- and highway-surface failures, necessitating a high level of road maintenance.

Heavy trucks contribute to roadway deterioration much faster than do automobiles; however, deferred maintenance and water intrusion in the roadbed continue to be additional causes of road damage. As a result, Kern County streets and highways are subject to rapid deterioration and failure. According to the American Association of Highway Officials, a fully loaded 80,000-pound truck has an impact on roads equal to the passage of approximately 9,000 cars.

According to the San Joaquin Valley Interregional Goods Movement Plan completed in May 2013, in the San Joaquin Valley, trucks carry more than 90% of outbound, inbound and intraregional tonnage. Of the 425 million tons moved by truck into, out of, or within the San Joaquin Valley in 2007, more than half are classified as intraregional moves. This is to be expected in a major agricultural and energy producing region. Inbound commodities to the San Joaquin Valley account for about 29% of the non-through flows and originate in locations including the San Francisco Bay Area, Southern California, the Central Coast and from outside of California. Outbound tonnage comprises about 22% of all non-through moves; again destined for locations including the San Francisco Bay Area, Southern California, the Central Coast and from outside of California.

Major interregional highway corridors handle relatively high volumes of heavy truck traffic. According to the I-5/SR-99 Origin and Destination Truck Study (October 2009), the majority of heavy duty trucks traveling on those corridors are 5-axle Double Unit (one unit is the tractor) trucks (71.2% to 90.61%). There are slight differences between fall and spring truck travel. By their very size and slower speed, trucks lead to congestion and reduced levels-of-service on rural highways and local streets. In addition, emissions from trucks, like automobiles and trains, have an adverse effect on air quality. An ever increasing array of federal, state, and air district regulations on truck emissions are continuing to improve this situation. At the Ports of L.A./Long Beach alternative fuels and electric trucks are greatly improving this situation.

While the San Joaquin Valley's major trucking corridors are centered on the north-south arteries of I-5 and SR 99, other state highways, such as SRs 46 and 58, play key distribution roles as well. As Kern County expands its population and employment base, the need for direct, high-capacity east/west truck corridors becomes increasingly crucial. Special attention must be given to the interregional routes to ensure that they remain in serviceable condition and that major reconstruction costs are minimized.

Goods Movement Studies

To prepare for the 2014 RTP, Kern COG commissioned three goods movement studies to analyze freight movement in and through Kern County. The Origins and Destinations Truck Study on SR 58 was a joint project with Caltrans and San Bernardino County. The Origins and Destinations Truck Study on SR 99 and I-5 was conducted in partnership with the Tulare County Association of Governments, Fresno COG, and Caltrans. In addition, Kern COG commissioned the Origins and Destinations Truck Study on State Routes 223, 166, 119, 46, and 65. The three truck studies can be found on the Kern COG website using the following link <http://www.kerncog.org/cms/publications/publications>.

The studies found that trucking dominates the SR 58, SR 99, and I-5 corridors. On the SR-58 segments near I-5, SR 14, and US 395, trucks accounted for 29% to 52% of the traffic. On segments of I-5 and SR 99, trucks make up 30% and 40% of the traffic. On SR 58, 56% of the trucks were from out of state, and on I-5/SR 99 only 15% were from out of state, with 57% destined for Southern California. It is important to note that 12% of containers on SR 58 were empty, and 18% on I-5/SR 99 were empty, indicating that there may be some

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opportunities to reduce deadheading in these corridors. When freight trucks haul full containers to and from delivery locations, shipping costs are cut by as much as 40%.

Completed in 2012, the Kern County Goods Movement Strategy was prepared using data from the three Origins and Destinations Truck Studies as well as from other transportation planning studies conducted regionally and throughout the state to inform future project development activities. A total of 55 project segments, based on an inventory of all planned highway and freeway capacity improvement projects, were evaluated and ranked to inform future project selection activities.

Cooperative efforts are needed between the trucking industry, the driving public, and local officials to assess the impacts that trucks have on local streets, and to create regulatory guidelines for trucks in urban areas. Alternative transportation modes for long-haul goods movement are being explored and supported. These include improved Intermodal freight transfer facilities and access at major airports and rail terminals.

Air Freight Service

Air freight service is most commonly characterized by the fast shipment of small items of high value over long distances for high cost. Goods movement by air is an emerging element of freight activity in the San Joaquin Valley. Statewide, 23 out of 43 commercial air carrier airports account for almost 3 million tons of freight transported by air. While air freight is a specialized transportation mode, it accounts for an estimated 33% of the export values in California.

Air carriers depend heavily on truck transportation to deliver goods for transport. A significant feature of air shipment is its dependability and very short in-transit time. Air freight has not played a large role in the Kern area, but with the continued growth of the Los Angeles basin, it is feasible that air freight carriers would consider Kern a favorable alternative location.

Pipelines

Various pipelines carry natural gas, crude oil, and other petroleum products throughout Kern County. Storage, pumping, and branch lines are used to distribute those products. Southern California Edison (SCE) and Pacific Gas and Electric Company (PG&E) are responsible for the maintenance and operation of the natural gas line, while major petroleum corporations are responsible for the crude oil pipelines throughout the region. State and federal agencies regulate the use of pipelines.

Kern lies at the crossroads of many pipeline systems connecting the West coast and the nation. This pipeline network provides opportunities for expansion and creation of new terminal facilities. Kern is host to both natural gas and propane intermodal terminals. There are currently crude or gasoline pipeline networks connecting Kern to the Midwest. Over the past several years Kern has experienced an increase in shipments of crude oil from North Dakota to local refineries. Kern's extensive pipeline network may provide a way to transload these shipments to the major refineries in the Bay Area and Southern California.

Hazardous Material Movement

Because more than 50% of all goods transported throughout the world are hazardous to some degree, human life and property is potentially endangered. Each year, more than 4 billion tons of hazardous products and waste are transported throughout the United States. Hazardous materials are typically transported by rail or by small or large trucks, but are also transported by air and pipeline.

Within the Kern region, emphasis is placed on hazardous materials routing and training of emergency personnel in the event of an accidental spill. Interstate transportation of hazardous products and waste

through the Kern region on Interstate 5 and State Route 99 increases the probability of dangerous spills. The County of Kern and the City of Bakersfield maintain Hazardous Material Response Units.

Potentially adverse effects associated with transporting hazardous materials can be partially mitigated by restricting roads available to these shipments. Under California law, transportation of hazardous waste must be carried out via the most direct route over interstate highways whenever possible. Exceptions to this general rule are such occasions when it is necessary to avoid highly congested and densely populated areas.

Kings County, northwest of Kern County, is the site of a Class 1 hazardous waste facility. The facility, located at Kettleman Hills, draws trucks carrying hazardous materials from all western states. The presence of these trucks on regionally significant routes increases the probability of dangerous spills.

Hazardous shipments by rail are becoming a growing concern as well. Increased shipments of petroleum products need to be protected against spills and fire. The Kern County Fire Department has specially trained hazardous material (HAZMAT) spill responders funded by the oil industry to respond to transportation related emergencies.

Needs and Issues

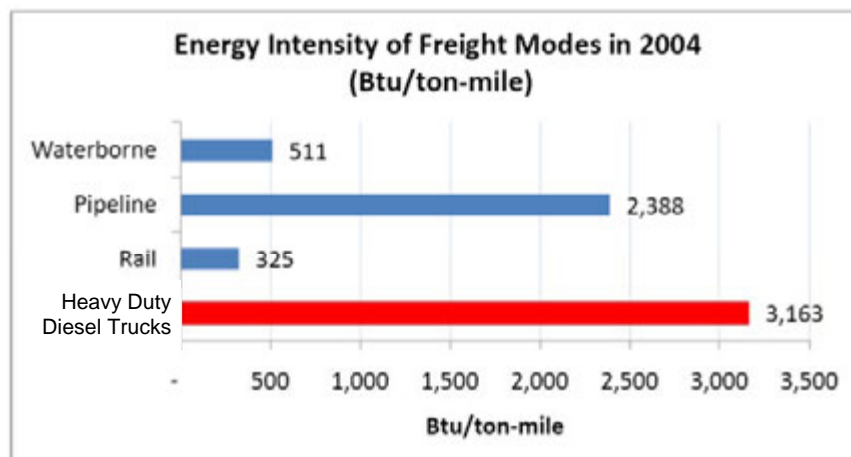
Logistics, agriculture, food processing, energy production, and refining provide a stable base to the economy of Kern County and are dependent on the goods movement infrastructure. Population and economic growth pressures have resulted increased traffic congestion on the rural roadways that facilitate the “farm to market” goods movement. This congestion affects the safe and timely delivery of fresh produce to market and processing plants.

Farm-related transportation also involves the need to move farming equipment along rural roadways. These roadways are usually single-lane with limited shoulders. Heavy, slow-moving farm equipment along these roads conflict with commuter travel requirements and can create unsafe travel conditions.

The evolving freight movement industry has introduced the concept of “just-in-time delivery,” which replaces warehouses with freight haulers. With just-in-time delivery, the efficient and timely movement of freight along highways and railways becomes ever more essential to the region’s economic growth and development.

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FIGURE 5-6: ENERGY EFFICIENCY BY TRANSPORT MODES



From: ICFI, "Greenhouse Gas Emissions from Freight Trucks", International Emissions Inventory Conference May 16, 2007

Figure 5-6 demonstrates that hauling freight by rail is 10 times more energy efficient than shipping by truck. Preserving and expanding rail use for goods movement will help both regional and environmental goals for the region. Efforts should focus on development of intermodal rail terminals and the preservation of businesses along the short rail lines to ensure continued use of the short haul rail system. New facilities such as RailEx in Delano are demonstrating that private capital is already investing in the regions rail infrastructure.

Kern COG is working with the Central California Rail Shippers/Receivers Association (CCRSRA), San Joaquin Valley Railroad (SJVR) and other rail service providers in the region, and the Kern Economic Development Corporation to find ways to maintain and increase the use of the short-haul rail lines for freight in Kern County. Strategies may include better communication and coordination with the stakeholders as well as development of public/private partnerships for financing improvements.

Short Haul Rail Abandonment Issue

In 2010, Kern COG hired Wilbur Smith Associates to conduct the Phase 1 Kern County Rail Study, followed by the Phase 2 Study completed in the summer of 2012. The studies stemmed from a growing concern about the abandonment of short-haul rail lines. During the 1990s, the Eastern Sierra/Lone Pine subdivision connecting the rail spur with China Lake Naval Air Warfare Center was abandoned by Union Pacific (formerly Southern Pacific) as far south as the Trona Railway. In addition, two segments of the old Southern Pacific rail line heading north out of the county to the port of Oakland were abandoned at about the same time as Southern Pacific (SP) was acquired by UP. In 2009, the federal Surface Transportation Board (STB) approved a third abandonment of a 30-mile segment of the old SP line in Tulare County from the Kern county line, several miles east of Delano, to Porterville.

The Central California Rail Shippers/Receivers Association has concerns that similar abandonments in Kern might happen for two reasons: (1) increasing tariffs and fees by the rail providers, (2) lack of use by business along the route. Lack of use may be partially caused by high railroad tariffs and fees that make it cheaper to ship by truck, or price transport costs beyond what the market can bare, forcing curtailment or closure of the business. After two years of non-use, the STB can approve an abandonment request by the railroad service provider. When rates for scrap metal are high, the risk of rail abandonment increases considerably. The Phase 2 Study determined that a 12.5-mile segment of the Arvin Subdivision is likely to be abandoned.

The studies analyzed alternative uses for rail right-of-way which could help preserve the rail corridor. Although some former rail corridors have been preserved with rails to trails projects, such as in downtown Taft, in many cases, preventing abandonment is preferable. Once the rail line is removed, highway crossings can be very expensive to rebuild and mitigate, mainly since the public is no longer accustomed to looking for trains at the road-crossing locations. Some regions are maintaining short-haul lines through a public/private partnership, where the public entity owns the rails and leases their use to a private entity. Others are considering preservation of the line for future passenger service as a feeder rail system for the high-speed rail system. Additional alternatives include right-of-use agreements, where the extra right-of-way on either side of the rail can be used for multi-use trails, roads, and bus express lanes.

In 2013, the SJVR was acquired by Genesee & Wyoming Railroad (G&W). The new ownership has reached out to the CCRSRA and its members and alleviated some of local shippers/receivers concerns about curtailment of shorthaul rail service. This issue remains critical to the achievement of regional transportation and air emission goals.

Greater coordination and integration of the various freight transportation modes is becoming increasingly important. Limited resources and intense pressure on existing transportation systems have brought broad-based support for intermodal transportation systems. Kern COG promotes public/private cooperation between modes to increase goods movement efficiency while maintaining a reasonable highway level of service.

Proposed Actions

Near Term, 2014–2020

- Develop an annual freight movement stakeholders group for coordinating preservation and expansion efforts.
 - Coordinate preservation and expansion efforts.
 - Encourage communication between short-line rail operators, shippers, and economic development agencies.
 - Explore options for potential uses of the southern portion of Arvin Subdivision as identified in the Kern County Rail Study Phase 2.
 - Explore the potential to retain freight rail service on the southern portion of Arvin Subdivision. Coordinate with SJVR, Tejon Ranch Company, and other potential area shippers/users, area economic development agencies and the Central California Rail Authority.
 - Explore rail intermodal, transfer facility, and alternative transfer options for the region.
- Maintain liaison with Southern California Association of Governments and all San Joaquin Valley Councils of Government for efficient coordination of freight movement between regions and counties.
- Construct truck climbing lanes on eastbound SR 58 from General Beale Road to the Bena Road overcrossing.
- Program infrastructure improvements such as widening of Seventh Standard Road in response to proposed freight movement activities in the area.
- Continue development of Paramount Logistics Park for intermodal freight transfer activities.

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- Continue development of the Delano RailEx Facility for intermodal freight shipping to the East Coast.

Long Term, 2021–2040

- Widen State Route 184 to four lanes to respond to increasing agricultural trucking activity.
- Widen Wheeler Ridge Road to four lanes as a gap-closure measure to tie I-5 to SR 58 via SR 184.
- Construct new SR 58 freeway through Metropolitan Bakersfield from existing SR 58 at Union Avenue to SR 99 near Golden State Avenue (SR 204), continuing west to I-5. This freeway component would relieve some of the congested truck movement on SR 99.
- Expand rail service to existing distribution centers throughout the County.

PUBLIC TRANSPORTATION ACTION ELEMENT

See the Land Use Action Element – Rail/Transit Land Use Actions for proposed actions related to rail and public transportation modes. See Chapter 4, Sustainable Communities Strategy, for further discussion on sustainable land use decisions relative to rail and public transportation modes.

Existing Transit Services

Within Kern County, existing public transportation services include public transit, Amtrak, and other private carriers such as Greyhound. Local and regional public transit is available within and between sixteen Kern County communities. In 2009–2010, public transit services carried over 7.84 million passengers in Kern County. Transit services include intercity, intracity, demand-responsive, and fixed-route operations.

The County of Kern operates **Kern Regional Transit (KRT)** that provides service to the unincorporated communities of Buttonwillow, Lamont, Kern River Valley, Frazier Park, Rosamond, and Mojave. In addition, the County has agreements with several small cities to share the cost of providing transit service to county areas surrounding incorporated places, i.e., Delano, Ridgecrest, Shafter, Taft, Tehachapi, and Wasco. Kern Regional Transit also provides intercity service between Delano/McFarland/Wasco/Shafter/Bakersfield; Lamont/Bakersfield; Lake Isabella/Bakersfield; Frazier Park/Bakersfield; California City/Mojave/Rosamond/Lancaster/Palmdale; Lost Hills/Bakersfield; and Taft/Bakersfield.

CalVans is a public vanpool service that serves Central California. At the July 19, 2012, Kern COG Board meeting, the Transportation Planning Policy Committee approved a request from CalVans to become a participating member of its board through an addendum to a Joint Powers Authority. The CalVans board approved Kern COG as its newest member agency at its board meeting on September 13, 2012. In 2012 CalVans operated 65 vanpools in Kern County.

A publicly operated vanpool system is the most practical and cost effective way of addressing transit needs in the rural areas.

The “San Joaquin Valley Express Transit Study” conducted by the County of Merced, recommended the creation of the regional agency. It also made the finding that a publicly operated vanpool system is the most practical and cost effective way of addressing transit needs in the rural areas of the 8-county region.

Golden Empire Transit (GET) has provided public transit service for the Metropolitan Bakersfield area since 1973. As of October 7, 2012, GET operates 16 fixed routes with a fleet of 59 buses in service. GET’s service area covers 160 square miles and serves approximately 473,348 residents. GET-A-Lift provides complementary paratransit service within Metropolitan Bakersfield for those who are physically unable to use the fixed-route service. Elderly and disabled services are also provided by the Consolidated Transportation Service Agency (CTSA).

GET has determined that within Metropolitan Bakersfield, the east and southeast areas exhibit the highest service potential. This analysis is based on population density, income, auto ownership, and age. Other areas with high transit potential are portions of Oildale and central Bakersfield. The lowest potential rider areas include portions of the southwest and northwest.

Table 5-3 summarizes public transportation services operated within Kern County, with a description of services provided by each rural public transit provider, including hours of operation and type of service provided.

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Transit ridership in Kern County showed a decline during FY 2010–2011 as shown in Table 5-3. Ridership for GET and KRT, however, has increased in more recent years as a result of service expansion and rising gasoline prices. An all-time record for ridership was achieved in 2009–2010.

TABLE 5-3: PUBLIC TRANSIT OPERATORS WITHIN KERN COUNTY

Operator	Area Served	Service Type	Days of Service	Fare Structure	
				Regular	Discount
Arvin	Arvin, Lamont Tejon Industrial Complex	Dial-a-ride	Mon-Fri	\$1.00 \$2.00	\$.75 seniors, disabled & youth 5–15
California City	California City	Dial-a-ride	Mon-Fri	\$1.70	\$1.00 seniors, disabled, ages 5–14
CTSA	Metro Bakersfield	Dial-a-ride	Mon-Fri	\$2.00	–
Delano	Delano and adjacent unincorporated area	Fixed route Dial-a-ride	Mon-Sat	\$1.00 \$2.25	\$.75 seniors/disabled \$.50 students 5–18
McFarland	McFarland	Dial-a-ride	Mon-Fri	\$1.00	\$.50 seniors, disabled, students
Ridgecrest	Ridgecrest and adjacent unincorporated area	Dial-a-ride	Mon-Sat	\$2.00	\$1.25 seniors, disabled
Shafter	Shafter & adjacent unincorporated area	Dial-a-ride	Mon-Fri	\$1.00 \$1.25	\$.75 seniors, disabled
Taft	Greater Taft (city, Maricopa, Taft, Taft Hts, South Taft, Ford City)	Fixed route Dial-a-ride	Mon-Fri	\$1.00	\$.75 (seniors, disabled, students)
Tehachapi	Tehachapi & unincorporated adjacent Golden Hills area	Dial-a-ride	Mon-Fri	\$1.00 (City-County trips)	\$.75 seniors, disabled, children
Wasco	Wasco and adjacent unincorporated area	Dial-a-ride	Mon-Fri	\$1.75	\$1.00 (seniors, disabled, youth)
Kern Regional Transit	Bkfd-Frazier Park	Intercity	Mon-Sat	Varies with origin and destination	
	Bkfd-Lake Isabella	Intercity	Mon-Sat	\$2.75	\$1.75
	Bakersfield-Taft	Intercity	Mon-Sat	\$2.00	N/A
	Bkfd-Tehachapi	Intercity	Mon-Sun	Varies with origin and destination	
	Buttonwillow-Bkfd	Intercity	Tue, Thu	\$1.75	\$1.25
	Bkfd-Lamont	Intercity	Mon-Sun	\$1.25	\$0.75
	Lost Hills/Wasco	Intercity	Thu, Sat	\$2.00	\$1.00
	E. Kern Express (Bkfd, Keene, Tehachapi, Mojave Rosamond, Lancaster)	Intercity	Mon-Sun	Varies with origin and destination	
	N. Kern Express (Bkfd-Delano)	Intercity	Mon-Sun	Varies with origin and destination	
	Mojave-Cal City-Ridgecrest	Intercity	Mon Wed Fri	Varies with origin and destination	
	Kern River Valley	Dial-a-ride	Mon-Sat	Varies with origin and destination	
	Kern River	Fixed route		\$1.00	\$.75

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Operator	Area Served	Service Type	Days of Service	Fare Structure	
				Regular	Discount
	Boron	Deviated fixed route	Wed	\$1.00	\$.75 seniors, disabled & youth
	Kern River	Dial-a-ride	Mon-Sat	\$1.00	\$.75 seniors, disabled & youth
	Frazier Park	Dial-a-ride	Mon-Sat	\$1.00	\$.75 seniors, disabled & youth
	Lamont	Fixed route	Mon-Sat	\$0.75	\$.50 seniors, disabled & youth
	Mojave	Dial-a-ride	Mon-Sat	\$1.00	\$.75 seniors, disabled & youth
	Rosamond	Dial-a-ride	Mon-Sat	\$1.00	\$.75 seniors, disabled & youth
GET	Metro Bakersfield	Fixed route	Daily	\$1.25	\$.75 seniors & disabled
GET-A-Lift	Metro Bakersfield	Dial-a-ride	Daily	\$2.50	--

TABLE 5-4: PASSENGERS TRANSPORTED BY KERN COUNTY TRANSIT OPERATORS

Operator	2009/10	2010/11	2011/12
Arvin	41,750	41,852	67,910
California City	14,215	14,621	15,633
CTSA	40,970	43,070	40,618
Delano	125,122	133,242	144,504
GET & GET-A-Lift	7,578,323	7,359,432	7,237,604
Kern Regional Transit	535,453	522,445	669,908
McFarland	9,417	7,756	18,699
Ridgecrest	27,478	12,977	17,131
Shafter	34,230	33,003	29,268
Taft	56,565	12,644	25,384
Tehachapi	5,288	5,826	5,401
Wasco	22,593	19,812	22,191
Totals	8,491,404	8,206,680	8,294,251

Sources: Annual Report of Financial Transaction-Transit, 2009/10 – 2011/12; Transit Operators State Controllers Report

Accomplishments Since 2000

Golden Empire Transit District

In 2011–2012, GET's fixed-route and GET-A-Lift operation ridership was 7,237,604 riders. GET operates 16 fixed routes, including 2 rapid routes with 15 minute headways and 3 express routes. GET has made a commitment to improving Kern County's air quality by purchasing compressed natural gas (CNG) buses. In 2006, GET became one of the first large transit fleets in the nation entirely fueled by natural gas. GET has installed

In 2006, GET became one of the first large transit fleets in the nation entirely fueled by natural gas.

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bike racks on all buses to facilitate intermodal trips, providing an ancillary improvement to air quality. In partnership with IKEA and Tejon Ranch, GET initiated an express route between downtown Bakersfield and the Tejon Industrial Complex in October 2008. A permanent park-and-ride lot for this service has been established in the Greenfield area.

Consolidated Transportation Service Agency

North Bakersfield Recreation and Park District (NOR) was designated as the Consolidated Transportation Service Agency (CTSA) in 1999. CTSA uses Transit Development Act and Federal Transit Administration Section 5310 funds to purchase, maintain, and operate vans and buses. CTSA provides low-cost transportation service for seniors 60+ and disabled community members. Services are available Monday through Friday for medical appointments, senior activities, grocery shopping, and other essential trips. CTSA is a demand-response transportation program and provides door-to-door service within Metropolitan Bakersfield.

In response to a ridership drop from 2000 to 2003, and later in 2004, CTSA made several service improvements including wheelchair accessibility on 67% of its fleet and the hiring of additional drivers. Over the past four years, CTSA's ridership has improved by 69.8% and is currently delivering a healthy 15.2% farebox return (10% is required by Transportation Development Act regulations).

Kern Regional Transit

Since 1981, KRT has provided a vital transportation link to the residents of Kern County. Through the services KRT provides—local demand response, fixed routes, and express routes—customers are able to travel to work, medical services, education, shopping, and social needs. In recent years, KRT has expanded service on many of its routes. These additions include evening classes at Bakersfield College and Sunday service on the East Kern express route and Lake Isabella/Bakersfield route.

In early 2002, KRT joined with Inyo Mono Transit (now called Eastern Sierra Transit Authority) to provide CREST (Carson Ridgecrest Eastern Sierra Transit), from which transit users can connect in Ridgecrest to points north, including Lone Pine, Independence, Bishop, and Mammoth. The need for this intercity route was brought about by the cancellation of Greyhound's commercial intercity service along the US 395 corridor, which was suspended in August 2001. Communities and cities in the eastern Sierra, north of Mojave, were left without frequent and effective public or commercial service upon the demise of Greyhound service.

CREST is critical to meeting the transportation needs of people living and traveling along US 395 and SR 14. It provides the vital linkage to existing public and commercial transportation services currently serving the counties of Kern, Los Angeles, Inyo, and Mono, including demand-response services operated by Ridgecrest, California City, Mojave, and Rosamond; Antelope Valley Transit Authority and Metrolink in Lancaster/Palmdale; Santa Clarita Transit in Palmdale and Santa Clarita communities; intercity service to Bakersfield with connections to Greyhound and Airport Valet; Amtrak; and connections to regional air service in Inyokern and Bakersfield.

KRT has implemented state and federal grants to acquire capital items such as replacement of diesel buses, replacement of CNG buses, a CNG fueling site, and bus shelters.

Amtrak San Joaquin Service Improvements

The State-supported Amtrak San Joaquin service presently extends 362 rail miles between Oakland and Bakersfield and 314 miles between Sacramento and Bakersfield. Six round-trip trains operate daily, and three of these train sets are stored overnight in Bakersfield. Bakersfield represents both the end of the line

for the current rail service and the stepping-off point for further travel to Southern California and Nevada. Growing demand for rail service on the San Joaquin line prompted Caltrans to add a second train from Stockton to Sacramento in March 2003.

In FY 2010-11, the Bakersfield station handled 476,767 passengers (boardings and alightings) and was second only to Sacramento as the busiest Amtrak station on the San Joaquin route. In FY 2011–2012, the San Joaquin route was the fifth busiest corridor in the country, with a record 1,133,654 riders.

To protect the existing San Joaquin Rail Service and to promote its improvement, local and regional agencies on the San Joaquin Corridor (Bakersfield, Fresno, Modesto, Stockton, Sacramento and Oakland) sponsored and supported Assembly Bill 1779 (AB 1779). This bill enabled regional government agencies to form the San Joaquin Joint Powers Authority (SJJP) to take over the administration and management of the existing San Joaquin Rail Service from the State. AB 1779 was passed by the Legislature on August 30, 2012, with bipartisan support, and was signed by Governor Brown on September 29, 2012. The earliest the governance/management of the San Joaquin Rail Service can be transferred to the SJJP is June 30, 2014, but an interagency transfer agreement with the Department of Transportation must be completed by June 30, 2015.

AB 1779 requires the SJJP to protect the existing San Joaquin Rail Service and facilities and seek to expand service as warranted by ridership and available revenue. The provisions of AB 1779 require the state to continue to provide the funding necessary for service operations, administration and marketing. Caltrans Division of Rail will remain responsible for the development of the Statewide Rail Plan and the coordination and integration between the three state-supported intercity passenger rail services.

Transit Needs and Issues

Limited Transit Dollars

Financial resources for public transportation are limited while demand for those resources continues to increase. Traditional public transportation revenue sources do not support the increasing need for public mass transportation to help mitigate population increases, clean air mandates, and trip reduction programs.

The expansion of public transportation services in the County is predicated on an aggressive financial plan. GET's budget has increased annually as the system responds to increasing consumer demand. The financial core to subsidize public transit services is the Transportation Development Act's (TDA) Local Transportation Fund (LTF). These funds are derived from the County's portion of the local sales and use tax or .25 percentage points of the 7.5% (8.5% in Delano and Arvin) sales and use tax rate. Kern COG apportions these taxes to public transit throughout Kern County. In addition, the TDA authorized the state legislature to budget for State Transit Assistance Funds (STAF) by means of allocating a portion of the sales and use tax on gasoline.

However, in an attempt to balance the State's fiscal issues, the Governor suspended the STAF, beginning in 2008–09. This is expected to continue unless alternate financial means become available. Since 2008–2009, the State has partially funded the STAF program but only sporadically.

Currently, no local dedicated funding source is available for public transit. A one-half cent countywide sales tax ballot issue for highway and transit improvements failed in November 2006.

Chapter 6 – Financial Element identifies several new sources that may be dedicated toward transit. Table 6-1 identifies 38% of all funding in this plan going toward transit, high occupancy vehicle, passenger rail, aviation, and other uses. These sources include LTF, farebox, local agency funds/developer impact fees, State Transportation Improvement Program, State Transit Assistance Account, Congestion Mitigation and Air Quality Program, Federal Transit Administration (sections 5307, 5310, and 5311), Federal Stimulus

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funding, as well as other revenue streams. Some of these funding sources are being applied to transit for the first time as part of this plan.

Short-Range Transportation Development Plans

Transportation Development Plans (TDPs) for Kern transit agencies are usually updated every five years and are used as planning tools focusing on short-term transit needs and improvements. TDPs provide recommendations for improving existing service, identify the transit agencies' roles and responsibilities for better coordination of transit services, and identify possible future transit expansion or revision.

GET's Short-Range Transit Plan guides routine decisions associated with operations and maintenance. This document covering a five-year period is updated annually.

A five-year TDP was prepared for the City of Arvin's transit services in early 2008. The plan recommended changing the demand-response service to a flex-route and that the City retain a full-time transit supervisor. The City of Ridgecrest has begun a new flex-route system that provides the cost effectiveness of a fixed-route system while maintaining the patron-oriented demand-response service.

Also in 2008, a TDP was prepared for the Arvin/Lamont/ Bakersfield corridor that looked at future service changes and improvements, concentrating on public transit services provided by Kern Regional Transit. The focus of the plan was to ensure that KRT's service to the area was coordinated as to meet transfers scheduled for Arvin Transit and GET. Also discussed were various recommendations for improving marketing activities that target Spanish-speaking patrons.

In 2009, a TDP was prepared for the cities of Taft and Maricopa. The Taft Area TDP updated the transit system's goals and objectives, developed service alternatives, and includes the ability to:

- Implement all administrative recommendations.
- Transition from a general public demand-response to a traditional fixed-route service and ADA-complementary demand-response program.
- Limit demand-response ridership to seniors and ADA-certified individuals on weekdays.
- Eliminate service to Derby Acres, Fellows, and McKittrick; introduce fixed-route service to Maricopa.
- Install bus stop amenities (i.e., shelters, bus stop signs, schedules) at high-use locations
- Adopt the proposed Performance Measurement System for the fixed route.
- Implement a marketing plan to ensure community awareness and increase support for transit.

In 2012, a TDM was prepared for the City of Delano. The Delano TDP updated the transit system's goals and objectives and developed service alternatives and recommendations which maintain eligibility for funding. These recommendations include:

- Revising or restructuring the current route network and operating schedules.
- Modifying fixed-route alignments and headways.
- Active recruitment of qualified drivers.

- Investigating lower contract rates for regular maintenance.
- Contracting out for the operation of the city's transit service.
- Increasing fares.
- Conducting driver training and enforcement of fares and fare policy.
- Increasing on-time performance through policy enforcement.
- Other recommendations to improve and enhance customer service.

Also in 2012, TDPs were prepared for the cities of California City and Tehachapi. Recommendations to improve California City transit service included the following:

- Raising the fare for its service slightly to ensure farebox compliance could be met.
- Expanding operational hours to lure more choice riders and commuters to try the service.
- Purchasing three new buses and installing four bus shelters.
- Implementing a fixed-route service to improve cost efficiency and introduce service to the local community college.

Recommendations for Tehachapi include the following:

- Increase the fare structure to meet State-mandated requirements.
- Develop and implement an aggressive marketing plan.
- Reduce service hours to meet operating expense goals.
- Other ideas designed to improve and enhance the service within the community.

Senior/Mobility-Disabled Public Transportation

The senior and mobility-disabled populations in Kern County have limited access to public transportation. Differing fare structures, trip priorities, and limited service hours inhibit a coordination of efforts among operators of senior and disabled transportation. A countywide Consolidated Transportation Service Agency (CTSA) could be developed to incorporate all public operators of disabled and senior transportation. Expanding the CTSA would provide a means for coordination of services and efforts. CTSA, GET-A-LIFT, and other social service transportation providers fill an important role in providing unmet transit needs in areas beyond fixed route service.

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Recent Transit Planning Activities

GET Long-Range Plan

GET, in partnership with Kern COG, implements the Metropolitan Bakersfield Transit System Long-Range Plan. The plan documents the relationship between population growth, transit ridership demand, and current operations. It also addresses emerging intracity transit system needs and addresses connectivity between rural areas and major regional transportation facilities such as the Amtrak train station and Meadows Field. A goal of the plan is to implement GET's new vision statement: "GET...doing our part to improve mobility and create livable communities by becoming every household's second car."

The GET Long-Range Plan, adopted in April 2012, provides the following three principles and concepts. These principles and concepts provide a framework for evaluating existing built and policy conditions in the region and ways to make improvements in the future.

A goal of the plan is to implement GET's new vision statement: "GET... doing our part to improve mobility and create livable communities by becoming every household's second car."

- **Support transit use at the local level and on a regional scale.** Potential transit ridership and multimodal opportunities should be considered in planning new growth areas, developing land use policies for existing developed areas, and planning for major infrastructure investments. The focus should be on improving the form of the region, with particular emphasis on enhancing pedestrian activity in and around downtown Bakersfield and other potential sites such as adjacent to California State University, Bakersfield (CSUB).
- **Focus development and infrastructure on key cores and corridors.** Transit ridership will be highest when it effectively serves key origins and destinations. Transit becomes an attractive alternative to the automobile when it is accessible, convenient, and efficient. In order to maximize the attractiveness of transit, service should be focused on major corridors such as Chester, California, Mt. Vernon, and Ming Avenues, as well as the Niles and Monterey Street corridors. Accompanying land use and infrastructure policies should encourage more intense development and improved accessibility for all travel modes in these areas. New growth areas, as they become necessary to accommodate regional population growth, should be developed using these same principles.
- **Design streets and new developments to foster street activity and encourage transit use.** Streets are the centers of activity for transit-oriented districts; they are the civic spaces where people walk to transit and support the public life of the districts. Street activity can be generated by increased land use intensity and through-street designs that provide comfortable access for all modes of travel. Street improvements such as sidewalk widening, street tree planting, and providing pedestrian lighting can be coupled with land use changes to maximize the benefit of public infrastructure investments, and the pairing of these decisions will result in comprehensive and complementary planning of land uses and transportation systems.

The GET Long Range Transit Plan uses a phased approach that is already transforming the Metropolitan Bakersfield Transit System. The Near-term plan became operational in October 2012, creating a Rapid Bus network through the core area with headways less than 15 minutes. The Mid-term plan includes expansion of the rapid bus network and implementation of a Bus Rapid Transit (BRT) System. The Long-term plan expands the system further and increases headways throughout the system. Portions of the BRT system may become the future light rail system for Metropolitan Bakersfield.

Portions of the BRT system may become the future light rail system for Metropolitan Bakersfield.

Kern Regional Transit Bakersfield Service Analysis

KRT recently completed a study of its services, the Bakersfield Service Analysis, adopted in June 2012, in response to the GET Metropolitan Bakersfield Transit System Long-Range Plan. That plan recommended a series of changes to GET's fixed-route service, which have a number of implications for KRT service. The primary objectives of the KRT analysis were to determine whether KRT might be able to take advantage of the GET changes to (1) improve service for its own customers and (2) reduce operating costs.

Eastern Sierra Public Transportation Study

Completed in June 2005, the Eastern Sierra Public Transportation Study focused on public transportation services in Mono, Inyo, and eastern Kern counties. The study represented a comprehensive effort to address short-term interregional transit demands, identify strategies to enhance intra-regional mobility, and present a preliminary feasibility analysis of longer-term passenger rail service between Mammoth Lakes and the Los Angeles region. Given the varied geography, sparse populations, and long distances that buses must travel, the study found that transit operations through the Eastern Sierra region provide exceptionally good coverage. Nearly all communities within the study area have some level of transit service, offering basic mobility to meet some travel demands.

Regional Rural Transit Strategy

Kern COG initiated a study to evaluate alternatives to its current network of rural transit services. A project advisory committee representing transit providers and social services throughout Kern County, inaugurated this effort, the Regional Rural Transit Strategy (RRTS), in spring 2002.

- The RRTS inventoried existing public transit services in rural Kern County, identified possible alternatives to existing public transit service and recommended strategies to improve the rural Kern County public transit system. The report provided the following as areas of focus:
 - Identify alternatives that would improve the overall quality of transit service in Kern County;
 - Identify alternatives to traditional transit addressing Kern County's regional rural mobility needs;
 - Develop coordination alternatives that realize an improvement over the way transit is currently operated;
 - Review, identify, and discuss alternative administrative and oversight models for transit services in Kern County;
 - Create a strategy for increasing the visibility and importance of transit in Kern County; and
 - Create partnerships between transit and non-transit organizations in addressing Kern County's transit needs.

The final RRTS produced recommendations for alternative methods of countywide public transit service focusing on improving efficiency, effectiveness, and cost savings. A cost benefit analysis is necessary to fully assess which recommendations should be given priority.

High Occupancy Vehicle/Bus Rapid Transit Study

Kern COG initiated the High Occupancy Vehicle/Bus Rapid Transit (HOV/BRT) Study to examine the long-range feasibility of implementing HOV lanes and/or BRT services (in the form of freeway-based express bus or arterial-based BRT) within the Bakersfield metropolitan area and surrounding portions of Kern County. The analysis, results, and recommendations developed through this study are incorporated into the 2014 RTP in Chapter 4, Sustainable Communities Strategy (SCS).

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The objectives of this report are to document the study process, which included a review of existing and future baseline transportation conditions within Kern County and an assessment of the performance, benefits, and potential impacts of HOV and BRT improvements within the county.

The study recommends projects or programs that merit further consideration and additional study to provide more detail in terms of travel benefits, costs (capital and operations), and implementation time frames. The analysis completed for this study is conceptual in nature and focuses on identifying need and feasibility. More detailed corridor-level studies of specific projects and recommendations would be necessary prior to the implementation of any of the concepts identified in this report.

Commuter Rail Feasibility Study

Kern COG initiated the Commuter Rail Feasibility Study, completed in July 2012, to examine a set of alternatives for providing commuter rail service within the Bakersfield metropolitan area and surrounding portions of Kern County, as well as within the eastern region of the county. The study concludes that some commuter rail service in Kern warrants further study, including extension of Metrolink from Lancaster north to Rosamond/Edwards AFB, and the addition of one or more Amtrak stops in north/west Bakersfield.

The study effort includes the review and summary of previous studies and reports that have identified potential transportation, land use, and commuter rail development planning in Kern County. The report builds on the existing and forecasted future demographic conditions within the county, as well as example commuter rail case studies throughout the United States presented for comparison purposes.

Six potential commuter rail corridors are examined in the study, utilizing existing freight rail corridors. The objective of this study is to identify corridors that may be feasible for future commuter rail service, along with potential station locations that would serve these corridors. This study is intended to lay the groundwork for more detailed future study efforts that would define operational characteristics and costs at a greater level of detail within the corridors determined to be feasible.

Some commuter rail service in Kern warrants further study, including extension of Metrolink from Lancaster North to Rosamond/Edwards AFB, and addition of one or more Amtrak stops in North/West Bakersfield.

This study included extensive involvement and input from Kern COG staff, as well as members of the study steering committee. This committee included representatives from Caltrans, Kern County, GET, the California High-Speed Rail Authority, City of Bakersfield, City of Delano, Fresno Council of Governments, County of Los Angeles, Altamont Commuter Express, and Southern California Regional Rail Authority.

High-Speed Rail Authority

Established in 1996, the California High-Speed Rail Authority is charged with planning, designing, constructing, and operating a state-of-the-art high-speed train system. The proposed system stretches from San Francisco, Oakland, and Sacramento in the north—with service to the Central Valley—to Los Angeles and San Diego in the south. With bullet trains operating at speeds up to 220 mph, the express travel time from downtown San Francisco to Los Angeles would be approximately 2½ hours. Intercity travelers (trips between metropolitan regions) along with longer-distance commuters would enjoy the benefits of a system designed to connect with existing rail, air, and highway systems.

The recommended high-speed rail blended system (Los Angeles to San Francisco) would be approximately 520 miles long and would serve over 90% of the state's population. The system would be completely grade-separated, double-tracked, and electrified.

The major challenge to the Authority is to secure financing in order to implement the system. In November 2008, California voters passed Proposition 1A, which authorized the State to issue \$9.95 billion in bonds to fund the first phase of a high-speed rail system. In July 2012, the Federal Rail Administration awarded California \$3.1 billion in stimulus funding to accelerate the purchase of rights-of-way and completion of engineering studies and to begin construction. Up to \$1.5 billion of the \$6 billion identified for the first construction segment could be used to build track in the Kern region. The Authority has estimated that the existing funding will allow the track to get as far south as Wasco or northwest Bakersfield. An additional \$20 to \$30 billion is needed before the first true high speed trains can begin operation.

The Draft 2014 Business Plan (Plan) maintains the core elements of the 2012 Business Plan – a better, faster and cheaper high-speed rail that forms the backbone of a statewide rail modernization program. The Plan summarizes the progress the Authority has made over the past two years, updates the Authority's 2012 Business Plan to include recent ridership forecasts and cost estimates and describes the next major decisions and milestones that lie ahead. The updates, including refinements to underlying models and analysis, are based on current data and recommendations from outside experts such as the United States Government Accountability Office.

The Authority is required by Public Utilities Code Section 185033 to prepare, publish, adopt and submit an updated Plan to the Legislature on May 1, 2014, and every two years thereafter.

Proposed Public Transportation Actions

Near Term, 2014–2020

- GET should decrease emphasis on timed connections at transit centers
- New GET transit center at CSU Bakersfield
- Increased GET service to CSU Bakersfield and Bakersfield College
- Faster GET crosstown trips
 - New Express routes
 - New “Rapid” routes
 - More direct routes
- Refine KRT scheduling practices
- Consider KRT route reconfiguration within Downtown Bakersfield
- Analyze KRT stop placement
- Initiate discussions with the Southern California Regional Rail Authority regarding the extension of Metrolink from Lancaster to Rosamond
- Initiate discussions with the State regarding adding stops to Amtrak San Joaquin service between Bakersfield and Wasco
- Monitor advancement of the California High-Speed Rail (HSR) project

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Long Term, 2021–2040

- Introduce “full” GET Bus Rapid Transit
- GET Crosstown service connecting one side of Bakersfield to the other
- GET Circulator services within neighborhoods or around outlying areas of Bakersfield
- Continuation of GET Express routes
- Introduce GET hybrid Circulator/Express service
- Rapid bus improvements
- Introduce Express bus service along SR 178/24th Street/Rosedale Highway and SR 99
- Truck climbing lane along eastbound SR 58
- Consider Bus Rapid Transit in exclusive lanes with traffic signal priority
- Consider additional Express bus service
- Consider ramp metering
- Consider peak period only HOV lanes
- Consider converting BRT corridors to light rail transit
- Consider additional peak period HOV lanes
- Continue pursuing extension of Metrolink from Lancaster to Rosamond
- As HSR proceeds to construction:
 - Identify preferred corridor to connect Bakersfield and Delano with commuter rail/HSR feeder service
 - Identify potential funding for commuter rail operations
 - Work with local transit providers to connect riders to commuter rail/HSR
- Reassess feasibility of commuter rail in various corridors

ACTIVE TRANSPORTATION ACTION ELEMENT

See the Land Use Action Element – Highway/Road for bicycle and pedestrian proposed actions. See Chapter 4, Sustainable Communities Strategy, for further discussion on sustainable land use decisions relative to bicycle and pedestrian travel modes.

Kern County is especially well suited for active transportation such as biking and walking. According to the National Household Travel Survey, in 2009, over 25 percent of trips in Kern County were less than one mile. The climate and terrain of the region is favorable for active transportation, with many clear, dry days and moderate temperatures. For short trips, biking and walking can serve as an alternative to the automobile. Because these modes are non-polluting and energy efficient, it is an element in the region's multimodal transportation system that leads to a more efficient transportation network.

According to the National Household Travel Survey, Over 25 percent of trips in Kern County are less than one mile in length.

This section focuses on bicycle and pedestrian travel facilities with an emphasis on complete streets. Residential developments are often within walking distance of commercial centers; however, design considerations should allow for ready ingress/egress of subdivisions. Mild weather, coupled with safely designed sidewalks and paths, can make walking an enjoyable activity.

Existing Systems

Bicycle facilities generally fall into three distinct categories: Class I, and variations of Class I bike facilities are the first category. Class I facilities are paved right-of-way for exclusive use by bicyclists, pedestrians, and those using non-motorized modes of travel. Class II bike lanes are defined by pavement striping and signage used to allocate a portion of a roadway for bicycle travel. Several jurisdictions have variations on Class II facilities, which provide optional striping scenarios to allow on-street parking. Class III facilities include sign markings for bicycle routes. There are no pavement markings. The County also has a Class III variation that provides a 4-foot delineated shoulder and bicycle route signage in rural areas.

Accomplishments Since 2011

Kern County Bicycle Plan and Complete Streets Recommendations

In October 2012, Kern COG adopted the Kern County Bicycle Master Plan and Complete Streets Recommendations, which provided recommendations for both constructed and planned bicycle facilities in the unincorporated portion of Kern County. The Complete Streets Recommendations looked at the integration of bike, pedestrian and transit facilities into the transportation system.

City of Bakersfield Bicycle Transportation Plan

In November 2013 the Bakersfield City Council approved the City of Bakersfield Bicycle Transportation Plan. The City of Bakersfield Bicycle Transportation Plan guides the future development of bicycle facilities and programs in the City. The recommendations in this Plan will help the City create an environment and develop programs that support bicycling for transportation and recreation, encourage fewer trips by car and support active lifestyles.

In transportation planning, more emphasis is being placed on “soft” solutions to transportation control and traffic congestion. The trend toward solving traffic issues without resorting to expansion of highway and freeway facilities has taken hold over the last decade. Kern County has many notable success stories where more effective management of the existing transportation system has reduced or eliminated the need for

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costly and disruptive expansions. The Kern County Bicycle Master Plan, the Kern County Bicycle Master Plan and Complete Streets Recommendations and the City of Bakersfield Bicycle Transportation Plan documents are incorporated by reference as a part of the 2014 RTP.

Needs and Issues

Maintenance Issues

Maintaining bicycle and pedestrian facilities has always been a challenging issue for local agencies. Roadway maintenance backlogs in nearly every jurisdiction are increasing annually. As the roadway network expands, maintenance efforts and pavement conditions fall further behind. Commitments for investments into new bicycle and pedestrian facilities cannot guarantee a continuing revenue source for upkeep, particularly for bicycle paths on separate rights-of-way. Rather than diminishing bicycle improvements, however, new funding sources or ways to deal with maintenance should be pursued. Alternative and innovative measures will be studied in order to update the Bicycle Master Plan.

Public Support

For a number of reasons, bicycling has not realized its full potential as a transportation mode within the Kern region. The reasons are primarily related to (1) ease of short-distance travel via automobile; (2) lengthy distances between residences and work sites; (3) relatively inexpensive and widely available sources of automobile fuel; (4) lack of shower and/or locker facilities at employment centers; and (5) a general aging of the population, which may reduce the number of persons who are inclined to take bicycle trips.

General attitudes toward bicycling also present issues. Many area residents do not view cycling as a real transportation mode. These attitudes can be attributed to factors such as:

- Many urban roads do not provide adequate shoulders, causing some cyclists to ride within the flow of traffic.
- Lack of adequate bicycle facilities, such as lockers or alternative means of securing a bicycle.
- Decentralization of employment centers, residential areas, and retail facilities.
- Lack of knowledge regarding the benefits of bicycling.

Motorists are occasionally unwilling to share the roadways with bicycles, and this may lead to antagonistic situations in the street. Education regarding the transportation system must include cyclists, pedestrians, motorists, and transit passengers.

Current Planning Activities

Current bicycle and pedestrian planning activities in the Kern region include implementing the existing Kern County Bicycle Facilities Plan and Complete Streets Recommendation and promoting more pedestrian and bike uses throughout the county as an alternative to driving. Bike plans are completed or under development for all the cities and County of Kern.

Proposed capital bicycle and pedestrian projects for the 2014 Regional Transportation Plan are listed in Table 5-1.

Proposed Actions

Near Term, 2014–2020

- Encourage COG member jurisdictions to implement their adopted local bicycle plans and to incorporate bicycle facilities into local transportation projects.
- Continue to seek funding for bicycle and pedestrian projects from local, state, and federal sources.
- Continue to seek funding to maintain existing bikeway and pedestrian facilities.
- Promote the purchase and construction of bicycle racks and lockers for Kern County multimodal stations.
- Promote the inclusion of bike tie-downs and racks on commuter trains and buses.
- Fund updated bicycle plans for incorporated cities.
- Fund a Pedestrian Facilities Plan for the County of Kern as well as incorporated cities.

Long Term, 2021–2040

- Continue to periodically update the Bicycle Master Plan.
- Continue to seek funding for bicycle and pedestrian projects from local, state, and federal sources.
- Continue to seek funding to help maintain existing bikeway and pedestrian facilities.
- Promote development of revitalized, walkable/bikeable neighborhoods with easy access to transit; Paving/controlling dust from streets and shoulders; and improve street intersections that facilitate bicycle travel.

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TRANSPORTATION AIR EMISSIONS REDUCTION ACTION ELEMENT

In recent years, national studies have shown that the US transportation sector accounts for nearly 28 percent of the nation's total Greenhouse Gas (GHG) emissions. California's state laws and regulations (such as AB 32) have set goals for reducing California's GHG air emissions. These efforts aim to reduce GHG emissions to 1990 levels by 2020 - a reduction of approximately 30 percent. In 2010, Californians consumed over 18 billion gallons of gasoline and diesel fuel, resulting in the estimated emission of over 200 million metric tons of greenhouse gas equivalent.

In recent years, studies have shown that the Federal Clean Air Act has helped reduce harmful air emissions by 41 percent from 1990 to 2008. Over the past two decades efforts across the nation have led to the reduction of harmful pollutants such as Ozone, Particulate Matter, Carbon Monoxide, Nitrogen Oxide, Sulfur Dioxide, and Lead. With the transportation sector accountable for a significant portion of these air emissions, reduction efforts must target mobile source activities including on and off road vehicles, public transit, freight, and rail movements.

Existing System

Air emissions reduction activity in the Kern Region has been carried out by national, state, regional and local entities since the early 1990s. Many are multi-agency efforts, including the U.S. Environmental Protection Agency, US Dept. of Energy, Federal Highways Administration, Federal Transit Administration, California Air Resources Board, California Department of Transportation, California Energy Commission, San Joaquin Valley Air Pollution Control District (APCD), Eastern Kern APCD, Kern Council of Governments and its local member agencies.

FIGURE 5-7: TRANSPORTATION AIR EMISSIONS REDUCTION EFFORTS IN THE KERN REGION

National	Regional
<ul style="list-style-type: none"> • Corporate Average Fuel Economy (CAFÉ) Standards • Fuel Pricing • Locomotive Idling Reduction • Locomotive Replacement or Repowering • Transportation Construction Equipment Reductions 	<ul style="list-style-type: none"> • CalVans Vanpool Program • Commute Kern TDM Programs/Incentives • Diesel Engine Retrofits Incentive Program • Drive Clean Rebate Program • IdleAIR Idling Reduction Facilities • Project Clean Air (PCA) • REMOVE II Programs • Retirement/Replacement of Heavy-Duty Trucks Incentives Program • Rule 8061 (SJVAPCD) Unpaved Road Dust Mitigation • Rule 9310 (SJVAPCD) School Bus Fleets: Retirement/Replacement of Buses • Rule 9410 (SJVAPCD) Employer-Based Trips Reduction (eTRIP) • Rule 9510 (SJVAPCD) Indirect Source Review: Infill Incentive Zone Transportation Impact Fee Land Use Strategies. • Valley Clean Air Now (CAN)
State	Local
<ul style="list-style-type: none"> • AB 118 – Air Quality Improvement Program • AB 2766 – Motor Vehicle Fee Program • CalStart • Cap and Trade Program • Clean Diesel • Clean Vehicle Rebate Project • High-Occupancy Vehicle Facilities • Incident management/Kern 511 Traveler Information • Inspection & Maintenance Programs • Moyer Program • Park-and-Ride Facilities • Shifting/Separation Freight Movements • Signal Synchronization and Roadway Intersection Improvements 	<ul style="list-style-type: none"> • Bicycle/Pedestrian Projects and Programs • GET Online Trip Planner Transit Marketing, Information, and Amenities • New/Expanded/Increased Transit Services • Road Paving & Street Sweeping

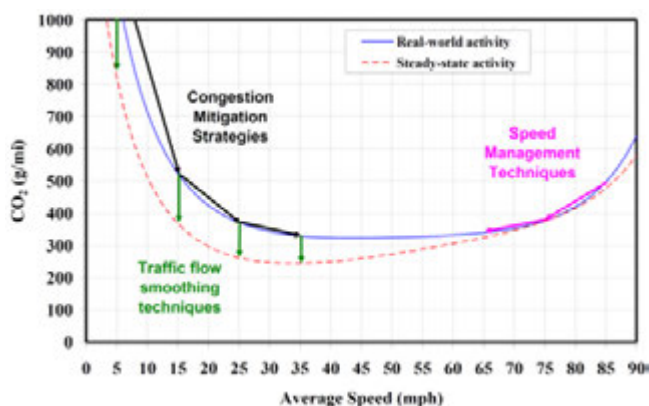
Over two decades of air emission reduction efforts at the national, state, regional, and local levels have produced significant improvements to our nation's air quality. The Kern region has an extremely unique geographic landscape and makeup consisting of two air basins – the San Joaquin Valley and Mojave Desert Air Basins. Of the main criteria pollutants identified in the National and State Ambient Air Quality Standards, both Ozone and Particulate Matter currently hold a status of nonattainment within the Kern region. To continue along a successful path for reducing these harmful pollutants, new and innovative strategies must be implemented in the Kern region to further achieve healthy air quality and meet national and state criteria pollutant standards.

Transportation Control Measures

Transportation Control Measures (TCM) have received a high level of attention since the passage of the state and federal Clean Air Acts and congestion management legislation. As a result, air quality planning areas for the entire San Joaquin Valley, Mojave Desert, and Indian Wells Valley have been designated as nonattainment for harmful pollutants such as ozone and particulate matter 2.5 and 10. According to the state and federal Clean Air Acts, the worst nonattainment areas must ensure that “all feasible measures” be implemented to reduce harmful air emissions. Goals identified in the 2014 RTP, including livability and sustainability, focus on carrying out these requirements to achieve standards for healthy air quality. The most typical and successful Transportation Control Measures include improved public transit, traffic flow improvements and high occupancy vehicle lanes, shared ride services, pedestrian/bicycle facilities, and flexible work schedules. For a complete discussion of Transportation Control Measures being implemented in Kern, see the most recent adopted Federal Air Quality Conformity Analysis document available at: <http://www.kerncog.org/publications/regional-transportation-aq-conformity>. The 2014 RTP includes a combined public review process for the Conformity Analysis and is adopted by joint resolution that includes the conformity document.

FIGURE 5-8: VEHICLE EMISSIONS BY SPEED

SOURCE: BARTH/BORIBOONSOMSIIN, 2008



Needs and Issues

Recent polls show that air quality has been ranked one of the primary concerns for Kern's residents, especially those in the San Joaquin Valley. Kern County is home to some of the most challenging air pollution problems in the United States. A recent American Lung Association State of the Air report placed Kern among the top three most polluted counties in the nation for ozone and first overall for particulate matter. Air pollution contributes to increased respiratory health problems and costly medical care. The unique topography, weather patterns and growing population of Kern County complicate this public health issue. It's not just poor lung health that affects our citizens, it's a sedentary lifestyle. Obesity is a nationwide health problem. According to a 2010 study by the Centers for Disease Control and Prevention, more than half of the adult population in California is considered obese.

In addition to the air quality benefits of more sustainable growth patterns, focusing future development around more mixed use, walkable neighborhoods can help to reduce high rates of respiratory health problems and obesity that affect Kern County residents. Planning for and providing residents with safe and practical options for walking, biking and transit can boost daily physical activity proven to improve health and lessen the impacts of a wide range of chronic diseases, depression and other mental health issues in response to the Kern RTP Outreach activities and comments provided by the general public at Kern COG's

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workshops, reducing unhealthy air emissions is a primary objective of the 2014 RTP. Reducing ozone and particulate matter emissions as outlined in the San Joaquin Valley Air Pollution Control District's attainment plans presents a major challenge. Several issues must be weighed:

- Cost Effectiveness – Maximizing funding is a critical component to successfully achieve air quality goals and standards. It is crucial for air emission reduction efforts to consider cost effectiveness, which is defined as the cost per ton of emissions reduced. Cost effectiveness is weighed by considering factors such as pollutant(s) for which the area is in nonattainment, precursor pollutants of concern, relative size of pollutant inventories, and the existing sources and level of control measures in place. However, cost effectiveness does not always reflect directly on the overall effectiveness of the project.
- Reduce Congestion – Figure 5-8 illustrates that reducing traffic congestion at slow speeds while enforcing speed limits on freeways can significantly reduce harmful criteria pollutants. Maintaining smooth flowing traffic on surface streets and freeways can reduce CO₂ emissions as much as 12%. Kern COG's congestion management program action element on page [5-61], in conjunction with local traffic impact fees, has helped keep Kern's traffic flowing at the optimum speeds of 25 to 60 MPH as the region continues to grow. Continued investment in traffic signal synchronization is a major priority for Kern COG's Congestion Management and Air Quality Improvement Program (CMAQ) funding. In 2012 Kern COG completed a Project Delivery Policies and Procedures document that outlines the process for Kern's member agencies to take in order to benefit from major funding sources.
- Diesel Emission & Idling Reduction Efforts – According to the National Clean Diesel Campaign (NCDC) the five best practices to reduce emissions from diesel activities are retrofits, engine replacement, vehicle replacement, operational strategies, and introducing clean fuels. As part of the 2005 Energy Policy Act, the Diesel Emissions Reductions Act (DERA) was created offering a significant source of funding for clean diesel projects. State and regional efforts from the Air Resources Board (ARB) and San Joaquin Valley Air Pollution Control District (SJVAPCD) offer programs such as the Hybrid and Zero Emission Truck and Bus Voucher Incentive Project (HVIP) which helps offset costs for truck replacement and engine retrofiting. Recently in California, the On-Road Heavy Duty Diesel Vehicles (In-Use) Regulation has been set into place which says by 2023 nearly all trucks and buses will need to have 2010 model year engines or equivalent.

Another significant effort of diesel emission reduction comes from the EPA's Smartway Technologies Program that supports technologies in idle reduction, aerodynamics, low rolling resistance tires, and retrofits. This effort is clearly exercised in the Kern region with IdleAIR's truck stop facility. IdleAIR allows truckers to rest their diesel engines and auxiliary power units while being provided with heating, cooling, electricity, and other at-home commodities inside their trucks.

- Off-Road Mobile Source Emissions – As part of California's Central Valley, the Kern region is highly influenced by the presence of agricultural land uses. Off-Road emissions created from the agriculture and construction industries contribute to particulate matter (PM), nitrogen oxide (NO_x), and volatile organic compound (VOC) emissions. Efforts from the USDA's Natural Resource Conservation Services (NRCS) and the SJVAPCD have led to the replacement and retrofit of nearly 1,400 tractors. In conjunction with the NRCS, the Valley Air District has funded approximately \$43 million of these valley wide efforts to improve off-road emissions.
- Alternative-Fuel Fleets –However, diesel exhaust still has a toxicity component that may warrant continued conversion of fleets, especially school buses. In 2007, California Executive Order S-01-07 established the Low Carbon Fuels Standard with a goal to reduce carbon emissions 10% by 2020. Also in 2007 the Energy Independence Act set the goal to produce 36 billion gallons of renewable fuel blended into transportation fuel nationwide. The state of California is investing \$100 Million per year on alternative fuels technology including electric plug-in, hydrogen fuel cell, and natural gas. Fueling infrastructure is critical for the success of alternative fuels in the region. With nearly \$1.4 million in

funding, the SVAPCD helped UPS deploy 50 hybrid electric delivery trucks in the San Joaquin Valley, and on a more local level, Golden Empire Transit successfully converted its fleet of over 100 buses to compressed natural gas (CNG).

- **Reduce Vehicle Miles Traveled** -- A major long-range challenge in nonattainment areas is controlling offsite (indirect source) emissions generated from housing and commercial development in the region. Kern COG's transportation model indicates that each new house generates an average of 60–70 daily vehicle miles traveled. As new gasoline-electric hybrids and zero emission hydrogen-fuel-cell vehicles become commonplace, ozone-related emissions from transportation sources may someday be negligible. However, as passenger vehicle travel increases, so does particulate matter and fugitive dust produced by moving vehicles. New housing developments need to fully mitigate their indirect source impact to air quality, especially for particulate matter. The San Joaquin Valley is the only region in the nation with an Indirect Source Review (ISR) rule (Rule 9510, SJVAPCD) in place that creates incentives for new development to reduce offsite emissions.

Proposed Actions

Near Term, 2014 – 2020

- Maintain air quality coordination Memorandum of Understanding (MOU) with the San Joaquin Valley Metropolitan Planning Organizations, San Joaquin Valley Air Pollution Control District, Eastern Kern Air Pollution Control District, and Caltrans Districts 6 and 10.
- Improve public transit by lowering transit fares and subsidies;
- Increase alternative-fuel fleets – Work closely with private and public entities to support the conversion of alternative-fuel vehicles;
- Encourage ridesharing and voluntary employer-based incentives – programs such as Commute Kern's Guaranteed Ride Home program and SJVAPCD's Rule 9410 – eTRIP both promote ridesharing that will immensely reduce vehicle miles traveled, ultimately reducing harmful air emissions;
- Traffic flow improvements/railroad grade separations;
- Park and Ride Facilities – provide 1,500 vehicle spaces by 2040;
- Bicycle and pedestrian travel – construct class I, II, and III bicycle paths, accompanied with striping and signage;
- Promote development of revitalized, walkable/bikeable neighborhoods with easy access to transit; Paving/controlling dust from streets and shoulders and improve street intersections that facilitate bicycle travel;
- PM₁₀ efficient street sweeping – SJVAPCD Rule 8061: Paved and Unpaved Roads implements the usage of specific street sweepers that target the reduction of PM₁₀ emissions within urbanized street networks;
- Identify funding options for Congestion Mitigation Air Quality Improvement Program (CMAQ), AB 2766 Motor Vehicle Emissions Reductions Program, and other sources that fund air emission reduction ;
- Identify all Reasonably Available Control Measures (RACM) for ozone and all Best Available Control Measures (BACM) for PM₁₀ by Kern COG's member agencies;

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- Special presentations and workshops for member agencies on transportation-related control measure strategies for air pollution emissions as new standards, technology, and funding opportunities evolve;
- Media campaigns promoting the various air emission reduction measures listed above;

Long Term, 2021–2040

- High Occupancy Vehicle (HOV) lane additions as well as ramps and metering improvements: Centennial Corridor and Westside Parkway provide room to accommodate HOV;
- Add “missing links” (streets) to roadway network that reduce out of direction travel: Centennial Connector will provide a major free-flow traffic connector that will improve air quality by reducing stop and go truck travel on local arterials. Hageman Flyover Project will provide another east/west connection over SR 99 to downtown Bakersfield central business district; Mohawk Street extension provides an extension from Rosedale Highway south that connects to Truxtun Avenue accessing downtown Bakersfield;
- Carpool programs – By 2040 a fleet of over 500 vans shall be utilized and maintained for vanpooling;
- Flextime programs – Offsets the traditional work hours of 8 a.m. to 5 p.m., ultimately reducing traffic congestion during peak periods;

INTELLIGENT TRANSPORTATION SYSTEMS ACTION ELEMENT

See Chapter 4, *Sustainable Communities Strategy*, for further intelligent transportation systems information.

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

The EDP's primary focus for the Kern County region is the maximization of safety, traffic flow, and efficiency in both rural and urban areas. It presents an integrated, multimodal, phased strategic plan to address the surface transportation needs and problems of the Kern region through the use of ITS. By preparing the EDP, Kern County is in a position to take advantage of federal and other funding opportunities and implement various components of ITS.

The objective of ITS is to promote more efficient use of the existing highway and transportation network, increase safety and mobility, and decrease the environmental impacts of congestion.

Kern COG was the lead agency for this study, with key participation from Caltrans District 6 and the Caltrans New Technology and Research Program, as well as various cities and transportation agencies within the Kern region. The overall goal of Kern's ITS EDP was to develop a multiyear strategic deployment plan that would result in a well-balanced, integrated, intermodal transportation system. Transportation needs that have the potential of being addressed by ITS technologies have been identified and ITS elements that would be beneficial, cost-effective, and implementable have been evaluated. The strategic plan facilitates the integration and coordination of ITS applications valley- and statewide in conjunction with other EDPs conducted throughout California.

Kern Early Deployment Plan Needs and Issues

Poor visibility because of fog and blowing dust, large percentages of truck traffic, high winds in eastern Kern County, steep grades, snow and ice, rock falls, and red-light violations all contribute to the growing concerns about highway safety. Tule fog, a problem throughout the entire Central Valley region, has caused some of the worst accidents in the state involving dozens of vehicles and closing Interstate 5, the main artery through the valley, for hours at a time. Fog in Kern's mountains causes similar serious incidents along SR 58. Blowing dust, related directly to seasonal agricultural activities, causes similar difficulties for travelers. In the urban areas, red-light violations are an issue. In eastern Kern County, high winds can cause high-profile vehicles to overturn, and snow, ice, and rock falls can make travel unpredictable in rural areas. This EDP places traveler safety first in determining ITS solutions for the Kern region.

Additional issues addressed in the EDP include:

- Improved information sharing among agencies;
- Improved traffic progression across jurisdictional boundaries;
- Reduction in delays due to incidents;
- More informed traveler decision-making through improved traveler information systems;
- Improved data collection through expanded coverage of information sources;

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- Increased transit ridership;
- Enhanced transit coverage and efficiency;
- Improved air quality analysis; and
- Improved commercial vehicle operations.

Kern ITS Programs

Six programs that integrate existing ITS efforts under way in the Kern were developed and will incrementally advance future expansion of ITS in the region. These programs are:

- Communication Network Development Program – Connects different agencies within the region to allow coordination in operating and managing the transportation system. Examples include building communication links with Bakersfield SONET ring and developing smart call boxes.
- Traffic and Incident Management Program – Integrates various state, regional, and local agencies serving Kern into a comprehensive, region-wide approach to traffic and incident management. Examples include census stations, system and/or incident detectors, coordinated incident management procedures, and freeway changeable message signs.
- Kern Traveler Safety Program – Combines applications that address safety, such as weather stations, smart studs, and rock-fall detection systems.
- Kern Informed Traveler Program – Uses advanced warning systems to reduce accidents and congestion and provides real-time information to the traveling public to improve traffic flow. Examples include the Kern 511 Traveler Information System, consisting of a website and an Interactive Voice Recognition System (IVR), Bakersfield's transportation operations center upgrades, and interactive commuter kiosks.
- Kern Smart Transit Program – Increases transit's share of the commuting market by providing an alternative mode that is flexible, convenient, and responsive to customer demand. Examples include upgrading Golden Empire Transit service and coordinating Golden Empire Transit and Kern Regional Transit schedules.
- Enhanced Emergency Response Program – Provides police, sheriff, fire, ambulance, and other service providers with tools that determine quickly and accurately which routes will be most beneficial. Examples include workstations for emergency response providers and establishing emergency corridor routes.

Implementation of these programs will make transportation throughout Kern County safer, more efficient, and noticeably more pleasant for travelers. These programs were developed specifically for the Kern region, but each was developed as a part of an open, expandable plan, in order to provide a starting point for valley-wide integration of ITS. This means that other Central Valley counties with similar problems and needs will benefit from this plan and can combine ITS programs. Regional integration will provide further opportunities for cost sharing and funding that will result in cost savings to all agencies involved.

ITS Benefits

Over the past decade, deployment of ITS in the United States has resulted in substantial, quantifiable benefits. Several measured benefits of ITS are summarized in Table 5-5 to demonstrate its potential for improvements within the Kern region.

TABLE 5-5: EXAMPLES OF ITS BENEFITS

Freeway Management	Reduced accidents by 15–62% while handling 8–22% more traffic at 16–62% greater speeds compared to pre-existing congested conditions (quantified benefit through the use of ramp metering).
Incident Management	By providing video feeds from the field into a Traffic Management Center, the responding towing concession yielded a clearance reduction of 5–8 minutes.
Traffic Signal Control	Implementation of a transit signal priority system yielded a 5–8% decrease in transit run times.
Transit Management	On-time performance yielded improvements of 12–28% while reducing costs to generate a positive return on investment in as little as three years.
Signal Coordination	Has resulted in an average of 20% reduction in travel times in various locations throughout California.

Source: FHWA-JPO-96-008, *Intelligent Transportation Infrastructure Benefits: Expected and Experienced*. (1996)

San Joaquin Valley ITS Plan

Using a federal planning grant, the eight San Joaquin Valley counties formed an ITS committee focused on solving transportation problems within the region. The vision for the San Joaquin Valley ITS Strategic Deployment Plan is to enhance the quality of life, mobility, and environment through coordination, communication, and integration of ITS technology for the Valley's transportation systems. The ITS plan includes major local elements developed by each of the eight counties. The plan coordinates architecture, standards, institutional issues, and provides a framework for deploying ITS projects.

The San Joaquin Valley Intelligent Transportation Systems Strategic Deployment Plan was adopted by Kern COG in November 2001 and is incorporated within the RTP by reference. The plan was federally approved January 8, 2002.

San Joaquin Valley ITS Architecture Maintenance Plan

While the San Joaquin Valley Regional ITS Architecture is included in the San Joaquin Valley ITS Strategic Deployment Plan, it is considered a process that will be maintained, revised, and validated as needed. The architecture is a set of rules that facilitates the building of systems and allows these systems to communicate and inter-operate when built. Changes to the Regional ITS Architecture, such as new ITS regional needs, plans and priorities, projects, scope, and stakeholders, will be documented through updates to the Deployment Plan. The San Joaquin Valley ITS Architecture Maintenance Plan, including revised management procedures, was adopted by Kern COG on April 21, 2005, and is incorporated within the 2014 RTP by reference. The plan was federally accepted July 14, 2005.

Proposed Actions

Short- and Long-Term Actions, 2014–2040

- Continue stakeholder outreach.

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- Demonstrate the benefits to member agencies of the Regional Transportation Planning Agencies and Metropolitan Planning Organizations.
- Mainstream ITS into program and project prioritization.
- Mainstream and update regional architecture.
- Form public/private partnership task force (on project-by-project basis).

CONGESTION MANAGEMENT PROGRAM ACTION ELEMENT

As with the previous federal surface transportation acts, under MAP-21, all urbanized areas larger than 200,000 population are required to have a Congestion Management Program (CMP), System, or Process. Kern COG has chosen to continue referring to its congestion management activities as a program. The federal Congestion Management Process requirements are similar to the optional California requirements; in fact, the CMP was largely modeled after the California program. Both processes are structured around the identification and monitoring of a system, the establishment of performance standards, and the identification and correction of congestion. The CMP was developed through an open public process in 1991 under state guidelines. Since 1998, the CMP has been included as a subsection of the Regional Transportation Plan. In 2005, the CMP became federally mandated.

The Final Rule for the Federal Management and Monitoring Systems defines an effective Congestion Management Process as a systematic process for managing congestion that provides information on: (1) transportation system performance, and (2) alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet state and local needs.

“The program is an effort to more directly link land use, air emissions, transportation, and the use of new advanced transportation technologies as an integral and complementary part of this region's plans and programs.”

Pursuant to California Government Code Section 65089(a), Kern COG was designated as the Congestion Management Agency in 1991, by the majority of the cities representing the majority of the population and the Kern County Board of Supervisors. Kern COG consists of representatives from the eleven incorporated cities and two representatives from the County of Kern. The Golden Empire Transit District, Joint Planning Policy Board, and Caltrans are ex officio representatives on the Agency Board. The Congestion Management Agency is responsible for developing, adopting, and updating a CMP. The CMP is updated as part of the Regional Transportation Plan every four years. The program is developed in consultation with, and cooperation of, regional transportation providers, local, state, and federal governments, including the California Department of Transportation, and both the Eastern Kern and San Joaquin Valley air pollution control districts.

In 2009, the California Resources Agency revised the CEQA Guidelines, including the Environmental Checklist Form. The new guidelines expand the definition of traffic congestion to include consideration of impacts to transit, bike, and pedestrian modes, as well as the consideration of travel demand measure strategies.

Because the CMP can be amended and updated as frequently as annually, it can be modified to reflect local conditions in traffic congestion and transportation funding. This document fulfills the statutory requirements for the CMP as required under state law and for the Congestion Management Process under federal law.

Purpose

The purpose of the CMP is to help ensure that an efficient transportation system is developed that relates population growth, traffic growth and land use decisions to transportation system level of service (LOS) performance standards and air quality improvement. As discussed in the Transportation Air Emissions Reduction Action Element of this document, smooth, uncongested traffic flow can provide significant improvements to our air quality. The program is an effort to more directly link land use, air quality, transportation, and the use of new advanced transportation technologies as an integral and complementary part of this region's plans and programs.

Local jurisdictions are required to:

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- Use consistent level of service methodologies, performance standards, and travel forecasting techniques.
- Adopt and implement a land use analysis program, which includes acting as a responsible agency for traffic impact studies as part of environmental documentation.
- Participate in annual monitoring activities, maintain acceptable performance levels on the system, or if necessary, designate individual segments or intersections deficient through adoption and submission of a deficiency plan to Kern COG. Deficiency plans may be submitted through the environmental review process as part of the traffic study.
- Adopt Transportation Demand Management mitigation and monitoring program prior to their CMP conformity findings in a deficiency plan or traffic study.

Failure of a local jurisdiction to fulfill these responsibilities could engender loss of federal gas tax funding. According to the 2008 Federal Highway Administration Guidebook on the Congestion Management Process for Transportation Management Agencies greater than 200,000 population and in federal nonattainment areas, “no Federal funds may be spent for capacity-expanding projects unless they come from a CMP”.

Contents

The CMP includes the following six elements:

- **Land Use Impact Analysis:** An established process where Kern COG, in consultation with its member agencies, evaluates the impacts of proposed local land use decisions on Kern County's transportation system, including an estimate of the costs associated with mitigation requirements. This process employs the existing CEQA agency review process.
- **Multimodal Performance Standards:** Determine how much traffic, during peak hours, is acceptable on state freeways, highways, and major streets within Kern County. These standards do not replace adopted city or county traffic goals, which generally establish more stringent standards. In addition, identify frequency and routing of bus service, and coordinate transit service provided by separate operators throughout Kern County.
- **Regional Traffic Model:** Predict level-of-service exceedances, prioritize the Capital Improvement Program, and analyze the impacts of land use on the CMP network. Kern COG maintains the regional traffic model for evaluation of congestion performance measures in the RTP and as a key input to local and regional traffic studies.
- **Transportation Demand Management:** Describe programs to promote alternatives to single-occupant vehicle travel. These include such activities as carpools, vanpools, transit, bicycles, park-and-ride lots, and intelligent transportation system technologies. These programs will improve air quality in the region and help meet the goals of the Air Quality Attainment Plans, as well as climate change goals. Often, environmental documents include Transportation Demand Management strategies (TDMs) and Transportation System Management strategies (TSMs). Kern COG, Caltrans, and local governments should incorporate TDMs/TSMs as part of their Transportation Plans, Circulation Plans, transportation studies, and corridor studies, as appropriate.
- **Capital Improvement Program (CIP):** Establish transportation improvements that can be expected to improve traffic conditions over a minimum of seven years. This program has been developed to make

the best use of the funds currently available. The CIP is developed and maintained by Kern COG with public and member agency input.

- **Deficiency Plan:** Project leads prepare a plan of remedial actions when a roadway level of service standard is not maintained on the designated Congestion Management roadway system. The plan may be addressed in a stand-alone traffic impact study or as part of the environmental document. A Corridor System Management Plan (CSMP) may be prepared by Kern COG to identify actions along congested corridors and systems for inclusion in traffic impact studies.

In addition to these components and as a part of the process of developing and monitoring the program, the local government agencies and Caltrans are required to develop and maintain a traffic data base for use in a countywide model and to monitor the implementation of the program elements. This database requirement may be fulfilled through participation in the Kern COG regional traffic count program.

Along with state-level requirements, federal transportation funding legislation requires each state to develop and implement a transportation Congestion Management Process that will be incorporated into the regional planning process, comply with the intent of the federal requirement, and be considered a part of Kern County's CMP. The program identifies areas where congestion occurs or may occur, identifies the causes of the congestion, evaluates strategies for managing/mitigating congestion and enhancing mobility, and develops a plan for implementation of the most cost effective strategies. Strategies regarding congestion management include:

- Transportation demand management measures.
- Traffic systems management operations improvements (i.e., signal coordination, freeway service patrol, real-time traffic conditions online, etc.).
- Measures to encourage high-occupancy vehicle (HOV) use.
- Enhanced mobility measures that provide a congestion relief valve in corridors that are not affected by the peak period congestion (i.e., arterial-based peak-period transit/HOV lanes or light rail).
- Congestion pricing.
- Land use management and activity/transit-oriented center strategies.
- Incident management strategies.
- Application of ITS technology.
- Addition of general purpose (mixed flow) traffic lanes.
- Other mitigation that allows for mobility through congested corridors for modes other than single-occupant vehicles, including non-motorized bike and pedestrian trips.

Advances in telecommunications technology and networks provide an additional opportunity to further mitigate congestion by reducing the need for travel both within the region and between regions. To an extent, these telecommunications advances are occurring within the private sector without public sector initiatives. However, Kern COG is evaluating a potential public sector role.

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Monitoring and Implementation Process

To ensure the CMP is being implemented, the cities and County provide the Congestion Management Agency considerable information annually, primarily in the form of technical data, as well as policy and planning summaries, including the following:

- **Traffic Level of Service:** Each city, the County, and Caltrans must provide peak-hour traffic counts and level of service calculations on their designated streets and intersections. As participants on the Kern Regional Transportation Modeling Committee, these agencies oversee a regional traffic count program and travel demand forecasting program administered by Kern COG.
- **Local Traffic Models:** Kern COG is required to approve any traffic models used by the cities and the County to evaluate impacts of proposed land use development on the transportation system. After the model has been initially approved by the Congestion Management Agency, only changes to the model will need to be submitted.
- **Land Use Database:** Kern COG is required to establish and maintain a uniform land use database for the development and monitoring of the program. All current and future land use projections must be included in the database. Any changes to the land use database must be submitted to Kern COG.
- **Local Capital Improvement Program:** The program includes a minimum seven-year Capital Improvement Program to maintain or improve the level of service on the CMP network and transit performance standards, and to mitigate regional transportation impacts identified through the program's land use analysis element.
- **Performance Monitoring:** Kern COG is required to update the level of service for the Congestion Management System network as well as system wide congested travel statistics using the Kern COG regional travel demand model.

Designated Regional Transportation System

The purpose of defining the CMP network is to establish a system of roadways that will be monitored in relation to established level-of-service standards. At a minimum, all state highways and principal arterials must be designated as part of the Congestion Management System of Highways and Roadways. Kern County has 18 designated state highways. The roads selected as principal arterials by the Congestion Management Agency serve interregional traffic traveling between state highways and also complete gaps in the congestion management network.

California Government Code Section 65089(b)(1)(A) requires that the Congestion Management Agency establish a system of highways and roadways that includes all of the state highways and principal arterials. Once a roadway is included in the network, it cannot be removed. All new state highways and principal arterials must be included in the system. If in the future, however, an existing segment of state highway is replaced by a new alignment, the new alignment would be added to the congestion management network while the old alignment would be dropped from the network.

Figures 5-9 and 5-10 provides a graphic display of the Congestion Management System of highways and roadways. A listing of state highways and principal arterials on the designated Congestion Management System is provided below.

Congestion Management Program System

Highways

Interstate 5	SR 155
SR 14	SR 166
SR 33	SR 178
SR 43	SR 184
SR 46	SR 202
SR 58*	SR 204
SR 65	SR 223
SR 99	U.S. 395
SR 119	

*The new Westside Parkway and Stockdale Highway will be added to the CMP system when the designation of SR 58 switches over to those routes, possibly by 2015.

Principal Arterials

China Lake Boulevard – SR 178 to Route 395

Rosamond Boulevard – Tehachapi-Willow Springs Road to SR 14

Seventh Standard Road – SR 99 to Interstate 5

Tehachapi-Willow Springs Road – SR 58 to Rosamond Boulevard

Wheeler Ridge Road – Interstate 5 to SR 223

Figure 5-9: Metropolitan Bakersfield Congestion Management Program Corridors

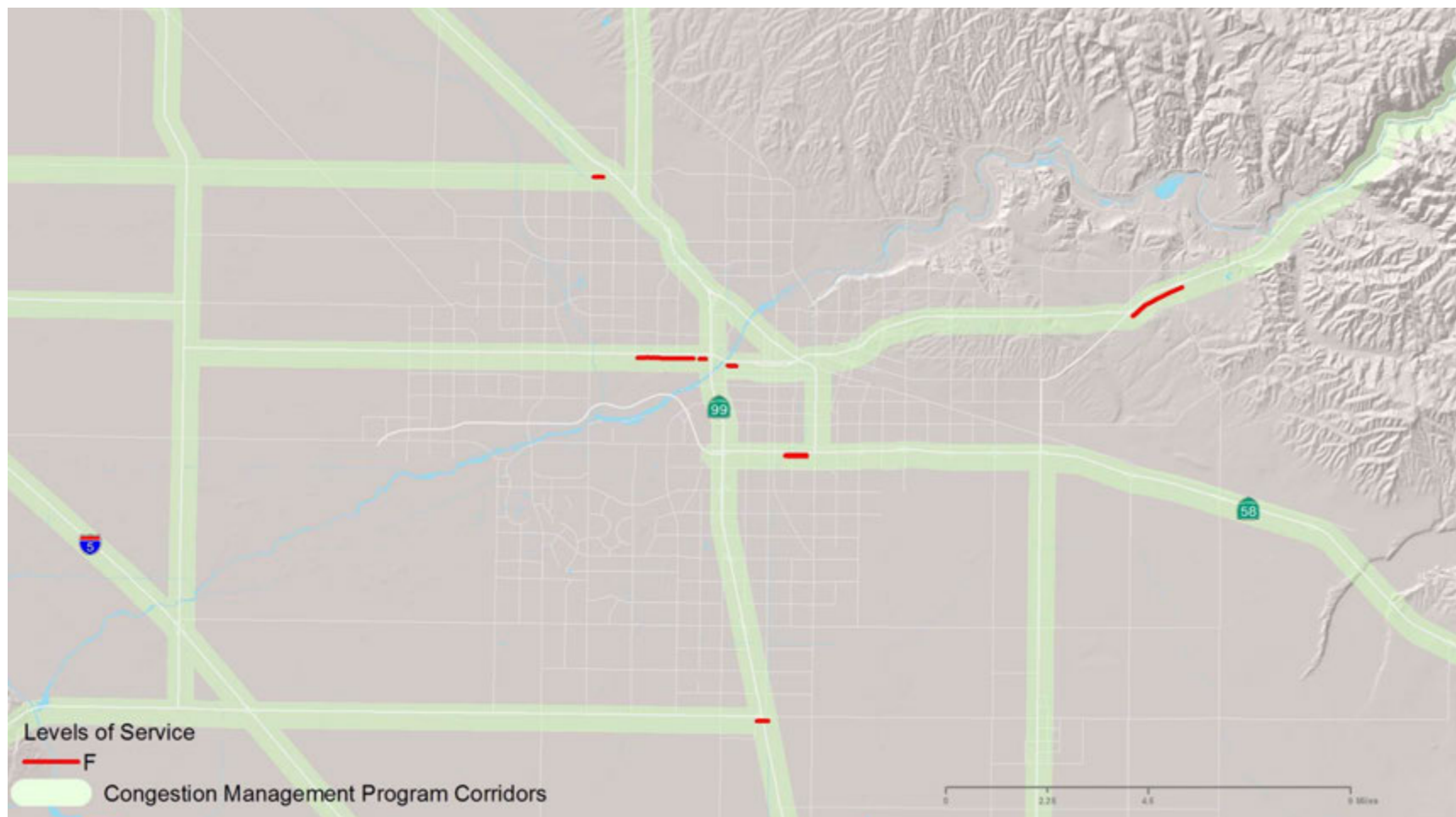
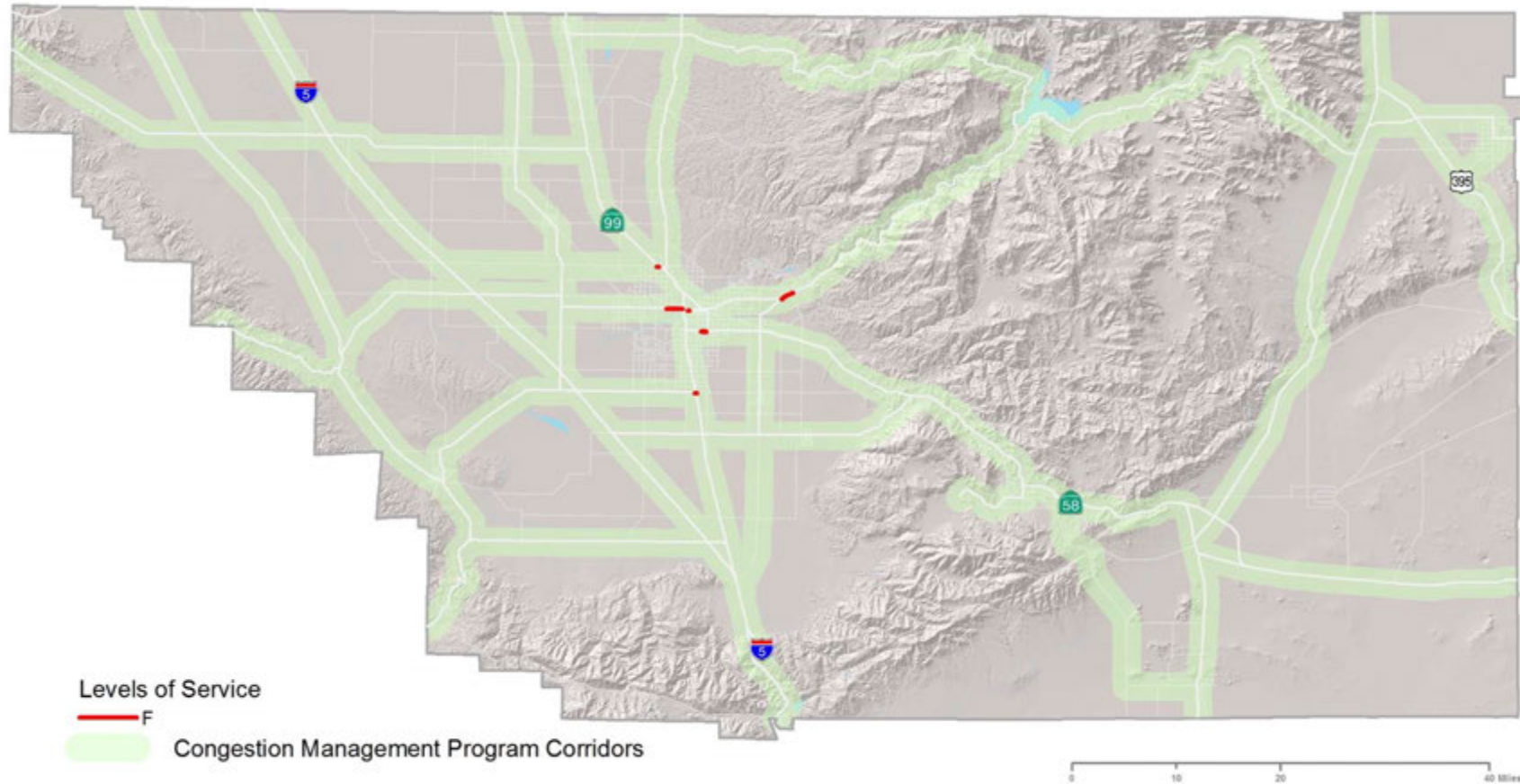


FIGURE 5-10: KERN COUNTY CONGESTION MANAGEMENT PROGRAM CORRIDORS



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Level of Service Standards

The purpose of this section is to establish level of service standards for the Congestion Management road network in Kern County. California Government Code Section 65089(b)(1)(B) requires that level of service standards be established at no worse than LOS E, or LOS F if that is the current level of service.

Level of service, according to the Transportation and Traffic Engineering Handbook, is a "qualitative measure that represents the collective factors of speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs provided by a highway facility under a particular volume condition." Level of service is ranked from A to F, with A being best and F being worst (see Table 5-6).

TABLE 5-6: LEVELS OF SERVICE

Level of Service A	Free flow: no approach phase is fully used by traffic and no vehicle waits longer than one red indication. Insignificant delays.
Level of Service B	Stable operation: an occasional approach phase is fully used. Many drivers begin to feel somewhat restricted within platoons of vehicles. Minimal delays.
Level of Service C	Stable operation: major approach phase may become fully used and most drivers feel somewhat restricted. Acceptable delays.
Level of Service D	Approaching unstable: drivers may have to wait through more than one red signal cycle. Queues develop but dissipate without excessive delays.
Level of Service E	Unstable operation: volumes at or near capacity. Vehicles may wait through several signal cycles and long queues form upstream from intersection. Significant delays.
Level of Service F	Forced flow: represents jammed conditions. Intersection operates below capacity with several delays that may block upstream intersections.

Jurisdictions are encouraged to incorporate multimodal level of service standards as appropriate for each community facility type, place type and corridor type as recommended in the latest Highway Capacity Manual update. The 2012 update to the project selection criteria includes consideration of highway, bike and pedestrian level of service. To refer to the Kern COG Project Delivery Policies and Procedures please use the following link: www.kerncog.org/images/docs/policies/Project_Selection_Process_2012.pdf.

Adopted Level of Service Standards

One of the most important elements of the congestion management process is to establish traffic level of service standards to decide how much traffic, during peak hours, is acceptable. LOS is a way of measuring the amount of traffic congestion.

Level of service E has been established as the minimum system-wide LOS traffic standard in the Kern COG Congestion Management Plan. Those roads currently experiencing worse traffic congestion have been accepted at their existing traffic level of LOS F. By so doing, cities and the County will not be penalized through loss of gas tax funds for not meeting the new CMP LOS E standard. Existing LOS F locations are listed below.

- Seventh Standard Road – SR 99 to Coffee Road
- Portions of SR 119 at SR 99

- Portions of SR 178/24th Street – Oak Street to N Street
- Portions of SR 58 – SR 99 to Cottonwood Road
- Portions of SR 58/Rosedale Highway – SR 99 to Fruitvale Ave

(List updated based on most recent travel demand model validation base year)

Projects along one of the existing LOS F segments, with 1 or more peak-hour trips (or as required by the most recent Caltrans Guide for the Preparation of Traffic Impact Studies), shall include a deficiency plan for the affected corridor segments as part of the traffic study for the project's environmental document or as a separate stand-alone deficiency plan for the affected corridor.

Overall, the number of congested segments and vehicle miles traveled has dropped since the last travel demand model validation. Of the segments that remain LOS F, a stand-alone Corridor System Management Plan (CSMP)/deficiency plan has been completed for SR 58. Also note that 7th Standard Road LOS F segment received capacity improvements in 2011 and is not included in the most recent transportation model base year validation from 2008. The CMP assumes that recently completed capacity increasing improvements will operate better than LOS F until the next transportation model update indicates that the segment has been degraded to LOS F again. The model update validation uses observed traffic data from the annual traffic monitoring program. A CSMP or Transportation Concept Report (TCR) has not been completed for the congested portions of SR178 and SR119. These routes are under the grace period for requirement of a deficiency plan and have capacity improvements already planned in this RTP. All other deficiencies are off the CMP network.

In addition to the LOS standards of the CMP, some cities and the County of Kern have adopted policies to help maintain their own LOS standards. In most cases, these local policies are aimed at maintaining LOS C. These standards are not intended to replace local policies by allowing greater congestion; they serve a very different purpose. The locally adopted LOS standards are tied to the cities' and County's authority to approve or deny development, require mitigation measures, and construct roadway improvements. The level of service standard is a planning tool to be used in the development review process. Failure to meet the local standard does not have direct negative federal financial impacts.

Mitigating Deficiencies

The Deficiency Plan is similar to a CSMP or TCR. The deficiency plan section of the traffic study should analyze affected portion of the CMP network and parallel corridors as appropriate. A grace period is being provided until Kern COG and/or Caltrans completes the CSMP or TCR for all the congested segments in the Congestion Management network.

- Multimodal Analysis – The modes analyzed should be dependent on the place type. For example, in most cases rural intercity travel need not look at pedestrian facilities. The plan should provide mitigation and a monitoring program to offset impacts to all modes through incident and demand management strategies.
- Corridor Analysis – Corridor impacts to a mode may be mitigated by providing capacity on a parallel facility. For example, an impacted facility may lack pedestrian and bike facilities; however, a parallel bike/pedestrian path within the corridor could offset this deficiency. In addition, impacts to transit buses stuck in the same traffic congestion as single-occupant vehicles could be mitigated by the provision of a transit/HOV lane in the congested travel direction during peak periods. Additional mitigation for congestion could be through the provision of a freeway service patrol to rapidly clear traffic accidents during peak periods.

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- **Multimodal Circulation Plans** – As required by AB 1358 effective January 2011, at the next regularly scheduled update, local circulation plans should consider other modes and methods for assessing service. In addition to the road network, circulation plans should include bike, pedestrian, and transit networks. The bike/pedestrian/transit networks should provide for transit-oriented development centers that could serve as transfer points and nodes for future express and/or regional service. The centers also should provide a connected network linking to future high-speed rail and passenger rail stations. These centers should be reflected in the Land Use Element of the General Plan with higher densities and a mix of land uses that make for a vibrant pedestrian-oriented destination.
- **Funding Mitigation** – Funding for mitigation may be phased as part of the mitigation monitoring program. Developer-funded mitigation would be timed with the completion of phases that created the impacts. Other funding sources could include local and regional traffic impact fees, a transportation sales tax measure, and the Kern Motorist Aid Authority DMV fee for freeway service patrols and traveler assistance 511 services. A Corridor System Management Plan could be prepared by Kern COG to assist with the development of the cost/benefit analysis.
- **Congestion Pricing** – On major freeway and highway facilities, HOV lanes, bus lanes, and toll lanes can be used to fund new capacity for single-occupant vehicle traffic. At the national level, odometer-based tolling is being considered to fund and maintain infrastructure that supports goods movement activity. Variable parking costs can also be used as a strategy to reduce congestion during peak periods.
- **Grace Period** – Member agencies are not required to prepare a deficiency plan or traffic study as required under this section until Kern COG or Caltrans completes the Corridor System Management Plan or Transportation Concept Report for the deficient segments on the CMP system.

Congestion Management Agency Role

Under the State CEQA Guidelines, the Congestion Management Agency monitors a countywide level of service standard and withholds federal gas tax funds if the standard is not met or mitigated. Local agencies often establish more stringent level of service requirements as part of the circulation plans. The CMP standard is not viewed as being in conflict with locally adopted LOS standards that are more stringent.

It is the Congestion Management Agency's responsibility to ensure that all cities and the County are following the CMP. Of particular importance is the establishment of traffic counts and regional traffic modeling. Kern COG completes one coordinated and comprehensive review of current LOS traffic data with each RTP update; each city and the County is evaluated in the same manner. Through the Kern Regional Traffic Count Program, the cities, County and Caltrans undertake traffic counts on their roads annually. Use of recent peak-hour traffic counts as a basis for traffic forecasting eliminates much of the "guesswork" and ensures that the review is based on actual traffic conditions.

Provisions include:

- All roadway segments on the Congestion Management network shall maintain a level of service of E or better.
- Any roadway segments on the Congestion Management network that are operating at a level of service worse than E on the adoption of the first CMP shall be required to prepare a deficiency plan as part of the traffic study for a proposed development. The plan shall provide mitigation through transportation system management and travel demand management strategies and/or capacity for other modes such as transit and HOV that is not affected by the slower speeds of congested single-occupant vehicle

travel. The plan shall provide mitigation along the congested portion of the corridor if mitigation of the affected CMP network links is not feasible.

- The CMP will assume that a recently completed capacity increasing improvement will operate better than LOS F until the next transportation model update indicates that the segment has been degraded to LOS F again, as indicated by observed traffic counts.

Conformance Monitoring

This section identifies specific conformance monitoring procedures to determine if the local jurisdictions are complying with the traffic level of service standards, the interim transit frequency, routing, and coordination requirements, adoption and implementation of the program to analyze the impacts of land use decisions on the Congestion Management System, and compliance with the Transportation Demand Management/Trip Reduction Element.

California Government Code Section 65089.3(a) states, "The agency (CMA) shall monitor the implementation of all elements of the CMP. Annually, the agency shall determine if the County and the cities are conforming to the Program, including, but not limited to, all of the following:

- Consistency with levels of service and performance standards, except as provided in subdivisions (b) and (c);
- Adoption and implementation of a transportation demand management/trip reduction ordinance;
- Adoption and implementation of a program to analyze the impacts of land use decisions, including the estimate of the costs associated with mitigating these impacts.

Determination of Nonconformance

If, pursuant to the annual traffic monitoring process, the Congestion Management Agency finds that a local jurisdiction is not conforming to the provisions of the CMP, the Agency shall hold a noticed public hearing for the purpose of determining conformance. Further, the Agency shall notify the nonconforming jurisdiction in writing of the specific areas of nonconformance. A nonconforming jurisdiction may appeal the determination of nonconformance for the purpose of scheduling a re-hearing before the Agency within 100 days of the initial notice of nonconformance.

The nonconforming jurisdiction shall have 90 days from the date of the receipt of the written notice of nonconformance to come into conformance with the CMP, in accordance with Section 65089.4(a). If the nonconforming jurisdiction has not come into compliance with the CMP, the Congestion Management Agency shall make a finding of nonconformance and shall submit the finding to the California Transportation Commission and the State Controller.

In accordance with Government Code Section 65089.4(b), the State Controller will withhold apportionments of funds required to be apportioned to that nonconforming jurisdiction by Section 2105 of the Streets and Highways Code, until the Controller is notified by the Agency that the city or County is in conformance. If, within the 12-month period following the receipt of a notice of nonconformance, the Controller is notified by the Agency that the city or County is in conformance, the Controller shall allocate the apportionments withheld pursuant to this section to the city or County.

If the Controller is not notified by the Congestion Management Agency that the city or County is in conformance pursuant to paragraph (2), the Controller shall allocate the apportionments withheld to the Agency. The Agency shall use the funds apportioned for projects of regional significance that are included

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in the Capital Improvement Program required in Section 6.8 of this document. The funds may also be used for projects identified in a deficiency plan that has been adopted by the Agency. The Agency cannot use the funds for administrative or planning purposes.

Appeals Process

A local jurisdiction found to be in nonconformance with a provision of the CMP may file a written request of appeal within 90 days of the date of the receipt of the written notice of nonconformance. Within 100 days of receipt of the written notice of appeal from a local jurisdiction previously found to be in nonconformance, the Congestion Management Agency will schedule a noticed public hearing for the purpose of reconsidering the finding of nonconformance.

Within 60 days of the date the appeal is filed, the local jurisdiction filing the appeal may submit information pertaining to the written notice of nonconformance. After the public hearing on the appeal of the finding of nonconformance is concluded, the Congestion Management Agency will:

- Notify the local jurisdiction that, because of the information considered at the appeal hearing, the finding of nonconformance is being withdrawn, or
- Notify the California Transportation Commission and the Controller's Office that the local jurisdiction has not come into conformance with the CMP.

REGIONAL STREETS AND HIGHWAYS ACTION ELEMENT

See the Land Use Action Element – Highway/Road Land Use Actions for further discussion on sustainable land use decisions relative to highways and roads.

A system of safe and efficient highways, streets, and roads is essential to the movement of people, vehicles, and goods in and through Kern County. Public vehicles, private automobiles, and commercial shippers all share the same transportation network. Providing a system of state and federal highways and regionally significant arterials that can meet this variety of needs is critical to the plan's goal of enhancing the quality of life for Kern County's residents.

The new project selection criteria incorporate livable community strategies into the prioritization elements for projects of regional significance.

In 2012, Kern COG adopted new SB 375-enhanced project selection criteria, which will be used for all future calls for projects. The new project selection criteria incorporate livable community strategies into the prioritization elements for projects of regional significance. This is an important step for the region in that it helps to implement Chapter 4 the Sustainable Communities Strategy by allowing projects that incorporate sustainable strategies to score higher for funding consideration. Additionally, complete streets elements were incorporated into the project selection criteria and the Congestion Mitigation and Air Quality Improvement (CMAQ) Program to prioritize new projects.

Existing Streets and Highways System

Streets and highways relevant to this element are the state and interstate highways in the county. These projects are federally funded and/or considered "regionally significant." This element also recognizes principal arterials as important to the movement of goods and people in the region. Interstate highways in Kern County relevant to the 2014 RTP include Interstate 5 (I-5) and US Highway 395.

The following roadways are also relevant to this plan:

- State Route 14 (Midland Trail and Antelope Valley Freeway)
- State Route 33 (Westside Highway)
- State Route 43 (Central Valley Highway)
- State Route 46 (Famoso Highway)
- State Route 58 (Rosedale Highway/Mojave Freeway)
- State Route 65 (Porterville Highway)
- State Route 99 (Golden State Highway)
- State Route 119 (Taft Highway)
- State Route 155 (Delano Woody Highway)
- State Route 166 (Maricopa Highway)
- State Route 178 (Crosstown Freeway/Kern River Canyon Road/Isabella Walker Pass/Inyokern Road)

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- State Route 184 (Weedpatch Highway/James Throne Memorial Highway)
- State Route 202 (Cummings Valley Road)
- State Route 204 (Golden State Avenue/Union Avenue)
- State Route 223 (Bear Mountain Boulevard)

Figure 1-1 (Chapter 1, Introduction) illustrates the streets and highways system. It includes interstate and state highway routes as well as some of the major arterials and regionally significant roadways.

Accomplishments Since 2000

Achievements related to the region's network of highways, streets, and roads are depicted below. The following major state highway projects are under construction or completed:

- Hageman Road grade separation at Santa Fe Way
- Seventh Standard Road widening from Santa Fe Way to State Route 99
- Seventh Standard Road grade separation at Santa Fe Way
- State Route 46 – widening west of Interstate 5 to the county line
- State Route 58 – Mojave Freeway
- State Route 99 – widening in Bakersfield
- State Route 99 – widening near Delano
- State Route 202 – new bridge near Route 58 at Tehachapi
- State Route 58 (Mojave Freeway) – frontage road
- White Lane – bridge widening in Bakersfield
- State Route 119 phase 1 – Cherry Ave to Tupman Rd
- State Route 14 – widening from Mojave to California City
- State Route 178 at Fairfax Road – new interchange
- Calloway Drive grade separation – Bakersfield
- Coffee Road grade separation – Bakersfield
- Seventh Standard Road widening – three segments in Shafter, Bakersfield, and the county
- Westside Parkway – Bakersfield
- State Route 46 phases 1-3 – west Kern County

- Morning Drive improvements – Bakersfield
- Challenger Drive Extension – Tehachapi
- West Ridgecrest Boulevard – widening
- State Route 99 widening – Wilson Road to State Route 119
- State Route 58 widening – Cottonwood Road to State Route 99
- State Route 178 widening – Vineland Road to east of Miramonte Drive – Bakersfield
- State Route 58 Rosedale Hwy widening – Allen Road to State Route 99

The following regionally significant roadway projects are undergoing necessary environmental review, right-of-way acquisition, and/or design work:

- State Route 178 – widening near Oak Street – Bakersfield
- 24th Street improvement – State Route 178 from State Route 99 to M Street – Bakersfield
- State Route 46 phase 4 – west Kern County
- State Route 119 phase 2 – Cherry Ave to Tupman Rd
- State Route 14 – west of Ridgecrest
- Hageman Road extension – Bakersfield
- Centennial Corridor – Bakersfield

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Figure 5-11: Metro Bakersfield Projects

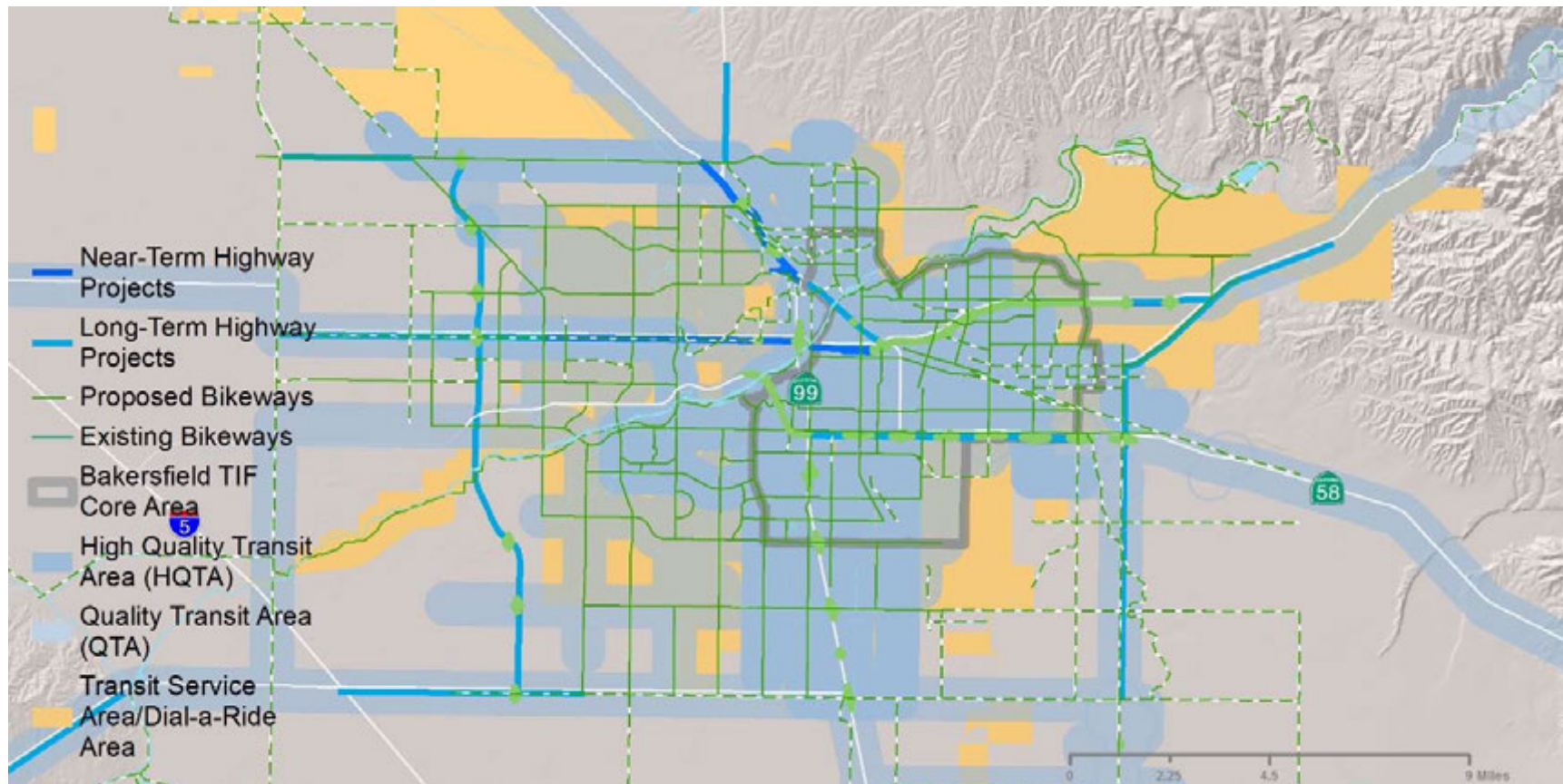
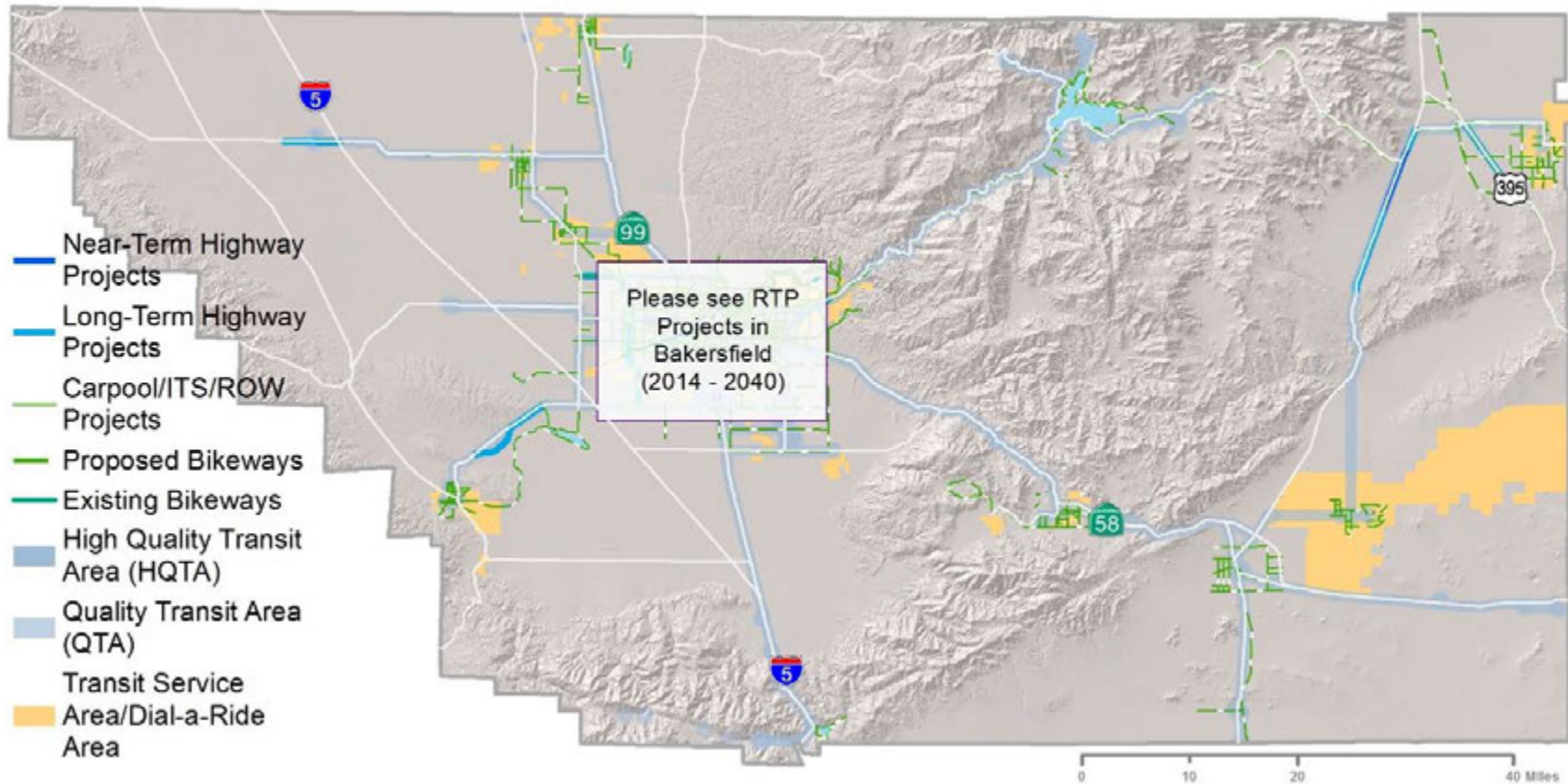


Figure 5-12: Kern County Projects



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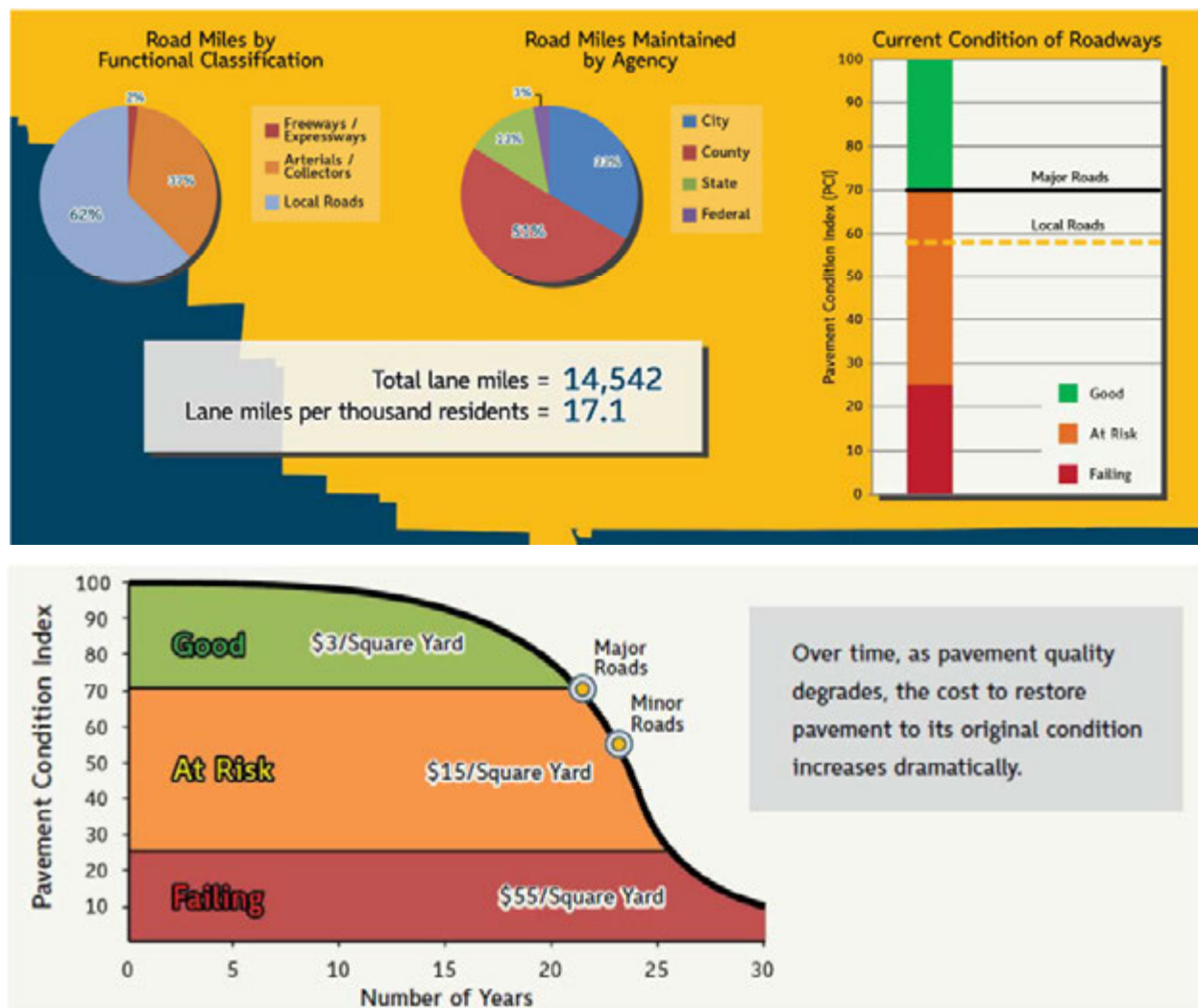
Needs and Issues

Maintenance Needs

Maintaining the local transportation infrastructure is of critical importance for the entire region. Based on extensive input for development of this RTP, maintaining the roads are the public's top transportation priority (Appendix C - Public Outreach Results). Deferred maintenance costs on local roads are estimated to exceed \$500 million over the period of the RTP. Failure to attend to these deferred needs will result in costly repairs when the facility fails. It is more cost effective to apply preventive maintenance treatments and extend a facility's life than to reconstruct once it has completely failed. Funds to handle the backlog of needs simply have not been available. Funding from the federal gas tax has traditionally been used to support the maintenance of these facilities; over time, however, gas tax revenues have failed to keep up with inflation.

Based on extensive input in development of this RTP, maintaining roads is among the public's top transportation priorities.

Figure 5-13: Kern County Road Maintenance Conditions (source: California League of Cities Survey, 2012)



Given ongoing concern regarding deferred maintenance, goals and policies in Chapter 2 recognize the need to maintain and upgrade the present system whenever feasible. Also included is a policy to investigate federal, state, and local funding opportunities that would maintain the current transportation system and promote future transportation development.

Maintenance of state highways also requires considerable investment. State highway maintenance and safety project expenditures are generally funded as part of the State Highway Operation and Protection Program (SHOPP), which do not require local matching dollars. The California Department of Transportation (Caltrans) prepares a 10-year SHOPP for the rehabilitation and reconstruction of all state highways and bridges that recognizes the growing inventory of deferred maintenance needs.

Table 6-1 (Chapter 6, Financing Transportation) provides a revenue forecast for local, state, and federal funding and includes a specific revenue forecast for the maintenance of state highways in the Kern region. All other funding sources for local maintenance and transit operations are combined by funding type in the table. Figure 6-6 provides a general overview of financial resources expected for local road rehabilitation, state highway rehabilitation, and transit operations and maintenance. Financing assumptions include an increase in funding for maintenance from a variety of potential national, state and local sources actively being explored.

Bakersfield Federal Demonstration Project – Thomas Roads Improvement Program (TRIP)

The foundation for planning the Metropolitan Bakersfield highway transportation network was titled the Bakersfield Beltway System in federal legislation, as shown on Figure 5-12. This system of freeways and expressways consists of three major roadways: Central System, West Beltway, and North Beltway. These facilities may be built in phases, which may initially be constructed as expressways and upgraded to freeways as future demand requires.

The Central System is an element of the Bakersfield Beltway System that includes the State Route (SR) 58 Gap Closure, along with the Centennial Corridor, which consists of the SR 58 Connector, the Westside Parkway, and the Interstate 5 Connector.

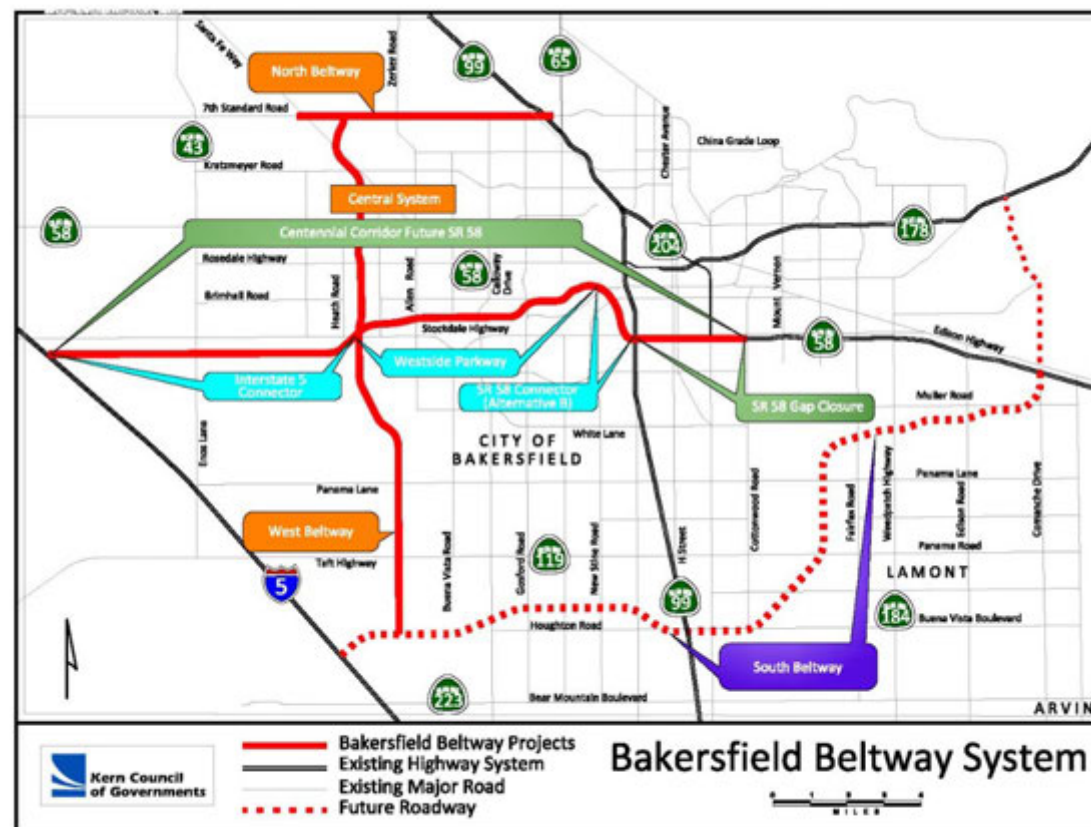
The SR 58 Gap Closure is widening SR 58 to a six-lane facility between Cottonwood Road and east of SR 99. Currently, this four-lane section is located between a six-lane facility east of Cottonwood Road and a six-lane facility at the SR 99/SR 58 interchange. As a gap closure, this project has independent utility and also provides a logical terminus and network continuity for the Central System.

The SR 58 Connector will include operational improvements from Cottonwood Road to SR 99, and a new freeway will extend from the western terminus of the SR 58 Gap Closure to Westside Parkway. The facility will include right of way for a future high occupancy vehicle lane (HOV). Westside Parkway begins about 1 mile east of SR 99, extends across the Kern River at Truxtun Avenue, and continues along the north side of the river, connecting with Stockdale Highway near Heath Road. The I-5 Connector will extend from the western terminus of Westside Parkway to I-5, parallel to Stockdale Highway. Initially, this section will consist of operational improvements on the existing Stockdale Highway. Together, these three projects constitute the Centennial Corridor.

The completed Central System will provide the necessary capacity for east/west travel and relieve congestion on existing SR 58 (Rosedale Highway), California Avenue, SR 99 and other existing routes. The Central System will also provide for regional and interstate east/west goods movement through the metropolitan area. Once this facility is finished, it is anticipated that Caltrans will designate the Central System as the new SR 58.

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Figure 5-14: Bakersfield Federal Demonstration Projects



The West Beltway will provide a major north/south route through the western portion of Metropolitan Bakersfield, an element of the network that connects SR 99 with Interstate 5. The facility would include meters, and HOV lanes on ramps. This freeway would reduce traffic congestion on SR 99 and provide a link across the Kern River from southwest Bakersfield to the Westside Parkway.

The North Beltway will provide an east/west connection in northern Metropolitan Bakersfield. This facility initially would be built as an expressway, providing access for the northern Metropolitan Bakersfield area while connecting SR 99 with Interstate 5.

Level of Service

Implementation of the 2014 RTP will result in improvements to existing transportation systems and will meet required regional transportation needs. Proposed street and highway programs are aimed at reducing existing traffic, improving safety, and resolving other circulation conflicts. Implementation of planned improvements to the street and highway network, improvement of county airports, provision of mass transportation services and facilities, identification of additional bikeways and pedestrian improvements, and improved transportation systems that accommodate goods movement will have beneficial effects on a region-wide basis.

Level of service (LOS), according to the Transportation and Traffic Engineering Handbook, is a “qualitative (performance) measure that represents the collective factors of speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operation costs provided by a highway facility under a particular volume condition.” LOS measurement is used to assess the regionally significant system of streets and highway facilities. Proposed projects for the highway system use LOS values to determine and rank the type and number of transportation projects necessary to accommodate current and expected future growth.

LOS values range from A to F representing various levels of traffic flow from free flow for A to stop-and-go gridlock traffic for F. Additional variations for LOS values are based on the road type; interrupted traffic flow facilities that include stop signs and signals have a modified version for LOS steps. Uninterrupted traffic flow facilities would include freeways and other highway facilities that do not have fixed traffic elements such as stop signs or signals.

LOS values are integrated with Kern COG’s transportation model by assessing final traffic volumes against specific capacity values. These volume-over-capacity values are then related to LOS values based on accepted industry standards for transportation models. The transportation model network reflects capital improvements from Table 5-1 and resulting traffic volumes. Figures 5-15 and 5-16 reflect “build” scenario LOS values because the network includes the Constrained Program of Projects. Figures 5-17 and 5-18 reflect the “no build” scenarios in that the network only reflects current system improvements, while future growth values are used to generate future vehicle miles traveled without the proposed improvements.

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Figure 5-15: Kern County Traffic Congestion – 2040 Build Scenario

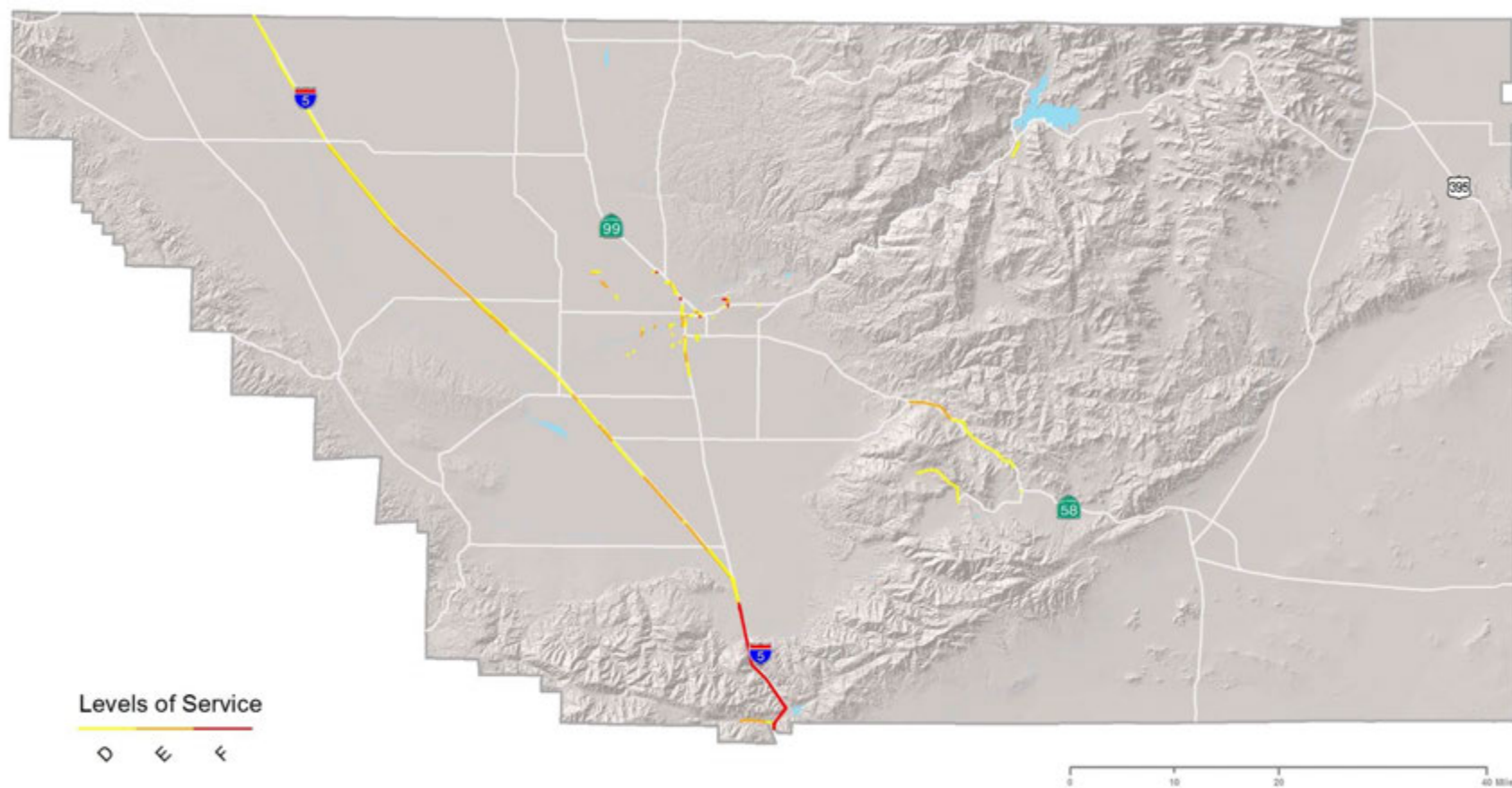
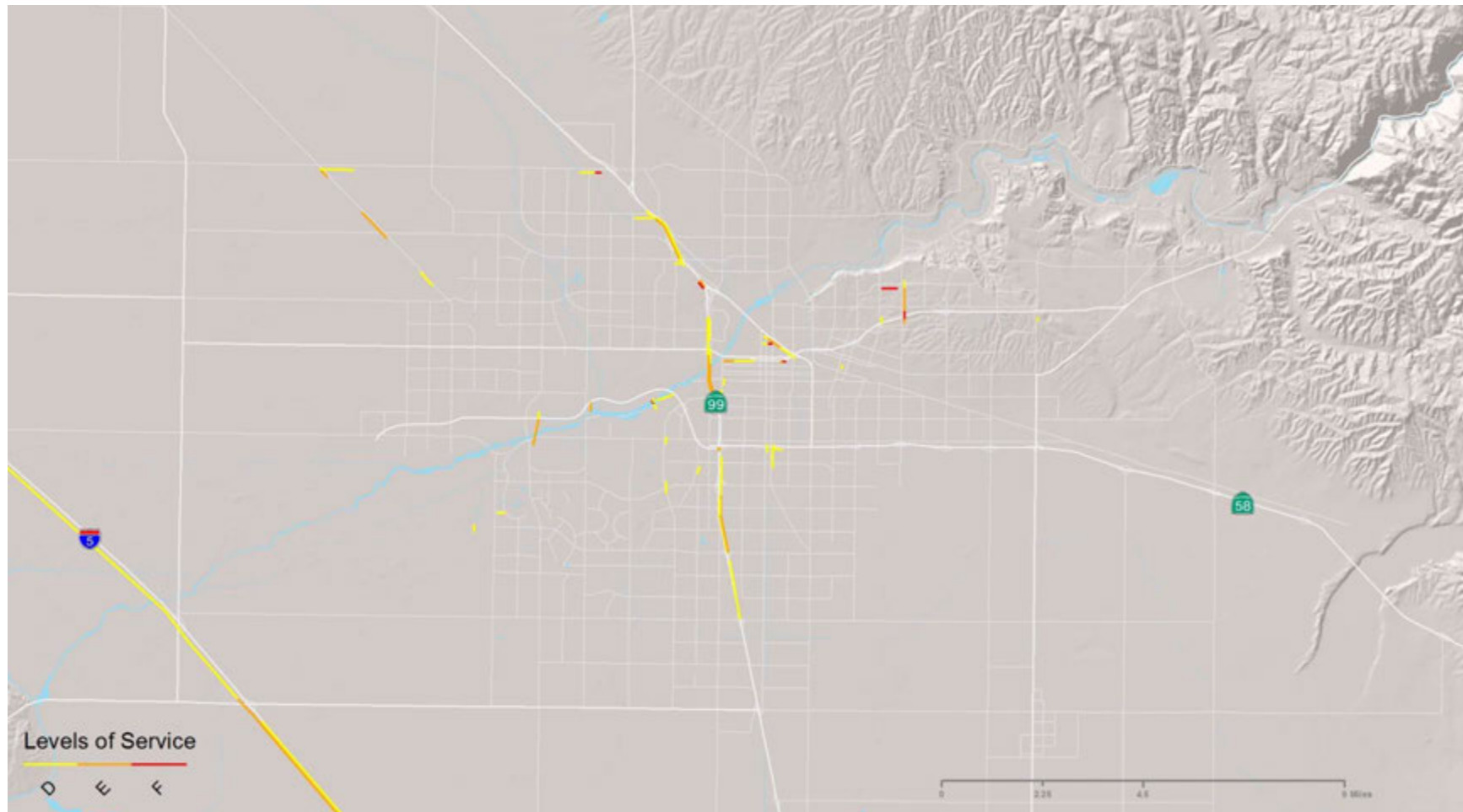


FIGURE 5-16: METRO BAKERSFIELD TRAFFIC CONGESTION – 2040 BUILD SCENARIO



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FIGURE 5-17: KERN COUNTY TRAFFIC CONGESTION – 2040 NO BUILD SCENARIO

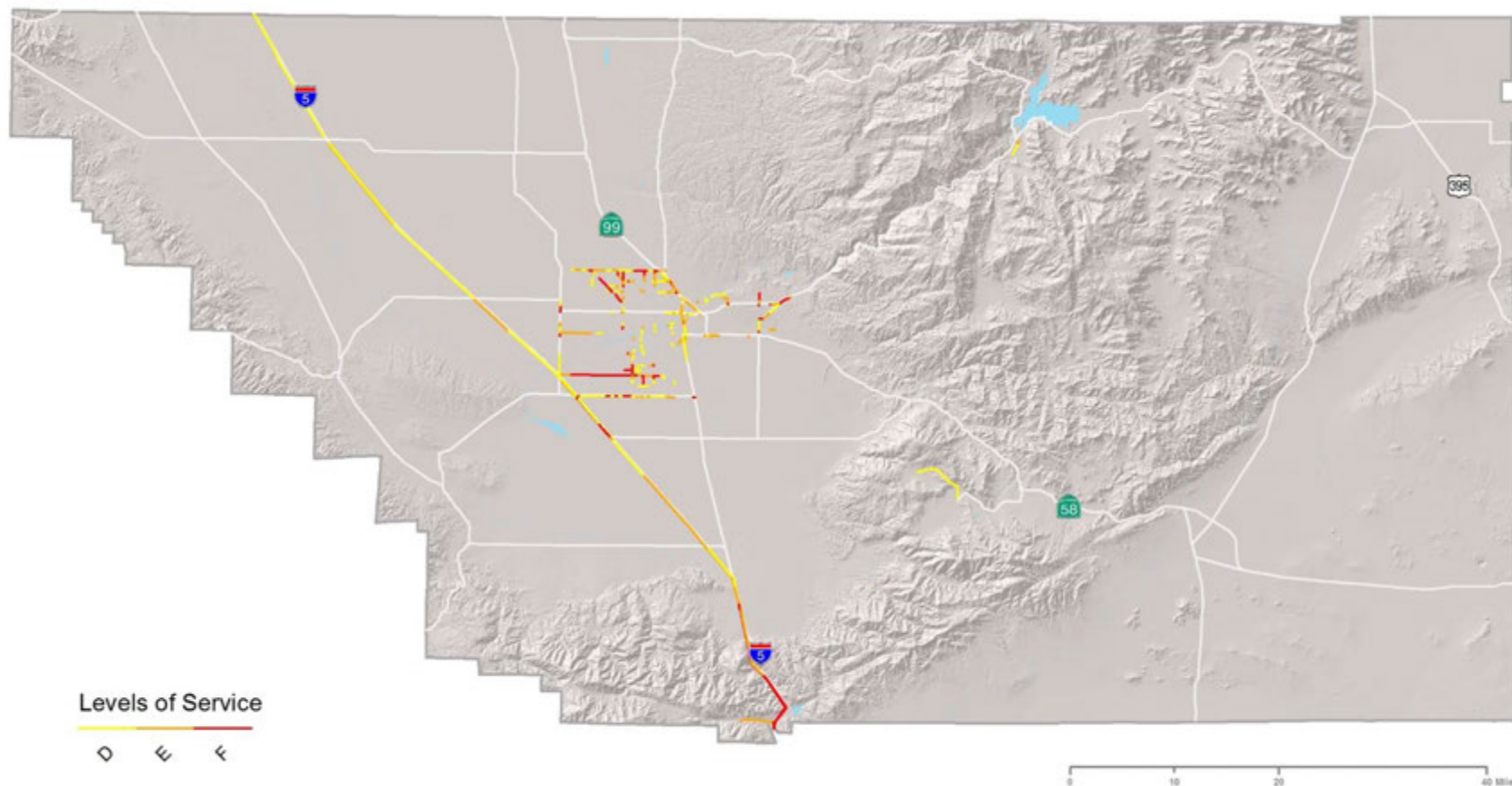
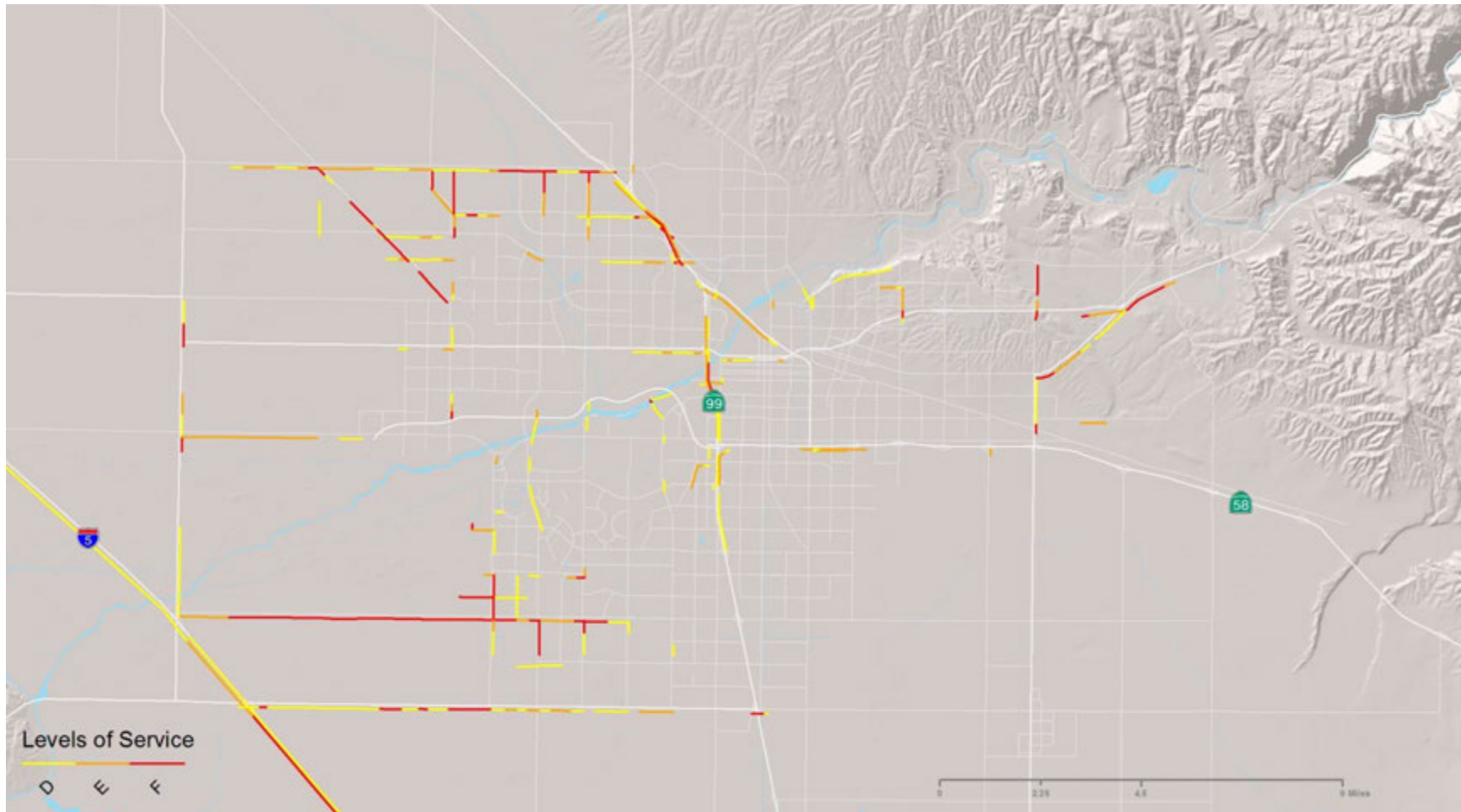


Figure 5-18: Metro Bakersfield Traffic Congestion – 2040 No Build Scenario



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Regional Transportation Impact Fees (TIFs)

Kern COG continues its studies regarding the possibility of raising the fees levied on new development to maintain transportation infrastructure. Continued funding shortfalls highlight the need to investigate all possible revenue sources. Kern COG prepared the Southeast Kern Transportation Impact Fee Nexus Study to assess impacts and benefits of an impact fee for that portion of Kern County. Several TIF programs were put in place as a result of the study. The Rosamond TIF is \$1,461 per new housing unit, while Tehachapi's TIF is \$4,772 per new residential unit. Wasco adopted a TIF of \$685 per new housing unit. The Metropolitan Bakersfield TIF assesses nearly \$13,000 on every new housing unit built within the city or unincorporated areas. Both the Metropolitan Bakersfield and Tehachapi ordinances created a core area with a fee almost 40% less than the rate charged to development on the community periphery, the intent being to encourage infill development.

Other TIF studies will be performed for other sub-regions of the county to establish the relationship between needed infrastructure improvements associated with new development. Ultimately it is up to each local jurisdiction to determine if an impact fee warrants adoption.

Interregional Partnership Planning

Kern COG embarked on three interregional partnership efforts. The Eastern California Transportation Planning Partnership with the regional planning agencies of Kern, San Bernardino, Los Angeles, Inyo and Mono counties. Executive Directors and staff from all member agencies meet frequently to discuss transportation and economic development projects of mutual benefit. Of particular interest are multimodal transportation plans for US Highway 395 and the SR 14 and 58 corridors, including truck movement studies.

The Executive Directors and staff from the 8 COGs that contain portions of the San Joaquin Valley meet monthly and adopt an annual work program and apply for grants and coordinate regional projects. In addition, two board members from each of the 8 COGs make up the San Joaquin Valley Policy Council and meet quarterly.

The partnership between Kern COG and San Luis Obispo COG is governed by an agreement focused on improving the SR 46 corridor. The partnership successfully leveraged state choice funding for this corridor.

Kern COG fosters a continuing partnership with the Southern California Association of Governments through periodic meetings to address transportation projects and programs of mutual interest, potential funding sources and legislative priorities.

Both the Metropolitan Bakersfield and Tehachapi ordinances create a core area with a fee almost 40% less than the rate charged to development on the community periphery, the intent of which is to encourage infill development.

Figure 5-19: Transportation Impact Fees - Per Single Family Housing Unit

<u>Jurisdictions</u>	<u>outlying / core area</u>
Metro Bakersfield / County	\$12,870 / \$7,747
Tehachapi /County	\$ 4,772 / \$2,952
Rosamond-Willow Spr.	\$ 1,461 / \$1,461
Wasco	\$ 685 sliding scale
McFarland	\$ 8,194 / \$8,194
Delano	\$ 4,345 / \$4,345

Roads and Streets Monitoring

On an ongoing basis, Kern COG collects data and monitors roadway conditions throughout the county for road and street maintenance purposes. This effort includes providing input to the Federal Highway Administration Highway Performance Monitoring System, as well as conducting traffic counts and vehicle occupancy counts at various locations in the county. When requested by the individual jurisdictions, Kern COG will undertake an analysis of Pavement Management Systems within Kern County as well as a cumulative analysis of pavement conditions and recommendations for addressing funding issues.

Pavement Management Systems are used by incorporated cities to develop better ways to measure serviceability and life cycles, and are used to determine the most appropriate time to rehabilitate pavement, what the most cost-effective method is, and what the cost will be to maintain a roadway system at a desirable condition.

Proposed Capital Improvements

As described above, the 2014 RTP includes all of the Metropolitan Bakersfield TIF projects, as well as regionally significant street and roadway improvements identified by other Kern COG member jurisdictions. In addition, state highway projects, coordinated and prioritized locally, are a significant component of the Capital Improvement Program. These highway projects are also coordinated with Caltrans Districts 6, 9 and 10.

Proposed Regional Streets and Highways Actions

Near Term, 2014–2020

Work with Caltrans, COG member agencies, and other interested parties to prepare environmental studies, right-of-way acquisitions, and design engineering work to:

- Widen State Route 119 near Taft. (Safety)
- Widen State Route 14 near Freeman Gulch/Inyokern. (Safety)
- Provide input to neighboring regions' transportation studies and projects for corridors that have significance to the Kern region. In particular:
 - Participate in San Bernardino County's study for the US Highway 395 corridor, and SR 58.
 - Participate in implementing the SR 99 Business Plan with the 7 other counties in the San Joaquin Valley.
 - Participate in implementing the SR 46 improvements with San Luis Obispo County. (Safety)
 - Participate in regular meetings with Southern California Association of Governments to coordinate projects along I-5, SR 14 and 58 corridors.
- Maintain Regional Traffic Models to aid in traffic and air quality analyses.
- Prepare a systems-level planning analysis of various transportation system alternatives using multimodal performance measures.
- Pursue ground access improvements for Meadows Field.

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- Local Governments consider pursuing alternative funding sources such as regional and individual TIFs where justified as a necessary means to address transportation needs.
- Implement the capital improvements for highways, regional roads, and interchanges for this time period.

Long Term, 2021–2040

- Maintain existing roadway infrastructure.
- Implement as appropriate and feasible the recommendations of completed transportation planning studies.
- Pursue and implement the recommendations from earlier transportation planning studies.
- Implement capital improvements for highways, regional roads, and interchanges for this time period.
- Review and revise countywide transportation impact fees.

AVIATION ACTION ELEMENT

See the Land Use Action Element – Global Gateways Land Use Actions for proposed actions related to air travel and connectivity. See Chapter 4, Sustainable Communities Strategy, for further discussion on sustainable land use decisions relative to air travel and connectivity.

Kern County's airports address a variety of local and regional services. The aviation system connects the traveling public and freight and cargo movers with California's major metropolitan airports. Additionally, Kern's airports serve the US military directly or in an auxiliary fashion. Many of the airports also support local farmers, police and medical services and provide recreational opportunities. Together, the airports provide a viable mobility option for the county's residents and businesses.

Kern County's aviation system includes 14 publicly owned airports.

Existing Aviation System

Kern County's regional airport system includes a diverse range of aviation facilities. It comprises seven airports operated by the Kern County Department of Airports, four municipally owned airports, three airport districts, two privately owned public-use airports, and two military facilities.

Scheduled air carrier and commuter airline service is provided at Meadows Field, which serves Metropolitan Bakersfield and surrounding communities. Scheduled commuter services are also provided at Inyokern Airport, which serves communities in the Mojave Desert and the Eastern Sierra.

General aviation needs are served by public use airports, both publicly and privately owned, throughout the county. These serve the full range of business, agriculture, recreation, and personal aviation activities.

Kern County's aviation system includes 14 publicly owned airports that are open for use by the general public:

- Meadows Field
- Elk Hills/Buttonwillow
- Kern Valley Airport
- Lost Hills Airport
- Poso Airport
- Wasco Airport
- Taft Airport
- Bakersfield Municipal Airport
- California Municipal Airport
- Delano Municipal Airport
- Tehachapi Municipal Airport
- Mojave Air/Spaceport
- Inyokern Airport
- Minter Field

Characteristics of Kern County's public access airports vary significantly, from size and number of operations to their types of activities and to their expected growth and impact on their local economies. As a group, the airports combine a range of services designed to meet the passenger, business, agricultural, recreational, and emergency service needs for the region.

County of Kern Airports

Meadows Field, located on 1,107 acres 4 miles northwest of central Bakersfield, is classified as a commercial service primary airport under the National Plan of Integrated Airport Systems. This facility

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serves both commercial and general aviation needs for Bakersfield and the southern San Joaquin Valley region.

The airfield consists of two parallel runways and associated taxiways. The main runway (12L/30R) was extended over Seventh Standard Road to a length of 10,857 feet in 1987. This is a Category I Instrument Landing System runway with a medium intensity approach lighting system with runway indicator lights, precision approach path indicators, and a medium-intensity runway lighting system.

The master plan allows for the construction of a third runway (east of the existing runways) to meet any resulting air freight capacity expansion.

Established in 1927, Meadows Field was the first airport in the Bakersfield area. By 1930, the airport handled over 12,000 passengers and close to 7,000 operations annually. When the recession occurred, Meadows Field experienced a significant decrease in enplanement numbers from 173,737 in 2006 to 104,073 in 2009. Enplanement numbers began to rebound in 2011 with 127,863 and 135,484 in 2013. Continental and US Airways provide non-stop passenger service to Denver, Houston, Los Angeles, Phoenix, and San Francisco. One-stop flights are also provided to hundreds of domestic and international destinations.

Meadows Field is an active general aviation airport with numerous Kern-based corporations using the facility for their operations. General aviation is served on approximately 35 acres both northwest and southwest of the terminal area. A full range of fixed-base services is available.

Air cargo operations for the Kern region are conducted primarily at Meadows Field, with a projected increase in activity from 964 tons in 1995 to an anticipated 1,700 tons by 2030. Federal Express, DHL/Airborne, and UPS currently provide air cargo service from Meadows Field. While the potential for air cargo growth has not been fully studied, initial assessment does not preclude establishment of domestic or international air cargo services at Meadows Field. As Los Angeles region airports reach saturation, Meadows Field should be considered a prime contender for increased air freight shipment. The Meadows Field Airport Master Plan addresses the need for a land use plan that would consider reserving adequate runway frontage to develop a dedicated air cargo facility. Additionally, the master plan allows for construction of a third runway (east of the existing runways) to meet any resulting air freight capacity expansion.

Elk Hills/Buttonwillow Airport serves seasonal agricultural aircraft and personal aviation needs of western Kern County. It is located near the intersection of I-5 and SR 58, a highway-oriented commercial area.

The airport has a 3,260-foot unlighted runway, paved aircraft tiedown space for twelve aircraft, and ten automobile parking spaces. Existing land use in the vicinity of the airport is agriculture.

Kern Valley Airport serves commercial, recreational, and occasional fire suppression activities in the Lake Isabella/Kern River Valley area, and is on lease from the US Forest Service. The airport is located south and east of the community of Kernville, with other nearby communities, including Wofford Heights, Lake Isabella, Bodfish, Mountain Mesa, Onyx, and Weldon. Outdoor recreation is the prime attraction in this region, and aviation activity continues to increase.

The airport has a 3,500-foot runway and 30 aircraft tiedowns, 15 hangar spaces, and parking for 20 automobiles. Other facilities include gasoline sales, a fixed-base operator, and a restaurant. The airport is situated on 51.5 acres leased from the National Forest Service; a Forest Service firefighting base is adjacent to the airport on 3.5 acres.

Existing land use includes a small residential area northeast of the airport, farm and rangeland to the east and south, and Lake Isabella on the west. A fly-in campground is available on the west side of the airport.

Kern County Department of Airports completed an Airport Master Plan for Kern Valley Airport in 2005. Short-term airport improvements recommended in the master plan include constructing a 500-foot unpaved overrun for Runway 35; relocating the northern portion of the parallel taxiway; installing an Automated Weather Observation Station; and other service-related improvements. Long-term improvements include widening and extending the runway, widening the parallel taxiway, widening the connector taxiway, and land acquisition to accommodate these projects.

Lost Hills Airport serves local and regional agricultural, business, and personal aviation needs in northwestern Kern County and is located near the intersection of I-5 and SR 46. This intersection is developing as a highway-oriented commercial area. SR 46 is the primary access to the central coast area from the southern San Joaquin Valley. The airport is an important base for agricultural aircraft operating over the area's extensive cropland.

The airport currently has a 3,020-foot runway, 12 aircraft tiedowns, and four hangar spaces. Existing land use around the airport is predominantly agriculture, with a small residential area northwest of the runway. The community of Lost Hills is west of the airport.

Kern County Department of Airports completed an Airport Master Plan for Lost Hills Airport in 2005. Short-term airport improvements recommended in the master plan include installation of an Automated Weather Observation System. Long-term airport improvements include installation of precision approach path indicators for both ends of the runway; provision for a Global Positioning System-based instrument approach procedure; extension of the existing runway; and construction of a full-length parallel taxiway.

Poso Airport, located approximately 20 miles north of Bakersfield, is used primarily for agricultural and training aircraft. The airport is also used for recreational purposes in conjunction with drag racing events at an adjacent paved strip. Poso has a 3,000-foot runway and 20 aircraft tiedowns. No other services or facilities are available. Adjacent land use is agricultural, with a small highway-oriented commercial development to the northwest of the airport.

Taft Airport serves business and personal aviation needs for the City of Taft and southwestern Kern County, an area of intensive oil production and processing. While significant demand has been voiced for an airport in this region, the existing facility has been considered insufficient for some years. The runway heading is poorly oriented to wind direction, the runway gradient exceeds FAA standards, and insufficient land is available for improvements. Kern County is evaluating available options for improving the airport. The existing runway is designated as Runway 7-25. While published as 3,550 feet long by 60 feet wide, it is currently only 3,284 feet between runway thresholds. Adjacent land uses consist primarily of oilfield activities to the north, east, and south, with the City of Taft to the west.

Wasco Airport serves agricultural, business, and personal needs for the area around the City of Wasco. The airport is located 1 mile north of Wasco and 22 miles northwest of Bakersfield. The airport is an important base for agricultural aircraft operations. It has a 3,380-foot runway, 36 aircraft tiedowns, six shelters, 11 T-hangars, and four hangar spaces. The main runway has a medium-intensity runway lighting system, and the airport has a beacon. Existing land use in the vicinity of the airport is agricultural.

Kern County Department of Airports completed an Airport Master Plan for Wasco Airport in 2005. Short-term airport improvements include rehabilitation of the aircraft parking pavement; purchase of land or acquisition of aviation easements northeast of the airport to accommodate future runway/taxiway extension; installation of an Automated Weather Observation System; and installation of precision approach path indicators for both ends of the runway. Long-term airport improvements include extension of the runway/taxiway to 3,900 feet, installation of taxiway lights, installation of runway end identifier lights,

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provision for a global positioning system-based instrument approach procedure, and other projects designed to improve service to airport users.

Municipal Airports

In addition to the airports operated by Kern County, four airports are owned and operated by municipalities located in three geographic subregions of the county: San Joaquin Valley, Southern Sierra/Tehachapi Mountains, and Mojave Desert. In the Valley, the Cities of Bakersfield and Delano operate municipal airports. The City of Tehachapi operates a municipal airport in the mountain area, and California City Municipal Airport is located directly west of that desert community.

Bakersfield Municipal Airport serves business, personal, and recreational aviation needs in the Bakersfield metropolitan area. The airport completed an ambitious development program, including land acquisition, and construction of a 4,000-foot runway, associated taxiways, and support facilities. Bakersfield Municipal Airport is located in southeast Bakersfield, approximately 1.5 miles south of SR 58 and about 2 miles east of SR 99.

Existing land use in the vicinity of the airport consists of industrial to the west and north, low-density and rural residential to the northeast and east, and rural/agricultural to the east and south. Planned land use for the area adjacent to the airport, as depicted in the Casa Loma Specific Plan, continues the current pattern, with some extensions of industrial activity into undeveloped areas.

California City Municipal Airport is used for various general aviation activities, especially recreational aviation. The airport is located northwest of California City approximately 8 miles east of SR 14 and 2 miles north of California City Boulevard. The airport consists of a single 6,035-foot runway with medium-intensity runway lighting and a 5,010-foot parallel taxiway. Two dirt glider landing strips and a parachute drop zone are located 0.75 mile south of the airport. Existing land use in the immediate area is predominantly undeveloped desert, with developed portions of the city east of the airport.

Delano Municipal Airport serves business, personal, and recreational aviation activity in the north-central part of the county. Extensive crop-dusting and helicopter operations, as well as ultra-light activities, are accommodated at this airport. The airport is located just east of SR 99 approximately 2 miles southeast of central Delano. Existing facilities consist of a main runway that is 5,650 feet long. The main runway has medium-intensity runway lights and precision approach path indicators on both ends. A displaced threshold on the secondary runway with 4,010 feet is available for aircraft landings.

Existing land use consists of mixed urban uses to the northwest; a golf course and park area to the northeast; industrial uses to the east and south; and SR 99 to the west.

Tehachapi Municipal is a general aviation airport providing business, personal, and recreational aviation services. The airport is located between SR 58 and Tehachapi Boulevard. The airport is also adjacent to the Burlington Northern Santa Fe/Union Pacific Railroad, but a railroad spur into the airport is not currently available. Existing airport facilities include a 4,035-foot runway equipped with low-intensity lighting and precision approach path indicators, as well as displaced thresholds, on both ends of the runway.

Existing land uses consist of industrial to the west, east, and south, urban residential to the south, and SR 58 on the north. North of the freeway is developing as primarily commercial and office, including the community post office and a new hospital to begin construction in 2013.

Airport Districts

Three airport districts operate in Kern County; each is organized as a special district, with a board of directors and an airport manager. Minter Field is located within the City of Shafter. East Kern and Indian Wells airport districts are in eastern Kern County.

Indian Wells Airport District/Inyokern Airport serves the China Lake Naval Air Weapons Station, the community of Inyokern, and the City of Ridgecrest with scheduled airline service to Los Angeles International. It also serves local general aviation needs for personal, business, and recreational flying. Several fixed-base operators provide services at the airport. The airport is located northwest of the small community of Inyokern.

Existing facilities consist of three runways, the longest of which is the 7,344-foot Runway 15-33. This runway and Runways 2-20 (6,275-foot length) and 10-28 (4,153-foot length) are equipped with medium-intensity runway lights and precision approach path indicators on Runways 20 and 33. Displaced thresholds are located on both ends of Runway 15-33 and Runway 20.

Skywest operates a fleet of turbo-prop aircraft and provides air carrier service from Inyokern to Los Angeles International Airport, currently with three daily flights. Given the proximity to Reno and Las Vegas, service to these cities may be considered at some future date.

A fixed-base operator currently provides aircraft maintenance and flight instruction service. The airport provides both automated and full-service jet fueling. Federal Express currently provides air cargo service, moving over 500 tons annually.

Other activities at Inyokern include based and itinerant soaring activity, film production, and Sheriff's Department search and rescue activities. The airport hosts annual air shows and drag races. The airport is in the process of acquiring firefighting equipment for aircraft crash protection.

East Kern Airport District/Mojave Air/Spaceport currently offers fixed-base operator facilities for airport users from Edwards Air Force Base, Rosamond, Mojave, Tehachapi, California City, and Boron. The airport serves as a civilian flight test center for business, military, civil, and home-built aircraft being developed for testing. It also serves as a base for modification of major military and civilian aircraft. The airport is located northeast of the community of Mojave and is within 1 mile of SR 14 and SR 58. A rail spur from the Union Pacific Railroad leads into the airport. In 2004 the Mojave Air/Spaceport became the first FAA approved civilian space port, and is home to the manufacturing and flight testing of Virgin Galactic's Spaceship One and Spaceship Two, the first manned civilian re-useable spacecraft.

In 2004 the Mojave Air/Spaceport became the first FAA approved civilian space port, and is home to the manufacturing and flight testing of Virgin Galactic's Spaceship One and Spaceship Two, the first manned civilian re-useable spacecraft.

Existing airport facilities include a 12,500-foot runway and two crosswind runways. The longest runway is equipped with high-intensity runway lights while the 7,040-foot runway is equipped with medium-intensity runway lights. The third runway is 4,900 feet long but has no lighting.

Existing land use in the vicinity consists of mixed urban use to the east and south in the community of Mojave, industrial and highway commercial uses to the northwest, and undeveloped desert to the north and east. The airport itself includes a substantial area devoted to aviation-related industrial uses.

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Minter Field Airport District/Shafter Airport serves general aviation activities at the junction of SR 99 and Lerdo Highway. Minter Field has two main runways and one crosswind runway. Runway 12/30 is 4,520 feet long, has both Very High Frequency Omni-directional Range non-precision and global positioning system-based instrument approaches, and is equipped with a precision approach path indicator and landing lights.

A third runway serves as a general aviation crosswind landing alternative. One of the benefits this runway offers is to allow student pilots the opportunity to practice crosswind approaches and departures.

Minter Field is surrounded primarily by agricultural uses with a commercial area and industrial uses to the south. The airport owns 3 miles of rail spur connected to the Union Pacific Railroad and is served directly by Kern Regional Transit.

Military Aviation Facilities

China Lake Naval Air Weapons Station (NAWS) and Edwards Air Force Base (EAFB) are located in an area referred to as “the R-2508 complex,” which is used for the advancement of weapons systems technology and tactical training. The R-2508 complex consists of several restricted airspace areas; it is approximately 110 miles wide and 140 miles long, and covers approximately 20,000 square miles in eastern Kern, San Bernardino, Los Angeles, Ventura, Tulare, and Inyo counties. However, the nature of operations conducted within this airspace creates a flight hazard to non-military aircraft.

In addition to NAWS and EAFB, other military installations use this air space, including Fort Irwin Military Reservation near Barstow, Air Force Plant 42 at Palmdale, and Lemoore Naval Air Station.

Needs and Issues

Demand

In general, demand for aviation services appears to be met within Kern County. Most of the capital improvement projects for Kern County airports focus on maintenance of existing runways and taxiways with an occasional need to improve navigational aids. However, Kern County Airports' staff is working toward qualifying Meadows Field as a reliever airport for Los Angeles International Airport.

Given aviation forecasts for Los Angeles International Airport, at some time over the next 20 years, air traffic for the region may reach saturation. Shafter Airport, Delano Municipal, and Bakersfield Municipal have all recently invested in aboveground automated fueling systems to reduce staff cost and improve fueling service hours to local and non-based pilots. Over the next 5 to 10 years, Kern County airports along with airports across the nation, will be investing in navigational equipment designed to allow instrument approaches using global positioning system technology.

Airport Ground Access/Intermodal Connectivity

Regional passenger air service and its intermodal connectivity to ground transportation systems is a key federal transportation planning goal. Just as land use should be designed to take maximum advantage of the existing transportation infrastructure capacity, the transportation infrastructure should also be designed to maximize access to key intermodal passenger hubs such as regional airports, transit and rail. Existing transportation infrastructure includes two regional airports with passenger service in Kern County. Meadows Field is the primary regional facility for Metropolitan Bakersfield and the southern San Joaquin Valley. Inyokern Airport services Ridgecrest/Indian Wells Valley in northeast Kern County.

The terminal at Meadows Field provides good access to SR 99 via Seventh Standard Road, and improvements to this access route are scheduled in the Federal Transportation Improvement Program. The potential for Meadows Field to serve as an overflow facility for Southern California's air traffic may create the need for improvements to ground access. Improvements to Airport Drive, Snow Road, Merle Haggard Drive, and SR 65 near the airport may be necessary. Better connectivity with the existing Amtrak station in downtown Bakersfield and the high-speed rail could result in the need for a transit shuttle, bus rapid transit, light rail, or spur connection between downtown Bakersfield and the airport. The Metropolitan Bakersfield Transit System Long-Range Plan envisions extension of a bus rapid transit route to Meadows Field between 2021 and 2025.

Ground access to Inyokern Airport is adequate for the foreseeable future. The potential for air taxi service to smaller airports could increase traffic at these facilities. Corporate jets are increasingly using the Internet to pick-up additional travelers headed in the same direction and provide a supplemental funding source for their operation. This capability to book a small aircraft while in flight has transportation planners speculating that a whole industry of air taxi providers using satellite global positioning system (GPS) navigation could provide point-to-point service, increasing the use of small airports. If this were to occur, an increased demand for vehicle/transit/rail access to existing smaller airports may result. Efforts must be made to preserve and maintain access to all civilian airports in the region and expand that access as needed.

Airport Land Use

Over the past decade, former agricultural areas in Kern County have been developed for residential, commercial or industrial use. Since many of the region's public access airports are in agricultural areas or on the urban fringe, much of the new growth is moving closer to the airports. Assuring that the areas around Kern County's airports are devoted to compatible uses has become a more challenging task in this environment of growth pressures.

Noise issues are generally a function of urban encroachment in the vicinity of an airport. In Kern County, virtually all airports were originally developed in areas that were some distance from other development. Frequently, the very success of the airport served as the catalyst for adjacent development. Since the purpose of an airport is to facilitate the take-off and landing of aircraft, and since aircraft make noise, conflicts over noise are an early indicator that an airport is facing the broader issue of urban encroachment.

Noise contours maps have been prepared through various programs for all of the airports in Kern County, using the FAA Integrated Noise Model. For the more active airports, the noise analysis has been part of preparing an Airport Master Plan. Noise contours were also prepared for airports as part of various Airport Land Use Commission studies. A Comprehensive Land Use Plan has been prepared that includes land use analysis, noise contours, airspace plans and layout plans for all Kern County airports.

Recent Aviation Planning Activities

Kern County Department of Airports opened the Meadows Field William M. Thomas Air Terminal northeast of the former terminal in February 2006. The building is designed to be expandable to meet future air service demands. The building currently accommodates up to six jet-boarding gates and can be expanded to add six additional bridges. The terminal is also been designed to allow another wing to be constructed that would accommodate an additional 12 jet-boarding gates. Ground area to accommodate additional parking facilities is reserved.

The Department of Airports anticipates the following activities over the near-term:

- Complete renovations to the Customs and Borders Office (former terminal);

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- Market Meadows Field for international air cargo service;
- Upgrade the lights and signs for Runway 30R;
- Undergo environmental review and project approvals for the Meadows Field, Wasco, Lost Hills and Kern County Airport Master Plans.

In June 2004, East Kern Airport District/Mojave Airport became the first civilian airport to be certified as an inland spaceport by the Federal Aviation Administration. Later the same year, aircraft manufacturer Scaled Composite launched their first sub-orbital aircraft from Mojave Airport, ushering in the age of privately-owned manned space programs.

In 2008, with input from County of Kern Planning Department, eastern Kern agencies, and stakeholders, the Governor's Office of Planning and Research completed its Joint Land Use Study (JLUS) for R-2508 (Edwards Air Force Base, China Lake Naval Air Weapons Station, and the surrounding military operation area). The purpose of the JLUS is to reduce potential conflicts while accommodating growth, sustaining the economic health of the region, and protecting public health and safety. The JLUS committee intends to meet biannually to review those JLUS projects that have been implemented and strategize on researching possible resources to implement remaining projects.

Homeland Security

Following the events of September 11, 2001, the Department of Homeland Security made airport security a top funding priority. Meadows Field and Inyokern Airport constructed security fences and staffed security checkpoints to improve passenger-boarding security and reduce threats of terrorism.

Proposed Actions

Near Term, 2014–2020

- Work with Meadows Field and Inyokern Airport to obtain funding from the state and federal governments for their respective development programs.
- Work with local and regional transit providers to increase alternative mode ground access options at Meadows Field.
- Assist Meadows Field with planning related to high-speed rail connections.
- Work with public airports to increase their access to state and federal funds.
- Work with the JLUS committee to implement planning activities listed in the JLUS for R-2508 airspace (China Lake Naval Air Weapons Station and Edwards Air Force Base).

Long Term, 2021–2040

- Continue to work with the public access airports to increase their access to state and federal funds.
- Update the Regional Transportation Plan to be consistent with the California Aviation System Plan, and regional aviation systems plans, as necessary.
- Implement the Action Plan of the Central California Aviation System Plan.

- Participate in master plan updates for various Kern County airports.
- Implement planning actions and strategies listed in the JLUS for R-2508.

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SAFETY/SECURITY ACTION ELEMENT

Federal law specifies that MPOs will develop a metropolitan planning process that provides for consideration of projects and strategies that will increase the security of the transportation system for motorized and non-motorized users. Kern COG is committed to promoting increased safety, and the performance measures of the Regional Transportation Plan include safety as a critical factor.

Kern COG's commitment to public safety includes a safety performance measure as a critical factor in the Regional Transportation Plan.

California's Strategic Highway Safety Plan (SHSP) is a statewide, comprehensive, data-driven effort to reduce fatalities and serious injuries on public roads. The SHSP is updated regularly to ensure continued progress and meet changing safety needs.

The most recent key SHSP activities include the following:

- Develop a statewide strategic traffic safety data plan;
- Develop a plan for improving the traffic safety culture in California;
- Update goals and performance measures for the SHSP and all Challenge Areas;
- Continue implementation of ongoing Actions, and develop and implement new Actions; and
- Evaluate completed actions and related data to measure effectiveness.

Recent Planning Activities

Golden Empire Transit District's Vision and Planning Guidelines

In December 2010, the GET Board of Directors adopted the following Vision Statement:

"GET...doing our part to improve mobility and create livable communities by becoming every household's second car."

In addition to the Vision Statement, the Board also adopted a number of Planning Guidelines:

- Services should be designed in a manner which maximizes the seamless connectivity between all routes, modes, and systems. In this context, seamless means that the passenger should not be discouraged from making a trip because of perceived barriers related to: (1) physical connections, (2) timed transfers, (3) fare payment, or (4) information services.
- The system-wide transit operating speed (as measured by total Annual Revenue Miles divided by Total Annual Revenue Hours) should increase each year, or at the very least, should never drop below the 2010 baseline.
- Transit service should be designed in a manner that allows it to have a meaningful impact on regional air quality and support achievement of greenhouse gas reduction targets.

- Transit should be designed in a manner that supports healthy lifestyles by fostering a pedestrian- and bicycle-friendly environment.
- Transit service should be financially sustainable over all time periods.
- Transit planning should be conducted in collaboration with cities and the County in order to integrate transit and land use planning decisions.

General Transit Planning Principles

In addition to the GET Board Guidelines, a number of general fixed-route transit best practices were applied in development of the service plans:

- Service productivity (cost-effectiveness) and coverage must be balanced in a way that reflects local values.
- Devote a fair share of resources to corridors featuring transit-supportive land use and demographic patterns.
- Whenever possible, routes should have trip-generating “anchors” at both ends.
- Routes should be as direct as possible.
- Avoid creating large one-way loops.
- Avoid requiring out-of-direction travel, especially in the middle of routes.

Transportation Security

Policies and Recommendations

Kern COG's Transportation Security Plan 2012–2040 provides an action plan and constrained policies detailing nine measures that the agency will undertake in regional transportation security planning.

1. Kern COG should help ensure the rapid repair of transportation infrastructure critical in the event of an emergency.
 - a. Kern COG, in cooperation with the state agencies, should identify critical infrastructure needs necessary for emergency responders to enter the region, the evacuation of affected facilities, and the restoration of utilities.
 - b. Kern COG, in cooperation with the California Transportation Commission (CTC), Caltrans, and the federal government, should develop a transportation recovery plan for the emergency awarding of contracts to rapidly and efficiently repair damaged infrastructure.
2. Kern COG should continue to deploy and promote the use of intelligent transportation system technologies that enhance transportation security.
 - a. Kern COG should work to expand the use of ITS to improve surveillance, monitoring, and distress notification systems and to assist in the rapid evacuation of disaster areas.

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- b. Kern COG should incorporate security into the regional ITS architecture.
 - c. Transit operators should incorporate ITS technologies as part of their security and emergency preparedness and share that information with other operators.
 - d. Aside from developing ITS technologies for advanced customer information, transit agencies should work intensely with ethnic, local, and disenfranchised communities through public information/outreach sessions, ensuring public participation is used to its fullest. In case of evacuation, these transit-dependent persons may need additional assistance to evacuate to safety.
3. Kern COG should establish transportation infrastructure practices that promote and enhance security.
 - a. Kern COG should work with transportation operators to plan and coordinate transportation projects, as appropriate, with the Department of Homeland Security grant projects to enhance the regional transit security strategy (RTSS).
 - b. Kern COG should establish transportation infrastructure practices that identify and prioritize the design, retrofit, hardening, and stabilization of critical transportation infrastructure to prevent failure in order to minimize loss of life and property, injuries, and avoid long-term economic disruption.
 4. Kern COG should establish a forum where policymakers can be educated and regional policy can be developed.
 - a. Kern COG should work with local officials to develop regional consensus on regional transportation safety, security, and safety/security policies.
 5. Kern COG will help enhance the region's ability to deter and respond to acts of terrorism and human-caused or natural disasters through regionally cooperative and collaborative strategies.
 - a. Kern COG should work with local officials to develop regional consensus on regional transportation safety, security, and safety/security policies.
 - b. Kern COG should encourage all Kern COG elected officials to be educated in the National Incident Management System (NIMS).
 - c. Kern COG should work with partner agencies and federal, state, and local jurisdictions to improve communications and interoperability and to find opportunities to leverage and effectively use transportation and public safety/security resources in support of this effort.
 6. Kern COG should enhance emergency preparedness among public agencies and with the public at large.
 - a. Kern COG should work with local officials to develop regional consensus on regional transportation safety, security, and safety/security policies.

- b. Kern COG should work to improve the effectiveness of regional plans by maximizing the sharing and coordination of resources that would allow for proper response by public agencies. Kern COG should encourage and provide a forum for local jurisdictions to develop mutual aid agreements for essential government services during any incident recovery.
- 7. Kern COG will help to enhance the capabilities of local and regional organizations, including first responders, through provision and sharing of information.
 - a. Kern COG should work with local agencies to collect regional GeoData in a common format and provide access to the GeoData for emergency planning, training, and response.
 - b. Kern COG should develop and establish a regional information sharing strategy, linking Kern COG and its member agencies for ongoing sharing and provision of information pertaining to the region's transportation system and other critical infrastructure.
- 8. Kern COG should provide the means for collaborating in planning, communication, and information sharing before, during, or after a regional emergency.
 - a. Kern COG should develop and incorporate strategies and actions pertaining to response and prevention of security incidents and events as part of the ongoing regional planning activities.
 - b. Kern COG should offer a regional repository of GIS data for use by local agencies in emergency planning and response, in a standardized format.

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LAND USE ACTION ELEMENT

See Chapter 4, *Sustainable Communities Strategy*, for further information on sustainable land use.

Land use is one of the most important factors in effective transportation planning to preserve the region's economic, environmental, and equitable sustainability. While Kern COG does not have jurisdiction over land use planning, the agency promotes and encourages dialogue among stakeholders involved in the land use decision-making process, through city and County General Plan actions, the environmental process and the 2014 RTP outreach process.

Land use affects all transportation modes; however, some transportation facilities are more dependent on land use decisions than others. To rank the importance of land use decisions for transportation-related infrastructure, planners can consider the number of site opportunities to accommodate a particular facility or land use. The more site opportunities, the easier and cheaper it is to find a place to move the facility. Figure 5-20 illustrates a potential hierarchy or priority for placing transportation facilities based on site opportunity.

FIGURE 5-20: HIERARCHY FOR TRANSPORTATION-RELATED LAND USE DECISIONS

As an example, in transportation planning, airports have a very limited number of sites where they can be located. They require a large area and must be located away from steep terrain as well as residential development. If development encroaches on an airport the use of that facility can be greatly curtailed or even closed, negatively affecting the region's economy and



payback on the original investment in that facility. Another example of this hierarchy can be the location of local streets. When a subdivision is designed the positioning of the streets are often adjusted to optimize the layout of the residential lots. Local streets have many site opportunities or options to best fit the surrounding uses. In terms of transportation related land use decision, the positioning of local streets are not as important as the location of major transportation infrastructure investments such as airports or other global gateways.

This action element covers transportation planning priorities from a land use perspective. The discussion is organized using the suggested hierarchy in Figure 5-20, focusing on the uses with the fewest number of site opportunities first. Each transportation category discussed below (global gateways, rail/transit, and highways/roads) will also focus on the need to preserve locations for intermodal connectivity and viability, ensuring the RTP goals are met. In addition, this action element will not override local land use public decision making and will respect private property rights.



Global Gateways Land Use Actions

See the Aviation Action Element section above for further discussion on air travel.

Inland Ports

Landlocked Kern County has no seaports; however, it is closely linked to international trade through the ports of Los Angeles/Long Beach and Oakland/Stockton. The Kern region has infrastructural and economic connections to two of the world's largest international trade gateways. During the economic boom from 2000 to 2006, one-third of all waterborne freight container traffic at U.S. ports was handled by the twin ports of Los Angeles and Long Beach. Los Angeles/Long Beach port freight headed for destinations outside of Southern California are estimated to account for 75% of total container traffic (Leachman & Associates LLC, Port and Modal Diversion for SCAG, 2005). Fifty-seven percent (57%) of all trucks on SR 99 and I-5 are heading to or from Southern California; of those, 18% are empty shipping containers being transported to or from the ports (Kern COG, I-5/SR 99 Origin and Destination Truck Study, October 2009).

Paramount Logistics Park (PLP) along with the City of Shafter are developing an inland port hub with the ability to gain synergy from the combining of import loads destined for distribution centers in Shafter and Kern County with the export agricultural needs of the Southern Can Joaquin Valley. The City of Shafter (a rural area) is located within 300 miles of over 40 million people in some of the United States most urban areas and provides the unique opportunity to maximize efficiency, produce jobs, and create wealth while reducing the impact to the environment. It is unparalleled in providing multiple economic and environmental benefits for California. The City of Shafter has invested in technology with a 26 mile state-of-the-art fiber optic communications network and has recently completed the construction of over 17,500 feet of rail track capable of handling entire unit trains from the class-one railroad Burlington Northern Santa Fe (BNSF).

Rail access to the ports provides sustainable economic, environmental, and equitable opportunities for a region and is the highest land use concern related to transportation facilities in Kern County. In June 2009, Paramount Farming Company produced a White Paper that estimated the inland port facility would bring \$1.2 billion per year in financial benefits to the state and region, and would provide 31,800 permanent jobs at the Port of Oakland and in Shafter by 2030. In addition, the project could provide \$3.4 billion in state and local tax revenue over the next 20 years. By shipping products to the port via rail rather than by truck, the facility would reduce 5 tons per day in nitrous oxides (NO_x) and 471 tons per day in carbon dioxide (CO₂) emissions, making this project one of the biggest transportation source reductions for air quality and climate change emissions in the state. From a land use perspective, preserving rail and truck route connections to this vital state hub, and preventing encroachment of sensitive land uses near the facility, is of primary concern for regional sustainability.

The Tejon Ranch Commerce Center (TRCC) is a 1,450 acre master planned industrial and commercial development which is strategically located at the juncture of Interstate 5 and State Route 99 at the gateway to Central California's Golden Empire. TRCC is home to major distribution companies and industry-leading retail locations. Soon, an upscale regional outlet shopping mall will complement the commercial/retail development.

The permitted development at TRCC includes the potential for 20 million square feet of industrial and 4.8 million square feet of commercial use. To date the development of TRCC has created over 2,200 jobs and at full build-out, TRCC will provide for over 6,000 jobs and significant financial benefits to the state and region.

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TRCC is the site of the largest activated Foreign Trade Zone (FTZ) in California at 177 acres and has the ability to expand to 500 acres. FTZ's are sites near ports of entry where foreign and domestic merchandise considered international trade can provide important cost-savings benefits involving customs duties and other ad valorem taxes. Users can obtain permission from Customs to move merchandise directly from the port of arrival to the FTZ avoiding delays at congested ports. Both PLP and TRCC are strategically located proximate to major transportation routes and are within 50 miles of the geographic center of population for the state making the location ideal for serving both Northern and Southern California as well as the regions to the east.

Airports

Airports have a few more site opportunities than seaports but encompass large areas when the surrounding affected land uses are considered. This is especially true when taking into account expansion potential of an airport. This section covers the importance of maintaining and expanding air freight and air passenger service for sustainability of the region, and the need to protect these facilities from encroachment by sensitive land uses.

Air Freight

As Asia and the southwestern United States continue to grow, air freight is anticipated to steadily increase once economic recovery is realized. Anticipated increases in time-sensitive cargo have made air freight from Asia a booming business. Southern California is focusing its expansion of air freight capacity at the Southern California Logistics Center (formerly George Air Force Base) in Victorville. However, the facility's 3,000-foot elevation makes it more costly to fly out of than lower altitude facilities because lower air density requires greater fuel consumption on takeoff, especially during the summer.

Kern County's main airport is Meadows Field, adjacent to the northern edge of Bakersfield. At 500 feet elevation, the facility requires less fuel to ascend with a full load and lies on the most direct path from Southern California to Asia (see Figures 5-21 and 5-22). Meadows Field has the fifth longest runway in California and has recently added international service capability. A third runway and cargo terminal are planned. Meadows Field has good highway connectivity to Ventura, Los Angeles, and San Bernardino counties through I-5 and State Routes 99 and 58. Meadows Field is also within 6 miles of the Shafter intermodal facilities and connected by existing rail spurs to both Burlington Northern Santa Fe and Union Pacific railroads.

Mojave Airport in eastern Kern County also serves as an operational air freight facility within the county. The primary focus of this airport is as a civilian flight test center, and it is the only FAA-recognized private spaceport in the nation. The facility provides an intermodal transfer facility with the goal of handling two flights per day. Freight service may increase if it does not affect the primary research role of the facility.

Preservation of these facilities is essential. Protecting these facilities from residential and other conflicting encroachments should be one of the highest priorities for land use decision-makers. Moving the facilities is cost prohibitive and would likely reduce the strategic advantage the existing locations have with regard to proximity to Asia, as well as connectivity to highway and rail facilities.

Air Passenger Service

As with air freight, the Los Angeles Basin's runway capacity to handle air passenger service will not be able to meet demand, even with the planned Palmdale International Airport. The Southern California Association of Governments' overall plan to sustain its region's growth in air passenger demand is to link the region's airports with high-speed rail. This would allow the more congested airports to ferry passengers to and from outlying airports where additional capacity is available. The goal is to create an integrated airport system for Southern California that allows users to fly into one airport, catch transit or a train, and fly out of another airport with no more than a 30- to 90-minute layover. Meadows Field should be linked into the reliever network of airports through the California High-Speed Rail (HSR) network. Approved by California's voters in 2008, high-speed rail would likely accelerate the connectivity of Meadows Field to Palmdale, Burbank, and Los Angeles International Airport (LAX). Currently, high-speed rail is planned to link downtown Bakersfield and Union Station in downtown Los Angeles. An express bus transit route between LAX and Union Station already exists. Similar transport between downtown Bakersfield and Meadows Field would

FIGURE 5-21: GREAT CIRCLE ROUTE BETWEEN SOUTHERN CALIFORNIA AND ASIA [HTTP://GC.KLS2.COM/](http://gc.kls2.com/)

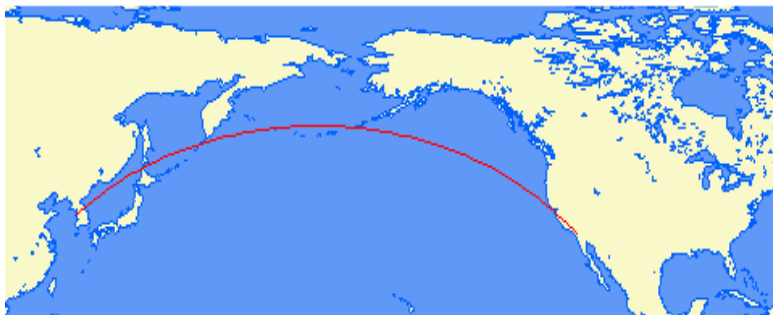
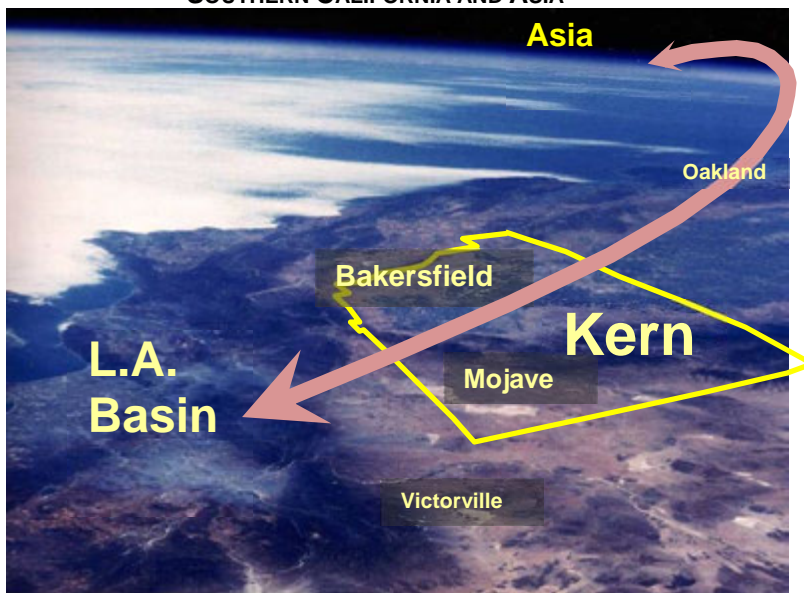


FIGURE 5-22: KERN COUNTY GREAT CIRCLE ROUTE BETWEEN SOUTHERN CALIFORNIA AND ASIA



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also be needed to provide seamless high-speed rail service. Once this connection is established, Meadows Field will become a “front door” to Southern California for passenger travel from Asia.

At less than 50% capacity, Meadows Field is the most underused full-service civilian airport in Southern California. The County of Kern completed construction of a jet terminal in early 2006 to handle planned expansion, and the former terminal is currently unoccupied and has been remodeled as an international airport facility. Direct international service to Mexico is likely to be the initial use of the old terminal. However, expansion as a connection from Southern California to Asia is possible in the near future even without high-speed rail links. The accessibility and relative lack of congestion between Kern and Ventura, Los Angeles, and San Bernardino Counties would make this facility a prime location for travel to and from Asian destinations. To accommodate proposed lengthening of runways to the northwest of Meadows Field, future circulation plans should consider realignment of SR 65 to the west.

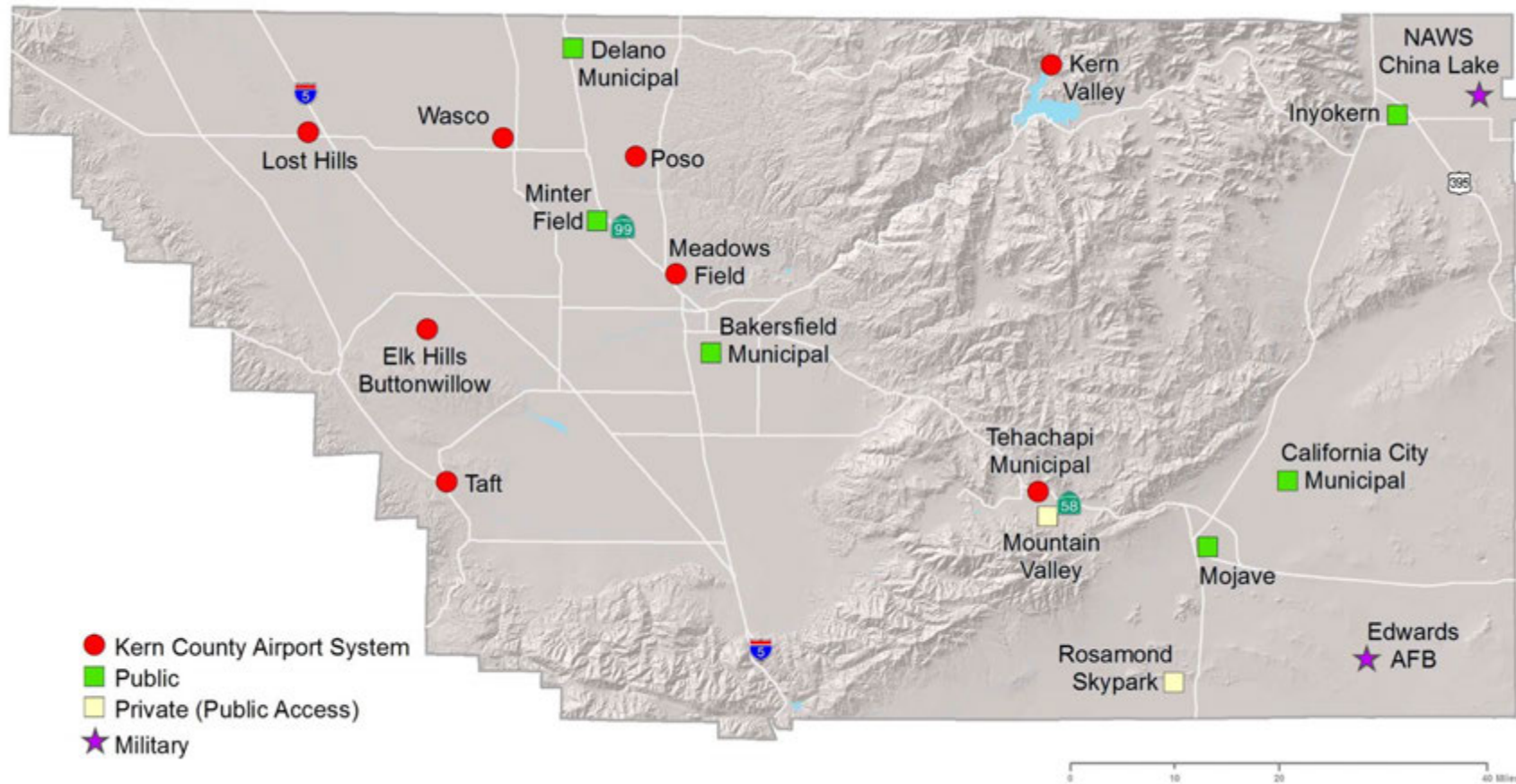
The emerging trend for air-taxi/business jet charter service provides potential business for smaller airport facilities throughout the Kern region. The ability of a business traveler in a rental car to book an air taxi or business jet while the jet is in flight, and rendezvous with the jet at a nearby airport, could transform activity at smaller airports. Development of a system of small, very light jet-capable airports with good freeway access could relieve congestion at overcrowded regional hub airports. It could also put most of California within a 30-minute point-to-point jet flight from Kern County. Facilities such as Bakersfield Municipal Airpark and general aviation airports in California City, Inyokern, Delano, Shafter, Wasco, Tehachapi, Taft, Mojave, Kern Valley, Buttonwillow, Lost Hills, Rosamond, and Famoso should be preserved for potential expansion to this type of service. The need for rental car and restaurant facilities at these locations, as well as runway expansion to a minimum of 5000 feet, should be recognized as a long-term goal.

To preserve these facilities, local general plans and concomitant land use decisions must assume that local airports may expand and runways will be lengthened. Even the smallest facility should be planning for expansion to air taxi service. Protecting these facilities from encroachment by sensitive land uses will help provide the economic engine and infrastructure to encourage job growth.

Conflicting Land Uses – Setback Distances

Preserving global gateways from encroachment by incompatible land uses is critical to the economic and environmental viability of the region. The encroachment of sensitive land uses upon inland ports and airports can greatly limit the use of such facilities and eventually force their closure. Cities and the County address land use compatibility issues in their respective general plans and implementing ordinances, and together with the CEQA process have the means to conduct health risk assessments, air quality analysis and noise assessments to establish standards and conditions that are applicable to each local land use jurisdiction's situation. Table 5-7 provides advisory recommendations for suggested setback distances that would limit exposure to harmful air pollution. (These are rough estimates and should be used only when no other data or local study is available.)

FIGURE 5-23: POTENTIAL AIR TAXI/JET CHARTER FACILITIES



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TABLE 5-7: AIR QUALITY RECOMMENDATIONS ON SITING NEW SENSITIVE LAND USES SUCH AS RESIDENCES, SCHOOLS, DAYCARE CENTERS, PLAYGROUNDS OR MEDICAL FACILITIES

Source Category	CARB Advisory Recommendations
Rail Yards	Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within 1 mile of a rail yard, consider possible siting limitations and mitigation approaches.
Distribution Centers, Truck Stops	Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.

Source: California Air Resources Board, Air Quality and Land Use Handbook <http://www.arb.ca.gov/ch/landuse.htm>

Noise sources should also require proper setbacks when siting future transportation facilities or when considering mitigation such as increased insulation and sound walls. Each jurisdiction is responsible for maintaining an Airport Land Use Compatibility Plan with specific information on siting land uses adjacent to each airport. Table 5-29 provides some advisory recommendations when no other information is available.

TABLE 5-8: NOISE RECOMMENDATIONS ON SITING NEW SENSITIVE LAND USES PROXIMATE TO AIRPORTS

Source Category	Advisory Recommendations
Regional Airports, Commercial/Air Freight	Avoid siting new sensitive land uses within 10,000 feet of planned and existing runway approaches and 2000 feet on either side. LAX has CNEL 65dB extending 5 miles beyond the runway and up to 1 mile laterally along the departure path. Within 14,000 feet in any direction of a runway observe appropriate height restrictions based on conical surface.
Local Airports, Very Light Jet/Air Taxi Service	Avoid siting new sensitive land uses within 5,000 feet of planned and existing runway approaches and 1000 feet on either side. Within 14,000 feet in any direction of a runway observe appropriate height restrictions based on conical surface. Local airports that may one day serve as air taxi service ports should have expansion plans increasing runway length to a minimum of 5,000–7,000 feet subject to local studies to accommodate very light jet air taxi service.

Source: Kern Council of Governments, Kern County Airport Land Use Compatibility Plan, amended March 2004

Global Gateways – Land Use Actions

Near Term, 2014–2020

- Facilitate the Paramount Logistics Park by programming infrastructure to service rail and truck traffic that may be generated by the facility.

- Use the California Environmental Quality Act review process to inform stakeholders and decision makers on the impacts of sensitive land use developments near vital transportation infrastructure necessary to handle increasing air traffic and international cargo, as well as increasing port activity.
- Work with the Kern County Department of Airports and local planning departments to preserve existing airports from encroachment by sensitive land uses to strategic global gateways.
- Implement the Directions to 2050 Growth principles vision for economic vitality by planning and programming infrastructure to provide connectivity to air traffic and international cargo facilities.
- Coordinate with the County of Kern, City of Bakersfield, and City of Shafter on the proposed expansion of Meadows Field in the County of Kern Airport Master Plan.
- Coordinate with the Southern California Association of Governments, the Metropolitan Transportation Commission, and the ports to minimize impacts of port activity through Kern County.

Long Term, 2021–2040

- Monitor progress toward implementing regional principles developed by the Directions to 2050 visioning process consistent with local general plans.
- Coordinate with the Kern County Department of Airports, municipalities and airport districts to establish intermodal connectivity for rail, trucking, transit, and passenger vehicles.
- Work with Kern Economic Development Corporation to promote logistics and aerospace job opportunities in Kern County.



Rail/Transit Land Use Actions

See the Freight Movement Action Element and Public Transportation Action Element sections for further discussion on rail freight transport and public transportation modes.

Rail and transit provide the highest-volume corridors for movement of goods and people in and through a region. These facilities require seamless connectivity. If these connections are degraded or broken by incompatible or competing land uses, the system can become less effective or even threatened with elimination. Preservation of rail and transit facilities is the next highest transportation land use priority after global gateways.

Rail Freight

Not only is connection to the ports vital, but connections with switching yards to out-of-state destinations are a primary function of the rail system. In 2008, the Rail-Ex facility opened in Delano, consolidating most of the perishable shipping activity in the southern San Joaquin Valley. The facility hauls refrigerated box car units between Delano and Albany, New York, in six days, where they are distributed to East Coast grocery store chains. The facility is already looking to expand.

Bulk hauling specialty oil products from several oil refineries and gas plants in the region travel the network of short-haul rail facilities to out-of-state customers via the Bakersfield freight yards. Preservation of Kern's short-haul rail network, operated by the San Joaquin Valley Railroad, is a key priority.

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Along the national class 1 rail system, the Tehachapi Pass is a major chokepoint. Providing passage of goods between the Port of Oakland and the all-weather southern route through the Rockies, to Texas and Chicago, the Tehachapi Pass is scheduled for a \$100 million expansion. These improvements will provide additional sidings along the grade, increasing capacity of the pass by up to 80%.

Other rail freight includes bulk mining in Trona and Boron. Eastern Kern County is the source for half of the world's supply of borates. The Rio Tinto (formerly U.S. Borax) ships five unit trains a week from Boron to a company-owned facility at the Port of Long Beach. Like many shipper/receivers that use short-haul rail, Rio Tinto may not be able to afford to ship by truck. Loss of short-haul rail service could mean curtailment or closure of the operation. Preserving short-haul rail means preserving the Kern region's economy.

Preservation of freight rail corridors in Kern is essential to promoting the principles of the Directions to 2050 visioning process. Strategies such as public/private partnerships and leveraging passenger rail service to preserve the short-haul system should be considered. Shipping freight by rail is ten times more energy-efficient than by truck, making preservation and expansion of rail freight vital to both the preservation of natural resources and development of a sustaining economy and strategic employment place types.

Passenger Rail/Public Transit

Like freight rail, passenger rail and public transit have limited site opportunities and are highly dependent on surrounding land uses. It is important that investment in these modes follow land use decisions that support such investment. This section covers rail and transit priority place types, transit-oriented design, and carefully planned parking facilities that promote transit use and that could be considered in the next update of a jurisdictions circulation plan.

Transit Oriented Land Use Concepts – Passenger rail and transit are dependent on where the population is located. Figures 4-9 and 4-10 of the Sustainable Communities Strategy Chapter illustrate Transit Priority and Strategic Employment Place Types for Kern. Rather than showing large areas of planned urban growth, the maps show existing, planned and potential places where future transit and passenger rail service investment might occur based on existing variances in adopted general plan intensities. In addition, the maps illustrate how transit investment would coordinate with these existing and planned place types.

Transit viability is closely linked to land use density and intensity within a region. Before World War II, land uses in most communities were focused on walkability and streetcar accessibility. Most communities in the Kern region have an urban core based on these concepts. The historic pre-WWII Bakersfield downtown was very walkable and accessible via a streetcar system. The Southern Pacific passenger train station on Baker Street in Old Town Kern (East Bakersfield) was connected to the Santa Fe train station in downtown Bakersfield on F Street by an electric trolley that ran along 19th Street from 1901 to 1942. Suburban explosion since WWII has spawned a low-density development pattern that results in heavily subsidized, underused transit service.

As Metropolitan Bakersfield has grown, it has loosely developed around a network of auto-oriented retail centers illustrated in the Centers Concept map from the Metropolitan Bakersfield General Plan. Transit connectivity between the centers in the northwest are hindered by a 3-mile-wide low-density oil production and refining complex on the northwest side of the Kern River. The result is poor transit service from the rapidly growing northwest to the rest of Metropolitan Bakersfield. A ring of centers now exists around this industrial area, including Downtown/Westchester, California Avenue, The Marketplace/CSUB, Northwest Promenade, and Rosedale Highway/SR 99. Each of these centers covers a large area that often lacks a central focal point or pedestrian pocket for concentrating urban transit access, requiring a car to get from one store to another within the centers. Beyond this ring of centers, potential new centers are planned in outlying areas.

Transit oriented development can play an important role in outlying communities and rural areas as well. However, the techniques must be scaled down to fit the lower intensity land uses. Service to outlying areas lack the ridership to warrant frequent service. The importance of connecting services via dial-a-ride local circulator bus service can increase the service area for riders in outlying communities. Vanpooling can play an important role in providing service to strategic employment areas in outlying communities as well. The public unmet transit needs process helps ensure that transit needs in rural and urban areas that are reasonable to be met, are provided service.

The following are a suggested list of tools and concepts available to the local land use authorities.

Existing Tools and Concepts

Reduced Impact Fees for Core Area Development – To encourage gradual infill development, in 2003 the City of Bakersfield and the County of Kern jointly adopted a two-tiered traffic impact fee for Metropolitan Bakersfield. The fee in the “core area” is almost half of the \$12,870 per house in the “non-core area.” The City of Tehachapi also adopted a reduced fee for core area development. The core area is primarily the older built-out portions of the community that have the infrastructure in place. The logic behind the lower core area fee is that housing in these areas should not have to pay as high a fee because the transportation infrastructure is already in place. The result is a fee structure that promotes infill and increased densities in areas with readily available bus transit, bike, and pedestrian access.

Indirect Source Review (ISR) Rule – The San Joaquin Valley Air Pollution Control District has enacted the ISR rule, requiring new development to pay a fee for mitigating air quality impacts. All or a portion of the fee can be waived if a developer includes strategies that improve air quality, such as walkable design, bike paths, better access to transit, etc.

High-Speed Rail Station Area Planning – The City of Bakersfield Economic and Community Development Department is already planning intensification of land uses around the proposed high-speed rail station in downtown Bakersfield. Plans include the addition of 600 housing units and the Mill Creek pedestrian parkway that connects shops, restaurants, offices and housing to the downtown high-speed rail station site.

Blueprint/Directions to 2050 Principles in General Plan – The City of Maricopa has incorporated the Blueprint/Directions to 2050 Principles into its General Plan such as enhancement of existing assets, and compact walkable development.

Healthy Communities – The City of Delano adopted a new element to its General Plan called the Health and Sustainability Element. The new element includes goals and policies designed to strategically form a community that provides a healthy and sustainable environment for its residents.

Climate Change Policies – The City of Taft is incorporating emission reduction policies that relate to climate change in its General Plan update. The City of Delano adopted a Climate Action Plan which includes a range of measures to reduce GHG emissions from a variety of sources throughout the City as well as a Municipal energy Action Plan for City facilities.

Form-Based Code General Plan – The City of Tehachapi developed and recently adopted one of the first citywide form-based code General Plans in the nation. The plan focuses on the architectural design of a community and encourages infill and development in the central community with transit access.

Complete Streets in Circulation Elements – Effective in 2011, AB 1358 required General Plan Circulation Elements to include transit systems, bike systems, and pedestrian facilities in addition to automobile circulation networks. According to Government Code Section 65302(b)(2)(A) and (B), with the next substantial revision to a jurisdiction's General Plan Circulation Element, the jurisdiction must incorporate a multi-modal network with complete street techniques for safe and convenient travel for all users, including

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public transit users in the rural, suburban, and urban context of the general plan. Circulation Plan update guidelines are available at





http://opr.ca.gov/docs/Update_GP_Guidelines_Complete_Streets.pdf.

Specific Plan Lines - In addition, Kern County has already made extensive use of specific plan lines to preserve right-of-way for future highway corridors. Local land use plans can consider other strategies to preserve transit centers and corridors. Specific plan lines can be developed that identify transit-oriented centers, corridors, and boulevards to allow for gradual higher-capacity transit modes as land use densities warrant.

New Tools and Concepts

Transit More Responsive to Peak Period Demand Changes - A major advantage of transit over single-occupant vehicle facilities, such as freeways, is that transit is more economical when a corridor reaches

TABLE 5-9: PHASED TRANSIT CAPACITY INTENSIFICATION

	LOCAL	INTERCITY	INTERREGIONAL
 Fixed-Route Transit	Rural (Village/Neighborhood) Transit Capacity Phase		
	Dial-a-Ride/Senior Transit/Rideshare/Taxi/Vanpool	Regional Transit (KRT) /Senior Transit/Feeder Bus	Regional Transit (KRT) /Rail Feeder Bus/ Greyhound
 Bus Rapid Transit	Suburban (Town/Community) Transit Capacity Phases		
	Dial-a-Ride/Senior Transit/Taxi/etc.	Regional Fixed Route (KRT)	Rail Feeder Bus
	Fixed Route Bus(GET)/Circulator Bus	Rail Feeder Bus/Greyhound	Passenger Rail Service (Amtrak)
	Express Bus/Bus Rapid Transit (BRT)	Intercity Commuter Rail (Metrolink)	
Commuter Rail/Light Rail (Metrolink)			
 Commuter Rail	Urban (Metro) Transit Capacity Phases		
	Shuttle Bus/Circulator Bus	Rail Feeder Bus	Passenger Rail Service
 High-Speed Rail	Fixed Route Bus (GET, DART)	Intercity Commuter Rail (Metrolink)	High-Speed Rail
	Bus Lanes/Mixed Carpool Lanes		
	Express Bus/Bus Rapid Transit (BRT)		
	Rail Feeder Bus		
	Commuter Rail/Light Rail (Metrolink)		

Source: Adapted from the Transportation and Land Use Coalition (TALC)

capacity. The cost to add a bus or another railcar along a corridor as congestion increases is considerably less expensive than adding right-of-way for another roadway lane; the bus is only needed during peak periods, making it more efficient than providing a travel lane that is underused 90% of the time.

Phased Transit Capacity Intensification – As transit oriented place types gradually develop, eventually sufficient land use intensity will be available to support increased capacity modes such as express bus service, bus rapid transit and, eventually, commuter/light rail. In 1997, the MTIS developed a sketch plan for a commuter rail network connecting Metro Bakersfield to outlying communities. As part of the Metro

Bakersfield Long Range Transit Plan completed in April 2012, commuter rail service using existing spur lines to link with high-speed rail station in Bakersfield was studied. A gradual phasing of transit-capacity intensification needs to be brought online carefully, to match the gradual land use intensification. Table 5-9 illustrates the progressive steps along a local, intercity, or interregional corridor as it becomes sufficiently used to support higher-capacity transit modes.

The Bay Area Transportation and Land Use Coalition (TALC) suggests an evolving transit strategy that promotes the concept of Express Bus/Bus Rapid Transit (BRT) as an interim step between fixed bus routes and higher-capacity modes such as light rail. BRT is an evolving term for a host of sophisticated technologies including articulated buses, auto drive technology, and traffic signal green-light extension used on both bus-only and mixed-flow lanes. The Federal Transit Administration offers the following definition of BRT:

Bus rapid transit (BRT) is a combination of facility, systems, and vehicle investments that convert conventional bus services into a fixed-facility transit service, greatly increasing their efficiency and effectiveness to the end user.

The TALC strategy focuses on a planned and evolving intensification of transit-oriented development destinations for use as BRT stops. TALC's strategy of phased transit mode intensification, as the centers and corridors infill and ridership increases, allows the transit fare box revenue to drive the building and gradual intensification of the transit facilities along the corridor. Table 5-9 illustrates the evolving progression from rural to suburban to urban transit usage as the land use intensifies and the ridership warrants higher-capacity transit modes.

TALC suggests that infill land development around the transit centers should gradually drive the intensification of transit infrastructure. As new low-density suburban development occurs, a phased land use plan can provide areas for the future densification and infill with more intense urban uses around a transit center. This might include reserving areas for future commercial, mixed use, and more compact housing options.

Parking and Transit-Oriented Development – Detailed transit-oriented development standards that include the concept of phased land use intensification around transit centers can be found in *The Next American Metropolis: Ecology, Community, and the American Dream* (Calthorpe 1993). The design guidelines include “surface parking redevelopment” e.g., “Land devoted to surface parking lots should be reduced through redevelopment and construction of structured parking facilities. The layout and configuration of the surface parking lots (near transit centers) should accommodate future redevelopment; design studies showing placement of future buildings and parking structures should be provided.”

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Parking structures are expensive and have limited applicability for most rural and suburban centers. However, one of the more effective opportunities to intensify low-density development around transit-oriented development centers is to control parking configuration. Figure 5-24 is an example of many older retail centers with large parking areas that only fill up two times a year—the day after Thanksgiving and the day after Christmas. Implementation of other parking concepts, such as joint use parking by office, carpooling, retail, entertainment, churches, and mixed-use residential, can provide a more efficient and consistent usage of parking on weekdays, weekends, and evenings. Greater pedestrian and transit use allows a reduction in parking near transit centers by 15% to 25%. Parking for carpoolers, and access for bicyclists and transit commuters, requires additional consideration in this process.

Parking costs can also be used to promote development of a major transit center. Charging for parking creates a disincentive for people to drive to the center, encouraging them to take transit, carpool, bike,

or walk. In Old Town Pasadena, proceeds from the parking fees and meters were used to finance pedestrian street improvements that transformed a blighted downtown into a vibrant destination, which boosted the area's businesses and created a transit-oriented infill node for the new Gold Line transit station at Mission Park. Parking costs used to fund local projects that benefit those paying them are referred to as user-based fees. User-based fees for all forms of transportation expenditures are becoming more common and would have to be heavily relied upon to implement transit-oriented development.

Market Driven Housing Choices - Recent surveys and studies suggest a shift in the market demand for housing. In 2008, 2012 and 2013 Godbe Research conducted statistically valid community surveys of 1,200 people each asking residents about housing preference. Figure 5-25 provides information from the 2013 Community Survey. The survey indicates that in most Kern communities, when comparing the 2013 results to 2012, there is a slight decrease in preference overall for the single-family home with a small or large yard. At the same time, the results indicate a significant decrease in preference for townhouses/condominium, mixed-use buildings and apartment housing options. The survey indicates that over 60% of people still prefer a single-family home with a large yard. Providing single-family housing between higher density transit centers, will make high-capacity transit service more viable.

**FIGURE 5-24: BAKERSFIELD-CALIFORNIA AVENUE SHOPPING CENTER
EXISTING/POTENTIAL**

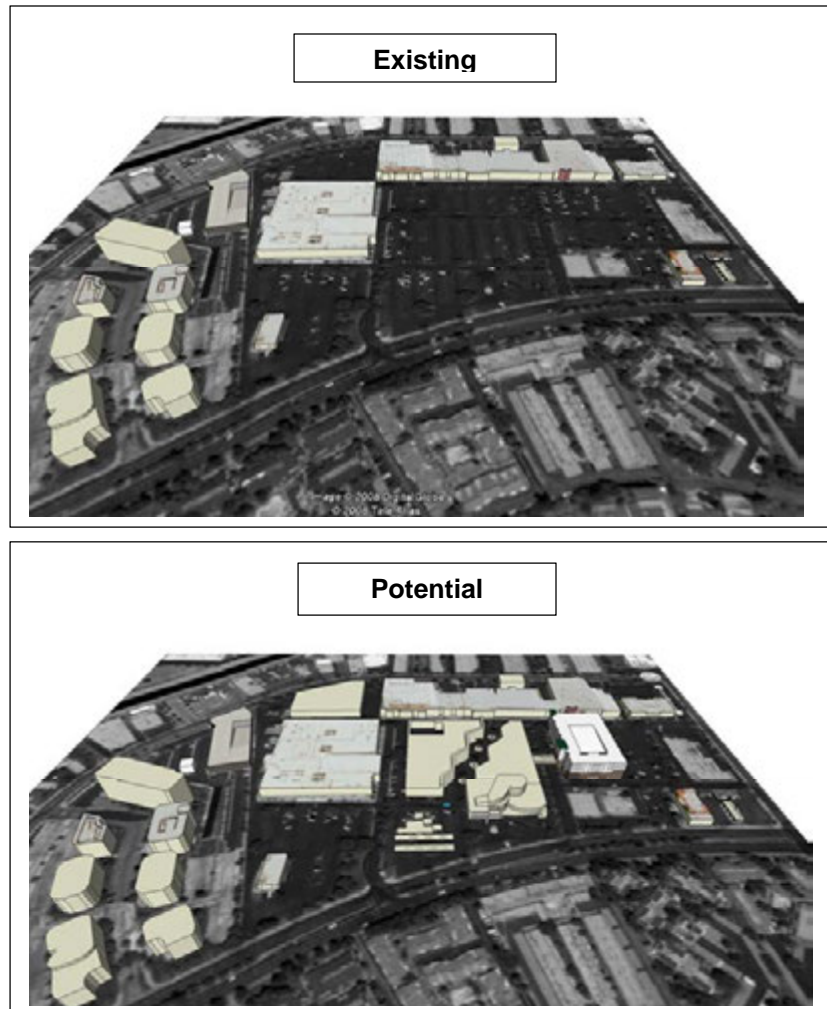
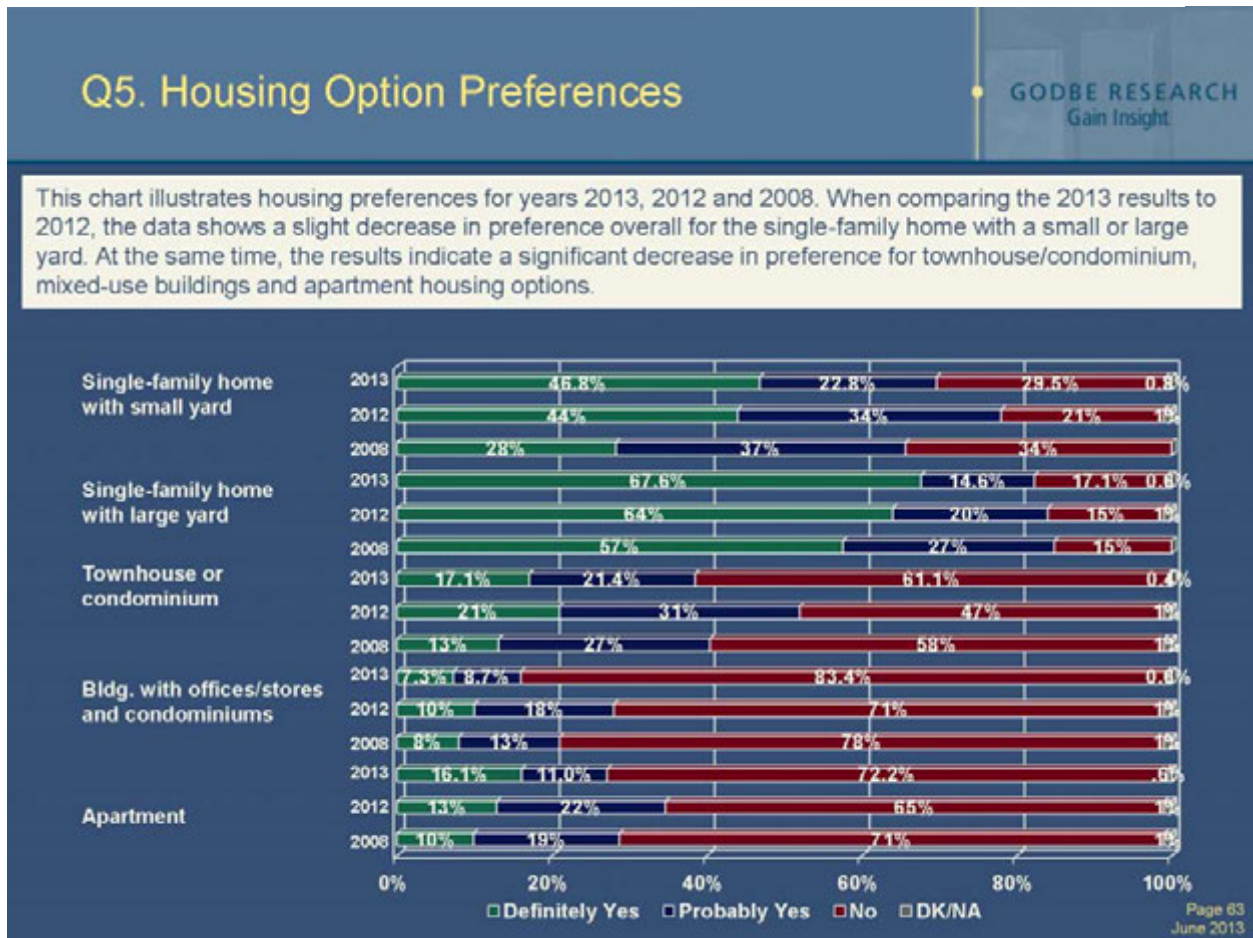


FIGURE 5-25: KERN HOUSING PREFERENCE 2013 COMMUNITY SURVEY



Proposed Rail/Transit-Related Land Use Actions

Near Term, 2014–2020

- Acknowledge city and county adopted General Plans and amendments and the related California Environmental Quality Act (CEQA) review process to inform stakeholders and decision makers on the impacts of sensitive land use developments near vital transportation infrastructure necessary to handle increasing local, intercity, and interregional transit use.
- Work with Golden Empire Transit, Kern Regional Transit, other local transit providers, and local land use planners to preserve existing and future transit opportunities from the encroachment of low-density land uses around transit-oriented development centers.
- Implement the long-range 2014 RTP in partnership with member agencies to preserve near- and long-term transportation infrastructure, thus promoting the gradual intensification of transit use only when market demand for compact land uses increases.

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- Encourage the adoption of general plan circulation elements that address transit, bike, and pedestrian modes. Consider specific plan lines and form-based codes where appropriate to implement transit improvements along designated transit corridors that connect transit-oriented development centers.
- Expand transportation choices and transit usage by providing market-driven housing choices that include more compact and mixed land uses within walking distance to transit centers.
- Identify and space transit-oriented, village, town, and suburban/community centers a minimum of 1 to 4 miles apart or as determined in adopted city and County general Plans and subsequent amendments.
- Provide convenient and safe walking and bike paths to a fixed transit hub at each development center.
- Allow reduced parking requirements near transit centers that have alternative modes of access such as walking and bike paths, circulator buses, etc.
- Coordinate with Golden Empire Transit on implementation of traffic signal green-light extension technology as a first step toward implementation of Bus Rapid Transit and peak period bus/carpool lanes on arterial streets.
- Coordinate with Golden Empire Transit, Kern Regional Transit, and the Kern County Department of Airports to improve intermodal connectivity between transit systems and Meadows Field.

Long Term, 2021–2040

- Monitor progress toward implementing principles developed by the Directions to 2050 outreach process.
- Promote more compact and mixed-use centers along major transit corridors where appropriate to support more intense transit options such as Bus Rapid Transit and light rail as areas urbanize.
- Land uses should be mixed both horizontally and vertically where appropriate. Vertical mixed use, with ground-floor retail in developed areas and activity centers as identified through land use plans, can increase the vitality of the street and provide people with the choice of walking to desired services. More important for Bakersfield, mixing uses horizontally can prevent desolate, single-use areas and encourage increased pedestrian activity; scale of use and distance between uses are important to successful horizontal mixed-use development.
- Support and enhance transit priority and strategic employment place types. These areas have a strong impact on transportation patterns as the major destinations. They are generally characterized by their regionally important commercial, employment, and service uses. To make these places more transit-supportive, they should be enhanced by land use decisions that locate new housing and appropriately scaled retail and employment uses to diversify the mix, creating an environment that maximizes transportation choice.
- The cities and the county should be encouraged to provide land use intensities where appropriate at levels that will promote use of transit and support pedestrian and bicycle activity. A general threshold for transit-supportive residential uses is 10 to 15 units per acre within ½ mile of a high-frequency transit stop (15 min. headways or less). This density can be lower, however, if the urban environment supports easy pedestrian/bike access to transit. Nonresidential uses with a floor area ratio (FAR) of 0.5 provide a baseline that can support viable transit ridership levels. Local land use plans should provide flexibility to maximize the intensity of development in transit priority place types to be more responsive to changing market conditions.

- The cities and the county should be encouraged to provide parking requirements (and parking provision) compatible with compact, pedestrian, and transit-supportive design and development. Requirements should account for mixed uses, transit access, and the linking of trips that reduce reliance on automobiles and total parking demand.



Highway/Road Land Use Actions

See the *Regional Streets and Highways Action Element*, *Public Transportation Action Element*, *Freight Movement Action Element*, and *Active Transportation Action Element* sections above for further discussion on facilities and connectivity.

See Chapter 4, *Sustainable Communities Strategy*, for further discussion on sustainable highway/road facilities and connectivity.

While roads and highways have considerably more flexibility in siting than air, rail, or transit modes, roads provide interconnectivity to all other modes. At these intermodal connection points, road and highway land use decisions are considerably less flexible because of the limited number of site opportunities. Preserving intermodal connections, while ensuring the capacity necessary to minimize congestion, is a major concern for land use planning. When siting roads and highways, local planners rely on special transportation studies and circulation plans. The following are some ideas that planners might consider implementing to encourage sustainable roads and highways within the Kern region.

Road and Highway Grid

A rule of thumb is that highways and freeways in urban areas should be spaced 3 to 6 miles apart. Recent specific plan line adoptions around Metropolitan Bakersfield have resulted in a beltway system that will be more than 7 miles from the next parallel freeway facility. As new housing is built on the urban fringe, residents may strongly object to new freeways being constructed near their homes, thus potentially driving the beltway system further out; the arterial circulation system in the interior would suffer increased congestion as a result. Parallel arterials halfway between two parallel freeways that are spaced too far apart would be servicing greater loads than six-lane arterials can absorb because they must carry additional traffic that the freeway system is too distant to service.

FIGURE 5-26: CENTRAL BAKERSFIELD'S INTERRUPTED ARTERIAL GRID



The Central Bakersfield arterial network can be characterized as a high-volume, interrupted grid pattern (Figure 5-26). While many regions provide a four-lane arterial grid, Metropolitan Bakersfield is fortunate to have a six-lane arterial network that is laid out on roughly 1-mile intervals with curvilinear deviations from the section line grid. However, the arterial system is interrupted by a series of railroad corridors, freeways, canals and a river, resulting in greater than 1.5-mile gaps between arterials. A level of service degradation can be anticipated where arterials are spaced at greater than 1-mile intervals. The decision to allow the lower-density arterial spacing avoided building costly bridges, as well as further arterial segments on the

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urban fringe where future traffic volumes would be expected to be low. As new entitlements were approved beyond these locations, congestion levels increased in these areas.

In addition to arterial spacing, spacing of freeway interchanges has resulted in increased traffic congestion levels. Ming Avenue, White Lane, and Panama Lane, at State Route 99, were all spaced 1.5 miles apart when the highway was designed to rural specifications in these areas. Now that the region has urbanized, heavy traffic congestion is common at all three interchanges.

Irregular spacing of arterials can make it more challenging to synchronize traffic signals in more than one direction. Arterials with signals at irregularly spaced collectors and entrances to shopping centers further complicate traffic signal coordination efforts. A collector network that directs local traffic to and from the arterials commonly deviates from the grid layout in the newer suburbs, hindering traffic signal synchronization.

The silver lining of having an imperfect arterial grid is that it results in higher levels of congestion that may promote the use of transit and other modes. However, bus transit is often stuck in the same traffic congestion. Transit service needs to provide a congestion free alternative to get around during peak periods if it is to be a viable alternative to automobile travel. Providing alternatives such as light rail and bus lanes during peak travel periods ensure that transit provides a congestion free alternative to single-occupant vehicle travel.

Bus and Carpool Lanes

One of the most efficient uses of high-occupancy vehicle (HOV), low-emissions vehicle (LEV) lanes is to provide priority access to express bus service. The sight of buses speeding past congested traffic can be a strong inducement for commuters to take advantage of transit, helping to relieve congestion and extending the service capacity of a freeway by providing an alternative means to get through a congested corridor.

In October 2005, Caltrans analyzed the congested portions of State Routes 58 and 99 in Metropolitan Bakersfield. The findings indicated that, for the most part, HOV lanes would not provide much additional congestion relief over mixed-flow lanes. This is primarily a result of the relatively short commutes, making the time savings differential less significant. However, the incorporation of an express bus or BRT service that uses the HOV lane can greatly improve the performance of transit ridership. Northbound SR 99 through Metropolitan Bakersfield was identified as feasible for implementing an HOV lane; however, building a carpool lane in just one direction is not much of an incentive for carpooling. The cutoff for feasibility in the study was 400 vehicles per peak hour of travel to 1800 vehicles per lane. SR 99 southbound had a higher level of vehicle occupancy in the study—sufficiently high that a 2+ person vehicle per lane facility would become saturated. Use of congestion pricing or increasing the capacity to 3+ during peak periods could combat the saturation problem. No funding was identified in the study for financing the HOV lanes; however, federal Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds and the Air District's new Indirect Source Review (ISR) fee may be eligible for an express bus/HOV/LEV lane.

**FIGURE 5-27: BUSINESS
ACCESS & TRANSIT (BAT) LANES**



In 1994, HOV lanes for the Westside Parkway and Downtown Parkway (now called the Centennial Corridor south) were studied as part of the facility's Tier 1 Environmental Impact Report. Modeling showed that the facility would carry less than 2 vehicles per minute, a third of the traffic necessary to make the facility run efficiently by 2015. However, analyzing a much longer horizon indicated that eventually the facility could benefit from an HOV/LEV/bus lane as it became more congested. The source of the congestion is a high level of new entitlements approved on the fringe of the metropolitan area. Incorporating an express bus and future HOV/bus lane into freeways that will eventually become congested is an essential traffic relief valve for an expanding metropolitan area.

Some regions have developed carpool lanes on arterial streets (Figure 5-27). In Seattle, on some arterials, the right lane is reserved as a business access and transit (BAT) lane. The lane may be used for turning right into or out of parking lots and at intersections, or by a bus. The BAT lane configuration allows the bus service to get through when the arterial is congested. Buses are allowed to travel through the intersection in the BAT lane. A BAT lane also allows for carpools, vanpools, and emergency vehicles to get through when traffic is backed up.

At its September 18, 2012, meeting, the Kern COG board took action to join the CalVans Board to provide input to increase vanpool services in Kern County. Currently, CalVans operates 65 vanpools in Kern County equaling a reduction of vehicle miles traveled (VMT) in Kern of 1.7 million miles. Kern COG and CalVans estimate a possible 200 vanpools may be in operation in Kern and reduce VMT by 5.2 million miles.

Park-and-Ride Locations

Park-and-ride locations should be planned at the terminus of an express bus/BRT/light rail line and near major intermodal facilities such as freeway interchanges, airports, and regional rail. As the metropolitan area expands, new TOD centers will be established beyond the former terminus. At that point, the former terminus can begin to intensify and infill, likely converting the park-and-ride facility into parking for additional office and commercial activities. Currently, a large number of informal park-and-ride areas have been established at commercial centers throughout Bakersfield. They support vanpools that go to the prisons, oil fields, and other outlying resource employment areas surrounding Metropolitan Bakersfield. Facilitating the expansion of vanpooling is important to the region's goals.

Freight Mobility on Highways and Roads

Closely tied to the region's economic and environmental goals, truck freight mobility along highways is highly dependent on land use decisions. For this discussion, freight mobility is divided into three separate areas:

- Interregional through-county, or "primary" goods movement;
- Freight destined/originating locally, or "secondary" goods movement;
- Local freight delivery such as Federal Express/UPS, or "tertiary" goods movement.

Primary Goods Movement

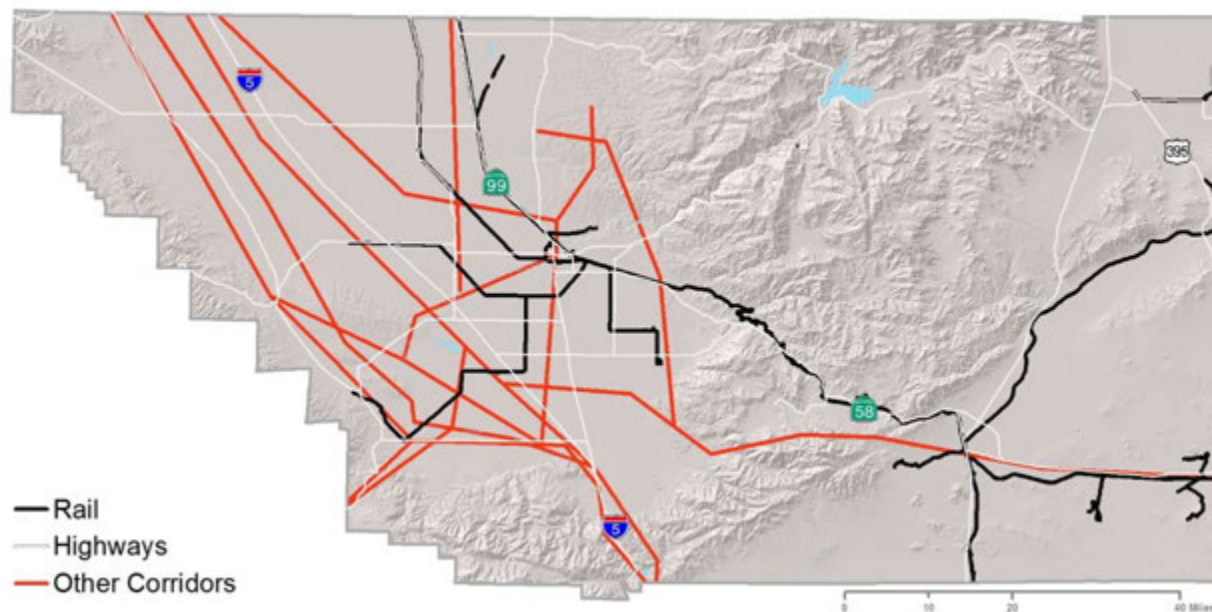
Of the primary or through-county goods movement, pipelines handle more tonnage than all other modes combined (Figure 5-28). These privately operated facilities allow the inexpensive movement of liquid and gas products. In addition to relieving a tremendous tonnage of equivalent truck and rail traffic, the pipelines have terminals that transfer cargo to rail and truck. It is these intermodal points that have the greatest effect on the existing transportation infrastructure and need to be protected from conflicting land uses. The propane gas terminal near Taft is one example of this type of facility, and the Alon Oil Refinery terminal on

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Rosedale Highway is a distribution point for oil products by truck. Golden Bear, San Joaquin, and other local refining facilities also ship oil products that originated from the local and regional pipeline networks in the region.

Kern lies at the crossroads for much of the trucking goods movement throughout the state. Figure 5-29 shows the State Highway system that passes through the county. The Tejon and Tehachapi passes are major bottlenecks for trucking and rail. Preservation of these corridor passes for goods movement is critical to Kern County's and California's economic health. Forecasted growth along these corridors is expected to increase dramatically over the next several decades. While Caltrans has proposed additional truck passing lanes through the mountain passes, the number of lanes that can fit in the narrow canyons through the passes is limited.

**FIGURE 5-28: PRIMARY GOODS MOVEMENT
CORRIDORS: TRUCK, RAIL, OTHER**



Options to increase capacity through these passes include adding truck toll lanes that use congestion pricing to create an incentive for trucks to travel at off-peak times. Another option is the double tracking of the rail line over the Tehachapi Pass. This alternative would greatly increase the capacity of the corridor while reducing truck emissions by as much as tenfold. Coordinating the financing of all truck-lane facilities and double tracking the rail corridor could result in more efficient goods delivery to Southern California.

**FIGURE 5-29: PRIMARY TRUCK GOODS MOVEMENT
FACILITIES: EXISTING AND FUTURE**



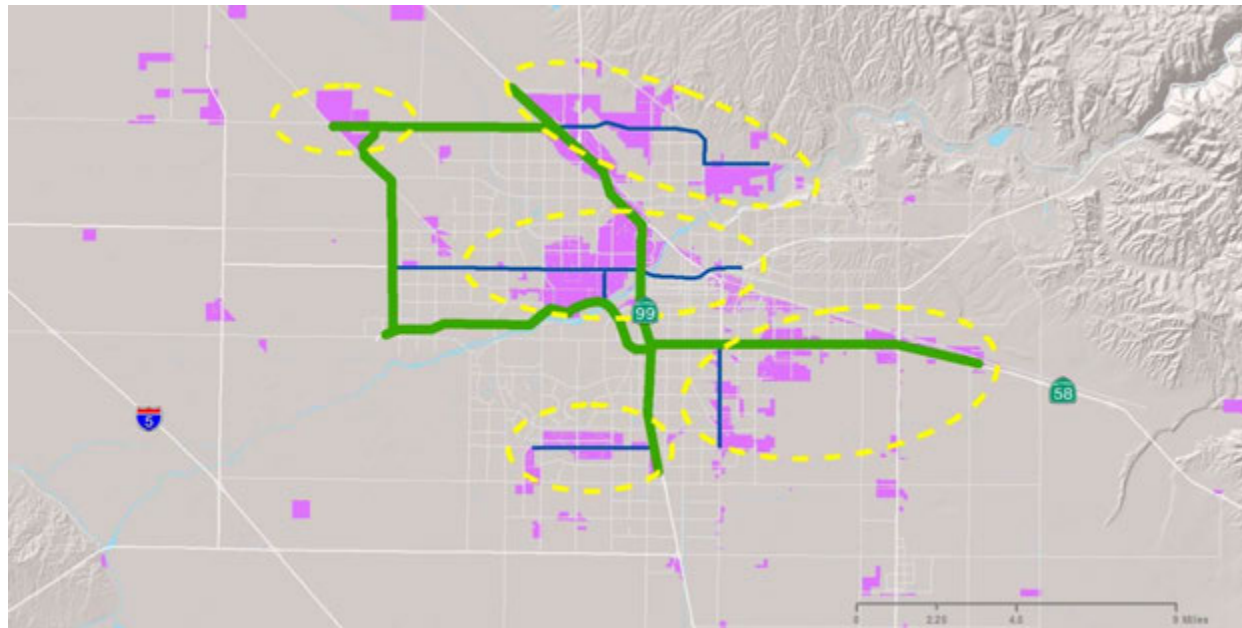
CHAPTER 5 STRATEGIC INVESTMENTS

In other areas of the county, congestion on State Routes 99 and 58 through Metropolitan Bakersfield is impeding primary freight traffic through the region. A system of beltways surrounding Metropolitan Bakersfield will help relieve these corridors. Shown on Figure 5-29 as red lines, these facilities should be considered heavily traveled truck routes, and land use along these corridors should be tolerant of truck traffic.

Secondary Goods Movement

Secondary goods movement focuses on transport of goods that originate or are destined locally. Secondary goods shipments tend to originate from industrially zoned areas. Metropolitan Bakersfield has five major industrial activity areas that generate freight movement; these areas are shown on Figure 5-30. Connecting these areas is a series of internal arterials and collectors that must handle high volumes of truck traffic. Figure 5-30 shows these facilities as dark blue lines. The yellow dashed areas are the industrial districts. The thicker green lines are a network of major arterials and freeways that connect these districts with each other. The industrial district north of Bakersfield is located at the Paramount Logistics Park.

**FIGURE 5-30: SECONDARY GOODS MOVEMENT FACILITIES
CONNECTING INDUSTRIAL AREAS IN METRO BAKERSFIELD**



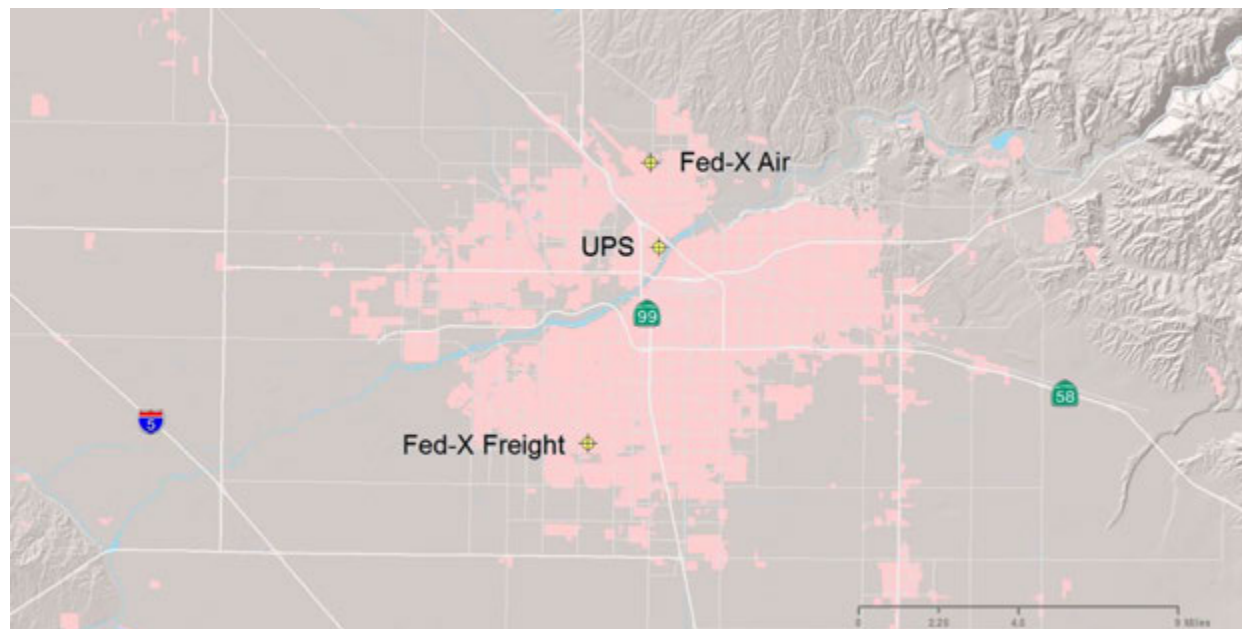
Transporting goods along these corridors requires special turning-radius considerations for longer truck trailers. National Surface Transportation Assistance Act truck routes must be able to handle trucks up to 53 feet in length and require special median design to accommodate the larger turning radii. The maintenance of truck routes needs to be accommodated to promote the region's economic and environmental goals.

Connections from these industrial districts to the primary or regional goods movement corridors on State Routes are critical. The primary goods movement network in Metropolitan Bakersfield is becoming heavily congested. Development of additional primary goods movement corridors, as a system of beltways around Metropolitan Bakersfield, will help to relieve some of this congestion.

Tertiary Goods Movement

Tertiary goods movement is the distribution of goods locally. Facilities such as Federal Express and UPS use the entire local street network for delivering goods and services (see Figure 5-31). It also includes other goods movement such as grocery and retail store deliveries. Delivery service is a rapidly expanding sector for goods movement as Internet shopping becomes more prevalent. Providing adequate capacity and siting for these tertiary goods movement activities is critical for the economic viability of the region.

FIGURE 5-31: TERTIARY GOODS MOVEMENT NODES



CHAPTER 5 STRATEGIC INVESTMENTS

Proposed Road/Highway-Related Land Use Actions

Near Term, 2014–2020

- Continue to use the CEQA review process to inform stakeholders and decision-makers on the impacts of sensitive land use developments near vital transportation infrastructure.
- Work with member agencies to preserve existing and future road and highway rights-of-way from the encroachment of sensitive land uses.
- Implement the long-range 2014 RTP in partnership with member agencies to preserve near- and long-term transportation infrastructure that promote the preservation of goods movement routes and facilities.
- Encourage the adoption of general plan circulation elements with specific plan lines as appropriate to preserve goods movement corridors and high frequency transit corridors.
- Provide for all types of truck-related goods movement along truck-route corridors.

Long Term, 2021–2040

- Monitor progress toward implementing regional principles developed by the Directions to 2050 outreach process.
- Promote land use along freight corridors that are compatible with goods movement traffic.
- The transportation and circulation framework should define compact districts and corridors that are characterized by high connectivity of streets to not overly concentrate traffic on major streets and to provide more direct routes for pedestrians, good access to transit, and streets that are designed for pedestrians and bicycles, as well as for vehicles.
- New residential developments should include streets that provide connectivity. Cul-de-sacs and walls around communities are especially challenging for providing effective pedestrian and bike access to public transit.
- Transit improvement projects should be targeted at areas with transit-supportive land uses (existing and planned) in and around key destinations and projects that can increase pedestrian activity.
- Streets should be designed to support use by multiple modes, including transit, bicycles, and pedestrians, through proper scaling and provision of lighting, landscaping, and amenities. Amenities must be designed to provide comfortable walking environments.
- Buildings should be human scaled, with a positive relationship to the street (e.g. entries and windows facing onto public streets, and appropriate articulation and signage).
- The impact of parking on the public realm should be minimized by siting parking lots behind buildings or screening elements (walls or landscaping). Buildings should be close to the road so parking can be located on the side or in the rear.

- Relax roadway level of service (LOS) standards in high-priority transit corridors. In high-demand, high-capacity transit corridors—specifically, the Lines 1 and 2 Rapid alignments identified in the Short-Term Plan, where service is proposed to be upgraded to bus rapid transit—it may be desirable, even necessary, to reduce minimum standards for intersection LOS. There has been some discussion already of site-specific relaxations of the existing City of Bakersfield standard of LOS C related to adjacent transit-oriented developments. If traffic lanes along major arterials such as Chester Avenue and California Avenue were to be set aside for exclusive use by transit vehicles, congestion might result at some locations, exceeding the existing threshold for mitigation. In these cases, mitigation could be pursued, but it might not always be possible or even desirable to implement typical mitigation such as additional turn lanes, as such measures can sometimes impinge on the pedestrian realm or even adjoining properties. In these instances, policymakers would be faced with a decision: accept somewhat higher levels of traffic congestion at these locations or accept less robust transit-priority treatments. It should be noted that minimum roadway level of service standards in many urban areas are LOS D, or less in some cases.

Land Use Decisions Outside Kern County

Land use decisions in neighboring jurisdictions can greatly impact Kern's regional transportation system, as is being experienced at the northern end of the San Joaquin Valley. Spillover development from coastal areas will be a primary driver for development in the Kern region. However, the percentage commuting to Los Angeles County from 1990 to 2000 remained unchanged at 3% of the total households in Kern, indicating that the main wave of urbanization has yet to reach this county. Kern COG and the Southern California Association of Governments (SCAG) meet periodically to discuss interregional planning issues such as land use, transportation strategies, and regional housing needs. Recent meetings have been held to discuss the proposed Centennial new town development on Tejon Ranch property south of the Kern County line near Interstate 5 and State Route 138. Kern COG provides modeling on the transportation impacts of this development to the Kern region. In addition, Kern COG has agreements in place with the San Joaquin Valley metropolitan planning organizations and the four-county Eastern Sierra Transportation Planning Partnership.

Proposed Actions

Near Term, 2014–2020

- Encourage land use decisions by member agencies that promote pedestrian, bike, and transit-oriented mixed-use and infill development.
- Continue to review and comment on environmental documents and their identified transportation impacts, recommending pedestrian, bike, and transit-oriented development strategies.
- Promote increased communication with neighboring jurisdictions on interregional land use issues.
- Coordinate regularly with SCAG on interregional land use and transportation planning issues.
- Coordinate with the San Joaquin Valley Metropolitan Planning Organizations on interregional land use and transportation planning issues.
- Coordinate with the Eastern Sierra Transportation Planning Partnership on interregional land use and transportation planning issues.

CHAPTER 5 STRATEGIC INVESTMENTS

Long Term, 2021–2040

- Encourage land use decisions by local government member agencies that promote pedestrian, bike, and transit-oriented mixed-use and infill development.
- Where appropriate, encourage local government agencies to plan for high-density, pedestrian-oriented transit hubs that support the current and planned investment in alternative transportation modes such as bus transit.
- Encourage higher densities by member agencies necessary for the Regional Housing Needs Allocation Plan.
- Promote land use patterns that support current and future investments in bus transit and that may one day support passenger rail alternatives.
- Re-evaluate feasibility of commuter rail alternatives and intermodal connections with implementation of the GET Long-Range Transit Plan and in light of potential high-speed rail service.
- Promote increased communication with neighboring jurisdictions on interregional land use issues.
- Coordinate regularly with SCAG on interregional land use and transportation planning issues.
- Coordinate with the San Joaquin Valley Metropolitan Planning Organizations on interregional land use and transportation planning issues.
- Coordinate with the Eastern Sierra Transportation Planning Partnership on interregional land use and transportation planning issues.
- Continue coordination activities with the San Luis Obispo and Santa Barbara COGs on interregional land use and transportation planning issues for State Routes 33, 41, 46, 58, and 166.

Kern Council of Governments



Chapter 6 Financing Transportation

June 19, 2014



Kern Council
of Governments

www.kerncog.org

CHAPTER 6 FINANCING TRANSPORTATION

Regional transportation plans must include a financial element that identifies monetary resources to implement the plan (23 USC 134(h)(2)(B)). This Chapter serves as the Financial Element to fulfill the federal requirement that the 2014 RTP be financially constrained (i.e., budgeted) and provides a cost analysis for implementing the program of projects included in the Strategic Investments (Action Element). It describes the financial situation that will exist between FY 2014 and FY 2040, the implementation period for this 2014 RTP.

FINANCIAL ANALYSIS PROCESS

The Kern Council of Governments (Kern COG) has estimated revenues that are reasonably expected to be available from known federal, state, local, and private sources of transportation funding to implement the proposed projects. Each year, Kern COG is responsible for selecting and prioritizing transportation projects for the allocation of millions of dollars in funding. These responsibilities involve programming federal, state, and local transportation funds, each of which may have different requirements, limitations, and schedules.

Projecting revenues and expenditures over this length of a planning period is difficult at best. The analysis relies partly on historical funding patterns from state and federal sources, though effort has been made to account for new methods of allocating state transportation funds since the passage of Senate Bill 45 (Government Code Chapter 622), effective January 1, 1998. In addition, the year of expenditure must be considered when estimates for capital projects are developed; this is required by the federal surface transportation act, MAP-21.

Even for existing funding sources, understanding and implementing the complex array of local, state, and federal programs is not easy. Some of the programs rely on allocations, others on apportionments, and others are matching programs. Different combinations of apportioned, allocated, or matched dollars from local, state, and federal sources can be applied to one project. Many of the projections included in the 2014 RTP rely on simplified financial assumptions upon which programming assumptions are then based.

The comparison of revenues and expenditures are not an exact budget, but rather a forecast of future financial conditions for the FY 2014-2040 planning period covered by this RTP,

For additional information please refer to Chapter 1, Pages 1-2 and 1-3.

REVENUE PROJECTION ASSUMPTIONS

The 2014 RTP financial plan identifies forecasted revenues and expenditures approaching \$11.6 billion for capital and operations and maintenance, for all modes. Approximately \$7.4 billion is identified to support the region's capital transportation investments. About \$4.2 billion is designated for operations and maintenance of the current and future system. The plan includes a constrained revenue forecast of local, state, and federal sources that are considered reasonably available over the life-span of the 2014 RTP. Financially constrained projects reflected in Table 5-1 are matched with expected revenue summarized in Table 6-1 and based on revenue streams considered by the region to be reasonably available. Approximately 90% of these revenue streams are based on traditional and past revenue streams, while about 10% are considered reasonably available anticipating future changes to local and regional policies and revisions to state and federal transportation legislation.

Approximately \$1.3 billion of the \$11.6 billion revenue estimate is based on revenue streams considered reasonably available to regions in the future as a result of: (1) adjustments to state and federal gas tax rates based on historical trends and recommendations from two national commissions (National Surface

CHAPTER 6 FINANCING TRANSPORTATION

Transportation Policy and Revenue Study Commission and National Surface Transportation Infrastructure Financing Commission); (2) leveraging of local sales tax measures; (3) potential national freight program/freight fees; (4) future state bonding programs; and (5) mileage-based user fees.

For the Kern region, each of these funding concepts has a varied weight of opportunity; they are all options that have been under discussion by state and federal legislators for many years and are currently considered reasonably available by larger regional agencies in California. While no one item should be considered a silver bullet for a smaller region such as Kern, collectively, and based on a very conservative estimate, Kern considers several to be reasonably available revenue streams during the life of the plan.

The conservative estimate of \$1.3 billion is based on a combination of newer financing opportunities coming into play during the life of this plan. As such, these revenue streams are collectively listed in Table 6-1 and included as “Other Revenue” in the Revenue Summary for the financially constrained element of this plan. No one item is selected, since Kern’s transportation history is mostly dependent on transportation impact fees, other local bonding, and local, state, and federally legislated transportation bills including earmarks and appropriations. In the past several years, state and federal discretionary transportation funding opportunities have turned to performance-based outcomes for the project selection process. The Kern region has taken note and has implemented a project selection policy that supports revenue leveraging and performance-based selection criteria that support livable communities and complete streets concepts. Presented below is justification for Kern’s “Other” revenue assumptions.

- The Kern region has demonstrated an interest in passing a self-help transportation tax, and state law may assist in that effort by requiring a majority vote to pass such a tax in the future.
- Kern COG has updated its project selection policy and guidance document to direct its priorities toward projects that support livable communities and complete streets goals.
- Improvements to the gas tax structure, odometer-based taxes, federal freight-related programs, and other identified programs will collectively serve to develop consistent and sustainable funding streams not currently enjoyed by most regions or states. Reforms in these areas would benefit not only the Kern region but all regions in the state and nation.
- Kern projects constrained by the addition of \$1.3 billion focus on the areas of operations and maintenance and expanded services to transit, maintenance of streets and roads, and the further implementation of projects that support livable community concepts and complete streets.
- Regional highway capacity projects in Kern include a serious need for safety improvements to many lane miles of two-lane “conventional” highways that could be much safer with four lanes and shoulders/pedestrian improvements.
- Currently waning funding levels for projects of regional significance would be bolstered by state and federal excise tax reform and afford the opportunity for Kern to deliver identified projects that improve safety and increase mode choices.
- The plan does not recommend the use of future revenue streams to add capacity projects, but Kern COG understands that these projects will require a sustainable revenue stream brought on by state and federal reforms to the gas tax to sustain core assumptions to deliver these projects.
- Kern COG has taken steps to move toward integrating safety priorities of capacity needs with cost-effective operational improvements that cost less but provide safety benefits.

- Ongoing outreach to Kern residents indicates a resounding priority to maintain our streets and roads, improve non-motorized opportunities, improve transit, and keep our highways safe.

The assumptions below represent revenue streams considered reasonably available over the last several transportation acts.

- **National Highway System (NHS) and Surface Transportation Program (STP) dollars** are combined with State Highway Account (SHA) dollars to fund the State Transportation Improvement Program (STIP). Total funding available for STIP is apportioned as county shares. The STIP is then divided into two funding groups: (1) the Regional Improvement Program (RIP), which programs 75% of STIP funding; and (2) the Interregional Improvement Program (IIP), which programs the remaining 25%. Of the IIP funding, only 10% can be used in urban areas; the rest is for rural highway projects and other programs, such as rail.
- **County-share estimates to fund state highway projects** and other projects of regional significance are based on California Department of Transportation (Caltrans) projections of Kern County's share and are projected over a 20-year period. Inflation rates were not applied for revenue projections. The first five years of revenue estimates assumed current Federal Transportation Improvement Program (FTIP) project funding plus an additional \$30 million. The second five years assumed a RIP rate of \$30 million per year for five years and \$10 million per year from the discretionary IIP source. The final 10 years assumed \$30 million for RIP and \$10 million for IIP per year.
- **Year-of-expenditure project estimates** shown in Tables 5-1 and 5-2 are constrained by reasonably available revenue estimates outlined herein. Year-of-expenditure is defined as the anticipated fiscal year that construction would begin. A statewide annual average of 3% for expected inflation was applied to these estimates.
- The assumption for the **State Highway Operations and Protection Program (SHOPP)** funding projection was to calculate the last five years of SHOPP projects based on the FTIP.
- Safety Program dollars were allocated in four distinct programs: **Highway Bridge Program (HBP)**, **Highway Safety Improvement Program (HSIP)**, **Safe Routes to School (SRS)**, and **Local (Section 130) At-Grade Crossing**. These were averaged over the last five years and extrapolated based on FTIP analysis. No inflation factors were applied.
- For the **Regional Surface Transportation Program**, annual apportionments were averaged and projected over 20 years. Inflation factors were not applied.
- For the **Congestion Mitigation and Air Quality Improvement (CMAQ) Program**, annual apportionments were averaged and projected over 20 years. Inflation factors were not applied.
- The **Bakersfield and Rosamond Transportation Impact Fee programs** are based on residential, commercial, and industrial development but are difficult to predict. For the Rosamond Impact Fee, an average was determined to have been collected over the last several years, while the Bakersfield impact fee was calculated based on the latest fee schedule. Amounts were then projected linearly with growth and inflation factors applied.
- **FTA Funding Section 5307 (Urbanized Area Formula Apportionments for Transit)** was projected using annual inflation and growth factors and past FTIP programming.
- **FTA Funding Section 5309 (New Starts/Major Investments for Transit)** was projected using annual inflation and growth factors and past FTIP programming.

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- **FTA Funding Section 5310 (Elderly and Disabled Persons Transit)** was projected using annual inflation and growth factors and past FTIP programming.
- **FTA Funding Section 5311 (Non-Urbanized/Rural Transit Assistance)** was projected using annual inflation and growth factors and past FTIP programming.
- **Local Transportation Fund (LTF)** was projected using annual inflation and growth factors and past FTIP programming.
- **Transportation Alternatives (TA)** federal fund is 10% of the estimated county share. That value was projected without inflation factors.
- **Community Development Block Grants (CDBG)** – A small percentage (5%) of improvements from these grants were directed toward normal non-motorized improvements, including bicycle lanes and sidewalks.
- **Tax Credit Incentives** – Also a community development revenue stream, a similar assumption was made as with the CDBG grants, assuming that any new or reconstruction has and would require improvements to roadways and sidewalks contiguous to upgraded or new property construction.

The assumptions below represent newer goals and policies that the Kern region will rely on to deliver an additional 10% of the program.

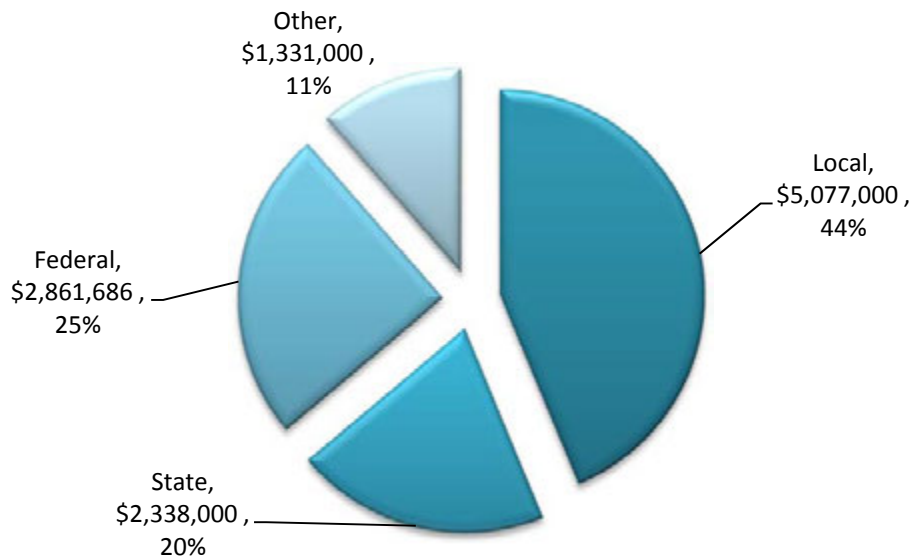
- **Bond Proceeds from Local Sales Tax Measures** – Issuance of debt against existing sales tax revenues in Kern County.
- **State and Federal Gas Excise Tax Adjustment to Maintain Historical Purchasing Power** – Additional \$0.15 per gallon gasoline tax imposed at the state and federal levels starting in 2017 and continuing to 2024 to maintain purchasing power.
- **Mileage-Based User Fee (or equivalent fuel tax adjustment)** – Mileage-based user fees would be implemented to replace gas taxes—estimated at about \$0.05 (in 2011 dollars) per mile starting in 2025 and indexed to maintain purchasing power.
- **Private Equity Participation** – Private equity share as may be applicable for key initiatives (e.g., toll facilities). Freight rail package assumes railroads' share of costs for mainline capacity and intermodal facilities.
- **Freight Fee/National Freight Program** – A national freight program is anticipated with the next federal reauthorization of the Surface Transportation Act. The US Senate's proposal would establish a federal formula for funding the national freight network.
- **E-Commerce Tax** – Although these are existing revenue sources, they generally have not been collected. Potentially, e-commerce tax revenue could be used for transportation purposes, given the relationship between e-commerce and the delivery of goods to California purchasers.
- **State Bond Proceeds, Federal Grants, and Other Financing for California High-Speed Rail Program** – State general obligation bonds authorized under the Bond Act approved by California voters as Proposition 1A in 2008; federal grants authorized under the American Recovery and Reinvestment Act and High-Speed Intercity Passenger Rail Program; potential use of qualified tax credit bonds; and private sources.

REVENUE SOURCES

Revenues identified in the 2014 RTP financial forecast are those that have been provided for the construction, operation, and maintenance of the current roadway, transit, and airport systems in the Kern region. Baseline revenues include existing local, state, and federal transportation funding sources. As Table 6-1 and Figure 6-1 summarize, revenue forecasts for the Kern region are estimated to be approximately \$11.6 billion for the RTP period. Revenue levels identified in Table 6-1 reflect reasonably available funding and include estimates for funding programs used over the last several years.

Approximately \$4.2 billion of the \$11.6 billion in expected revenue is for the operation and maintenance of the countywide transportation system. The remaining \$7.4 billion is dedicated to capital improvements for all modes over the 26-year period of this plan.

FIGURE 6-1: TRANSPORTATION REVENUES 2014–2040 (\$ x 1,000)



Local Revenue

Funding from local sources contributes nearly one-half of the revenues to this RTP. Major contributions to local revenue include Local Transportation Funds (11%), bus transit fare box (2%), and other local funding such as developer fees and general funds (27%).

One potential source of local funding for Kern County is a transportation impact fee (TIF). Outside Metropolitan Bakersfield, most developments currently do not pay a fare-share impact fee to offset the costs of constructing regional street or highway improvements. The impact fee is designed to collect the difference between the cost of the new roads attributable to new development and the amount of gas tax revenues that the new development will produce for the County or cities to use in road construction. Kern COG has undertaken a series of studies to assess the potential for future TIF programs within unincorporated county areas and small cities. Several small cities have implemented new TIFs, including Tehachapi, McFarland, Delano, Shafter, and Wasco. The County of Kern has adopted a new TIF for the greater Tehachapi area, and the County will continue to review growing unincorporated areas and develop identical programs when appropriate.

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TABLE 6-1: REVENUE FORECAST 2014–2040 (\$ x 1,000)

Table 6-1 Revenue Forecast 2014-2040 (\$ X 1,000)								
Funding Source	Total Revenue	Overall Percent	Transit, HOV, Aviation & Other		Roads & Highways		Pedestrian & Bicycle	
			Capital	O & M	Capital	O & M	Capital	O & M
Local Sources								
Cal Vans - Private Funds	\$ 192,000	1.65%	\$ 48,000	\$ 144,000				
Local - General Funds - streets and roads maintenance	\$ 400,000	3.45%				\$ 320,000		\$ 80,000
Local Transportation Funds	\$ 1,205,000	10.38%	\$ 301,000	\$ 904,000				
Bus Farebox	\$ 171,000	1.47%		\$ 171,000				
Local Agency Funds/Developer Fees/Regional Fees/Other	\$ 3,109,000	26.78%	\$ 37,000		\$2,937,275		\$ 134,725	
Subtotal	\$ 5,077,000	43.74%						
State Sources								
STIP (Regional and Interregional)	\$ 1,125,000	9.69%	\$ 140,000		\$ 985,000			
State Transit Assistance (STA)	\$ 460,000	3.96%	\$ 100,000	\$ 360,000				
State Highway Operation and Protection Program (SHOPP)	\$ 750,000	6.46%				\$ 750,000		
State Aid to Airports	\$ 3,000	0.03%	\$ 3,000					
Subtotal	\$ 2,338,000	20.14%						
Federal Sources								
Regional Surface Transportation Program	\$ 210,000	1.81%				\$ 190,000		\$ 20,000
Transportation Alternatives Program / Active Transportation Program / Safe Routes to School	\$ 37,500	0.32%					\$ 37,500	
Congestion Mitigation and Air Quality Program	\$ 197,500	1.70%	\$ 125,000				\$ 72,500	
Local Assistance (HES, HBRR, Sec.130, Emergency Relief)	\$ 82,000	0.71%				\$ 82,000		
Federal Aid to Airports	\$ 45,000	0.39%	\$ 22,500	\$ 22,500				
FTA Section 5307 (Transit – metro)	\$ 97,500	0.84%	\$ 24,375	\$ 73,125				
FTA Section 5310 and 5311 (Transit – senior/disabled/rural)	\$ 22,500	0.19%	\$ 5,625	\$ 16,875				
Recovery Act - High Speed Rail	\$ 1,500,000	12.92%	\$1,500,000					
State/Federal Demonstration / Other	\$ 669,686	5.77%	\$ 9,600		\$ 630,086		\$ 30,000	
Subtotal	\$ 2,861,686	24.65%	\$2,316,100	\$1,691,500	\$4,552,361	\$1,342,000	\$ 274,725	\$ 100,000
Other Sources - Revenue Streams during life of RTP								
May be derived from the following: Cap and Trade Revenue E-Commerce Freight Fee / National Freight Program Future State Bond Proceeds Odometer-based user fee Self-help sales tax State Federal Excise Tax on Fuel	\$ 1,331,000	11.47%	\$ 95,000	\$ 156,000	\$ -	\$ 700,000	\$ 150,000	\$ 230,000
Mass Transportation - expansion of transit system	\$ 120,000	1.03%	\$ 60,000	\$ 60,000				
Mass Transportation - Commuter Rail	\$ 211,000	1.82%	\$ 115,000	\$ 96,000				
Highway Safety; Streets and Roads and Maintenance	\$ 850,000	7.32%				\$ 700,000		\$ 150,000
Non-motorized system Countywide Capital & Maintenance	\$ 150,000	1.29%					\$ 31,000	\$ 80,000
Subtotal	\$ 1,331,000	11.47%						
Total	\$11,607,686	100.00%	\$2,411,100	\$1,847,500	\$4,552,361	\$2,042,000	\$ 424,725	\$ 330,000
Total of Capital Revenue	\$ 7,388,186	100%	20.8%	15.9%	39.2%	17.6%	3.7%	2.8%
Total of O & M (Operations and Maintenance)	\$ 4,219,500		36.7%	56.8%		6.5%		

State Revenue

State funding sources constitute about 20% of the total 26-year transportation budget. Most of these monies come from the State Transportation Improvement Program (10%) and the State Highway Operation and Protection Program (7%). State Transit Assistance funds make up the remaining 4%.

The 2006 state elections produced positive results for statewide infrastructure bond measures. The Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, approved by the voters as Proposition 1B on November 7, 2006, includes a program of funding from \$4.5 billion to be deposited in the Corridor Mobility Improvement Account (CMIA). Other bond opportunities include the State Route 99 Program, Trade Corridor Program and a State-Local Partnership Program. Kern COG has participated in the submittal of candidate projects for State Routes 46 and 99. Some of the candidate bond projects are part of Table 5-1 or are under construction; others are listed in Table 5-2. Should Kern be successful in receiving programming under any of these new bond programs, the 2014 RTP will be updated as required.

Federal Revenue

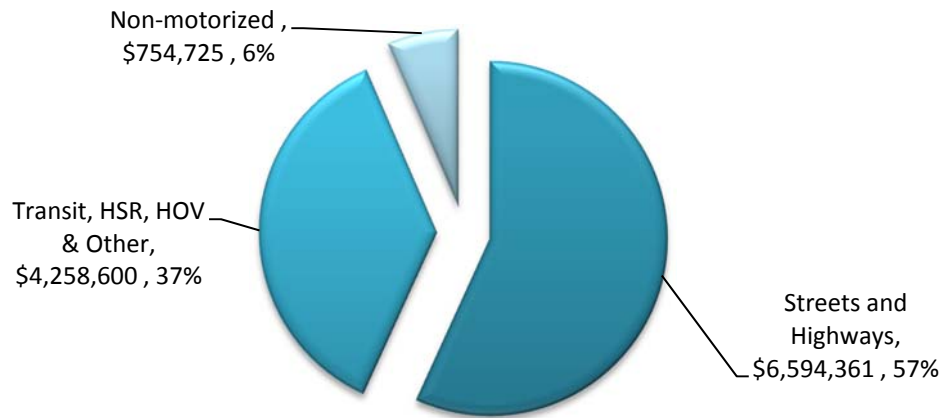
Approximately 25% of the transportation funds for the 2014 RTP program of projects come from federal funding sources. For purposes of discussion in this document, the STIP and SHOPP programs were considered as state revenue programs; however, their funding is approximately 80% federal highway funds or 40% of the estimated state revenues discussed above. Federal Transit Administration dollars constitute approximately 1% of all RTP funds. These funds are generally used to support transit capital and operating needs. Federal sources also include flexible funding programs such as the Surface Transportation Program (STP), Congestion Mitigation and Air Quality Improvement (CMAQ) Program, and Transportation Alternatives (TA). In the 2014 RTP, STP, CMAQ, and TA programs total approximately 4% of anticipated funds. The remaining programs are for safety projects and aviation funding.

Federal revenue estimates in Table 6-1 are consistent with federal fund estimates resulting from the passage of MAP-21. Project programming of regionally significant projects and revenue estimate information is consistent with the latest four-year STIP fund estimate adopted by the California Transportation Commission (CTC) for use in the development of the 2014 STIP.

Since its enactment, Caltrans has distributed information with regard to annual estimates for use in the programming of new transportation projects. Also included in the table are SAFETEA-LU federal earmarks from Sections 1301, Projects of National and Regional Significance; Section 1302 – National Corridor Infrastructure Improvement Program; and Section 1701 – High Priority Projects Programming, totaling \$720 million. These earmarks are considered a one-time revenue opportunity and are not extended throughout the 26-year life of this document.

BASELINE EXPENDITURES

Given the 2014 RTP's baseline cost estimate of \$11.6 billion, Figure 6-2 illustrates the mode split for the region. The data show that about 56% of the region's baseline costs are dedicated to street and highway improvements and maintenance. Thirty seven percent (37%) of expenditures are for transit, HOV and rail capital needs, operations and maintenance. The remaining 7% of RTP expenditures are for transportation improvements including active transportation projects, complete streets, aviation capital improvements and maintenance.

Figure 6-2: Investments by Mode 2014–2040 (\$ x 1,000)

Financial Constraint Demonstration

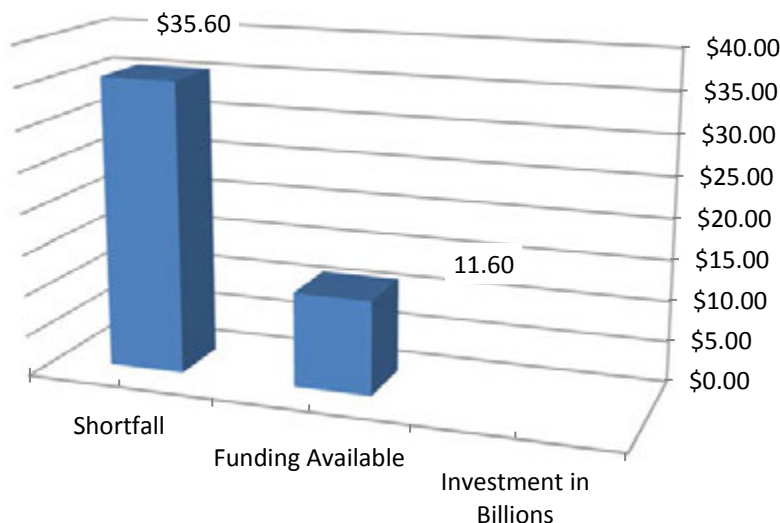
Kern COG has assembled a comprehensive inventory of the transportation revenue programs currently in use by all governmental entities (federal, state, and local) and has projected these revenues primarily based on historical averages over the life of the RTP. Financial revenue projections are based on the best available data from existing sources (i.e., Federal Highway Administration, Caltrans, Kern COG historical programming data, member agency information). Table 5-1 reflects capital projects that are constrained to revenue estimates in Table 6-1.

Funding Shortfall of \$35.6 Billion

To further assess the region's financial outlook, baseline revenues were matched against a program of projects that have been divided into two groups: constrained and unconstrained. The Unconstrained Program of Projects (Table 5-2) lists projects considered necessary for development of Kern County's transportation infrastructure but for which funding cannot be reasonably expected within the time frame of this RTP. This comparison clearly indicated that the Kern region will experience funding deficits to operate, maintain, and rehabilitate its existing transportation system over the 2014 RTP time frame. While the shortfall is shown as approximately \$35.6 billion, it is actually much greater because some projects do not as yet have actual cost estimates. Such projects as high-speed rail improvements and grade-separation projects (over- and under-crossings) do not have identified funding. Some grade separations have been included as components of street widening projects, while others are stand-alone projects. Costs will vary based on right-of-way purchase in addition to construction costs. A baseline cost estimate on the order of an additional \$8 million per project for grade separation projects could be added to the \$6.8 billion identified shortfall.

The extensive list of unconstrained projects, including regionally significant highway improvements, interchanges, regional roadway improvements, rail and bus service, railroad grade crossings, transportation control measures, and deferred roadway maintenance, paints a vivid picture of Kern County's need for additional revenue. Funds to support operations and maintenance—whether it be street and highway, bus and rail, or transportation demand management programs—are the most difficult to find. Historically, the Kern region has relied heavily on local monies for these operating funds.

FIGURE 6-3: INVESTMENT SHORTFALLS



Operating funds for streets and road maintenance have been available traditionally through gas taxes, Transportation Development Act (TDA) funds, and flexible federal transportation funds; however, TDA funds in support of street and road maintenance projects are not expected to continue. With increasingly fuel-efficient vehicles and the rising cost of gasoline, revenues from gas taxes are not expected to increase at more than a nominal rate.

For transit, some relief is available in the form of operating subsidies, which MAP-21 has increased moderately. No alternative funding source has been identified to augment these funds. Thus, the Kern region's shortfall could easily double over the amount of constrained funding.

Future Revenue Shortfalls for Transportation Maintenance and Expansion

Problem: Federal Energy/Environmental Policies Impact Transportation Funding for Maintenance and Expansion – The recent increase of supplemental gas tax funding sources, such as toll roads in Southern California, sales tax measures, and transportation impact fees on new development, may be symptomatic of a much larger issue. Federal transportation, energy, and environmental policies are linked by the use of federal tax law involving motor fuels to advance national objectives. However, these tax policies are often debated and decided on separately, resulting in policies that sometimes contradict goals and objectives in other policy areas.

In 1956, the federal Highway Trust Fund was established to ensure that America would have a “pay-as-you-go” system for funding needed highway and bridge improvements. The principle was: The more you drive or use the roads, the more you pay to build and maintain them. Congress, in its 2004 transportation-funding bill, reaffirmed this principle. However, current public investment in road, bridge, and mass transit improvements financed by highway user fees is not sufficient to maintain the system's physical condition and has left local governments scrambling to find alternative funding sources to fund their transportation infrastructure. Two specific issues exacerbate this funding situation: less tax revenue generated as a result of improved fuel economy and gas tax revenues allocated to promotion of alternative fuels.

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Cause: Improved Fuel Economy Reduces Highway Trust Fund Revenue – Since the 1970s, vehicle manufacturers have struggled to meet federal requirements for fuel economy. While improvements to fuel economy allow more travel on the overall transportation system, lower tax revenues generated per mile of travel result in increased wear and tear on the system. From 1970 to 2000, the average vehicle fuel economy (for all cars and trucks) has improved 42% (from 12 miles per gallon (mpg) to 17 mpg). If today's vehicle fleet had remained at 12 mpg, gas tax revenues would be \$46 billion higher than the recent rate of \$110 billion per year (federal, state, and local). If this trend continues over the next 30 years, the potential loss in gas tax revenue per vehicle mile traveled could drop by a third, furthering problems in maintaining the system. The vehicle manufacturers' commitment toward providing more fuel-efficient gasoline-electric hybrids, the promise of hydrogen fuel cell technology, and increased fuel costs that motivate consumers to purchase these vehicles will likely accelerate this trend. A more fuel-efficient national vehicle fleet is a worthy national policy to reduce dependence on foreign oil, but a mechanism is needed to preserve the nation's transportation infrastructure investment.

Cause: Use of Gas Tax Revenue to Promote Alternative Fuels/Modes – In addition to highway maintenance and expansion, small portions of the gas tax are used for programs like deficit reduction and improved air quality. The Congestion Mitigation and Air Quality Improvement (CMAQ) Program uses 3% of federal gas tax funds to reduce transportation-related emissions in areas that do not attain federal clean air standards. Projects using CMAQ funds are required to demonstrate a reduction in emissions, usually by reducing gasoline/diesel fuels consumption through the use of alternative fuels. Many of the projects result in a reduction in gas sales and subsequent loss of tax revenue. CMAQ is an effective program that provides funds to help clean the air in nonattainment areas and has only a relatively minor impact on gas tax revenue; however, it is one of many instances of federal energy and environmental policies affecting the "pay-as-you-go" policy of the transportation systems.

Possible Solution: Toll-based System and Congestion Pricing

Many revenue mechanisms are being considered to augment the gas tax. They include gas tax increases, sales tax measures, transportation impact fees on new development, and tolls. One system to consider for augmenting or replacing the current flat rate gas tax system has been implemented for trucking in Europe. The Swiss version of the system uses satellite global positioning systems (GPS) technology and tachometer data that is uploaded to the Internet to create a travel log for calculating a toll fee based on where the vehicle has traveled. Alternative transportation funding mechanisms would provide incentives to carry out national policies for cleaning the air and conserving fuel while reducing deterioration of the existing transportation infrastructure and providing increased capacity where needed. A variable toll rate based on weight per tire is an example of an incentive that would promote the reduction of wear and tear on the highway system. With such a variable rate, trucking companies might consider adding more axles to reduce per tire weight (and subsequent road wear) to reduce their toll fees.

With a toll-based system, congestion pricing also becomes an option. Trips in heavily congested areas during peak hours could also be billed a higher toll to fund increased transportation capacity and provide an incentive for drivers to seek alternative modes at these times.

Implementing a toll-based system would have some significant hurdles. The public often views tolls as double taxation; that is, tolls being paid in addition to the gas tax. In addition, toll plazas are not viewed as convenient. However, a toll-based system for trucks could eliminate the passenger vehicle subsidy for maintenance on highways created by trucking. Eighty percent of the wear and tear on the nation's roads is attributed to heavy trucks while they only account for approximately 20% of the total fuel tax revenue and 8% of the total vehicle miles traveled. Despite this, in Southern California, the trucking industry is advocating incentives such as using the toll funds to build commercial "all-truck" toll facilities. The advantage to the trucking industry is that the lanes could be built to allow heavier loads and longer train sets (triple trailers) that cannot currently operate in California. In the interim, local governments will have

to focus more on local funding sources to make up the funding shortfall in the face of ever-increasing vehicle use and congestion.

Possible Solution: Mileage-Based User Fee (or Equivalent Fuel Tax Adjustment)

Another possible solution is mileage-based user fees could be implemented to replace existing gas taxes. Analysis assumed \$0.05 (2011 dollars) per mile starting in 2025 and indexed at a rate of 2.5%.

Advancements in technologies enabling greater use of electric or alternative fuel vehicles will continue to impact gas tax revenues. The US Energy Information Agency forecasts that fuel efficiency for all light-duty vehicles will steadily increase, from an average weighted mpg of just over 20 in 2008 to nearly 29 in 2030. The fuel efficiency of freight trucks also is expected to improve, although at a slower rate, from an average weighted mpg of about 6 in 2008 to nearly 7 in 2030. These forecasts assume there is no major paradigm shift in vehicle fuel technology, such as affordable electric cars or hybrid heavy-duty trucks. It also assumes no shift will occur in public policy or public attitudes that encourage people to reduce their long-term travel habits or shift to more efficient vehicles more quickly. Given the growing concern about climate protection and fuel price volatility, however, such changes are likely to compromise the long-term viability of the current fuel tax.

Southern California Association of Governments (SCAG) projections indicate that the total number of vehicle miles traveled in the SCAG region will increase by about 16% by 2035. The National Surface Transportation Infrastructure Financing Commission also predicts an increase in vehicle miles traveled (VMT) nationwide. The Financing Commission evaluated a combination of short- and long-term factors, identifying that short-term motor fuel price volatility combined with a weak economy could have a considerable negative impact. They indicate that despite a recent national decline in VMT, travel growth nationally will resume a trajectory of about 1.5% to 1.8% per year for the foreseeable future due to factors such as population growth, economic growth, and land use patterns. Accordingly, the Financing Commission's findings and recommendations indicate that the most viable approach to efficiently fund investments in transportation in the medium to long run will be a user charge system based more directly on miles driven (and potentially on factors such as time of day, type of road, vehicle weight, and fuel economy) rather than indirectly on fuel consumed. Additionally, the National Surface Transportation Policy and Revenue Study Commission identified consistent findings and recommendations.

Numerous studies in the United States have tested approaches to charging drivers on a use basis - including in Oregon and the Puget Sound region of Washington State. A nationwide survey was conducted by the University of Iowa for the US Department of Transportation that focused on equipment for monitoring travel and methods of billing. The study involved about 2,700 vehicles in 12 locations. Participants were surveyed on their reactions to receiving two types of monthly bills: one providing aggregate data only and the other showing detailed information that included routes of travel. The study included the installation of on-board systems in six regions across the country (San Diego, Baltimore, Austin, Boise, Research Triangle in North Carolina, and eastern Iowa). The aim of the study is to design a prototype road pricing system that is reliable, secure, flexible, user-friendly, and cost-effective and to assess vehicle operators' reactions to the system.

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For the SCAG region, revenue from mileage-based fees totals \$148.2 billion from FY2025 to FY2035. This analysis assumes that mileage-based fees would replace existing state and federal gas taxes. As such, the incremental increase in revenue resulting from the transition to a more direct mileage-based charge system would generate \$110.3 billion, from FY 2025 to FY 2035.

- Base Year: FY 2025.
- Data Source: SCAG travel demand forecast for 2014 RTP.
- Real Growth Rate: 0.5% annually. Revenue Total: \$110.3 billion (nominal dollars) - estimated incremental revenue only.

From Appendix B: Details about Revenue Sources, SCAG 2012–2035 RTP/SCS, Adopted April 2012

Kern Council of Governments



Chapter 7 Future Links

June 19, 2014



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CHAPTER 7 FUTURE LINKS

This Chapter deals with key future trends that may affect the RTP in future cycles. Forecasting for more than 5 years can be problematic and should be updated regularly. The Future Links Chapter discusses some major game changers that need to be watched closely with each update of the RTP including:

- Corridor Preservation
- Needed Unfunded Projects and Financial Mechanisms
- Adaptive Cruise Control/Autonomous Vehicle Technology
- High Speed Rail
- Air Quality Contingencies
- Valleywide Chapter

CORRIDOR PRESERVATION

It is important to identify and preserve transportation corridors needed to expand or enhance transportation for Kern County's future. The Kern region's local governments will find it difficult to obtain optimal locations for these corridors unless efforts to preserve them are made early.

The American Association of State Highway and Transportation Officials (AASHTO) report on corridor preservation states that early efforts provide the following benefits:

- Prevent inconsistent development;
- Minimize or avoid environmental, social, and economic impacts;
- Prevent loss of desirable corridor locations;
- Allow for orderly assessment of impacts;
- Permit orderly project development; and
- Reduce costs.

Ideally, planners and policymakers will begin preparing strategies for preserving corridors now as part of the long-range planning process. Planning prevents losing right-of-way that will become necessary for transportation beyond 2035. The County and cities can adopt a specific plan line to preserve open land in undeveloped and rural areas. More opportunities to capitalize on preservation are available in less urban areas, where local governments have an opportunity to obtain available land for new transportation facilities.

The first step to identify potential long-range corridors and determine that a need exists to preserve them is in the development of the General Plan's circulation element. Usually prepared as part of an environmental document, a transportation study using traffic modeling as appropriate can be performed on

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the ultimate buildout of a General Plan's land use element. The study would determine the need and size of the facility that would be identified in the circulation element. The process can be performed for vehicle, transit, bike, and pedestrian facilities, as well.

On state highways, a project initiation document is developed for major projects. The next step often is to preserve the right-of-way for the transportation corridor using a specific plan line adoption by the local governments involved. An environmental document and funding component is developed at that time.

The following High Emphasis Interregional Routes are identified by Kern Council of Governments (Kern COG) and the California Department of Transportation (Caltrans) as high priority corridors. These corridors are also identified as future circulation needs in the respective city or county General Plan circulation elements.

Table 7-1: High Emphasis Interregional Routes

Post-2040 Long-Range Corridors	
Corridor	Source
Interregional Corridors	
Route 46	City of Wasco; Caltrans; Kern COG
Route 58 (New Alignment – Route 99 west to I-5)	Caltrans; Kern COG
Willow Springs Expressway	Rosamond TIF; Kern COG; Caltrans
Transit/Passenger Rail Corridors	
Link to Mammoth/Reno	Eastern Sierra Planning Partnership
Wasco/Bakersfield/Arvin Commuter Rail	1997 Major Transportation Investment Study
Palmdale/Rosamond/Edwards AFB Commuter Rail	San Joaquin Valley Express Transit Study (2009)
California High-Speed Train Los Angeles to SFO Bay Area	CAHSR Authority 2012 Revised Business Plan
Kern County	
SR 58 Centennial Corridor/Westside Parkway (SR99 to I-5)	City of Bakersfield; Kern County; Kern COG
South Beltway	City of Bakersfield; Kern County; Kern COG
West Beltway	City of Bakersfield; Kern County; Kern COG
East Beltway	City of Bakersfield; Kern County; Kern COG
North Beltway	City of Shafter; Kern County; Kern COG
Intermodal Corridors	
Seventh Standard Road/North Beltway	Bakersfield; Shafter; Kern County; Kern COG
Route 58 (Bakersfield to Tehachapi)	Caltrans; Kern COG
UP/BNSF Rail Corridor (Bakersfield to Tehachapi)	Caltrans; Kern COG

NEEDED UNFUNDED PROJECTS AND FUNDING MECHANISMS

Under current Federal surface transportation legislation, regional transportation plans must demonstrate all proposed projects are capable of being fully funded within the RTP's time frame. This requirement has

constrained regions to spotlight and prioritize high performing, cost-effective projects. This approach enables the Kern region to focus on immediate transportation priorities.

Beyond the RTP horizon year of 2040, an estimated \$35.6 billion in unmet transportation needs within the Kern region for capital improvements, operation, and maintenance remain unfunded because of lack of federal, state, and local monies. Over half, \$20 billion, is unfunded high speed rail construction in the Kern region. Kern COG, in cooperation and coordination with its stakeholders, maintains a list of capital projects that are financially unconstrained (see Table 5-2). Conceivably, as the future funding picture changes, some of these projects could be advanced to constrained status in future RTP updates.

Kern County is forecasted to continue experiencing strong growth, which will add more traffic and tax the capacities of the street and highway system. In an effort to expand needed transportation facilities before traffic congestion causes the road system to fail, Kern COG has proposed that the cities and County of Kern implement a transportation impact fee (TIF) to pay for needed transportation facility improvements. Kern COG is developing a series of subregional traffic impact fee studies throughout the county. At this time, only Metropolitan Bakersfield, Wasco, Shafter, Delano, McFarland, Tehachapi, greater Tehachapi, and Rosamond (unincorporated) have adopted TIFs. All communities require developer funded traffic mitigation as part of their approval process.

Adopting a new transportation impact fee will require working closely with both the local development community and the Kern community at large to gain acceptance to fund needed rights-of-way and widening improvements to transportation facilities that are deemed deficient.

Issuance of bonds to finance and deliver projects more rapidly is a common practice. Under a Federal Highway Administration program, Garvee Bonds are being considered for some of the larger corridor projects within the Kern region. The minimum needed for Garvee Bond projects is such that only the largest corridor projects would be eligible.

ADAPTIVE CRUISE CONTROL AND DRIVERLESS CAR TECHNOLOGY

An emerging new technology that may extend the life of the transportation system, is an adaptive cruise control system. The technology is considered the first step toward driverless cars, and automatically adjusts the vehicle's speed to keep a safe distance from the vehicle ahead. If 40% of the vehicles on the road have the technology, throughput could double, delaying the need to add lanes to existing facilities, as well as reducing emissions at traffic signals by more than 1/3rd. In an October 2013 FHWA report (<http://www.fhwa.dot.gov/publications/research/safety/13045/13045.pdf>) the technology still has numerous human factor issues that need to be resolved before the technology can be implemented successfully. The first cars on the market with driverless technology may be out in 2018. As the price goes down and the technology demonstrates acceptance, regions will need to update the highway capacities in the regional travel models. It is important to note that the Kern travel model uses a congestion feedback loop that accounts for latent demand caused when throughput capacity is increased. Corridors that are congested today may not see complete elimination of congestion if capacity were to double. For example, peak period weekend and holiday travel to Southern California will likely continue to see congestion even if capacity were doubled. High volume alternative modes such as passenger rail, transit and air service are anticipated to still be needed to handle travel demands during peak periods.

HIGH-SPEED RAIL

Despite continued political and financial troubles, the California High-Speed Rail Authority (CHSRA) is currently implementing Phase I of its 2012 Revised Business Plan to build a \$68 billion high-speed rail

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(HSR) system for intercity travel between the major metropolitan centers of Sacramento and the Bay Area, through the San Joaquin Valley, to Los Angeles and San Diego. The CHSRA projects a reduction of 320 billion vehicle miles traveled (VMT) over the next 40 years with 14 to 24 million riders per year. Three billion dollars in federal stimulus funds have been identified for the first segment in the San Joaquin Valley and another nine billion in state bonds were approved by the voters in 2008, but is currently being held up in litigation. The remaining funding is anticipated to come from federal, state and private sector investment. Construction of the first segments are scheduled to begin by 2014 and completion of Phase I is estimated to be 2029. It is important to note that the 2014 RTP assumes a very conservative reduction in through county trips by 2040 due to an increase in passenger rail use by Amtrak and/or High Speed Rail. The assumption has a positive effect on demonstrating attainment of the federal air standards.

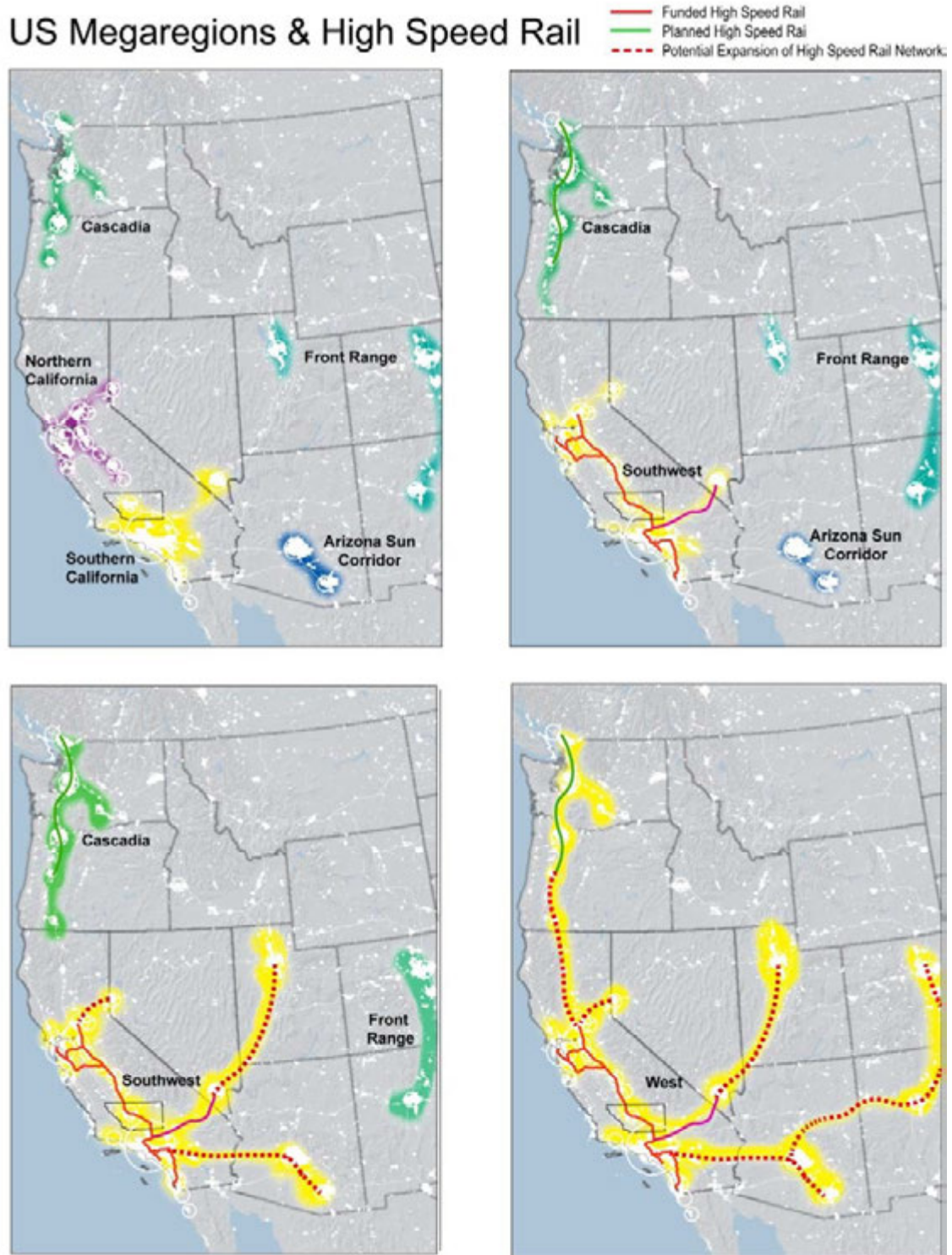
The first construction segment is anticipated to connect Madera and Fresno (“the gateway cities of Yosemite”) with Bakersfield (“the gateway to Southern California”). The proposed HSR system is planned to provide a reliable mode of travel, which will link the major metropolitan areas of the state and deliver predictable and consistent travel times. Further objectives are: (1) to provide an interface with commercial airports, mass transit, and the highway network; (2) to relieve capacity constraints of the existing transportation system as intercity travel demand in California increases; and (3) to construct the proposed HSR system in a manner sensitive to and protective of California’s unique natural resources. The system needs to be practicable and feasible as well as economically viable. The system should maximize the use of existing transportation corridors and rights-of-way, be implemented in useable phases that connect to the existing passenger rail systems, and add new useable segments only as funding is available.

Figure 7-1 illustrates the future potential that HSR has in coalescing emerging megaregions. Megaregions are large-scale economic units of multiple large cities and their surrounding areas. The Regional Plan Association (www.america2050.org) has identified emerging megaregions in North America, with California currently depicted as having two separate megaregions: Northern and Southern. Kern County is assigned to Southern California, the largest and fastest growing megaregion in the United States with over half of the West Coast’s population. As HSR segments are completed, travel times between the megaregions will decrease, increasing the economic links allowing them to coalesce into a single market area, expanding economic opportunities. A 2-hour, 37-minute train ride between Northern and Southern California will allow businesses to have one office in both regions. Kern County, located at the center of the emerging southwest megaregion, stands to benefit significantly from high-speed rail because of its location at the center of the system.

Experience in implementing HSR in other countries has found that HSR competes best at 200 to 300 mile distances. Shorter than that and automobile travel is more competitive, longer than that and airline travel is more competitive. Megaregions in the West are conveniently spaced about 300 miles apart, driving expansion of the system to connect to the largest megaregion (Southern California). Other countries have also found that opening day ridership exceeded forecasts in every instance.

In November 2013, the State courts ruled that the CHSRA could not begin selling the state bonds until they demonstrate that they meet the bonding requirements with a revised financial and business plan. Currently, the CHSRA has over \$3 Billion in federal funds to begin construction in 2014. Environmental work has been completed for portions of the Fresno to Merced segment and is underway for the Fresno to Bakersfield and Bakersfield to Palmdale segments. Since the release of the Draft 2014 RTP, the CHSRA finalized the Fresno to Bakersfield EIR/EIS. Several local government jurisdictions in Kings and Kern Counties have filed or plan to file CEQA lawsuits in response, in an effort to resolve local issues related to the project.

Figure 7-1:



*Adapted from *The Emerging Megaregions 2008* by Regional Plan Association

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Terminal Impact Analysis

In 2003, the High-Speed Rail Terminal Impact Analysis was prepared to determine a community-preferred site for Bakersfield's future high-speed rail station. Three sites within metropolitan Bakersfield were previously identified: Meadows Field vicinity, Golden State/"M" Street, and Truxtun/"S" Street.

Kern COG commissioned this study to recommend a locally preferred station site to be forwarded to the California High-Speed Rail Authority. This study was not intended to include final station design concepts or to cite specific environmental impacts, but rather as a tool for CHSRA to understand the Bakersfield community's concerns as well as to explain potential partnering opportunities.

The study evaluated the sites for concerns regarding mobility, access and Intermodal connectivity, cost, user convenience, impact on the built environment, air quality, economic development, and environmental impacts.

A series of outreach meetings was undertaken in order to compile and understand various objectives and preferences for a station site.

On July 1, 2003, the Kern County Board of Supervisors adopted Resolution 2003-290 in support of the Truxtun Avenue terminal site. On July 9, 2003, the Bakersfield City Council voted to adopt Resolution 118-03 endorsing the Truxtun Avenue site as their preferred site. And in September 2003, Kern COG adopted Resolution 03-23 to designate the Truxtun Avenue terminal site as "the preferred base system local alternative site for the Metropolitan Bakersfield high-speed rail terminal."

The Truxtun site is located in the vicinity of the current Amtrak station. It is west of Union Avenue and east of Chester Avenue along the Burlington Northern Santa Fe (BNSF) rail corridor. The CAHSR Fresno – Bakersfield Environmental Impact Report identified a Hybrid alignment station site between S Street and Sonora Street (east of the existing Amtrak Station) as the most promising area, close to the Truxtun site. The Truxtun Station is located within walking distance of the downtown area, including two hotels, the convention center, many government office buildings, Federal Courthouse, Bakersfield's new ice skating/aquatic center, and Mill Creek commercial, residential and recreation areas. In the past several years, a potential station location north-west of Bakersfield has been informally discussed as an alternative to the downtown location, however, currently it does not appear likely to result in an alignment that would bypass the urban core of Bakersfield. In the past several years, a potential station location north-west of Bakersfield has been discussed as an alternative to the downtown location, however the CAHSRA has not authorized a formal study for that alternative.

Amtrak and Greyhound connections have existing facilities at or near the Truxtun Station, while Golden Empire Transit and Kern Regional Transit also have regular stops at the Amtrak station. This proximity would facilitate passenger transfer connections, sharing of the Amtrak feeder bus terminal, and possibly even sharing of an expanded station.

Potential Commuter Rail Feeder System

The State of California has invested \$393 million in track and signal improvements to the San Joaquin Valley BNSF line, in exchange for permission to run six passenger trains per day. These existing slots could be used for a commuter rail service to connect the proposed High-Speed Rail Heavy Maintenance Facility with the Bakersfield High-Speed Rail station. If 10% of the Heavy Maintenance Facility employees use the commuter service, that would provide 150 regular riders per shift. The Wasco/Metro Bakersfield commuter rail corridor will have one million residents by 2035 and would provide a feeder rail service that could

increase ridership and profitability of the high-speed rail system. Future expansion of the system to East Bakersfield, Lamont, and Arvin, as well as to Meadows Field Airport, McFarland, and Delano, was suggested in the 1997 Major Transportation Investment Study and the 2012 Kern Commuter Rail Study.

Heavy Maintenance Facility

The California High-Speed Rail Authority (Authority) issued a Request for Expression of Interest (RFEI) identifying potential sites for planned Heavy Maintenance Facilities (HMF) in January 2010. The Authority specified in the RFEI that a HMF site be located in the Central Valley along the proposed route between Merced and Bakersfield. The site would require approximately 154 acres, building footprints would encompass 631,000 to 840,000 sq. ft., and up to 1,500 employees would be needed during peak shifts.

Kern COG on behalf of the County of Kern, cities of Wasco and Shafter submitted proposals for a HMF site in Wasco south of Hwy 46 and east of the existing BNSF tracks, and two sites in Shafter north of Seventh Standard Road on both the east and west sides of the BNSF tracks. The proposed sites in Kern were recommended for continued study in the Authority's Fresno-Bakersfield Section Supplemental Alternative Analysis (May 2011), and carried forward in the Revised Fresno to Bakersfield Section EIR-EIS (November 2013). There were over ten proposals originally accepted by the Authority. Three of the five proposed sites being carried forward are located in Kern County. One of these sites is proposed to be provided to the project at no cost.

The location of the HMF could become the center for a new industry cluster related to passenger rail manufacturing that could see rail related industries relocate to that facility providing benefits well beyond the 1,500 jobs needed to operate the HMF and the HSR system.

AIR QUALITY CONTINGENCIES

Air quality uncertainties could play a critical role in future funding linkages. In areas such as the San Joaquin Valley that may fail to attain federal clean air standards by the mandated deadlines, the federal Clean Air Act Amendments of 1990 (CAAA) can require withholding funding for capacity-increasing transportation projects, including projects funded from non-federal sources. In the San Joaquin Valley, up to \$2 billion in transportation funds could be at stake. A variety of mechanisms in the CAAA can require withholding transportation funds, including highway sanctions, conformity lapses, and conformity freezes.¹ Should one of these occur, Kern COG may be required to amend its TIP and RTP to fund additional projects that are proven to reduce emissions and/or improve safety. With federal highway sanctions, the US Environmental Protection Agency would prepare a Federal Implementation Plan (FIP) that would reprogram TIP funding to projects that improve air quality and allow the region to demonstrate attainment of federal clean air standards.

Transit improvements, intermodal freight facilities, transportation-related air quality control measures, and safety projects can be exempt from federal highway sanctions, lapses, and freezes. It is prudent to consider studying these types of projects as funding becomes available, to provide local policymakers with a complete range of options should funding interruptions become imminent. Many of these project types are already funded through a mix of resources. Every effort is made to attain federal standards by identifying

¹ Highway sanctions, conformity lapses, and conformity freezes are mechanisms in the federal Clean Air Act Amendments of 1990 that are triggered when a region fails to demonstrate attainment of federal clean air standards by required deadlines.

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and implementing cost-effective methods that reduce transportation-related emissions from single-occupant vehicles.

Valleywide Chapter

Included as Appendix F, the San Joaquin Valleywide Regional Transportation Overview provides an interregional perspective for transportation planning throughout the San Joaquin Valley. It presents an overview of cross-jurisdictional issues facing the eight related counties and regional transportation planning agencies within Central California.

Kern Council of Governments



Chapter 8 Monitoring Progress

June 19, 2014



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CHAPTER 8 MONITORING PROGRESS

As the designated Metropolitan Planning Organization (MPO) for the Kern region, Kern Council of Governments (Kern COG) monitors transportation plans, projects, and programs for consistency with regional plans. Kern COG also monitors the performance of the transportation system. This performance monitoring is especially important to inform the planning process for future Regional Transportation Plans (RTPs). Regional transportation problems cannot be solved until they are identified and measured.

Kern COG is required to prepare the RTP using performance-based measures that allow public officials to better analyze transportation options and trade-offs. By examining performance of the existing system over time, the MPO can monitor trends and identify regional transportation needs that may be considered in the RTP. Performance measurement helps to clarify the link between transportation decisions and eventual outcomes, thereby improving discussion of planning options and communication with the public. This may also help determine which improvements provide the best means for maximizing the system's performance within cost and other constraints.

Kern COG has developed performance measures (see Chapter 2, Transportation Planning Policies (Policy Element)) for the regional transportation system. In addition, new tools are being developed that will help Kern COG to monitor system performance over time. The Freeway Performance Measurement System (PeMS), being developed by UC Berkeley in cooperation with the California Department of Transportation (Caltrans), has the ability to measure and track freeway speeds, delay, and reliability for the regional freeway system.

Transportation planning for the Kern region requires continually improved information on the condition and use of the transportation system. Special reports are prepared periodically by Kern COG to demonstrate highway infrastructure conditions and to monitor the Kern region's overall traffic movement. The Highway Performance Monitoring System (HPMS) is a federally mandated program designed by the Federal Highway Administration (FHWA) to assess the performance of the nation's highway system. Also, under the Clean Air Act Amendments of 1990, Kern COG and its member agencies are required to report periodically on vehicle miles traveled in each air basin to determine whether traffic growth is consistent with the projections on which the State Implementation Plans (SIPs) are based.

The following sections outline several significant tools used by Kern COG to monitor regional progress in advancing the 2014 RTP goals.

FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM (FTIP)

As the designated MPO, Kern COG is charged with developing and maintaining the FTIP. The FTIP is a financially constrained (i.e., budgeted) multimodal transportation planning program, developed by the MPO through its member agencies and in cooperation with state and federal agencies. The basic premise of a TIP is that it is the incremental implementation of the long-range RTP. The TIP presents federal funding agencies with manageable components for funding long-range plans.

The FTIP is a compilation of project lists from the State Transportation Improvement Program (STIP), State Highway Operations and Protection Program (SHOPP), and other federal-aid programs. The FTIP is composed of two parts: (1) a priority list of projects and project segments to be carried out in a three-year period; and (2) a financial plan that demonstrates how the FTIP can be implemented. The financial plan is also required to indicate all public and private resources and financing techniques that are expected to carry out the program.

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REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM (RTIP)

Every odd-numbered year, Kern COG prepares a Regional Transportation Improvement Program (RTIP), the short-term implementation tool for transportation goals described in this 2014 RTP.

The RTIP provides a listing of projects proposed for implementation within the Kern region during its four-year period. Transportation projects are described in detail, with funding allocated by source and fiscal year. RTIP projects are categorized according to the transportation system to which they apply, i.e., state highways, local highways/expressways, or local streets and roads. Although eligible, transit projects are not included in the RTIP; rather, they are funded by other federal aid programs and included in the FTIP.

During each RTIP development cycle, Kern COG provides member agencies with adopted RTIP Policies and Procedures in order that Caltrans, as well as local agencies, can initiate project delivery. The policies and procedures manual defines the prioritized project candidates, which are then incorporated as the RTP's Capital Improvement Program (CIP) (see Chapter 5, Strategic Investments, Tables 5-1 and 5-2). Only after projects are included in the CIP can they then be funded and advanced as part of the RTIP.

TIP DATABASE MANAGEMENT

Kern COG maintains its own database in order to track project status. TIP data for the Kern region is entered directly into the California Transportation Improvement Program System (CTIPS), which allows an efficient and accurate record of current programming needs. The monitoring process compares project needs with current programming as it advances. When the need arises to modify a project, or when delays are anticipated, Kern COG can recommend amendments to CTIPS.

The 2012 update to the Kern COG policy for the project selection process incorporates additional growth management and SB 375 SCS framework concepts into the project selection process.

For more information refer to Chapter 4 Sustainable Communities Strategy.

AIR QUALITY CONFORMITY MONITORING

Before federal approval of the RTP and TIP, the federal Clean Air Act Amendments of 1990 require Kern COG to make a finding of the documents' conformity with the State Implementation Plan's air quality goals as established by the responsible air district. The Conformity Analysis for the 2014 RTP and FTIP are hereby included by reference; the relevant resolution adopting the 2014 RTP will be included in the final document. This analysis demonstrates that the criteria specified in the federal transportation conformity determination rule are satisfied by the TIP and RTP.

Air quality conformity analysis for each pollutant was conducted for those years required by federal regulations. All analyses were conducted using the latest planning assumptions and emissions models as documented in the Conformity Analysis. The Conformity Analysis covers the planning areas illustrated on Figures 8-1 and 8-2. The local air districts monitor air quality levels in these planning areas with an extensive monitoring network. Recently, the San Joaquin Valley Air District has performed a saturation monitoring study around the Arvin monitoring site, employing 20 temporary air monitors for one season. The study was so successful that the air district is considering similar studies around all of its permanent air monitoring locations. The two air districts in Kern County are shown on Figure 8-3.

Figure 8-1: Ozone and CO Planning Areas

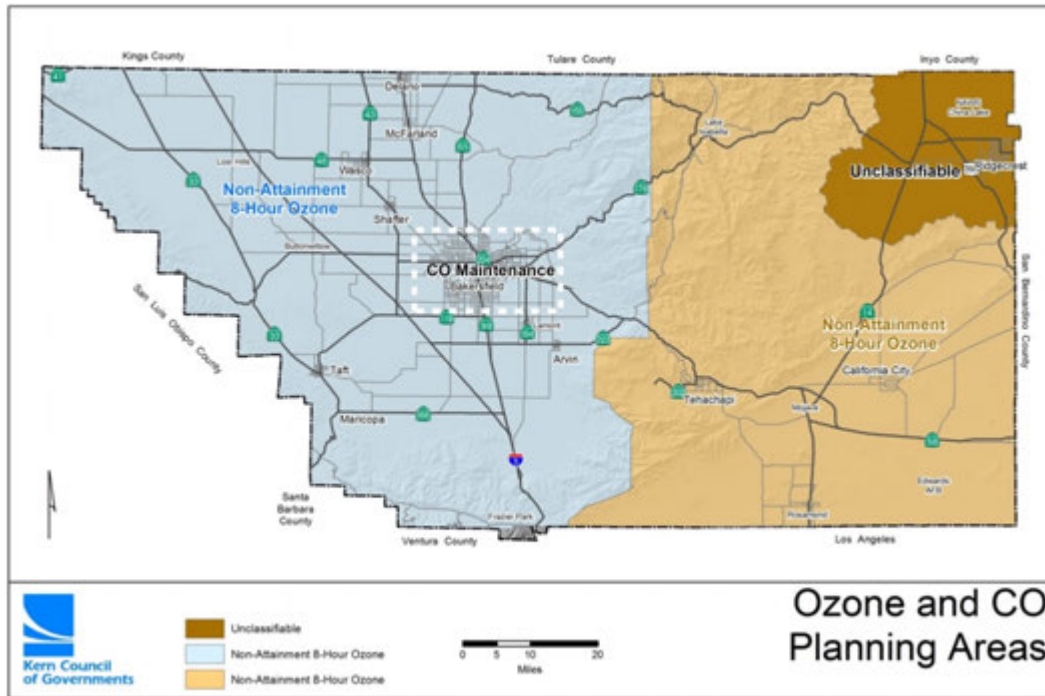


Figure 8-2: Particulate Matter Planning Areas

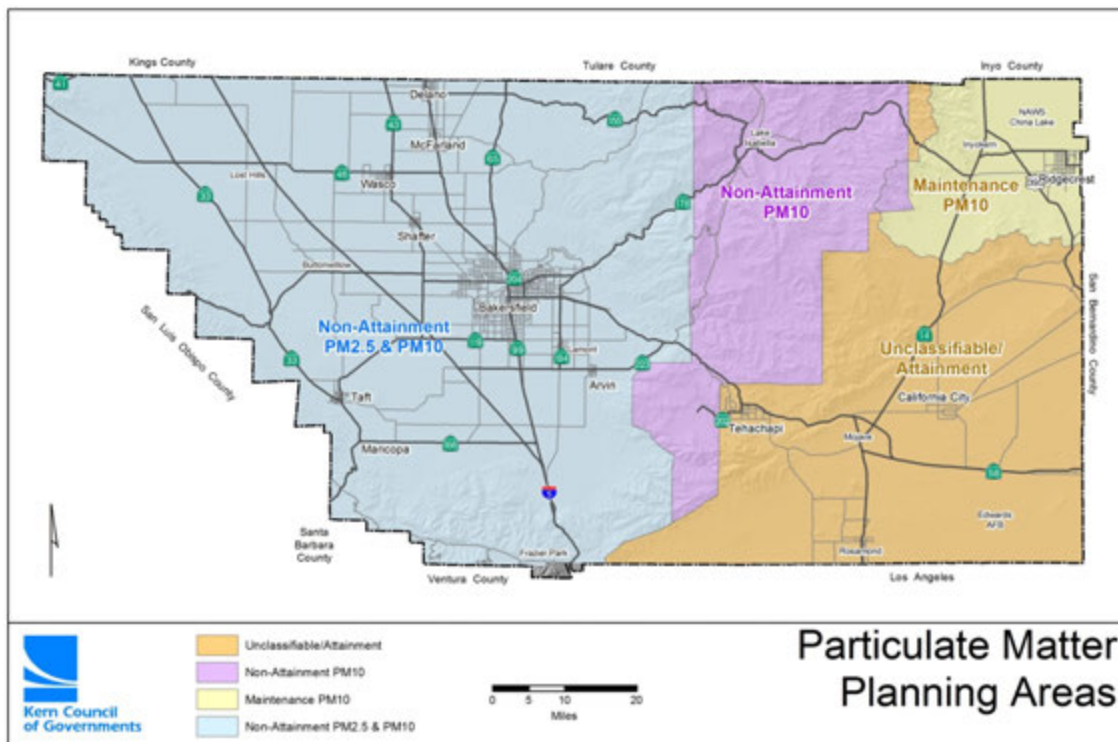
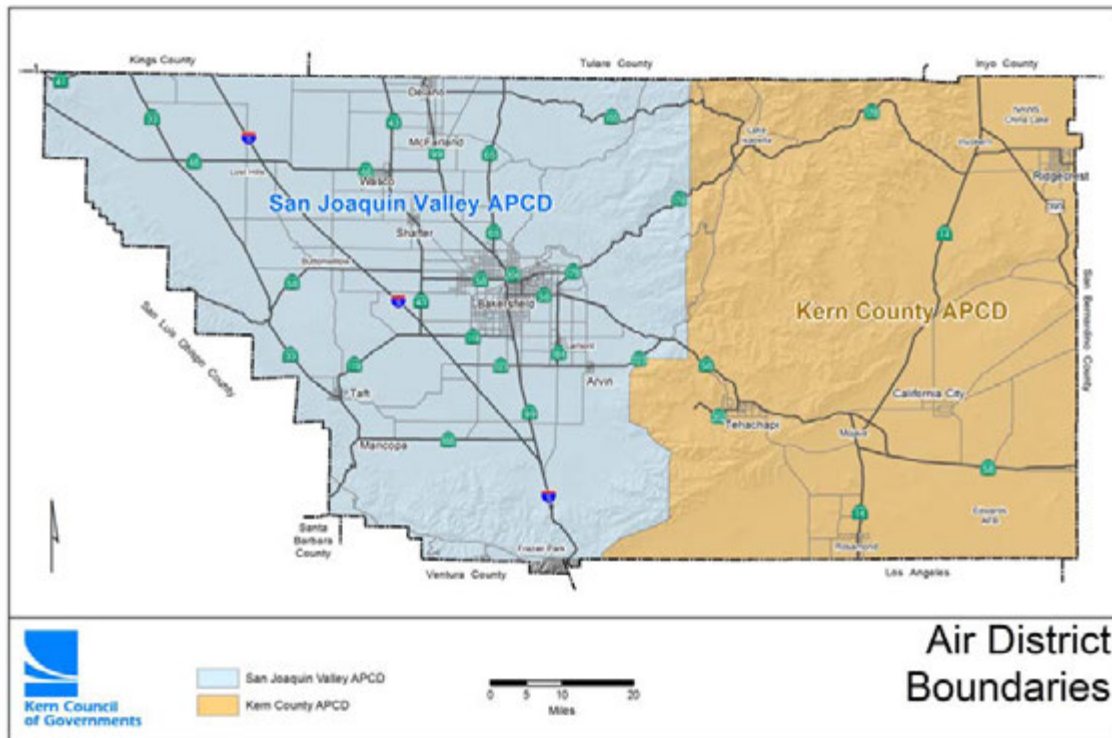


FIGURE 8-3: AIR POLLUTION CONTROL DISTRICTS THAT MONITOR AIR QUALITY



CALIFORNIA CLEAN AIR ACT TRANSPORTATION PERFORMANCE STANDARDS

The California Clean Air Act provides the basis for air quality planning and regulation independent of federal regulations. The act specifically requires that local air districts in violation of the California Ambient Air Quality Standards prepare attainment plans. The plans must identify air quality problems, causes, trends and actions to be taken to attain and maintain California's air quality standards by the earliest practicable date. Implementation of Transportation Control Measures (TCMs) in the 2014 RTP help to further progress toward attainment of these standards and require that they continue and expand even after all federal standards are met.

See Chapter 5, *Strategic Investments, Transportation Control Measures Action Element* for further information on TCMs.

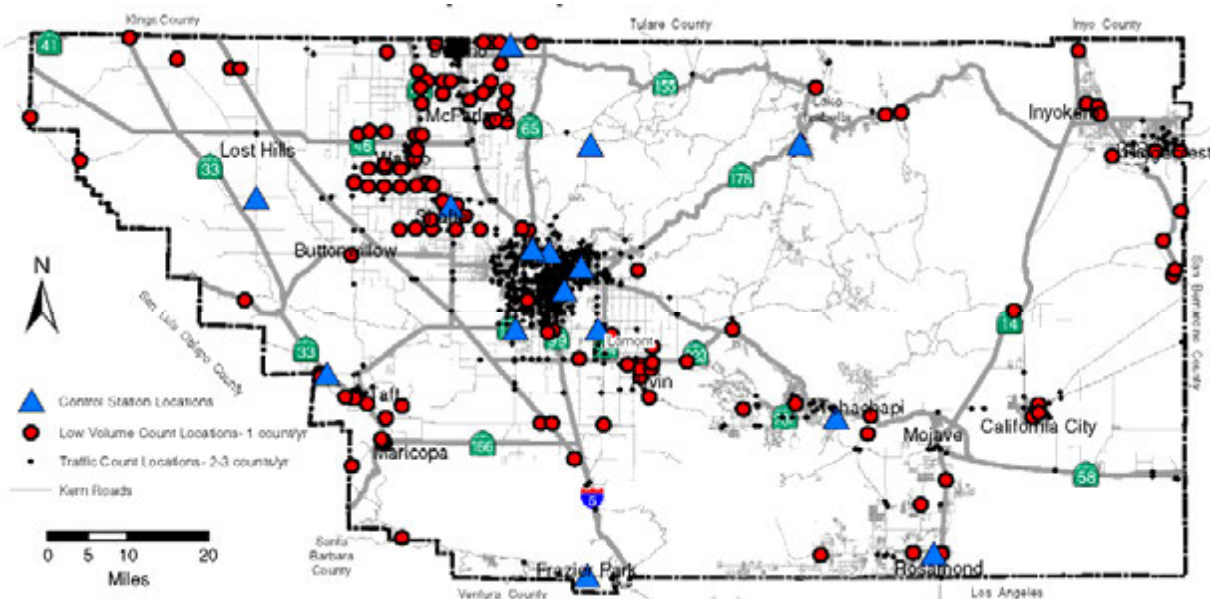
HIGHWAY PERFORMANCE MONITORING SYSTEM (HPMS) AND REGIONAL TRAFFIC COUNT PROGRAM

The HPMS is used as a transportation monitoring and management tool to determine the allocation of federal aid funds, to assist in setting policies, and to forecast future transportation needs as it analyzes the transportation system's length, condition, and performance. Additionally, the HPMS provides data to the US Environmental Protection Agency (EPA) to assist in monitoring air quality conformity and to support the *Biennial Report to Congress on the Status of the Nation's Highways*.

In California, the HPMS program is implemented annually by Caltrans. Kern COG's responsibility is to assist Caltrans in collecting data from local jurisdictions. Kern COG's responsibility also includes distribution, collection and administration of all HPMS survey packages in the Kern region.

To facilitate the HPMS program locally, Kern COG has developed an extensive regional traffic monitoring program of over 1000 count locations (Figure 8-4). The program provides regular traffic counts and speed survey information across all jurisdictions in the region. The collected data assists in setting policies, forecasting future transportation needs, and monitoring air quality conformity. In addition to traffic counts, Kern COG is partner in the National and State Household Travel Surveys, with responses from over 2000 households in the region, and has performed truck origin and destination surveys garnering input from over 20,000 truckers.

Figure 8-4: Regional Traffic Count Program Locations



REGIONAL TRAVEL DEMAND MODEL

Kern COG maintains a regional travel demand forecast model for the Kern region consistent with the California Transportation Commission 2010 RTP Guidelines for type D regions that are nonattainment for ozone, with a population over 200,000. The model is used to forecast the demand for future transportation infrastructure by predicting future travel patterns based on such factors as locally approved General Plan land use entitlements, input from local planning departments on socioeconomic growth areas, and state and federal data sources. Some of the forecast input variables include observed and forecasted population, households, employment, school enrollment, income, traffic counts, speeds, intersection configuration, household travel characteristics, existing and planned transportation networks, etc. The model's accuracy is measured by how well it replicates the observed data. These variables are maintained for approximately 2,000 transportation analysis zones covering the 8,200-square-mile Kern region. The model underwent a major update called the Model Improvement Program, standardizing the all eight COG models in the San Joaquin Valley. Considered a modified 4-step mode choice model, the model includes a congestion feedback loop along with new improvements that make the model more sensitive to trips by housing type and vehicle availability. The 2013 model was calibrated and validated to observed data by DKS Associates under the supervision of a registered civil engineer. Full model documentation is available online at <http://www.kerncog.org/transportation-modeling>.

One of the primary purposes of the model is to demonstrate conformity with the federal Clean Air Act amendments of 1990 requiring substantial reductions from all pollution sources, including transportation-related mobile source emissions. Travel Demand Forecast Modeling is also used in the RTP/TIP

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processes, Congestion Management Program (CMP), Sustainable Communities Strategy and numerous environmental documents for locally identified projects. The CMP process provides important monitoring of any change in congested roadways in the region and the VMT tracking program also uses the model to provide communities feedback on progress toward implementing SB 375 goals. Kern COG's Regional Transportation Model provides a savings to its member agencies by avoiding duplicate, overlapping, and potentially conflicting transportation forecasts. Furthermore, the model is updated every 4 years, providing new results based on the latest observed information.

Kern COG has an highly open process for review and use of the travel model. This was exhibited during the development of the 2014 RTP where Kern COG provided copies of the model to stakeholder groups. Oversight for the model is provided by the Kern Regional Transportation Modeling Committee, a sub-committee of the Regional Planning Advisory Committee made up of local government representatives and stakeholders which operates under a Memorandum of Understanding (MOU) signed by the City of Bakersfield, Caltrans District 6, the County of Kern, and Kern COG. Kern COG has adopted the following policies and procedures for maintaining the model consistent with the MOU:

- 1) Model Base Year Validation – Network-based travel models must be validated against observed counts for a base year from which future projections will be made:
 - i. Observed counts used in base year validation shall not be more than 10 years prior to the date of a conformity determination.
 - ii. Base year validation shall take place after the release of the decennial Federal Bureau of Transportation Statistics, Census Transportation Planning Package (CTPP), which is approximately four years after the date of the most recent decennial Census.
 - iii. Revalidations prior to release of the next CTPP should be spaced a minimum of three years apart to allow conformity review agencies time to complete state and federal review processes and develop air quality budgets using the modeling results. A minimum of three years between revalidations is also needed to allow responsible state and federal agencies to complete their review of large environmental documents without major changes to transportation circulation modeling results.
- 2) Land Use Data – General Plan land use capacity data or “build-out capacity” is used to distribute the forecast county totals, and may be updated as new information becomes available, and is revised in regular consultation with local planning departments.
- 3) Socioeconomic Forecast Data – Countywide forecasts for households, employment, and other socioeconomic data shall be updated not less than three years from the time of the socioeconomic forecast. A minimum of three years between countywide forecast revisions is needed to allow responsible state and federal agencies time to complete their review of large environmental documents without major changes to transportation circulation modeling results. Redistribution of forecasts for sub-county areas may be made on an as-needed basis to better reflect existing general plan land entitlements as long as countywide forecast totals remain unchanged.
- 4) Highway Performance Monitoring System (HPMS) data collection and reporting shall be performed annually in the spring and submitted to the California Department of Transportation prior to June 15.
- 5) Network Updates – Added as needed to model existing, planned, and proposed future transportation facilities.

- 6) Transportation Analysis Zone Updates – Added as needed in response to additional network to allow appropriate loading of trips on the network.
- 7) Local Scenario Modeling – Due to the scale and complexity of a countywide model, not all network links can be validated and calibrated adequately. For links that are not calibrated, an adjustment factor may be applied to future years based on how far off the model assigns trips in comparison to the actual count. In addition, alternative models may be developed for community and site specific analysis on behalf of a member agency. Local scenario models may not be used for determining air quality conformity of a project, or FTIP/RTIP and RTP project rankings.

CONGESTION MANAGEMENT PROGRAM (CMP)

State Proposition 111, passed by voters in 1990, requires urbanized areas to prepare and regularly update a Congestion Management Program. Moving Ahead for Progress in the 21st Century Act (MAP-21) updated this requirement for Transportation Management Areas; the Kern region is considered to be a Transportation Management Area. The purpose of the CMP is to (1) monitor the performance of the transportation system; (2) develop programs to address near-term and long-term congestion; and (3) better integrate transportation and land use planning.

As the designated Congestion Management Agency, Kern COG must establish a system of roadways that will be monitored in relation to established level of service standards. The goal of the CMP is to identify a regional network and work toward maintenance of level of service E or better on the highways and roads that are identified in this network.

The CMP requirement was born of the realization that large capital projects alone cannot solve congestion problems and that local land use decisions contribute to roadway congestion. Kern COG, as the designated Congestion Management Agency (CMA) for the Kern region, adopts and updates the CMP. In 2011 Kern COG added new policies in the CMA process for considering multimodal LOS and Complete Streets techniques to address existing congested areas. The CMP provides an important mechanism to monitor and ensure that growth induced congestion is addressed in a way that advances the goals of the RTP. The program is provided as a separate element of Chapter 5, Strategic Investments.

COMMUNITY PROGRESS TRACKING AND ASSISTANCE PROGRAM

In 2014, Kern COG formalized a program designed to help local jurisdictions track their progress toward reducing vehicle miles traveled (VMT), and provide planning assistance and resources to make progress toward that goal (http://www.kerncog.org/images/agendas/COG/TPPC_agenda_20140116.pdf p. 84). The program provides local communities with regular feedback on how they are doing in reducing VMT per capita to help meet our region's air quality and SB-375 goals. The program has already provided over \$400,000 in planning funds to local jurisdictions so they can develop projects that qualify better under the new performance-based Project Delivery Policy and Procedures. Other resources being provided to local planners include the San Joaquin Valley Planners Toolkit available online at <http://www.valleyblueprint.org/planners-toolkit.html>.

INTERGOVERNMENTAL REVIEW

Under federal law, Kern COG is designated as the Area-wide Clearinghouse for review of all submitted plans, projects, and programs for consistency with adopted regional plans and policies. Regionally significant transportation projects reviewed for consistency with regional plans are defined as construction or expansion of freeways; state highways; principal arterials; and routes that provide primary access to major activity centers, such as amusement parks, regional shopping centers, military bases, and airports,

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as well as the potential high-speed rail. Any project involving transportation improvements is reviewed to determine whether such improvements are included in the regional planning process.

CONCLUSION

Monitoring progress is critical to achieving the RTP goals. As discussed above, Kern COG continues to expand its monitoring efforts through its air conformity monitoring, HPMS and regional traffic count program, regional travel demand model, CMP, and community progress tracking and assistance program. In addition, to these monitoring efforts, Kern COG performs an annual quality of life phone survey of 1,200 people each year to assess community priorities (as discussed in the outreach appendix). Kern COG also performs periodic bike surveys as part of local bike plan updates. Future monitoring efforts may include pedestrian surveys and possibly railroad traffic use studies. The data and feedback obtained through these efforts provide our policy makers the tools to adjust plans in response to changing information and trends, enhancing the likelihood of attaining the RTP goals.

Kern Council of Governments



Chapter 9 Glossary and Acronyms

June 19, 2014



Kern Council
of Governments

www.kerncog.org

CHAPTER 9 GLOSSARY

Alternatives Analysis (AA) – Analysis of the engineering and financial feasibility of alternatives under consideration for major transit construction projects; this step is required before federal monies can be allocated to a project.

Accessibility – The extent to which facilities are barrier free and usable by persons with disabilities, including wheelchair users.

Air Pollution Control District (APCD) - Also referenced as the Air Quality Management District (AQMD), the APCD is responsible for emissions regulations and attainment of federal and state air quality standards in a predefined region. The APCD deals with issues such as the Employer Trip Reduction Program.

Air Quality Attainment Plan (AQAP) - Plan for attainment of the state air quality standards, as required by the California Clean Air Act of 1988. It is adopted by APCDs and AQMDs and is subject to approval by the California Air Resources Board.

Alternative Fuels - Low-polluting fuels that are used to propel a vehicle instead of high-sulfur diesel or gasoline. Examples include methanol, ethanol, propane or compressed natural gas, liquid natural gas, low-sulfur or “clean” diesel, and electricity.

Americans with Disabilities Act (ADA) - Federal civil rights legislation that prohibits discrimination against all individuals with disabilities. With certain statutory exceptions, public and private entities providing fixed route or demand responsive transportation services must acquire accessible vehicles or provide equivalent service to individuals with disabilities.

Apportionment – Federal budgetary term that refers to a statutorily prescribed division or assignment of funds. It is based on prescribed formulas in the law and consist of dividing authorized obligation authority for a specific program among transit systems.

Appropriation - Legislation that allocates budgeted funds from general revenue to programs that have been previously authorized by other legislation. The amount of money appropriated may be less than the amount authorized.

American Public Transit Association (APTA) – National, nonprofit trade association representing the public transit industry.

Authorization - Federal legislation that creates the policy and structure of a program including formulas and guidelines for awarding funds. Authorizing legislation may set an upper limit on program spending or may be open ended. General revenue funds to bespent under an authorization must be appropriated by separate legislation.

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Automatic Vehicle Location System (AVLS) – This computerized system employs satellites and other technologies to track vehicles, such as truck fleets

Best Available Control Measures - (See Reasonably Available Control Measures (RACM))

Blueprint Legislation – Statewide funding package developed by the California Legislature in 1989 and approved by voters in 1990. The legislation, also known as Proposition 111, raised state gas and diesel taxes by 9 cents per gallon to pay for numerous transportation projects, and added requirements for county-level Congestion Management Programs. The Blueprint Legislation also included three \$1 billion bond measures for rail projects; only one of the three won voter approval (Proposition 108, in 1990).

California Alliance for Advanced Transportation Systems (CAATS) – Public/private partnership formed to foster the development and deployment of Intelligent Transportation Systems.

California Air Resources Board (CARB) - Designated by EPA as having responsibility for the implementation of the federal Clean Air Act, State Implementation Plan, and approving air quality attainment plans as required by the State Clean Air Act of 1988. Under State law, CARB establishes state air quality standards and vehicle emissions requirements.

California Clean Air Act (CCAA) (AB 2595, Sher) - Enacted in 1988, the Act: (1) established a legal mandate to achieve California's ambient air quality standards by the earliest practicable date; (2) prescribes a number of emission reduction strategies and requires annual progress in cleaning up the air; and (3) grants authority to the state's local air pollution control districts to adopt and enforce transportation control measures (TCMs).

California Energy Commission (CEC) - Established by the State Legislature in 1974, the CEC is the State's principal energy planning and policy making organization. The CEC is charged with ensuring a reliable and affordable energy supply for the State. CEC policies are consistent with protecting the State's environment and its public health, safety, and general welfare.

California Environmental Quality Act (CEQA) - Enacted in 1970, CEQA provides the State's environmental guidelines on which land use development and management decisions are premised. CEQA specifies the State's environmental review process and applicable environmental policies.

California Highway Patrol (CHP) - Agency responsible for enforcing the State's traffic and safety laws on State highways and by contract, county roads. The CHP also jointly operates Traffic Operation Centers with Caltrans.

California Public Utilities Commission (CPUC) - Regulator of utility and transportation companies in the state that are privately owned and operated. The CPUC sets rates, regulates service standards, and monitors utility operations for safety; it does not regulate municipal or district-owned utilities. The CPUC also develops policies promoting competition among utilities and acts as an intermediary between the public and private utilities.

California State Department of Transportation (Caltrans) - As owner/operator of the state highway system, responsible for its safe operation and maintenance. Proposed projects for Intercity Rail, Interregional Roads, and soundwalls in the PSTIP. Caltrans is also responsible for the HSOPP, Toll Bridge, and Aeronautics programs. The TSM and State/Local Partnership Programs are administered by Caltrans. Caltrans is the implementing agency for most state highway projects regardless of program, and for the Intercity Rail program.

California Transportation Commission (CTC) - Nine-member board appointed by the Governor and confirmed by the Legislature that reviews Regional Transportation Improvement Programs (RTIPs) and the PSTIP, and forwards some transportation projects from these programs into the State Transportation Improvement Program (STIP); this qualifies the projects for state funding. The CTC also has financial oversight of the major programs authorized by Propositions 111 and 108.

California Transportation Plan (CTP) - Long-range framework for the planning, development, operation, and maintenance of California's statewide transportation system that proposes an intermodal system which is integrated, both in form and function, and which offers mobility while supporting economic and environmental goals. The plan is multimodal, addressing all transportation modes. It outlines a series of goals, policies, strategies and recommendations drawn from State and federal transportation law.

Capital Improvement Program (CIP) - An element of the Congestion Management Program (CMP), the CIP is a seven year program of projects to maintain or improve traffic level of service and transit performance standards developed by the CMP, as well as the regional transportation impacts identified by the CMP Land Use Analysis Program, which conforms to transportation-related vehicle emissions air quality mitigation measures.

Changeable Message Signs (CMS) – Electronic signs that can change the message displayed. Often used on highways to warn and redirect traffic. Also referred to as variable or electronic message signs.

Clockface headway – Any headway that is ten minutes or more and divides evenly into sixty minutes.

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Commuter Rail - Form of passenger transportation characterized by medium distance home-to-work passenger travel, multiple ride ticketing, recurring peak-hour travel and use of high-density seating. Commuter rail uses diesel electric or overhead electrically powered locomotives. Examples are the Caltrains operated by Caltrans from San Jose to San Francisco, and GO Transit in Toronto.

Conformity – Ongoing process that ensures the planning for highway and transit systems, as a whole and over the long term, is consistent with the state air quality plans for attaining and maintaining health-based air quality standards; conformity is determined by metropolitan planning organizations (**MPOs**) and the **U.S. DOT**, and is based on whether transportation plans and programs meet the provisions of a State Implementation Plan (SIP). The conformity determination must be based on recent estimates of emissions, and such estimates must be based on the most recent population, employment, travel and congestion estimates as determined by the MPO.

Congestion Management Agency (CMA) – Kern COG serves as the countywide organization responsible for preparing and implementing the **CMP**. CMAs came into existence as a result of State legislation and voters' approval of Proposition 111 in 1990.

Congestion Management Program (CMP) - Multi-jurisdictional program with the goals of reducing traffic congestion, researching land use decision impacts, and improving air quality. State law requires the RTPA of every county with an urbanized area of at least 50,000 people to prepare and maintain this program.

Congestion Mitigation/Air Quality Improvement Program (CMAQ) - Funding program established by ISTEA specifically for projects and programs that will contribute to the attainment of a national ambient air quality standard. Funds are available to non-attainment areas for ozone and carbon monoxide based on population and pollution severity. The approved State Implementation Program (SIP) defines eligible projects.

Consolidated Transportation Services Agency (CTSA) - AB 120, the Social Services Transportation Improvement Act, allows county or regional transportation planning agencies to designate one or more organizations within their areas as Consolidated Transportation Service Agencies (CTSAs). The goal was to promote the coordination of social service transportation for the benefit of human service clients, including the elderly, disabled individuals, and persons of low income.

Corridor - Any major transportation route including various modes such as parallel limited access highways, major arterials, or transit lines that, while not necessarily adjacent to each other, connect significant activity centers. With regard to traffic incident management, a corridor may include more distant transportation routes that can serve as viable alternatives in the event of traffic incidents.

County Minimums - Instituted in 1983 by SB 215 (Foran), it represents the minimum share of programming each county should receive. Under this statute (Section 188.8, Streets and Highways Code), 70 percent of the capital outlay funds must be expended in each county

according to a formula based 75 percent on county population and 25 percent on centerline state highway miles in the county. The county minimum is accounted for over a fixed five-year period.

Council of Governments (COG) – Regional planning agency that serves a specific geographic area (e.g., Kern County) and addresses issues such as transportation, air quality, and land use. Council membership is drawn from the county, city and other government bodies within its area.

Deadhead – The movement of a transit vehicle without passengers aboard; often to and from a garage or to and from one route to another.

Demand-Responsive Transit – Non-fixed-route service using vans or buses with passengers boarding and disembarking at pre-arranged times at any location within the system's service area. Also called Dial-A-Ride (DAR).

Department of Transportation (DOT) - Federal department that includes the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), and the Federal Aviation Administration (FAA). DOT is headed by the Secretary of Transportation, a cabinet-level post. Most states also have DOTs; California's is referred to as Caltrans.

Dial-A-Ride (DAR) – See Demand-Responsive Transit.

Environmental Protection Agency (EPA) - Federal agency, the mission of which is to "protect human health and the natural environment." It is the source agency for air quality control regulations affecting transportation.

Environmental Impact Report / Environmental Impact Statement (EIR/EIS) – Analysis of the environmental impacts of proposed land development and transportation projects. An EIR is conducted in response to the California Environmental Quality Act (CEQA) and an EIS is conducted for federally funded or approved projects per the National Environmental Policy Act (NEPA). A draft EIR or EIS (often they are prepared simultaneously) is circulated to the public and agencies with approval authority for comment. A final document is certified after public comment has been solicited and mitigations have been developed for adverse impacts.

Farebox Recovery Ratio – Measure of the proportion of operating expenses covered by passenger fares; found by dividing farebox revenue by total operating expenses for each mode, and/or systemwide.

Farebox Revenue – Value of cash, tickets, tokens and pass receipts given by passengers as payment for rides; excludes charter revenue.

Fare Structure – System set up to determine how much is to be paid by various passengers using a transit vehicle at any given time.

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Federal Clean Air Act Amendments of 1990 (FCAAA) - Legislation that renews the Federal Clean Air Act and makes significant program changes. For the transportation sector, significant changes included a definition of conformity and requirement for the formulation by EPA and DOT of regulations regarding conformity, and requirements for the use and development of alternative fuels and vehicles.

Federal Highway Administration (FHWA) - Agency responsible for the approval of transportation projects that affect the federal highway system. Administratively, it is under DOT and is the sister agency of FTA.

Federal Transit Administration (FTA) - Federal Department of Mass Transportation (formerly UMTA), which is under DOT, and is the sister agency of FHWA.

Fixed Route – Transit service provided on a repetitive, fixed-schedule basis along a specific route with vehicles stopping to pick up and deliver passengers to specific locations; each fixed-route trip serves the same origins and destinations, unlike demand responsive and taxicabs.

Flexible Congestion Relief (FCR) - State funding programs for local or regional transportation projects to reduce congestion. State highway projects, local roads, and rail guideway projects are all eligible.

Flexible Funds – Federal funds that can be used for highway, transit or other transportation projects, as determined by regional MPOs and state governments. Examples of such funds are the Surface Transportation Program (STP) and the Congestion Mitigation and Air Quality (CMAQ) fund.

Fund Estimate - The STIP cycle begins with the development of a State Fund Estimate by Caltrans, which compares existing commitments against total estimated revenue expected from state and federal sources. Caltrans estimates state and federal funds "reasonably expected" in annual increments for five years (the STIP period). The calculation of existing capital program commitments is based on Caltrans' Project Delivery

Report, while non-capital expenditures of operation and administration costs are estimated based on current spending and projected needs. This comparison of revenues to commitments results in an estimate of total uncommitted funds that are available for programming and prorated to each program category. The Fund Estimate is required by law to be submitted by July 15 of odd-numbered years, and to be adopted by the CTC within thirty days after submittal. CTC adopts a "Fund Estimate Methodology" to guide Caltrans in formulating the Fund Estimate.

Headway – Time interval between transit vehicles moving in the same direction on a particular route.

Heavy Rail - Heavy rail vehicles cannot operate on surface streets but must have exclusive grade protected guideways, such as subway, at surface or aerial configuration. Heavy rail vehicles can operate in pairs or trained up to ten cars and powered by third rail or overhead catenary. Heavy rail systems must have platforms for boarding passengers. A heavy rail system can carry up to 40,000 passengers per hour in each direction.

Intelligent Transportation Systems (ITS) - ISTEA established an IVHS (Intelligent Vehicle and Highway System) Program, which was subsequently modified to ITS. The program's function is to enhance the capacity, efficiency, and safety of the federal-aid highway system and to serve as an alternative to additional physical capacity. Automated highways and vehicles are one component of this approach. ITS includes development of application of electronics, communications or information processing (including advanced traffic management systems, commercial vehicle operations, advanced traveler information systems, commercial and advanced vehicle control systems, advanced public transportation systems, satellite vehicle tracking systems, and advanced vehicle communications systems) used singly or in combination to improve the efficiency and safety of surface transportation systems.

Intercity Rail - Operated by common carriers and uses fixed guideways. The service is characterized by inter-regional passenger travel provision for personal carry-on baggage, and possible use of specialized cars for food service, sleeping accommodations, checked baggage, and package express.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) - Enacted in 1991, this Act provided authorization for highways, highway safety and mass transportation through 1997, with total funding of \$155 billion. The purpose of ISTEA was "to develop a National Intermodal Transportation System that is economically efficient, environmentally sound, provides the foundation for the Nation to compete in the global economy and will move people and goods in an energy efficient manner." A few examples of provisions under the Act include: a National Highway System (NHS), new technologies, such as intelligent vehicle highway systems and prototype magnetic levitation systems, as well as the requirement of state uniformity in vehicle registration and fuel tax reporting. This Act was superseded by TEA-21 in 1998 and SAFETEA-LU in 2005.

Intermodal - A unifying, integrated national network of travel modes emphasizing connections between modes, choices among them, and coordination and cooperation among transportation interests.

Inter-Regional Road System (IRRS) - In February 1990, Caltrans submitted a plan to the State legislature that identified a set of projects to provide the most adequate interregional road system to all economic centers in the State. Statute defined eligible routes that were included, and specified that these be located outside the boundaries of urbanized areas with over 50,000 population, except as necessary to provide connection of the routes within urban areas. From this plan, Caltrans included projects, consistent with the Fund Estimate, in its PSTIP to the CTC for programming in the STIP.

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Interstate Completion – TEA-21 declared the 42,500-mile Federal Interstate Highway System launched in 1956 by the Eisenhower Administration to be completed with the final authorizations contained in the bill. Based on the Interstate Cost Estimate (ICE), specific segments of the Interstate System are still to be completed, and funds are included in TEA-21 to do so.

Interstate Maintenance – TEA-21 established a funding category for maintenance of the Interstate system that specifically limits use of these funds for capacity increasing projects that are not high occupancy vehicle lanes or auxiliary (merging) lanes. Eligible activities include reconstruction of bridges, interchanges and grade separations along existing interstate routes, including the acquisition of right-of-way where necessary and preventive maintenance.

Level of Service (LOS) - A measure of congestion that compares actual or projected traffic volume with the maximum capacity of the intersection or road in question.

Light Rail - Light rail vehicles can operate as single vehicles or can be trained and frequently do operate on surface streets as well as on exclusive rights-of-way, and draw electric power from an overhead catenary system. Light rail systems can have passenger boarding at surface as in San Diego and Sacramento or from elevated platforms as in Los Angeles. Maximum capacity of a light rail system is generally regarded as 10,000 passengers in each direction.

Local Transportation Commission (LTC) – Body composed of members of boards of supervisors, mayors' select committees of counties, transit districts and other transit operators for areas not within the jurisdiction of an "RTPA". Kern COG works closely with the LTCs in Mono and Inyo Counties.

Long-Range Transit Plan - This plan represents a long-range evaluation of transit needs and proposes recommendations for implementing long-range objectives over a 20-year timeframe. The Plan provides direction for coordinating implementation of goals and policies identified in the Plan.

Maglev - Magnetic levitation (maglev) trains carry passengers in a manner similar to that of intercity rail (Amtrak). Maglev prototypes in Germany and Japan have logged thousands of miles at speeds of up to 260 miles per hour. Maglev technology has several possible benefits, including: (a) environmentally acceptable; (b) fuel efficiency (electric power); (c) possibility of relieving highway and airport congestion; (d) ability to cover short distances in roughly the same amount of time as airplane travel; (e) considered safer than other kinds of trains because the train wraps around the rail and is difficult to derail; (f) non-contact levitation system (no friction and less wear); (g) offers high sustained maximum speeds, capable of speeds over 300 mph; and (h) elevated guideway uses less space.

Management Systems in TEA-21- The Act requires each state to develop and implement the following management systems: (a) highway pavement of federal-aid highways; (b)

bridges on and off federal-aid highways; (c) highway safety; (d) traffic congestion; (e) public transportation facilities and equipment; (f) intermodal transportation facilities and systems. In metropolitan areas, these systems are to be developed and implemented in cooperation with the MPO. Management system products are to be considered by the State and MPOs in their planning processes. The U.S. Department of Transportation issued guidelines for these systems.

Metropolitan Planning Organizations (MPOs) - Federally designated organizations for urbanized areas of greater than 50,000 population mandated to carry out transportation planning as required by ISTEA and its subsequent legislations. Kern COG is the MPO for Kern County.

Metropolitan Transportation Investment Studies (MTIS) - Considered an important provision under the Metropolitan Planning regulations, MTIS is a high-type highway or transit improvement of substantial cost that is expected to have a significant effect on capacity, traffic flow, LOS, or mode share at the transportation corridor or subarea scale. The primary purpose of an MTIS study is to create a decision-making process for determining transportation investment strategies. Projects funded or approved by the Federal Highway Administration and/or Federal Transportation Administration are subject to the Metropolitan Planning regulations and requirements under MTIS.

Model – An analytical tool (often mathematical) used by transportation planners to assist in making forecasts of land use, economic activity ,travel activity and their effects on the quality of resources such as land, air and water.

Multimodal – Refers to the availability of multiple transportation options, especially within a system or corridor. A concept embraced by TEA-21, a multimodal approach to transportation planning focuses on the most efficient way of getting people or goods from place to place, be it truck, train, bicycle, automobile, airplane, bus, boat, foot, or even a computer modem.

National Environmental Policy Act (NEPA) - Passed by Congress in 1969, NEPA established the Council on Environmental Quality and required the preparation of environmental impact statements for federal projects. NEPA requires that an Environmental Impact Assessment (EIA) describe current conditions, identify alternative means of accomplishing the objective, enumerate the likely impacts of each alternative, identify the preferred alternative and the method used to select it, describe the impact of the selected alternative in detail, and list possible actions to minimize negative impacts of the selected alternative. See also Environmental Impact Report/Environmental Impact Statement.

National Highway System (NHS) - ISTEA established a 155,000-mile NHS to provide an interconnected system of principal arterial routes to serve major travel destinations and population centers, international border crossings, as well as ports, airports, public transportation facilities, and other intermodal transportation facilities. The NHS must also

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meet national defense requirements and serve interstate and interregional travel. Eligible projects include new construction, reconstruction, and rehabilitation of highways, operational improvements, mass transit projects in an NHS corridor, safety improvements, transportation planning, traffic management and control, parking facilities, carpool projects, and bicycle and pedestrian projects. In areas not meeting federal clean air standards, up to 100 percent of NHS funding is transferable to the STP upon request of the State.

Nonattainment Area – Any geographic region of the U.S. that the U.S. EPA has designated as not attaining the federal air quality standards for one or more air pollutants, such as ozone and carbon monoxide. This includes the San Joaquin Valley, the Mojave Desert Air Basin, and the Indian Wells Valley/Searles Air Basin.

North/South Split - California law (Section 188, Streets and Highways Code) requires programming (i.e., “funding”) to be balanced so that 60 percent of the capital outlay is spent in the 11 southern counties, and 40 percent is spent in the 45 northern counties. This balance must occur for the period July 1, 1989 to June 30, 1993, and for each subsequent five-year period. This rule has a serious impact on the type of projects programmed for all counties. Rehabilitation and safety funds tend to be spent roughly 60 percent in northern counties, and only 40 percent in southern counties, because of worse weather conditions and more mountainous roads in northern counties. In addition, engineering costs are relatively higher in northern than in southern counties, and Caltrans' project support costs for locally funded projects, of which the North has a disproportionate share, is also included. Thus, funds for capacity-increasing projects need to be weighted toward southern counties, so that the overall balance remains 60/40.

Off-Peak Period – Non-rush periods of the day when travel activity is generally lower.

Operational Improvement - A capital improvement for installation of traffic surveillance and control equipment, computerized signal systems, motorist information systems, integrated traffic control systems, incident management programs, and transportation demand management facilities, strategies, and programs and such other capital improvements to public roads as the Secretary may designate, by regulation. The term does not include resurfacing, restoring, or rehabilitating improvements, construction of additional lanes, interchanges, grade separation, or the construction of a new facility at a new location.

Operating Assistance – Financial assistance for transit operating expenses (not capital costs); such aid may originate with federal, local or state governments.

Paratransit – Comparable transportation service required by the Americans with Disabilities Act (ADA) of 1990 for individuals with disabilities who are unable to use fixed-route transportation systems.

Pavement Management System (PMS) - Required by Section 2108.1 of the Streets and Highways Code, any jurisdiction that wishes to qualify for funding under the STIP must have

a PMS that is in conformance with the criteria adopted by the Joint City/County/State Cooperation Committee. At a minimum, the PMS must contain: (1) An inventory of the arterial and collector routes in the jurisdiction that is reviewed and updated at least biennially; (2) An assessment of pavement condition for all routes in the system, updated biennially; (3) An identification of all sections of pavement needing rehabilitation or replacement; and (4) A determination of budget needs for rehabilitation or replacement of deficient pavement sections for the current and upcoming biennial periods.

Peak Period – Morning and afternoon time periods when all modes of travel are highest.

Principal Arterial - The functional classification system at the federal level defines principal arterials for rural areas, urbanized areas, and small urban areas. In urbanized areas, the principal arterial system can be identified as unusually significant to the area in which it lies in terms of the nature and composition of travel. Principal arterials derive their importance from service to rural oriented traffic and/or from service for major movements within the urbanized area. The principal arterial system should carry the major portion of trips entering and leaving the urban area, as well as the majority of through movements desiring to bypass the central city. Frequently, the principal arterial system will carry important intra-urban as well as intercity bus routes. In small urban and urbanized areas, this system should provide continuity for all rural arterials which intercept the urban boundary. Because of the nature of the principal arterial system, almost all fully and partially controlled access facilities will be part of this functional system; however, it is not restricted to controlled access routes. The spacing of urban principal arterials will be closely related to the trip-end density characteristics of particular portions of the urban areas.

Program – (1) verb: to assign funds to a project that has been approved by Kern COG, the state or other agency; (2) noun: a system of funding for implementing transportation projects or policies, such as through the State Transportation Improvement Program (STIP).

Program of Projects (POP) – Defines projects to benefit from federal transit funding provided to Kern County agencies by formula for each fiscal year from FTA Section 5311 and Congestion Mitigation/Air Quality (CMAQ) program. Kern COG, as the RTPA, and its member agencies work together to ensure that the funds listed in the POP are programmed and included in the Federal Transportation Improvement Program (FTIP).

Project Study Report (PSR) - Chapter 878 of 1987 Statutes requires that any capacity-increasing project on the state highway system have a completed PSR prior to programming the STIP. The PSR must include a detailed description of the project scope and estimated costs. This legislation's intent is to improve the accuracy of the schedule and costs shown in the STIP, and thus improve the overall accuracy of the STIP delivery and cost estimates.

Proposed State Transportation Improvement Program (PSTIP) - Seven-year program based on the currently adopted STIP and the most recent Project Delivery Report. It may

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include additional schedule changes and/or cost changes, plus new projects that Caltrans proposed for the inter-regional road system, retrofitted soundwalls, and toll bridge and aeronautics programs, as well as the intercity rail program. Caltrans may also propose alternative FCR projects to those proposed in the RTIPs; this is the only overlap with the RTIPs. The PSTIP is due to the CTC on December 1 of odd numbered years.

Public Transportation – Transportation by bus, rail or other conveyance, either publicly- or privately- owned, that provides to the public general or special service on a regular and continuing basis. Also known as “mass transportation,” “mass transit,” and “transit”.

Rate Of Progress Plan (ROP Plan) - Identifies progress toward attainment of state and local air quality standards, and is incorporated in the State Implementation Plan (SIP). The Plans have been prepared by the Air Districts and reflect expected improvements and emissions reductions between 1990 and 1996, and between 1996 and 1999.

Reasonably Available Control Measures – (See Best Available Control Measures (BACM))

Regional Transportation Improvement Program (RTIP) - List of proposed transportation projects submitted to the CTC by the RTPA as a request for state funding. Individual projects are first proposed by local jurisdictions, then evaluated and prioritized by the regional agency for submission to the CTC. The RTIP has a five-year planning horizon and is updated every two years.

Regional Transportation Plan (RTP) - A comprehensive 20-plus year blueprint for the region, updated every two years by the regional transportation planning agency. The RTP includes goals, objectives, and policies, and recommends specific transportation improvements.

Regional Transportation Planning Agency (RTPA) - Agencies responsible for the preparation of RTPs and RTIPs and designated by the State Business, Transportation and Housing Agency to allocate transit funds. RTPAs can be local transportation commissions, COGs, MPOs, or statutorily created agencies. Kern COG is the RTPA for Kern County.

Reverse Commuting – Travel in a direction opposite the main flow of traffic, such as from the central city to a suburb during the morning peak period.

Ridesharing – A form of transportation, other than public transit, in which more than one person shares the use of the vehicle, such as a van or car, to make a trip. Also known as “carpooling” or “vanpooling”.

Safety Programs - ISTEA sets aside ten percent of the Surface Transportation Funds and five percent of the reimbursement funds for programs related to railway-highway crossings and hazard elimination as defined by Sections 130 and 152 of the Act. Subsequent legislation, TEA-21 and SAFETEA-LU, have continued this program.

Service Authority for Freeways and Expressways (SAFE) – Administers roadside callboxes and roving tow truck patrols (FSP) that assist stranded motorists to get safely off the highways.

Short-Range Transit Plans (SRTP) - A nine-year comprehensive plan required of all transit operators by federal and regional transportation funding agencies. The plans must define the operator's mission, analyze past and current performance, and plan specific operational and capital improvements to realize short-term objectives.

Shuttle – A public or private vehicle that travels back and forth over a particular route, especially a short route or one that provides connections between transportation systems, employment centers, and the like.

Single-Occupant Vehicle (SOV) – A vehicle with one occupant, the driver, who is sometimes referred to as a “drive-alone”.

Southern California Association of Governments (SCAG) – A six-county planning and coordinating agency, similar to Kern COG, that deals with transportation, water quality, housing and land use. Also reviews and comments on applications for a variety of federal and state assistance programs.

State Highway Account - references the State Highway Account in the State transportation Fund. The State Highway Account supports many state transportation highway capital and safety programs and is first primarily used to match federal transportation funding that is directed to California.

State Highway Operations and Protection Plan (SHOPP) - A program created by state legislation that includes state highway safety and rehabilitation projects, seismic retrofit projects, land and buildings projects, landscaping, some operational improvements, and bridge replacement. Unlike STIP projects, SHOPP projects may not increase roadway capacity. SHOPP is a four-year program of projects, adopted separately from the STIP cycle. The recent State gas tax increase partially funds the program, but it is primarily funded through the "old" nine-cent State gas tax and from federal funds. To be compatible with the Fund Estimate, a formula based on pavement condition and safety concerns is used to estimate an additional three years of the SHOPP program.

State Highway Terminal Access Routes (SHTAR) - Any route meeting minimum guidelines as set forth in Section 3401.5 of the California Vehicle Code for specific truck combinations requiring access to facilities for fuel, food, lodging and repairs. These truck sites must be within one road mile to and from specified highways at identified points of ingress and egress. Roads and ramps from highways to terminals or services must be evaluated for safety by Caltrans and incorporated into the existing Terminal Access Route system.

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State Implementation Plan (SIP) - State plan required by the Federal Clean Air Act to attain and maintain national ambient air quality standards. It is adopted by local air quality districts and the State Air Resources Board.

State/Local Partnership - Originally created by SB 140, and subsequently funded by the passage of Proposition 111 in June 1990, the State/Local Partnership program provides state matching funds for locally funded and constructed highway and exclusive public mass transit guideway projects. Some \$2 billion has been designated for this program over 10 years. Eligible projects are defined by the legislation and clarified by guidelines published by the Caltrans Division of Local Streets and Roads. Applications are submitted annually to Caltrans by June 30 for the following fiscal year. The amount of State match available in a given year is dependent on the number of eligible applicants and the size of the appropriation to the program by the legislature during the budget process. The state match cannot exceed 50 percent. For the first three years of the program, the match ratio has been 21 percent, 18 percent, and 15 percent, respectively.

State Transit Assistance (STA) - This program provides funding for mass transit and transportation planning. With half of the revenues transferred to the TP&D Account and appropriated to STA. STA apportionments to regional transportation planning agencies are determined by two formulas: 50 percent by populations and 50 percent by the amount of operator revenues (fares, sales tax, etc.) for the prior year. STA funds may be used for transit capital or operating expenditures. Passage of Proposition 116 disallows use of STA funds for streets and roads in non-urban counties.

State Transportation Improvement Program (STIP) - A list of transportation projects, proposed in RTIPs and the PSTIP, which are approved for funding by the CTC.

Surface Transportation Program (STP) - Funding program established by ISTEA, and continued under subsequent federal transportation legislation that is very flexible, in that many types of mass transit and highway projects are eligible for funding under this program. Ten percent of the projects funded under this program must be transportation enhancement activities and 10 percent for safety projects.

Surface Transportation Policy Project – (STPP) – A diverse coalition representing transportation, planning, architectural, energy, environmental and historic preservation interests whose goal is to develop a national transportation policy that, in its words, “better serves the environmental, social and economic interests of the nation.” STPP was a key player in crafting federal transportation legislation.

Traffic Operations Centers (TOC) – Computer-based traffic signal control system that monitors traffic conditions and system performance, selects appropriate signal timing (control) strategies, and performs equipment diagnostics and alert functions. Sensors in the signals detect the passage of vehicles, vehicle speed, and congestion levels. Kern County’s TOC is located within the Bakersfield City Hall.

Traffic Systems Management Program (TSM Program) - A new state-funded program that funds those projects which "increase the number of person trips on the highway system in a peak period, without significantly increasing the design capacity of the system, measured by vehicle trips, and without increasing the number of through traffic lanes" (TSM Guidelines adopted by the CTC in October 1989). This program is funded outside of the STIP process, through direct application to Caltrans. The CTC allocates funds to the projects from a prioritized list submitted by Caltrans. Statute requires that priority be given to projects from counties with adopted CMPs.

Transit Capital Improvement Program (TCIP) - An annual State program, funded primarily from the TP&D account for transit capital projects. All State funds must be matched by 50 percent local funds.

Transportation Control Measures (TCMs) – Strategies to reduce driving or smooth traffic flows in order to cut auto emissions and resulting air pollution. Examples of TCMs include roving tow truck patrols to clear stalled vehicles and accidents from congested roadways, new or increased transit service, or a program to promote carpools and vanpools.

Transportation Demand Management (TDM) - "Demand-based" techniques for reducing traffic congestion, such as ridesharing programs and flexible work schedules that enable employees to commute to and from work outside of peak hours.

Transportation Improvement Program (TIP) - A federally required document produced by the regional transportation planning agency that states the investment priorities for transit and transit-related improvements, mass transit guideways, general aviation and highways. The State is also required to produce a federal TIP which includes all projects proposed for federal funding.

Transportation Systems Management – Low-cost improvements to make the transportation system work more efficiently, such as traffic signal coordination.

Urban Mass Transportation Administration (UMTA) – Defunct agency. See "Federal Transit Administration" (FTA).

Urbanized Area - An area with a population of 50,000 or more designated by the U.S. Census Bureau, within boundaries to be fixed by responsible state and local officials, subject to approval by the Secretary of Transportation.

Vanpool – An arrangement in which a group of passengers share the use and cost of a van in traveling to and from pre-arranged destinations together.

Vehicle Miles Traveled (VMT) - Travel demand forecasting (modeling) is used to generate the average trip lengths for a region. The average trip length measure can then be used in estimating vehicle miles of travel, which in turn is used in estimating gasoline usage or

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mobile source emissions of air pollutants. Reducing VMT can help ease traffic congestion and improve air quality.

ACRONYMS

AA - Alternatives Analysis

AADT – Annual Average Daily Traffic

AASHTO - American Association of State Highway & Transportation Officials

ADA - Americans with Disabilities Act

APCD - Air Pollution Control District

APTA – American Public Transit Association

AQAP - Air Quality Attainment Plan

AQMD – Air Quality Management District

ASR - Airport Surveillance Radar

AVLS – Automatic Vehicle Location System

AVR - Average Vehicle Ridership

AVTTAC - Aviation Transportation Technical Advisory Committee

BACM – Best Available Control Measure

BARCT - Best Available Retrofit Control Technology

BSC - Bakersfield Senior Center

CAATS – California Alliance for Advanced Transportation Systems

CALTRANS - California Department of Transportation

CARB - California Air Resources Board

CCAA - California Clean Air Act

CEC – California Energy Commission

CEQA - California Environmental Quality Act

CHP – California Highway Patrol

CIP - Capital Improvement Program

CMA – Congestion Management Agency

CMAQ - Congestion Management/Air Quality (funding program)

CMP - Congestion Management Program

CMS – Changeable Message Signs; Congestion Management System

COG – Council of Governments

CPUC – California Public Utilities Commission

CTC - California Transportation Commission

CTP – California Transportation Plan

CTSA - Consolidated Transportation Services Agency

CVWP – Central Valley Water Project

DAR – Dial-A-Ride

DOE - Department of Energy (federal)

DOT - Department of Transportation (federal)

DTIM - Demand Travel Impact Model

EAFB - Edward Air Force Base

EIR/EIS – Environmental Impact Report (state)/Environmental Impact Statement (federal)

EMM - Environmental Enhancement and Mitigation Program

EPA - Environmental Protection Agency (federal)

ETC – Electronic Toll Collection

FAA - Federal Aviation Administration

FCAAA - Federal Clean Air Act Amendments of 1990

FCR - Flexible Congestion Relief Program

FETSIM – Fuel Efficient Traffic Signal Management

FHWA - Federal Highway Administration

FIP - Federal Implementation Plan

FRA – Federal Railroad Administration

FSTIP - Federal Statewide Transportation Improvement Program

FTA - Federal Transit Administration

FTIP - Federal Transportation Improvement Program

FTZ - Foreign Trade Zone

FY - Fiscal Year

GET - Golden Empire Transit District

GIS – Geographic Information Systems

GPA - General Plan Amendment

GPS – Global Positioning Systems

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HOV – High Occupancy Vehicle
HPMS - Highway Performance Monitoring Systems
HSGT – High Speed Ground Transportation
HSR - High Speed Rail
HOV - High Occupancy Vehicle
ILS - Instrument Landing System
IRRS – Inter-Regional Road System
ISR - Indirect Source Review
ISTEA – Intermodal Surface Transportation Efficiency Act of 1991
ITS - Intelligent Transportation Systems (replaces Intelligent Vehicle Highway Systems)
Kern COG - Kern Council of Governments
KRT - Kern Regional Transit
LOS - Level of Service
LTC – Local Transportation Commission
LTF - Local Transportation Fund
MMTI - Major Metropolitan Transportation Investments
MPG – Miles per gallon
MPO - Metropolitan Planning Organization
MTS – Metropolitan Transportation System
NAFTA – North American Free Trade Agreement
NAHC - Native American Heritage Commission
NAWS - (China Lake) Naval Air Weapons Station
NEPA - National Environmental Policy Act
NIMBY – Not In My Back Yard
NHS - National Highway System
NTS – National Transportation System
NO - nitric oxide
NO₂ - nitrogen dioxide
NOP - Notice of Preparation
OAA - Older Americans Act
OPR – Office of Planning and Research
OWP – Overall Work Program

O₃ - ozone

PAC - Project Advisory Committee

PAPI - Precision Approach Path Indicator

PM₁₀ - Particulate Matter (less than 10 microns in size); **PM_{2.5}** (less than 2.5 microns)

PMS – Pavement Management System

POP – Program of Projects

PPHM - parts per hundred million

PSR – Project Study Report

PS TIP - Proposed State Transportation Improvement Program

PTA – Public Transportation Account

PUC - Public Utilities Commission

ROC - Reactive Organic Compounds

ROP - Rate of Progress Plan

ROW – Right(s)-of-Way

RSTP - Regional Surface Transportation Program

RTIP - Regional Transportation Improvement Program

RTP - Regional Transportation Plan

RTPA - Regional Transportation Planning Agency

SB - Senate Bill

SHA - State Highway Account

SHOPP – State Highway Operations and Protection Plan

SHPO - State Historic Preservation Office

SHRP - Strategic Highway Research Program

SHTAR - State Highway Terminal Access Routes

SIP - State Implementation Plan

SLTPP - State and Local Transportation Partnership Program

SJVAB - San Joaquin Valley Air Basin

SJVAPCD - San Joaquin Valley Air Pollution Control District

SR - State Route

STA – State Transit Assistance

STAA - Surface Transportation Assistance Act

STAF - State Transit Assistance Fund

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STIP - State Transportation Improvement Program
STP - Surface Transportation Program
TAC - Technical Advisory Committee
TAZ - Traffic Analysis Zone
TCI – Transit Capital Improvement Program
TCM - Transportation Control Measure
TDA - Transportation Development Act
TDM - Transportation Demand Management
TEA - Transportation Enhancement
TEA-21 – Transportation Enhancement Act for the 21st Century
TIF – Transportation Impact Fee
TMA - Transportation Management Area and/or Association
TOG - Total Organic Gases
TPPC - Transportation Planning Policy Committee
TSMP - Transportation System Management Program
TTAC - Transportation Technical Advisory Committee
US DOT - Department of Transportation (federal)
USTIP - Updated State Transportation Improvement Program
VMT - Vehicle Miles Traveled
VT - Vehicle Trip

Kern Council of Governments



Appendix A RTP Checklist

June 19, 2014



Kern Council
of Governments

www.kerncog.org

Regional Transportation Plan Checklist

(Revised February 2010)

*(To be completed electronically in Microsoft Word format by the MPO/RTPA and
Submitted along with the draft RTP to Caltrans)*

Name of MPO/RTPA: Kern Council of Governments

Date Draft RTP Completed: March 12, 2014

RTP Adoption Date: June 19, 2014

**What is the Certification Date of the Environmental
Document (ED)?** June 19, 2014

**Is the ED located in the RTP or is it a separate
Document?** Separate Document

*By completing this checklist, the MPO/RTPA verifies the RTP addresses
All of the following required information within the RTP.*

Regional Transportation Plan

General

1. Does the RTP Address no less than a 20-year planning horizon? (23 CFR 450.322(a))
2. Does the RTP include both long-range and short-range strategies/actions (23 CFR part 450.322(b))
3. Does the RTP address issues specified in the policy, action and financial elements identified in California Government Code Section 65080?
4. Does the RTP address the 10 issues specified in the sustainable Communities Strategy (SCS) component as identified in Government Code Sections 65080(b)(2)(B) and 65584.04(i)(1)? **(MPOs only)**
 - a. Identify the general location of uses, residential densities, and building intensities within the region? **(MPOs only)**

Yes/No	Page #
Yes	1-1
Yes	Ch. 5
Yes	1-2, 2-1, 4-1 4-19, 4-35
Yes	
Yes	3-1, 4-23, 4-27, 4-32, 4-48, 5-1, 5-70 Appx. G

	Yes/No	Page #
b. Identify areas within the region sufficient to house all the population of the region, including all economic segments of the population over the course of the planning period of the regional transportation plan taking into account net migration into the region, population growth, household formation and employment growth (MPOs only)	Yes	4-32
c. Identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region pursuant to Government Code Section 65584? (MPOs only)	Yes	4-32
d. Identify a transportation network to service the transportation needs of the region? (MPOs only)	Yes	4-25, 4-26 Ch. 5
e. Gather and consider the best practically available scientific information regarding resource areas and farmland in the region as defined in subdivisions (a) and (b) of Government Code Section 65080.01? (MPOs only)	Yes	4-34
f. Consider the state housing goals specified in Sections 65580 and 65581? (MPOs only)	Yes	4-10, 4-32 thru 4-34 Appx. H
g. Utilize the most recent planning assumptions, considering local general plans and other factors? (MPOs only)	Yes	4-7, 4-27
h. Set forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction targets approved by the ARB? (MPOs only)	Yes	3-1, 4-23, 4-32, 4-40 to 4-48, 5-1, 5-70 Appx. G
i. Provide consistency between the development pattern and allocation of housing units within the region (Government Code 65584.04(i)(1)? (MPOs only)	Yes	3-1, 4-23, 4- 32 to 4-34, 4-48, 5-1, 5-70 Appx. G
j. Allow the regional transportation plan to comply with Section 176 of the federal Clean Air Act (42 U.S.C. Section 7506)? (MPOs only)	Yes	4-10
5. Does the RTP include Project Intent i.e. Plan Level Purpose and Need Statement?	Yes	1-1 thru 1-6 Ch. 5
6. Does the RTP specify how travel demand modeling methodology, results and key assumptions were developed as part of the RTP process? (Government Code 14522.2) (MPOs only)	Yes	4-48 Appx. G

Consultation/Cooperation

1. Does the RTP contain a public involvement program that meets the requirements of Title 23, CFR part 450.316(a)?
2. Did the MPO/RTPA consult with the appropriate State and local representatives including representatives from environmental and economic communities; airport; transit; freight during the preparation of the RTP? (23 CFR 450.316(3)(b))
3. Did the MPO/RTPA who has federal lands within its jurisdictional boundary involve the federal land management agencies during the preparation of the RTP?
4. Where does the RTP specify that the appropriate State and local agencies responsible for land use, natural resources, environmental protection, conservation and historic preservation consulted? (23 CFR part 450.322(g))
5. Did the RTP include a comparison with the California State Wildlife Action Plan and (f available) inventories of natural and historic resources? (23 CFR part 450.322 (g))
6. Did the MPO/RTPA who has a federally recognized Native American Tribal Government(s) and/or historical and sacred sites or subsistence resources of these Tribal Governments within its jurisdictional boundary address tribal concerns in the RTP and develop the RTP in consultation with the Tribal Government(s)? (Title 23 CFR part 450.316(c))
7. Does the RTP address how the public and various specified groups were given a reasonable opportunity to comment on the plan using the participation plan developed under 23 CFR part 450.316(a)? (23 CFR 450.316(i))
8. Does the RTP contain a discussion describing the private sector involvement efforts that were used during the development of the plan? (23 CFR part 450.316(a))
9. Does the RTP contain a discussion describing the coordination efforts with regional air quality planning authorities? (23 CFR 450.316(a)(2)) **(MPO nonattainment and maintenance areas only)**
10. Is the RTP coordinated and consistent with the Public Transit-Human Services Transportation Plan?
11. Were the draft and adopted RTP posted on the Internet (23 CFR part 450.322(j))
12. Did the RTP explain how consultation occurred with locally elected officials? (Government Code 65080(D)) **(MPOs only)**

Yes/No	Page #
Yes	4-10 thru 4-17 Appx. B
Yes	4-10 thru 4-17
Yes	4-16
Yes	4-16
Yes	EIR
Yes	4-16
Yes	4-15, 4-16
Yes	4-15
Yes	4-10
Yes	4-13
Yes	5-40
Yes	
Yes	4-14 thru 4-17

13. Did the RTP outline the public participation process for the sustainable communities strategy? (Government Code 65080(E) **(MPOs only)**)

Modal Discussion

1. Does the RTP discuss intermodal and connectivity issues?
2. Does the RTP include a discussion of highways?
3. Does the RTP include a discussion of mass transportation?
4. Does the RTP include a discussion of the regional airport system?
5. Does the RTP include a discussion of regional pedestrian needs?
6. Does the RTP include a discussion of regional bicycle needs?
7. Does the RTP address the California Coastal Trail? (Government Code 65080.1) **(For MPOs and RTPAs located along the coast only)**
8. Does the RTP include a discussion of rail transportation?
9. Does the RTP include a discussion of maritime transportation (if appropriate)?
10. Does the RTP include a discussion of goods movement?

Yes/No	Page #
Yes	4-13
Yes	Thru-Out
Yes	5-73 thru 5-77
Yes	5-37 thru 5-48
Yes	5-89 thru 5-97
Yes	5-49 thru 5-51
Yes	5-49
N/A	
Yes	5-28, 5-40
Yes	5-29, 5-103
Yes	5-28 thru 5-32

Programming/Operations

1. Is the congestion management process discussed in the RTP? (we CFR part 450.450.320(b)) **(MPOs designated as TMAs only)**
2. Is the RTP consistent (to the maximum extent practicable) with the development of the regional ITS architecture?
3. Does the RTP identify the objective criteria used for measuring the performance of the transportation system?
4. Does the RTP contain a list of un-constrained projects?

Yes	5-61 thru 5-67
Yes	5-59
Yes	5-61 thru 5-72
Yes	5-22 thru 5-27

Financial

1. Does the RTP include a financial plan that meets the requirements identified in 23 CFR part 450.322(f)(10)?
2. Does the RTP contain a consistency statement between the first 4 years of the fund estimate and the 4-year STIP fund estimate? (2006 STIP Guidelines, Section 19)
3. Do the projected revenues in the RTP reflect Fiscal Constraint? (23 CFR part 450.322(f)(10)(ii))
4. Does the RTP contain a list of financially constrained projects? Any regionally significant projects should be identified. (Government Code 65080(4)(A))
5. Do the cost estimates for implementing the projects identified in the RTP reflect "year of expenditure dollars" to reflect inflation rates? (23 CFR part 450.322(f)(10)(iv))
6. After 12/11/07, does the RTP contain estimates of costs and revenue sources that are reasonably expected to be available to operate and maintain the freeways, highways and transit within the region? (23 CFR part 450.322(f)(10)(i))
7. Does the RTP contain a statement regarding consistency between the projects in the RTP and the ITIP? (2006 STIP Guidelines section 33)
8. Does the RTP contain a statement regarding consistency between the projects in the RTP and the FTIP? (2005 STIP Guidelines section 19)
9. Does the RTP address the specific financial strategies required to ensure the identified TCMs from the SIP can be implemented? (23 CFR part 450.322(f)(10)(vi) **(nonattainment and maintenance MPOs only)**)

Yes	6-6 Ch. 6
Yes	6-7
Yes	6-1
Yes	5-4 thru 5-21
Yes	6-1
Yes	6-1
Yes	Ch. 6
Yes	Ch. 6
Yes	5-53 Ch. 6

Environmental

1. Did the MPO/RTPA prepare an EIR or a program EIR for the RTP in accordance with CEQA guidelines?
2. Does the RTP contain a list of projects specifically identified as TCMs if applicable?
3. Does the RTP contain a discussion of SIP conformity, if applicable? **(MPOs only)**

Yes	EIR
Yes	5-53
Yes	Conformity Document

4. Does the RTP specify mitigation activities? (23 CFR part 450.322(f)(7))
5. Where does the EIR address mitigation activities?
6. Did the MPO/RTPA prepare a Negative Declaration or a Mitigated Negative Declaration for the RTP in accordance with CEQA guidelines?
7. Does the RTP specify the TCMs to be implemented in the region?
(federal nonattainment and maintenance areas only)

Yes	EIR
Yes	EIR
Yes	Program EIR
Yes	5-52

I have reviewed the above information and certify that it is correct and complete.

Ahron Hakimi

(Must be signed by MPO/RTPA
Executive Director or designated
representative)

6-19-14

Date

Ahron Hakimi

Print Name

Executive Director

Title

Kern Council of Governments



Appendix B Public Information Policies and Procedures

June 19, 2014



Kern Council
of Governments

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**Kern Council
of Governments**



**Public Information Policies and Procedures
November 2011**

Article IX: Public Involvement Procedures and Policies

Section 1. Introduction

This document is a plan for providing guidance for Kern Council of Governments' (Kern COG) elected officials and staff in public participation and interagency consultation throughout the regional planning process. It contains the policies, guidelines and procedures Kern COG uses in developing the metropolitan planning process. This includes the development and approval of the Regional Transportation Plan, Regional Transportation Improvement Program, and environmental review documentation related to growth, transportation, and air quality, and any product prepared by Kern COG staff that statutorily requires public participation, or for which the Kern COG Board of Directors determines is necessary. Kern COG carries out its transportation and air quality planning responsibilities in a continuing, cooperative and comprehensive manner in conformance with federal and state Law that determine how Metropolitan Planning Organizations (MPOs) provide for early consultation and public participation. The various laws include but may not be limited to:

Federal

- Transportation and Conformity Regulations of Title 40 CFR Part 93.105
- Title 23 CFR Part 450.316
- Title 23 CFR Part 450.322(g)(1) and (2)
- Title 23 CFR Part 450.216(a)(1)
- Title 23 USC Part 134(g)(4)
- Title 23 USC Section 135(e)
- Title VI of the Federal Civil Rights Act of 1964
- Title 49 CFR Part 21.5
- Title 42 USC Chapter 21 Section 2000(d)
- Implementing orders under Executive Order 12898 on Environmental Justice (1994)
- US DOT Order 5610.2 (1997)
- US DOT Order 6640.23 (1998)
- 1990 Americans with Disabilities Act
- 1990 Clean Air Act Amendments
- 2005 Safe, Accessible, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

State

- Government Code Section 11135
- Government Code Section 65080
- California Environmental Quality Act (CEQA)

Title 23 CFR Part 450.316(a) states the following concerning participation and consultation:

“The Metropolitan Planning Organization (MPO) shall develop and use a documented participation plan that defines a process for providing citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with reasonable opportunities to be involved in the metropolitan transportation planning process.”

A vigorous public information process not only serves Kern COG by meeting federal requirements, but also allows for a fruitful exchange of ideas while developing programs or projects that may be controversial.

Section 2. Background

The federal government has mandated that public involvement in the metropolitan planning process meet minimum requirements. How effectively planning agencies provide opportunities for public input is an important criterion to determine federal fund allocation for local, regional and state projects and programs. While legislation such as SAFETEA-LU, the Americans with Disabilities Act, and awareness of environmental justice issues have broadened the scope of public participation in the planning and programming process, prior federal transportation acts also required public participation.

The Brown Act has long required California agencies to perform their duties in the public's full view and with opportunities for public input. All environmental documents related to transportation plans include the public comment provisions of the California Environmental Quality Act (CEQA). Kern COG has always complied with California law in addition to meeting federal statute mandates.

Kern COG's Board of Directors and technical advisory committees assist the bottom-up planning process and frequent, ongoing public and interagency participation at all stages of the process. Outreach programs are designed in cooperation with technical advisory committees and other transportation and air quality agencies. These programs will complement the decentralized planning process, which was established to increase participation in regional policy development.

Effective public involvement requires that affected individuals and groups be encouraged to participate in the development of local, regional, and state plans. The

following policies, guidelines and procedures are designed to encourage participation during the preparation of:

- A. Regional Transportation Plan
- B. Transportation Improvement Program
- C. Environmental impact studies or reports
- D. Any product prepared by Kern COG staff that statutorily requires public participation or for which the Kern COG Board of Directors determines it is necessary.

Section 3. Partnerships

Kern COG staff maintains regular contact with the following agencies:

American Lung Association	Federal Highway Administration
Amtrak	Federal Transit Administration
Bakersfield Senior Center	Golden Empire Transit District (GET)
Bakersfield Association of Realtors	Greater Bakersfield Chamber of Commerce
Bakersfield Downtown Business Association	Greyhound Lines
Bureau of Land Management	Independent Living Center
California Air Resources Board	Indian Wells Valley Airport District
California Department of Conservation – Oil, Gas & Geothermal Division	Inyo County Transportation Commission
California Department of Finance	Kern Congestion Management Agency
California Environmental Protection Agency	Kern County Aging & Adult Services Department
California Highway Patrol	Kern County Air Pollution Control District
California Office of Planning and Research	Kern County Building Industry Association
Caltrans Districts 6 and 9	Kern County Commission on Aging
City of Arvin	Kern County Economic Opportunity Corporation
City of Bakersfield	Kern County Housing Authority
City of California City	Kern County Superintendent of Schools
City of Delano	Kern County Water Agency
City of Maricopa	Kern Economic Development Department
City of McFarland	Kern Motorist Aid Authority
City of Ridgecrest	Kern Regional Center
City of Shafter	Kern Transportation Foundation
City of Taft	Kern Wheelmen Bicycle Club
City of Tehachapi	Kings County Regional Planning Agency
City of Wasco	Local Agency Formation Commission
Fresno Council of Governments	
County of Kern	
Edwards Air Force Base	
Environmental Protection Agency	

Madera Local Transportation
Commission
Merced County Association of
Governments
Metro Bakersfield Consolidated
Transportation Service Agency
Mexican-American Opportunity
Foundation
Minter Field Airport District
Mono County Transportation
Commission
Mojave Town Council
Naval Air Weapons Station - China
Lake
North of the River Recreation & Park
District

Blue Sky Partners
San Joaquin County Council of
Governments
San Joaquin Valley Air Pollution Control
District
Santa Fe Railways
Sierra Club
Southern California Auto Club
Stanislaus Area Association of
Governments
Tulare County Association of
Governments
Various chambers of commerce
Wasco and Delano Associations for the
Developmentally Disabled
Wasco Housing Authority

Section 4. Guidelines

Kern COG is committed to developing and maintaining an effective citizen participation process. In order to accomplish this commitment, the following principles guide the public involvement process:

- A. It is the right and responsibility of citizens to be involved in the transportation planning process.
- B. Citizens should be educated about the needs and issues and encouraged to participate in finding solutions.
- C. Early and timely involvement of citizens is necessary to build community agreement on the needs and solutions before alternatives are proposed.
- D. Agreement on the final product is a desirable goal, but agreement does not mean 100 percent unanimity by all parties. Negotiation and compromise are essential ingredients to building agreement.
- E. The process by which a decision is reached is just as important as the product. Citizens should end the process satisfied that they had the opportunity to be significantly involved and that their voices were heard and reflected in the final document.
- F. After decisions are made, actions should follow to maintain confidence in the community involvement process.

Community involvement is not a one-time only process. The manner in which the public is involved may change as the process progresses.

In Attachment A, Public Involvement Chart, Kern COG defines a public participation program for each document it produces. Final documents will reflect the needs and

desires of affected communities within the region. This includes establishing procedures and responsibilities for:

- A. Informing, involving, and incorporating public opinion into the planning process;
- B. Consultative involvement of designated agencies on technical data and modeling used in developing regional plans and determining transportation improvement program and regional transportation improvement program conformity;
- C. Clearly designating a lead staff person who is knowledgeable about the entire planning process to be responsible for the public involvement program; and
- D. Providing adequate funds and schedule expenditures to implement the public participation program.

Section 5: Procedures

Kern COG will notify interested or affected citizens who may be impacted through traditional and electronic meeting announcements, newspapers, public service announcements, press releases, special mailers, publications and committee agendas, meetings and other opportunities to participate, as appropriate. Community members or organizations may include but are not limited to:

Academic and scientific communities	Local, state and federal agencies
Airport authorities	Minority and ethnic groups
Appropriate private transportation providers	Native American associations
Bicycle and pedestrian groups	Operators of major modes of transportation
Business and industry officials	Recreation groups
Elected officials	Senior citizen groups
Environmental organizations	Service organizations
Freight shippers and receivers	Traffic, ridesharing, parking, and enforcement agencies
Health and disabled organizations	Youth services groups
Local public and private transit operators	

- A. Kern COG encourages public participation and acknowledges the value of this input.
- B. Kern COG will provide complete and easily understood information and summaries. Planning issues and alternatives will be addressed in a realistic manner.
- C. Kern COG will publish public comments in a newsletter or report. Reports will include specific agency responses, the effect of citizen input on decisions, and (when appropriate) updated reports of citizen participation.
- D. Kern COG will conduct a thorough review of the program, including staff and citizen evaluation.

Level I Procedures

Level I procedures address routine documents that serve as a subset of or facilitate more significant plans or determinations. These documents are implementing long-

range direction provided by plans and documents that went through a more intensive public review procedure (Level II or III). These documents are subject to the minimum levels of public outreach under these policies. These procedures become effective once an initial draft document has been produced.¹

All Documents and Formal Meetings including:

- A. Regional Transportation Plan amendments
 - B. Federal Transportation Improvement Program amendments (excluding technical or administrative modifications)
 - C. State Transportation Improvement Program amendments
 - D. Regional Transportation Improvement Program
 - E. Air quality conformity determinations
 - F. Miscellaneous studies
 - G. Transit plans & studies
 - H. Environmental Documents, as defined by the California environmental Quality Act and/or the National Environmental Policy Act ¹
 - I. Congestion Management Program amendments
-
- 1. No person shall be denied participation.
 - 2. A legal notice will be placed in the legal advertising sections of at least one newspaper of general circulation within the affected community, including a Spanish-language publication, if possible.
 - 3. Display ads will be placed as deemed necessary and targeted specifically to affected communities to encourage involvement and address key decision-making points.
 - 4. Non-traditional approaches, such as postal and electronic mailings to non-profit organizations, churches and chambers of commerce will be used to encourage involvement of the underserved and transit dependent in project development and public workshops. Spanish-language advertising will be included in these non-traditional approaches.
 - 5. Public meetings are defined as those regular COG meetings normally held on the third Thursday of each month, excepting August and December.
 - 6. Public workshops are defined as forums established specifically for the public to gain information and provide input on Kern COG documents and processes. This definition does not include technical workshops for member agency staff or elected officials even though they are technically open to the public.
 - 7. Announcements dealing with documents and/or meetings and workshops shall be posted on the Kern COG web site.
 - 8. A mailing list of individuals who have expressed interest shall be maintained.
 - 9. Meeting notices shall be mailed or e-mailed to individuals who have expressed interest.

¹ See Attachment A, Kern COG Document Public Involvement Chart, for specific requirements on specific documents.

10. Kern COG shall provide appropriate assistance, auxiliary aids and/or services when necessary to afford disabled individuals an equal opportunity. Individuals with disabilities will be provided an opportunity to request auxiliary aids.
11. Kern COG shall provide audio/visual presentations along with its maps, charts and graphics whenever practical to help the public better understand the plans, programs, projects or determinations it adopts.
12. Kern COG shall provide an interpreter, when requested, at any and all public hearings and workshops, and shall maintain its subscription to a language line for day-to-day public inquiries.
13. Kern COG's web site shall maintain a link to a translation service for information contained on the agency site.
14. Projects must be evaluated for their potential for public interest. Projects likely to have considerable public interest must also include Level III requirements.
15. A copy of draft transportation plan amendments and draft transportation improvement program amendments, environmental documents, and the Congestion Management Program amendments will be made available for review at Kern Council of Governments, the main branch of the local library system, college libraries, boards of trade, and chambers of commerce within affected areas. Individual copies of all documents will also be distributed to any interested parties for a fee to offset printing charges.

Level II

Additional Public Involvement Requirements

Level II procedures address core agency plans, programs and declarations. These documents are subject to a higher level of public outreach than Level I documents under these policies. These procedures become effective before an initial draft document has been produced. The following documents must also meet the public involvement requirements listed in Level I:

- A. Congestion Management Program
 - B. State Transportation Improvement Program
 - C. Federal Transportation Improvement Program
 - D. Corridor Studies
 - E. Transit Studies
 - F. Regional Housing Needs Assessment
 - G. Public involvement procedure amendments
-
1. Public review by various funding agencies submitting projects for the transportation improvement program will be accepted up to the final determination.
 2. A copy of draft transportation plans and draft transportation improvement programs, environmental documents, and the Congestion Management Program will be made available for review at Kern Council of Governments, the main branch of the local library system, college libraries, boards of trade, and chambers of commerce within affected areas. Individual copies of all documents

will also be distributed to any interested parties for a fee to offset printing charges.

3. Public comments and responses, and the disposition of any comments, will be made part of final transportation plans, transportation improvement programs, and environmental documents.
 - a. **Prepare written summary/verbal presentation** – Staff will review all comments, synthesize them and prepare a narrative summary highlighting key points.
 - b. **List all comments** – Using a summary chart format, staff will review and summarize all comments, categorizing them by topic and type of comments (e.g. question, fact, desire, opinion).
 - c. **Respond to comments** – Staff will respond, in writing within 30 days, to significant comments. Those responses will be made part of the final document.
 - d. **Provide the full record** – The decision-making body will be given copies of the meeting notes, the transcript (for public hearings) or taped transcripts.
4. Transportation improvement programs and environmental documents will be made available for public review for no less than a 30-day public review period.
5. Programs, projects, or plans routed through the State Clearinghouse shall adhere to the public information requirements of the Clearinghouse and also be made available for no less than 30 days.
6. If regionally significant changes are made to the transportation plan, transportation improvement programs, and environmental documents during the review and comment period, the plan(s) will be made available for 30-day public review and comment prior to final adoption.
7. Minor amendments to the transportation improvement programs will have a 14-day public review period and may be approved by the executive director.
8. Regionally significant changes to the transportation plan, transportation improvement programs, and environmental documents during the review and comment period shall also be advertised via press release to all media outlets, through electronic notice to Kern COG's address database and on the Kern COG web site as deemed necessary prior to final adoption.
9. The executive director or his/her designee will coordinate with the State to improve public awareness of the State Transportation Plan and/or the State Transportation Improvement Plan.
10. Records relating to the transportation plans, transportation improvement programs, and environmental impact reports will be made available for public review upon request.
11. Technical and policy information relating to the transportation plans, transportation improvement programs, and environmental impact reports will be made available for public review upon request.
12. Staff will hold at least one formal public workshop every four years in each local jurisdiction on the Regional Transportation Plan. These public meetings/workshops will be announced in a variety of formats, including public

notices, display ads, press releases and direct mail and/or electronic mail notices in the affected communities.

13. All project plan amendments not considered administrative in scope shall be advertised via public notice and held for a 30-day review period.
14. Refer to the California Transportation Commission's 2010 Regional Transportation Plan Guidelines regarding addendums, supplemental and subsequent environmental documents to the Regional Transportation Plan.

Level III

Anticipated high-profile projects

The following must also meet the criteria listed in levels I and II. Level III procedures address plans that provide long-range direction for the organization or that Kern COG staff determines to be controversial based on their environmental impacts, project scope or other determining factors. These documents are subject to the highest levels of public outreach under these policies. These procedures become effective before an initial draft document has been produced. Kern COG staff will:

- A. Regional Transportation Plan/Sustainable Communities Strategy
- B. Help form a citizens' advisory committee.
- C. Develop a calendar of public workshops.
- D. Identify the appropriate media contact to respond to media inquiries.
- E. Develop a quarterly newsletter specific to the plan or project.
- F. Mail newsletter to the plan/project participants at regular intervals.
- G. Coordinate a news conference and/or press release highlighting the plan/program and coordination between Kern COG and public participation. Press releases will be sent to the appropriate radio stations, television channels, and newspapers.

Senate Bill 375 increased the minimum level of public participation required in the regional transportation planning process, including collaboration between partners in the region during the development of a Sustainable Communities Strategy (SCS) and/or an Alternative Planning Strategy (APS). Public participation pursuant to SB 375 shall include the following:

1. Outreach efforts encouraging the active participation of a broad range of stakeholders in the planning process, consistent with the agency's adopted Federal Public Participation Plan. This includes, but is not limited to, affordable housing advocates, transportation advocates, neighborhood and community groups, environmental advocates, home builder representatives, broad-based business organizations, landowners, commercial property interests, and homeowner associations.
2. Consultation with other regional congestion management agencies, transportation agencies, and transportation commissions.
3. At least three regional public workshops will be held with information and tools providing a clear understanding of policy choices and issues. To the extent

practicable, each workshop shall include urban simulation computer modeling to create visual representations of the SCS and APS.

4. Preparation and circulation of a draft SCS (and APS, if one is required) not less than 55 days before adoption of a final RTP.
5. A process enabling the public to provide a single request to receive notices, information and updates.
6. During the development of the SCS (and APS, if applicable), at least two informational meetings will be held for members of the Board of Supervisors and City Councils. Only one informational meeting is needed if it is attended by representatives of the county board of supervisors and city councils that represent a majority of the cities representing a majority of the population in the incorporated areas of the county.
 - a. The purpose of the meeting (or meetings) will be to discuss the SCS (and APS, if applicable), including key land use and planning assumptions, with the members of the Board of Supervisors and City Councils and to solicit and consider their input and recommendations.
 - b. Notices of these meetings are to be sent to the Clerk of the Board of Supervisors and City Clerks.
7. In preparing an SCS, Kern COG will consider spheres of influence that have been adopted by the Local Agency Formation Commission (LAFCO). Kern COG will also consult with LAFCO regarding special districts within the region that provide property-related services such as water or wastewater services, and will consult with these regional special districts, as appropriate, during development of a SCS (and APS if applicable).

Process for Receiving Public Comments

The following public involvement techniques may be used to inform and educate the public and/or gather information.

A. Formal Public Meetings/Workshops

Formal public meetings and/or workshops may be held during the process. The format for the workshops will be at the discretion of Kern COG. All Kern COG meetings and public workshops will be held in buildings accessible to persons with disabilities. The format options include:

- 'Theater' style with a presentation followed by audience response.
- 'Open-house' style with individual comments provided directly to a recorder, typed in by the participant, or via written comment sheets; or
- A mixed format with an 'open house' style meeting followed by a 'theater' style comment period.

In each case, Kern COG shall provide audio/visual presentations along with maps, charts and graphics, whenever practical, to help the public better understand the plans,

programs, or projects it adopts.

B. Small Group Sessions

A meeting of selected citizens, businesses, and/or neighborhood residents may be invited to participate in small group sessions to discuss options and give opinions on specific transportation topics. Participants may be presented with materials and asked to respond. The following are types of small groups that might be involved in the process:

Plan/Program Advisory Committee (PAC) - An advisory committee established for the development of a plan or program may consist of a broadly representative group of citizens who understand other citizens' concerns, needs and wants, technical and administrative staff from various organizations, and officials from appropriate local and state entities.

A PAC with citizen participation can be a valuable asset. Generally, PACs provide and consider citizen input and advice regarding regional goals and objectives, problems and needs, and to discuss potential options and solutions regarding the activity and to be responsive to the citizen input.

PAC members may be expected to attend several public and neighborhood meetings. They may also be asked to assist, provide support and be responsible for the dissemination of information, and give testimony to the benefits and importance of the activity to the community, actively seek informed responses from the community regarding transportation problems and priorities, and elicit potential solutions.

Kern COG will specifically consider the need for a PAC with regard to major transportation plans, studies, programs and projects. If the Board elects to form a PAC, the PAC shall be organized with a special effort to appoint persons who are or will represent the needs of the persons traditionally underserved such as low income, minorities, elderly and disabled. The ways and means of determining PAC membership, committee structure, and specific roles and responsibilities for an activity shall be presented to the TTAC and Board for their approval. Membership will not be permanent, thus PAC members will serve for the length of the development and completion of a plan or program.

Stakeholders - Interview or meet with individuals or groups who have a vested interest in the outcome of a Kern COG-developed plan or program. Interviews and meetings would be conducted to identify issues and concerns. Such groups may include business, neighborhood, environmental, and others.

PAC and stakeholder meetings may include the use of various public involvement techniques to keep the group informed, obtain information, identify preferences and

resolve conflicts.

Focus Groups - Kern COG may use this approach to uncover information that is difficult to access. This includes uncovering attitudes, opinions, and emotions on specific issues or topics from a group of 'screened' participants. This method may also be used to clarify issues so as to develop surveys. Kern COG will use a format that meets the current public involvement thought regarding the development of focus groups.

C. Internet

Whenever possible, Kern COG will provide access to plans and programs through Internet access. When applicable, an e-mail address will be presented and made available for public access to make and receive comments.

D. Fairs and Festivals

Kern COG will attend community fairs and festivals to present various aspects of transportation planning, programming and projects as set forth in the RTP, as well as the FTIP. Participants are encouraged to view exhibits, ask questions, consider the information and give comments. Fairs create interest and dramatize a plan, program or TIP project through visualized graphics, audiovisuals, and interaction with Kern COG staff.

E. Public Opinion Surveys

Surveys report what people know or want to know. Surveys test whether a plan, program or an element of them is acceptable to the public as it is being developed. An appropriately sized random sample will be drawn from the targeted population and surveyed to develop a sense of general public attitudes. Surveys can be formal such as a direct mailing to citizens, businesses, and community organizations or informal such as a self-administered questionnaire attached within a draft document.

G. Phone/In-person Comments

A period of time may be provided to allow citizens to telephone or walk in their comments. Kern COG's phone number and address will be provided to the media and may be included on documents related to the plan or program. Kern COG will summarize verbal comments.

Section 6. Public Involvement Policy Evaluation

- A. Significant changes to Kern COG's Public Involvement Procedures shall be published and available for a 45 day public review and comment period before final adoption.

- B. Kern COG staff and the public will review the public review process biennially.

Evaluation Methodology

In order to regularly evaluate the Public Involvement Procedures, five performance measures are proscribed:

- A. The accessibility of the outreach process to serve diverse geographic, language and ability needs.
- B. The extent or reach of the process in involving and informing as many members of the public as possible.
- C. The diversity of participants in the outreach process and its ability to reflect the broad range of ethnicities, incomes and special needs of residents in the Kern region.
- D. The impact of public outreach and involvement on the plan/program and on policy board actions.
- E. The satisfaction with the outreach process expressed by participants.

For each of these five performance measures, a set of quantifiable indicators has been established. They will be applied as appropriate to each plan/program's level requirements.

A. Accessibility Indicators:

- Meetings are held throughout the county.
- 100 percent of meetings are reasonably accessible by transit.
- All meetings are accessible under Americans with Disability Act requirements.
- Meetings are linguistically accessible to 100 percent of participants with three working days' advance request for translation. (*Meeting announcements will offer translation services with advance notice to participants speaking any language with available professional translation services.*)

B. Reach indicators

- Number of comments logged into comment tracking and response system.
- Number of individuals actively participating in outreach program.
- Number of visits to the specific section of the Kern COG Web site.
- Number of newspaper articles mentioning the plan/program.
- Number of radio/television interviews or mentions on the plan/program.

F. Diversity indicators

- Demographic of targeted workshop/charette/meeting roughly mirror the demographics of the Kern region.
- Percentage of targeted organizations and groups participating in at least one workshop/charette/meeting.

- Participants represent a cross-section of people of various interests, places of residence and primary modes of travel.

G. Impact Indicators

- 100 percent of written comments received are logged into a comment tracking system, analyzed, summarized and communicated in time for consideration by staff and the policy board.
- 100 percent of significant written comments are acknowledged so that the person making them knows whether his or her comment is reflected in the outcome of a policy board action, or, conversely, why the policy board acted differently.

H. Participant Satisfaction (*This information would be obtained via an online and written survey available on the Kern COG web site, and at each workshop/charette/public meeting involving the plan or program in question.*)

- Accessibility to meeting locations.
- Materials presented in appropriate languages for targeted audiences.
- Adequate notice of the meetings provided.
- Sufficient opportunity to comment.
- Educational value of presentations and materials.
- Understanding of other perspectives and priorities.
- Clear information at an appropriate level of detail.
- Clear understanding of items that are established policy versus those that are open to public influence.
- Quality of the discussion.
- Responsiveness to comments received.

Section 7. Media Resources

Print Media Resources

Kern County is situated in California's southern San Joaquin Valley occupying 8,075 square miles. It is the third largest county in the State, is larger than the states of Delaware, Connecticut, and Rhode Island combined, and is larger than the entire states of Massachusetts or Hawaii. The county is divided into three distinct geographical regions: The eastern third of the county is the Mojave Desert; the middle section straddles the Southern Sierra Nevada Mountains and the Transverse Ranges; the western portion is in the San Joaquin Valley. As of April 2010, the county had a population of 839,631 registering an increase of more than 178,000 people over 2000. Because of the diversity in the market profile and geography of Kern County, it is necessary to address the county in segments. Public Notices must be carefully placed depending on the project and affected communities.

Countywide Publications	Type	Adjudicated
The Bakersfield Californian	Main / Greater Kern County	X
El Mexicalo	Hispanic Interest	X
Indian Wells Valley	Type	Adjudicated
The Daily Independent	Main / Ridgecrest	X
NWC Rocketeer	Military / China Lake	--
News-Review	Main / Ridgecrest	X
Southeastern Kern County	Type	Adjudicated
Antelope Valley Press	Main / Palmdale	X
The Bulletin	Main / North Edwards	--
Desert Wings	Military / Edwards Main	--
Lancaster Desert Mailer	Lancaster / Main	X
Mojave Desert News	Main / Mojave	X
Rosamond Weekly News	Main / Rosamond	X
Southeast Kern Weekender	Ridgecrest	
Tehachapi News	Main / Tehachapi	X
Kern River Valley	Type	Adjudicated
Kern Valley Sun	Main /Lake Isabella	X
Kern River Courier	Main/Lake Isabella	
Arvin/Lamont	Type	Adjudicated
Arvin Tiller	Main /Arvin	X
El Popular	Hispanic Interest	X
Lamont Reporter	Main / Lamont	X
Southwestern Kern County	Type	Adjudicated
The Pine Mountain Pioneer	Main / Frazier (monthly)	--
Mountain Enterprise	Main / Frazier Park (weekly)	X
Metropolitan Bakersfield	Type	Adjudicated
The Bakersfield Californian	Main / Kern County	X
Bakersfield News Observer	African-American Interest	X
El Mexicalo	Hispanic Interest	X
El Popular	Hispanic Interest	X
Northwest Kern County	Type	Adjudicated
Delano Record	Main / Delano	--
El Popular	Hispanic Interest	X
Shafter Press	Main / Shafter	X
Wasco Tribune	Main / Wasco	X
Western Kern County	Type	Adjudicated
The Midway Driller	Main / Taft	X

Section 8. Legal and Display Ad Minimum Requirements

Legal Notice:

Date, time, and place of public hearing or meeting;
Identity of the hearing body or officer;
General explanation of the matter to be considered;
General description, in text or by diagram, of the location of the real property, if any, that is the subject of the hearing or meeting;
The following statement when appropriate – “Individuals with disabilities may call Kern COG to request auxiliary aids necessary to participate in the public meeting/hearing.”

Kern Council of Governments
Address
Contact name
Telephone number
Web site: www.kerncog.org
E-mail: rbrummett@kerncog.org

Notice of Intent to Adopt:

Period during which comments will be received;
Date, time, and place of any public meetings or hearings on the proposed project;
Brief description of the proposed project and its location;
Address where copies of the proposed negative declaration are available for review;
The following statement when appropriate – “Individuals with disabilities may call Kern COG to request auxiliary aids necessary to participate in the public meeting/hearing.”

Kern Council of Governments
Address
Contact name
Telephone number
Web site: www.kerncog.org
E-mail: rbrummett@kerncog.org

Notice of Determination: – Filed ONLY with Kern County Clerk's Office

Information identifying the project, including common name and location;
Brief description of the project;
Date on which Kern COG determines the project will not cause any significant adverse environmental effects;
Address where copy of the negative declaration may be examined;
The following statement – “Kern COG has complied with the California Environmental Quality Act in the preparation of this negative declaration;”
The following statement when appropriate – “Individuals with disabilities may call Kern COG to request auxiliary aids necessary to participate in the public review process.”

Kern Council of Governments
Address
Contact name
Telephone number
TTY number
Fax number
Web site address
Project manager e-mail address

Notice of Preparation:

- A. Description of project;
- B. Project location on a map;
- C. Discussion of probable environmental effects of project;
- D. The following statement when appropriate -"Individuals with disabilities may call Kern COG to request auxiliary aids necessary to participate in the public review process."

Kern Council of Governments
Address
Contact name
Telephone number
TTY number
Fax number
Web site address
Project manager e-mail address

Notice of Completion:

- A. Description of project;
- B. Project location;
- C. Date, time, and place of any public meetings or hearings on the proposed project;
- D. Address where copies of the Draft EIR are available for review;
- E. Period during which comments will be received;
- F. The following statement when appropriate -"Individuals with disabilities may call Kern COG to request auxiliary aids necessary to participate in the public review process."

Kern Council of Governments
Address
Contact name
Telephone number
TTY number
Fax number
Web site address
Project manager e-mail address

Sample Notice

Notice of Public Hearing

Date

Before the Kern Council of Governments (Kern COG) in the matter of STATE
PURPOSE OF PUBLIC HEARING:

- A. WHEREAS, Kern COG, in its capacity as the INSERT DESIGNATION will hold a public hearing to receive public comments regarding the INSERT PLAN, PROJECT, PROGRAM and
- B. WHEREAS, NAME DOCUMENT AND PURPOSE

NOTICE IS HEREBY GIVEN THAT:

- A. A PUBLIC HEARING will be held in the Kern COG conference room, 1401 19th Street, Suite 300, Bakersfield, California at 7:00 pm, on Thursday, STATE DATE, for the purpose of receiving public comments and testimony regarding INSERT PLAN, PROJECT, OR PROGRAM. This hearing will be a part of a regularly scheduled meeting of the Kern Council of Governments.
- B. The INSERT PLAN, PROJECT, OR PROGRAM will be considered for INSERT ACTION by the Kern Council of Governments following the public hearing.
- C. Any person wishing to present testimony related to INSERT PLAN, PROJECT, OR PROGRAM may be heard, or may submit written comments to Kern COG, 1401 19th Street, Suite 300, Bakersfield, California 93301, for inclusion in the official record of the hearing. Individuals with disabilities may call Kern COG to request auxiliary aids necessary to participate in the public review process.

Ronald E. Brummett,
Executive Director
Kern Council of Governments
(661) 861-2191
TTY (661) 832- 7433
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rbrummett@kerncog.org
DATE OF PUBLICATION

Display ads

Newspaper display ads, which may be inserted anywhere in the paper and are not confined to the classified section, will be used for the following documents: Regional Transportation Plan; Regional Transportation Improvement Program; Federal

Transportation Improvement Program; all corridor studies; transit studies, including the unmet transit needs process; and all special studies.

These advertisements should run at the beginning, middle, and toward the end of the document development process. They will announce either a public input period, draft review availability or a final review period.

Display ads should be no smaller than 2 columns in width by no less than 4 inches deep. If financial constraints allow, display ads should run 2 columns wide by 7 inches deep or larger.

Given the larger canvas with which to work, display ads should contain at least one art element by which to draw the eye. This should include, but not necessarily be limited to the Kern COG logo. The number of different fonts used should be limited to two.

Sign In Sheets

Have a sign-in sheet available. This will become part of Kern COGs official record. Make sure people write legibly, this information will become a part of the mailing list. At a minimum, include: name, address (street, city, zip), daytime contact telephone number and e-mail address. The information needed from the sign-in sheet may vary from meeting to meeting. If quite a bit of information is needed, consider developing an information card that attendees can complete at their seat.

Have Kern COG materials available

Several items will help the public to understand the purpose of the agency, the project and Kern COGs role. Many questions as can be answered prior to the meeting, which will save time during the meeting.

- A. Comment Sheets
- B. Project Information Guide
- C. Kern COG Information Guide
- D. Presentation-specific support materials

Visual Aids

- A. PowerPoint presentation
- B. Slides
- C. Enlarged diagrams and graphs
- D. Enlarged maps
- E. Videos
- F. Handouts

Anticipate Questions

Anticipated questions should be developed and answered when the Project Information Guide is created. However, it is likely the audience will have many more. The process of transportation planning is not an easy one to grasp. Many members of the audience will have wishes and desires that simply cannot be fulfilled. How staff responds to

questions or statements of desire will make a difference with their opinion of Kern COGs efforts to involve the public. Kern COG staff should create ways of telling the audience the planning process instead of telling the audience “No, we can’t.”

Are there creative ways to help the audience understand that transportation planning is a dynamic give-and-take process.

Attachment A: Kern COG Document Public Involvement Chart - Draft August 2011

				OWP	COG Budget	KMAA Budget	RTP /SCS	RTP ¹ /SCS Amend	RTP ² EIR	RTIP	FTIP	TIP ³ Amend	Corridor Studies	Transit Studies	Regional Housing Needs Assessment	Special Studies	Air Quality Conformity	Population & Socio-Economic Forecast	Public Information Policies/ Procedures	
			Procedures Level:	1	1	1	3	1	1	1	2	1	2	2	2	2	1	1	2	
Document/Process Inception																				
	Display Ads (Newspapers)						•				•		•	•	•	•				
	Direct Mail/Electronic Notices						•				•		•	•		•			•	
	Press Releases						•						•	•	•				•	
	Public/COG meeting			•	•	•														
	Workshop(s)						•				•		•	•		•				
Draft Document/Process																				
	Display Ads (Newspapers)						•						•	•	•	•				
	Direct Mail/Electronic Notices						•				•		•	•		•			•	
	Press Releases						•			•	•		•	•	•	•				
	Public/COG meeting			•	•	•	•			•			•	•	•	•	•	•	•	
	Workshop(s)						•			•	•		•	•		•		•		
Final Report/Plan/Study/Process																				
	Display Ads (Newspapers)						•						•		•	•	•			
	Direct Mail/Electronic Notices			•	•	•	•			•	•		•	•		•	•	•	•	
	Press Releases						•			•	•		•	•	•	•	•	•		
	Public/COG meeting			•	•	•	•			•	•		•	•		•	•	•	•	
14-day Review Period								•				•								
30-day Review Period				•	•	•	•	•		•	•	•	•	•	•	•	•	•		
45-day Review Period									•										•	
55-day Review Period							•													
Legal Notice					•	•	•	•	•		•	•					•			
Public Hearing					•	•	•	•			•	•					•			
*shaded cells are additions																				
Display ads: Bakersfield Californian, El Popular, Arvin Tiller, Delano Record, Kern Valley Sun, Ridgecrest Daily Independent or Ridgecrest News-Review, Shafter Press, Taft Midway-Driller, Tehachapi News, Wasco Tribune																				
¹ Minor RTP amendment types 2 and 3 will have a 14-day review period. Regionally significant major amendment types 4 and 5 will have a 30-day review, subject to environmental document requirements.																				
² Refer to California Transportation Commission latest Regional Transportation Plan Guidelines for addendum, subsequent and supplemental environmental documents.																				
³ Minor TIP amendment types 2 and 3 will have a 14-day review period. Regionally significant types 4 and 5 will have a 30-day review.																				
9/27/2011																				

Kern Council of Governments



Draft Appendix C Directions to 2050 Summary of Community Participation Executive Summary

June 19, 2014



Kern Council
of Governments

www.kerncog.org

DIRECTIONS TO 2050

SUMMARY OF COMMUNITY PARTICIPATION EXECUTIVE SUMMARY



DECEMBER 2013



**Kern Council
of Governments**

Executive Summary

ES

I. INTRODUCTION

A. PROJECT OVERVIEW

Directions to 2050 is the public participation program in support of the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) and Kern Region Energy Action Plans (REAP). The Directions to 2050 program builds on the Kern Regional Blueprint program to shape the region's future. Kern COG is working with local communities to identify and prioritize the next steps for the future. Directions to 2050 program results will be incorporated into the region's plans to achieve the region's mutual vision.

Directions to 2050 is the public participation program in support of the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) and Kern Region Energy Action Plans (REAP).

B. COMMUNITY ENGAGEMENT

The community engagement program included the following components:

Outreach Component	Activities	Dates
Cycle 1	2 Stakeholder Roundtable Meetings	March–July 2012
	16 Community Workshops	April–June 2012
Cycle 2	3 Festivals and Events	August–October 2012
	3 Stakeholder Meetings	October 2012–March 2013
	11 Community Meetings	October–November 2012
	21 City Council, County Representative, and Other	May–October 2013

Executive Summary

Outreach Component	Activities	Dates
	Presentations	
Directions to 2050 Website	Cycle 1 Online Activity	2012
	Cycle 1 Online Survey	2012
	Cycle 2 Online Activity	2013
Other Outreach Activities	Community Survey 2012	January 2012
	Kern County Fair 2012	September 2012
	Community Survey 2013	May 2013
	Metro Bakersfield Workshops	August 2013
	Kern County Fair 2013	September 2013
	Regional Energy Action Plan Summit	October 2013

II. CYCLE 1 OUTREACH

C. OVERVIEW

Community engagement and outreach is fundamental to the development of the RTP/SCS and REAP program. By nature, these plans represent each community's vision for its future and are developed from a grassroots, bottom-up approach. The Directions to 2050 Cycle 1 outreach strategy was designed to solicit input from stakeholders and community members on priorities for the region's future.

Key Findings

Stakeholder roundtable meeting participants, community workshop participants, and online survey and activity participants share many of the same priorities for the future of the Kern region and their communities.

The following strategies were future priorities for many Cycle 1 participants:

- **Education, training:** Link education/training/youth mentorships with economic development initiatives.

Community engagement and outreach is fundamental to the development of the RTP/SCS and REAP program.

- **Business-friendly:** Encourage existing and new business expansion to diversify the local economy.
- **Community services:** Maintain and develop comprehensive community services for health, education, safety, and recreation.
- **Public infrastructure:** Revitalize existing neighborhoods and business districts that are becoming run down.
- **Improve biking and walking:** Add, maintain, and improve sidewalks and bike lanes for safer, active lifestyles.
- **Fix the roads:** Maintain local streets and roads.
- **Adequate water:** Preserve and improve water supply/quality.

D. STAKEHOLDER ROUNDTABLE MEETINGS

PMC worked with Kern COG staff to host three roundtable meetings with the Kern COG Regional Planning Advisory Committee (RPAC) and three stakeholder roundtable meetings during Cycle 1 outreach. The purpose of the RPAC was to review and make recommendations on key activities associated with regional transportation and other planning issues, including SB 375 implementation. The purpose of the stakeholder meetings was to gain valuable insight regarding issues, challenges, and opportunities related to energy efficiency, energy use reduction, and implementation plans.

Key Findings

The following strategies were supported by the majority of business and industry stakeholders:

- **Think global, act local:** Promote economic activities that drive the region's global competitiveness to help sustain equitable services.
- **Business-friendly:** Encourage existing and new business expansion to diversify the local economy.
- **Public infrastructure:** Revitalize existing neighborhoods and business districts that are becoming run down.
- **Fix the roads:** Maintain local streets and roads.

The following strategies were supported by the majority of social services and environmental justice advocacy stakeholders:

Executive Summary

- **Education, training:** Link education/training/youth mentorships with economic development initiatives to ensure that current and future industries have a strong base of local workers.
- **Community services:** Maintain and develop comprehensive community services for health, education, safety, and recreation.
- **Improve transit:** Expand local transit services and intercity transit services and improve system efficiency.
- **Adequate water:** Preserve and improve water supply/quality.

E. CYCLE 1 COMMUNITY WORKSHOPS

The program's Cycle 1 community workshops provided an opportunity for community members to review the Blueprint Principles for Growth and understand the community's priorities for the future. Kern COG hosted 16 community workshops between April and June 2012 throughout the Kern region.

PMC worked with Kern COG staff and local jurisdictions to conduct these community meetings. Workshops took place on weekday evenings from 6:00 to 8:30 p.m., and translation services were available for Spanish-speaking participants.

During the meeting, participants learned about the Directions to 2050 project, prioritized the Blueprint Principles for Growth, participated in small group discussions, and prioritized strategies for implementing the principles in their community.

The number of community participants for all of the workshops totaled 247. A total of 156 community participants filled out workbooks in English, while 58 community participants filled out workbooks in Spanish.

Prioritization Results of Blueprint Principles for Growth

At the beginning of each meeting, workshop participants prioritized Blueprint Principles for Growth for the Kern region. The top three priorities for each city are shown in the table below.



Community Workshop	Top 3 Blueprint Principle for Growth Priorities		
Desert Subregion			
California City	Enhance economic vitality.	Increase civic and public engagement.	Use compact efficient development and/or mixed land uses where appropriate.
Ridgecrest	Enhance economic vitality.	Conserve energy and natural resources, and develop alternatives.	Provide adequate and equitable services.
Rosamond	Enhance economic vitality.	Provide adequate and equitable services.	Use and improve existing community assets and infrastructure.
Mountain Subregion			
Frazier Park	Increase civic and public engagement.	Use and improve existing community assets and infrastructure.	Conserve undeveloped land and spaces.
Lake Isabella	Conserve undeveloped land and spaces.	Enhance economic vitality.	Provide adequate and equitable services.
Tehachapi	Conserve energy and natural resources, and develop alternatives.	Conserve undeveloped land and spaces.	Enhance economic vitality.
Valley Subregion			
Arvin	Provide adequate and equitable services.	Conserve energy and natural resources, and develop alternatives.	Provide a variety of transportation choices.
Delano	Use compact efficient development and/or mixed land uses where appropriate.	Provide adequate and equitable services.	Conserve energy and natural resources, and develop alternatives.
Greenfield	Conserve energy and natural resources, and develop alternatives.	Provide adequate and equitable services.	Enhance economic vitality.
Lamont	Provide a variety of transportation choices.	Increase civic and public engagement.	Provide a variety of housing choices.
Metro Bakersfield #1	Provide a variety of transportation choices.	Conserve energy and natural resources, and develop alternatives.	Use compact efficient development and/or mixed land uses where appropriate.

Executive Summary

Community Workshop	Top 3 Blueprint Principle for Growth Priorities		
Metro Bakersfield #2	Conserve energy and natural resources, and develop alternatives.	Use and improve existing community assets and infrastructure.	Provide a variety of transportation choices.
McFarland	N/A*	N/A*	N/A*
Shafter	Use and improve existing community assets and infrastructure.	Provide a variety of transportation options.	Enhance economic vitality.
Taft	Provide adequate and equitable services.	Use and improve existing community assets and infrastructure.	Enhance economic vitality.
Wasco	Provide adequate and equitable services.	Use and improve existing community assets and infrastructure.	Enhance economic vitality.

* McFarland workshop participants did not identify their top three Blueprint Principle for Growth priorities due to time constraints.

Strategies Prioritization Exercise Results

Participants discussed their priorities for the future of their community related to economic vitality and equitable services, community assets and infrastructure, transportation choices, natural resources and undeveloped land, housing choices and appropriate compact development, and energy.

Workshop participants identified strategies as high priorities; these are presented by subregion in the table below.



Executive Summary

	Desert Subregion <i>California City, Ridgecrest, Rosamond</i>	Mountain Subregion <i>Frazier Park, Lake Isabella, Tehachapi</i>	Valley Subregion <i>Arvin, Delano, Greenfield, Lamont, Metro Bakersfield #1 & #2, McFarland, Shafter, Taft, Wasco</i>
Economic Vitality and Equitable Resources	Education, training (2) Business-friendly (2)	Education, training (2) Business-friendly (2)	Education, training (7) Business-friendly (3) Core emergency services (3)
Community Assets and Infrastructure	Community services (3) Public infrastructure (3)	Community services (2) Public infrastructure (2)	Community services (6)
Transportation Choices	Fix the roads (3) Improve biking and walking (2)	Improve biking and walking (3) Fix the roads (2) Safer roads (2)	Fix the roads (7) Safer roads (7) Improve biking and walking (4) Improve transit (3)
Natural Resources and Undeveloped Land	Economic resource areas (3) Community parks and recreation (2) Adequate water (2)	Community parks and recreation (2) The great outdoors (2)	Clean air (8) Adequate water (8)
Housing Choices and Appropriate Compact Development	Sustainable cost of living (3) Housing choices (3) Home improvement (3)	Home improvement (2)	Sustainable cost of living (6) Home improvement (5) Housing choices (4)
Energy	Share the knowledge (3) Expand Kern's energy leadership (2)	Coordinated plan of attack (3) Efficient city facilities (3) Efficient new developments (2)	Expand Kern's energy leadership (5) Coordinated plan of attack (4) Efficient city facilities (3) Share the knowledge (3)

Note: The number of communities in each sub-region that identified a strategy as a high priority are indicated in parentheses.

III. CYCLE 2 OUTREACH

The community outreach events and meetings of Cycle 2 were varied in their location, attendance, and activity. Directions to 2050's Cycle 2 community outreach events and meetings provided an opportunity for community members to identify transportation project priorities for the future and to better understand the RTP/SCS project.

F. FESTIVALS AND EVENTS

Kern COG hosted booths at three summer festivals (Tehachapi Mountain Festival, Kern County Fair, and Ridgecrest Desert Empire Fair). At each of the festivals, Kern COG staffed an interactive and engaging booth that included a transportation spending priorities bucket game and a trivia spin wheel (primarily for children).

Key Findings: Overall

In total, 4,363 people participated in the festival booth activities and gave feedback about their transportation spending priorities. The overall voting results are as follows:

In total, 4,363 people
participated in the festival
booth activities

Desert Residents

- Maintain local streets and roads (50%)
- Increase bicycle lanes, paths, and sidewalks (19%)
- Easy access to transit from housing and jobs (14%)
- Encourage carpools and bus trips (9%)
- Add highway and freight-only lanes (8%)

Mountain Residents

- Maintain local streets and roads (30%)
- Increase bicycle lanes, paths, and sidewalks (22%)
- Add highway and freight-only lanes (21%)
- Easy access to transit from housing and jobs (14%)
- Encourage carpools and bus trips (12%)

Valley Residents

- Maintain local streets and roads (31%)
- Increase bicycle lanes, paths, and sidewalks (20%)
- Easy access to transit from housing and jobs (17%)
- Add highway and freight-only lanes (16%)
- Encourage carpools and bus trips (15%)

There is a clear preference for maintaining local streets and roads, followed by increasing the number of bicycle lanes, paths, and sidewalks.

Key Findings: By Event

Tehachapi Mountain Festival

At the festival, 233 people participated in the activity. Results are as follows:

- Maintain local streets and roads (31%)
- Increase bicycle lanes, paths, and sidewalks (20%)
- Easy access to transit from housing and jobs (17%)
- Add highway and freight-only lanes (16%)
- Encourage carpools and bus trips (15%)

Kern County Fair 2012

Participants in the activity at the county fair numbered 3,628 people. Results are as follows:

- Maintain local streets and roads (29%)
- Increase bicycle lanes, paths, and sidewalks (24%)
- Add highway and freight-only lanes (20%)
- Easy access to transit from housing and jobs (14%)
- Encourage carpools and bus trips (13%)

Executive Summary

Ridgecrest Desert Empire Fair

A total of 502 people participated in the activity at the fair. Results are as follows:

- Maintain local streets and roads (51%)
- Increase bicycle lanes, paths, and sidewalks (18%)
- Easy access to transit from housing and jobs (14%)
- Encourage carpools and bus trips (9%)
- Add highway and freight-only lanes (8%)

G. CYCLE 2 STAKEHOLDER ROUNDTABLE MEETINGS

Kern COG hosted Cycle 2 stakeholder roundtable meetings on October 16 and 17, 2012, and March 1, 2013, in the Kern COG Board Room. The purpose of the Cycle 2 stakeholder roundtable meetings was to discuss the project and process, to provide an overview of recent studies, and to engage participants in a transportation budgeting activity. For the environmental and social equity stakeholder group, two additional goals were included: discuss the final RTP/SCS environmental justice methodology, and discuss RTP/SCS performance measures and modeling methodology. Four people attended meeting #1, 11 people attended meeting #2, and 30 people attended meeting #3.

Key Findings: Stakeholder Priorities

The following section outlines priorities for each stakeholder group that surfaced during three large group discussions.

Stakeholder Roundtable Meeting #1 – Business and Industry

An understanding that highway projects require significantly more dollars than other improvements

A request for attention to fair housing allocation

Prioritization of spending on buses, bike lanes, carpooling, and jobs close to transit

Attention to the micro-local when it comes to logistics and transportation decisions – even within Kern County, priorities vary by community

Stakeholder Roundtable Meeting #2 – Environmental and Social Equity

Support for taking trucks off highways and better freight management

An understanding that personal behavior is a major component of any greater change

A desire to stay within budget

Stakeholder Roundtable Meeting #3 – Environmental and Social Equity

Provide transportation options for all community members

Continue to revise the environmental justice methodology to ensure all Kern County residents enjoy the same degree of protection from environmental and health hazards

Ensure the types of housing meet the market demands

Key Findings: Transportation Prioritization Activity

Fifteen people participated in the poker chip prioritization activity during the stakeholder roundtable meetings. Results are as follows:

- Increase bicycle lanes, paths, and sidewalks (14 votes)
- Easy access to transit from housing and jobs (11 votes)
- Encourage carpools and bus trips (8 votes)
- Maintain local streets and roads (8 votes)
- Add highway and freight-only lanes (4 votes)

H. WORKSHOPS AND COMMUNITY MEETINGS

Kern COG presented and solicited input at stakeholder and community organization meetings in several Kern County cities between August 2012 and March 2013. During the community group meetings, participants learned about the Directions to 2050 project and its relationship to the Blueprint Principles for Growth. They also learned about recent studies conducted by Kern COG to prepare for the development of the RTP/SCS, watched a demonstration of the online game (“How would you improve your community?”), and then played the game in small groups.

Executive Summary

Key Findings: Overall

The following results reflect input from 145 individuals across 14 communities that participated in Cycle 2 outreach.

Ranking of community priorities:

- Enhanced economic vitality (14.6%)
- Adequate water (14.1%)
- Increased public safety (11.3%) and reduced household expenses (11.3%)
- Access to community services (11.1%)
- Healthy lifestyles (10.9%)
- Energy independence (9.7%)
- Improved air quality (8.8%)
- Reduced government regulation (7.8%)

Ranking of transportation priorities:

- Maintain local streets and roads (38%)
- Increase number of bicycle lanes, paths, and sidewalks (21.4%)
- Transit close to housing and jobs (18.5%)
- Add highway capacity, primarily for trucks (13.1%)
- Encourage carpools and bus trips (8.7%)

Key Findings: By Community

Arvin

Access to community services, adequate water, improved air quality, and enhanced economic vitality were selected as the top priorities. Participants also supported increasing the number of bicycle lanes, paths, and sidewalks and adding highway capacity, primarily for trucks.

Bakersfield/Frontier High School

Kern COG presented the RTP/SCS to a group of students at Frontier High School. The students appreciated that outreach had been extended to them and that local government wanted to hear their

thoughts. Many students wanted to focus their attention on carpooling and transit close to jobs and homes. Students were encouraged to play the game at home with their families. Students enjoyed how the priority icons filled up depending on where they placed their money.

California City

Increased public safety, enhanced economic vitality, reduced household expenses, and energy independence were the top priorities. Participants also strongly supported maintaining local streets and roads. There was some support for adding highway capacity, primarily for trucks, and transit close to housing and jobs.

Delano

Increased public safety, improved air quality, and healthy lifestyles were chosen as the top priorities. Participants also supported increasing the number of bicycle lanes, paths, and sidewalks.

Frazier Park

Healthy lifestyles, adequate water, and improved air quality were the top priorities. Participants also supported increasing the number of bicycle lanes, paths, and sidewalks and maintaining local streets and roads.

Greenfield

Access to community services, adequate water, improved air quality, enhanced economic vitality, and increased public safety were selected as the top priorities. Participants also supported maintaining local streets and roads, increasing the number of bicycle lanes, paths, and sidewalks, and transit close to housing and jobs.

Lake Isabella

Adequate water, enhanced economic vitality, and reduced household expenses were chosen as the top priorities. Participants also supported increasing the number of bicycle lanes, paths, and sidewalks and maintaining local streets and roads.

Executive Summary

McFarland

Energy independence, enhanced economic vitality, reduced government regulation, and adequate water were the top priorities. Participants also supported maintaining local streets and roads.

Ridgecrest

Adequate water, energy independence, and enhanced economic vitality were the top priorities. The majority of participants supported maintaining local streets and roads, and many supported increasing the number of bicycle lanes, paths, and sidewalks.

Rosamond

Reducing household expenses and reducing government regulation were chosen as the top priorities. Participants also supported maintaining local streets and roads and adding highway capacity, primarily for trucks.

Shafter

Enhanced economic vitality, increased public safety, and reduced household expenses were the top priorities. Participants also supported maintaining local streets and roads, transit close to housing and jobs, and adding highway capacity, primarily for trucks.

Taft

Reduced household expenses, improved air quality, and enhanced economic vitality were selected as the top priorities. Participants also supported maintaining local streets and roads and transit close to housing and jobs.

Tehachapi

Adequate water, healthy lifestyles, and access to community services were the top priorities.

Wasco

Participants supported maintaining local streets and roads.

I. CITY COUNCIL, COUNTY REPRESENTATIVE, AND OTHER PRESENTATIONS

Kern COG presented at 21 different City Council, County representative, and other meetings between May and October 2013. City Council and County representatives had the opportunity to learn about the 2014 RTP, community input received to date in their respective communities, preliminary growth scenarios for the region, and the project schedule and process. Elected representatives were invited to ask questions and to provide feedback to Kern COG staff. Additional presentations were given to a number of organizations including: indigenous tribes, the Golden Empire Transit District Board, Kern County Home Builders Association, The Nature Conservancy, and the Kern Realtors Association, among others.

Kern COG presented at 21 different City Council and County representative meetings between May and October 2013.

IV. DIRECTIONS TO 2050 WEBSITE

An interactive project website served as a communication and education tool for the Directions to 2050 project. The website (www.directionsto2050.com) included the following content and features: home page, resources page, contact page, media page, interactive online activity, and survey.

J. CYCLE 1 ONLINE ACTIVITY

A total of 144 Kern residents participated in the Directions to 2050 online activity. The activity provided an opportunity for participants to prioritize draft strategies for each of the Blueprint Principles for Growth and mirrored the community workshop small group strategies prioritization exercise.

K. CYCLE 1 ONLINE SURVEY

Kern region residents were invited to participate in a brief online survey, which provided an opportunity to give feedback on quality of life and share hopes for the future of the Kern region. The survey also asked a few demographic questions to help Kern COG understand the survey results. The online survey questions reflected the statistically valid phone survey (community survey) conducted by Godbe Research in 2012. Twenty-nine Kern community members completed the online survey.

L. CYCLE 2 ONLINE ACTIVITY

A second online game ("How would you improve your community?") was developed for Cycle 2 so that community members could contribute feedback from home. The online game provided an

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opportunity for participants to understand how different transportation spending scenarios impact the regional transportation budget and their priorities for the future. Over 200 people from the Kern region participated in the Cycle 2 online activity.

V. OTHER OUTREACH ACTIVITIES

M. COMMUNITY SURVEY

Godbe Research conducted a statistically valid phone survey of Kern County residents at the beginning of 2012 and during May 2013. The housing option preference results from the phone survey reflect the online survey results outlined previously. The data shows an increased preference overall for a single-family home with a small yard, a townhouse/condominium, and a building with offices on the first floor and condominiums on the second floor.

N. METRO BAKERSFIELD WORKSHOPS

Directions to 2050's two Metro Bakersfield community workshops provided an opportunity for participants to learn about four preliminary transportation investment scenarios Kern COG developed for use in the Metro Bakersfield workshops. Forty-four people attended Session 1 only, 33 people attended Session 2 only, and 9 people attended both sessions.

Key Findings

The following statements summarize key findings from the participant input at both workshops:

- The majority of Session 2 participants prefer to live in single-family homes, but would like the Kern region to prioritize a mix of all types of housing.
- The majority of Session 2 participants drive personal vehicles; however, increased transit options and additional bike lanes, sidewalks, and paths would encourage them to utilize alternative forms of transportation.
- Communities like Delano, Shafter, and Greenfield would like to better understand how the updated RTP/SCS will affect them, in addition to what will happen in Metro Bakersfield.

- The majority of all participants think Scenario 4 best serves the needs of the Kern region and Scenario 1 least serves the needs of the Kern region.
- There were only three potential policies where a significant number of participants showed a lack of support:
 - Bicycle racks and lockers at Kern County multimodal stations
 - Shower facilities to encourage walking or cycling to work
 - An “emergency ride home” program
- Across polling periods at each workshop, scenario preferences did not change significantly.

O. KERN COUNTY FAIR 2013

Kern COG staff returned to the Kern County Fair in 2013 to solicit input from community members on the progress of transportation spending. Transportation spending category phrasing was slightly reworked following the Cycle 2 event activity to better communicate the policies included in each category.

Key Findings

Over the course of the 12-day Kern County Fair in 2013, 3,609 attendees participated in the Directions to 2050 booth. Overall, participants prioritized the following strategies for transportation spending:

- Maintain local streets and roads (99%)
- Increase bicycle lanes, paths, and sidewalks (19%)
- Add highway lanes (26%)
- Invest in public infrastructure (15%)
- Develop housing close to public transit, job centers (11%)

P. ENERGY ACTION SUMMIT

Kern COG hosted a Regional Energy Action Plan Summit on Wednesday, October 30, 2013, at Hodel’s Country Dining in Bakersfield. Approximately 58 people from across the state participated in the day-long summit. The purpose of the summit was to share information, best practices, and lessons learned for developing Energy Action Plans between cities, utilities and policymakers. The summit’s program included panel discussions with utility representatives and city staff, presentations on successful, local,

Kern COG undertook a comprehensive outreach effort to promote the Directions to 2050 community engagement process.

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energy-efficient projects, and updates from industry leaders on current issues in energy efficiency in California.

VI. PROMOTIONS

In compliance with the Public Information Policies and Procedures document, Kern COG undertook a comprehensive outreach effort to promote the Directions to 2050 community engagement process. Kern COG staff personally contacted stakeholders, such as city staff, agencies, health organizations, environmental groups, and community groups, and distributed fliers advertising community workshops.



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Appendix D

Integrated Performance Measures
Smart Mobility Framework Measures
Environmental Justice Measures
Analysis

June 19, 2014



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INTEGRATED PERFORMANCE MEASURES, SMART MOBILITY FRAMEWORK MEASURES, AND ENVIRONMENTAL JUSTICE MEASURES ANALYSIS

Planning Approach

The goal of Kern COG's Environmental Justice (EJ) process is to ensure that all people, regardless of race, color, national origin or income, are protected from disproportionate negative or adverse impacts caused by the 2014 Regional Transportation Plan (RTP) Program of Projects.

The EJ analysis has been prepared consistent with Federal Title VI of the 1964 Civil Rights Act and Executive Order 12898 requiring metropolitan planning organizations to consider EJ concerns in their planning processes. The analysis is part of a larger, proactive planning effort to provide outreach to EJ communities. Garnering public input in the early planning stages from all communities can help successfully deliver regionally significant projects, and minimize the potential for costly challenges late in the process. Appendix C summarizes the RTP outreach effort. The EJ analysis provides important feedback to policy makers on how well the RTP performs in areas that relate to the goals of the plan. The results of the analysis indicate that with an implemented plan, EJ communities show better performance measures than the region as a whole.

This Appendix implements and incorporates by reference the methodology to define EJ areas developed by UC Davis in November 2011, titled *The Cumulative Environmental Vulnerability Assessment (CEVA)* and adopted by the Kern COG Board in October 2013. Prior to adoption of the UC Davis methodology, Kern COG developed and adopted EJ policies in November 2003. The UC Davis methodology is consistent with the methodology developed in 2003. Kern COG was recognized in the 2010 RTP Guidelines for its EJ methodology. The Guidelines state: "Kern Council of Government's 2007 RTP provides a good example of an Environmental Justice analysis within an RTP".

Background

The legal basis for environmental justice (EJ) is rooted in the United States Constitution of the United States and civil rights laws. Title VI of the Civil Rights Act of 1964 provides protection from discriminatory actions or results from programs or activities receiving federal financial assistance. Title VI not only bars intentional discrimination, but it also prohibits unjustified and disparate impact discrimination, i.e., a neutral policy or practice that has a disparate impact on protected groups. The understanding of civil rights has expanded to include low-income communities, as discussed in more detail below. As a governmental agency receiving federal funding, Kern Council of Governments is responsible for implementing Title VI and conforming to federal environmental justice principles.

President Clinton signed Executive Order 12898 in February 1994 that considered *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Population*. Executive Order 12898 requires that federal agencies shall, to the greatest extent allowed by law, administer and implement their programs, policies, and activities that affect human health or the environment so as to identify and avoid disproportionately high and adverse effects on minority and low income populations. Consequently, the U.S. Department of Transportation (DOT) and Federal Highway Administration (FHWA) issued orders (in 1997 and 1998, respectively), along with a 1999 DOT guidance memorandum which ordered every federal agency to make Environmental Justice part of its mission by identifying and addressing the effects of all programs, policies and activities on underrepresented groups and low-income populations. Consistent with Title VI, these measures ensure that every federally funded project nationwide consider the human environment when undertaking the planning and decision-making process.

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On August 4, 2011, seventeen federal agencies signed the "Memorandum of Understanding on Environmental Justice and Executive Order 12898." The signatories, including the U.S. Department of Transportation (DOT), agreed to develop Environmental Justice strategies to protect the health of people living in communities overburdened by pollution and to provide the public with annual progress reports on their efforts. The MOU advances agency responsibilities outlined in the 1994 Executive Order 12898 and directs each of the Federal agencies to make Environmental Justice part of its mission and to work with other agencies on Environmental Justice issues as members of the Interagency Working Group on Environmental Justice.

In response to this MOU, DOT revised its Environmental Justice Strategy. The revisions reinforce the DOT's programs and policies related to Environmental Justice and strengthen its efforts to outreach to minority and low-income populations. In addition, on August 15, 2012, the Federal Transit Authority (FTA) issued Circular 4703.1, Environmental Justice Policy Guidance for Federal Transit Administration Recipients, and on October 1, 2012, FTA issued Circular 4702.1B, Title VI Requirements and Guidelines for Federal Transit Administration Recipients. Neither of these circulars contains any new requirements, policies or directives. Nevertheless, Kern COG complies with the framework provided to integrate the principles of Environmental Justice into its decision-making processes.

In addition to Federal requirements, California Government Code Section 11135 also provides protection from discriminatory actions or results from programs or activities receiving state financial assistance. The State of California also provides guidance for those involved in transportation decision-making to address Environmental Justice. In 2003, the California Department of Transportation (Caltrans) published the Desk Guide on Environmental Justice in Transportation Planning and Investments to provide information and examples of ways to promote Environmental Justice. The Desk Guide identified requirements for public agencies, guidance on impact analyses, recommendations for public involvement, and mitigation.

Finally, under Senate Bill 375 (SB 375), Kern COG is required to include a Sustainable Communities Strategy within the RTP/SCS. The RTP/SCS represents the collective vision of Kern County and the eleven cities in the Kern COG region and provides a framework for the future development of its regional transportation system. Through SB 375, the California Air Resources Board (ARB) established per capita targets for GHG reduction for cars and light trucks for the SCS. The targets for the Kern COG region are 5 percent in 2020 and 10 percent in 2035, from 2005 levels. As part of the early target setting process, the ARB appointed a Regional Target Advisory Committee (RTAC) to recommend factors to be considered and methodologies to be used for setting the targets. The RTAC report was finalized in September 2009 and included a recommendation on Housing and Social Equity. The report recognized the impact policies to reduce Vehicle Miles Traveled (VMT) could have on social equity, specifically calling for appropriately located affordable housing that match local wage levels. The RTAC further recommended that displacement and gentrification, as a result of changing land uses and increased housing costs, should be addressed and specifically avoided to the extent possible in the SCS. As a result of this recommendation and input from its Environmental Justice stakeholders, Kern COG has updated its methodology to include new areas of analysis, including gentrification and displacement as developed by CEVA.

Kern COG's environmental justice principles are:

1. To avoid, minimize or mitigate disproportionately high and adverse human health or environmental effects, including social and economic impacts, on traditionally disadvantaged communities, especially racial minority and low-income communities;
2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process;
3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.

Demographics

Kern County is California's third largest county, encompassing approximately 8,200 square miles. Kern County comprises 11 incorporated cities and a federally recognized urban area, Metropolitan Bakersfield, with a population of just over 530,000 (2010 Census), as well as 42 Census-recognized unincorporated communities. Federal environmental justice guidelines call for identification of traditionally under-represented populations, including classified minorities such as those of Hispanic/Latino descent, African-Americans, Asian-Americans, Native Americans and others, as well as low-income populations. To these groups, Kern COG added seniors of 65 and older, and the disabled.

Table D-1 Demographic Profile: Kern County Population: 856,158	Percentage of Total Population
White, Non-Hispanic	37.4
Hispanic/Latino	50.3
African American, Non-Hispanic	5.1
Native American, Non-Hispanic	0.7
Asian, Hawaiian, Pacific Islander, Non-Hispanic	4.7
Other	1.8

Source: U.S. Census Bureau, 2012 American Community Survey

The Kern region has a slight ethnic majority with Hispanics/Latinos making up 50.3% of the total population. Non-Hispanic Whites account for 37.4% of the population, down from 50% in 2000. The rise and shift in population makeup in the Kern region is primarily because of births along with an influx of new immigrants. The African American, Asian, and American Indian populations make up 5.1%, 4.7% and .7% of the population respectively. Population growth in Kern mirrors the rest of the state, which is one of the most diverse in the nation. Population growth results from large net increases in three population groups: aging baby boomers, their young children - the echo-boomers - and immigrants, mostly from Mexico and Central America. Net migration (people moving to the county minus those moving away) accounted for most of the population gain between 2000 and 2010, i.e. 54%. Nearly 30% of the net migration was the result of immigration from outside the United States. Natural increase (births minus deaths) accounted for 45% of the population gain.

Approximately 18% of households and 22% of individuals live below the federal poverty line, generally defined as \$19,530 for households (of three members) and \$11,490 for individuals. In addition, of those living below the federal poverty line who are 25 years and over, 30.5% have not graduated high school. In Kern County, the percentage of the population that identify themselves as seniors 65 and over is 9.1%.

Kern County experienced population growth in the past decade. Census data indicates the county gained more than 178,000 persons from 2000 to 2010, which translates to a 27% increase. However, this population growth is not equally distributed among racial groups. For example, the Hispanic/Latino population grew from 38% in 2000 to 50% in 2013, while the proportion of White, Non-Hispanics declined from 50% to 37% in the same time period. It is likely the racial composition of the population growth will follow this pattern in the future, basically mirroring the general population growth pattern for the State. Addressing the transportation needs of a racially diverse population becomes more important and significant in Kern COG's transportation planning efforts.

Net migration (people moving to the county minus those moving away) accounted for most of the population gain between 2000 and 2010, i.e., 54%. Nearly 30% of the net migration was the result of

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immigration from outside the United States. Natural increase (births minus deaths) accounted for 45% of the population gain. Kern County's changing demographics necessitate a shift in the manner environmental justice concerns are received and addressed.

Environmental Justice Process

In January 2002, Kern COG appointed representatives from 22 government and community-based agencies to serve on an environmental justice task force (Task Force) to focus on EJ concerns. In addition to the environmental justice populations identified by FHWA and FTA – non-white and low-income groups – Kern COG added senior citizens and transportation-disabled individuals to its list of “targeted” groups. The agencies were chosen based on the services they provided to environmental justice populations.

Participating agencies included:

- Native American Heritage Council
- Kern County Economic Opportunity Corporation
- Kern Senior Collaborative/Center for Living and Learning
- Independent Living Center
- City of Shafter
- Kern Council Housing Authority
- Kern County Office on Aging and Adult Services
- Consolidated Transportation Services Agency
- Hispanic Chamber of Commerce
- California Highway Patrol
- Hispanic Chamber Foundation
- NOR Recreation and Parks District
- American Indian Health Project.

The Task Force was provided an overview of requirements that government agencies such as Kern COG must meet to conform to federal mandates as well as graphic representations of the EJ populations using 2000 Census data for the county as a whole and Metropolitan Bakersfield in particular. Distributions included:

- Non-white people
- People age 65 and older
- Transit-disabled people (defined as those who declared themselves unable to go outside the home alone to shop or attend appointments because of a disability)
- Hispanics/Latinos
- Low-income households (defined as households at or below the federal poverty level)
- Zero car households.

The Task Force initially developed the methodology to define EJ areas based on income, age, and minority status using federal census data. After the 2010 Census data was made available, the task force was reformed as the Environment and Social Equity Roundtable (Rountable) as part of the Directions of 2050 RTP outreach process, to determine if the methodology defining EJ areas should be revised.

Three Roundtable meetings were held from July 2012 to March 2013. Participants included: Community Action Partnership of Kern, Bike Bakersfield, California Rural Legal Assistance, Greenfield Walking Group, Kern County Department of Public Health, California Walks, Independent Living Center for Kern, Center for Race Poverty and the Environment, Sequoia Riverlands Trust, Sierra Club, City of Shafter, and the Kern County Housing Authority.

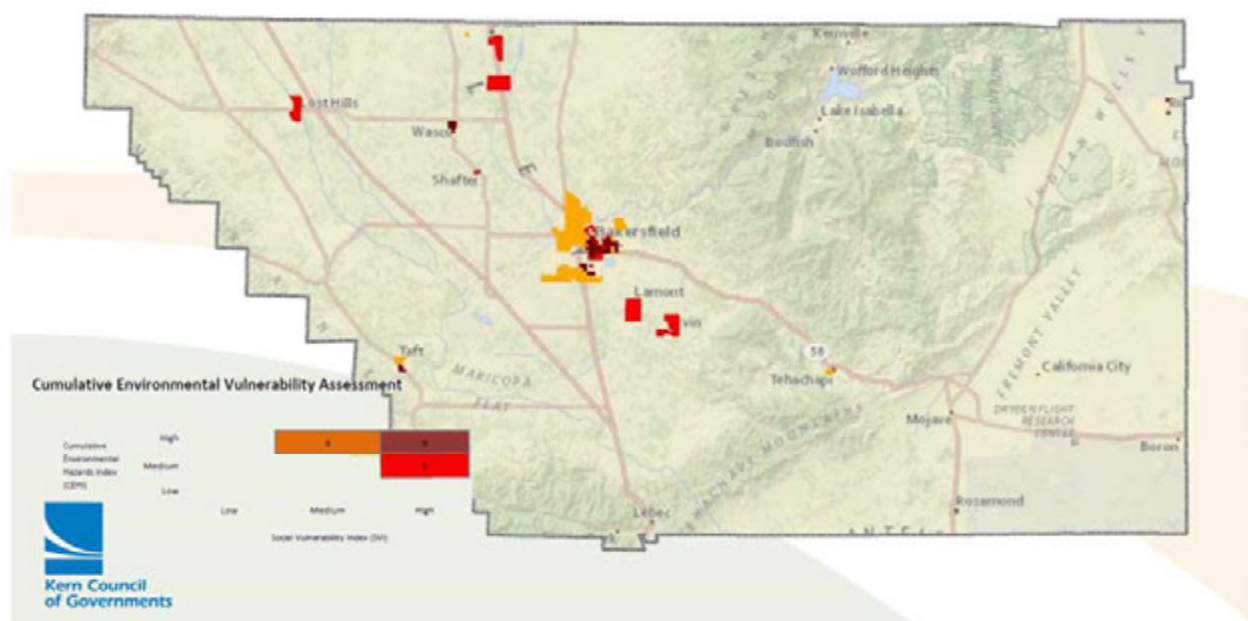
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The Roundtable made a recommendation to the Regional Planning Advisory Committee (RPAC) that was ultimately approved by the Transportation Planning Policy Committee and the Kern COG Board at their October 2013 meeting. The recommendation was to revise the methodology for identifying EJ communities. Previously the EJ communities were defined as areas having a higher than average occurrence of low income, minority, elderly, and/or transportation disability. The Roundtable recommended a more sophisticated methodology developed by UC Davis titled the Cumulative Environmental Vulnerability Assessment (CEVA) as detailed in the “Land of Risk/ Land of Opportunity” Report (November 2011) by Jonathan London Ph.D., Ganlin Huang Ph.D., and Tara Zagofsky M.S. from the Center for Regional Change at UC Davis that resulted in a more concise and refined EJ communities compared to the old method.

Although not without limitations, CEVA offers clear advantages by analyzing multiple factors involved in environment hazards and social vulnerability. Besides national air toxic assessment, CEVA includes other indicators of localized environmental hazards such as pesticide applications and point source pollutions sites. It goes beyond income and race when considering the social vulnerability of the residents by incorporating formal education, English language fluency, age, and in-patient residence into the model. It also brings in health status as a reference to illustrate how the existing health problems may exacerbate the vulnerability to environmental hazards. CEVA gives special consideration in permitting, monitoring, and enforcement actions, as well as investments in public participation, capacity building, and community economic development.

The CEVA methodology report for the San Joaquin Valley is available online at <http://www.kerncog.org/public-information/environmental-justice>. The following map illustrates the Environmental Justice Communities Transportation Analysis Zones (TAZs) in Kern identified using the CEVA methodology:

FIGURE D-1: CEVA ANALYSIS AREAS



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Population Concentrations

The challenge was to identify all populations within the Kern region that qualify as “traditionally disadvantaged” without counting the same people more than once. In addition, because of Kern County’s farm- and oil-based economies, significant portions of both its rural and urban regions would qualify under one or more of the criteria if population “floors” were not established to represent minimum concentrations.

To account for these issues, Kern COG limited its inquiry to four populations: low-income, nonwhite, seniors and transit-disabled. Specific demographic groups, such as the homeless or migrant farm workers, were discussed as particularly identifiable. Because these groups often share characteristics with other groups already identified as traditionally disadvantaged, Kern COG determined that they were already being considered in the process. Population concentrations of traditionally disadvantaged groups were established to better focus the examination onto particular neighborhoods rather than attempting to look at the entire county en masse. The maps showed significant concentrations of environmental justice populations outside more densely populated areas, but near major transportation facilities, such as Routes 46 (Wasco) and 178 (Lake Isabella).

RTP Development

Pursuant to Government Code Section 14522, the California Transportation Commission (CTC) is authorized to prepare guidelines to assist in the preparation of RTPs. The CTC’s RTP guidelines suggest that projections used in the development of an RTP should be based upon available data (such as from the Bureau of the Census), use acceptable forecasting methodologies, and be consistent with the Department of Finance baseline projections for the region. The most recent update to the RTP guidelines was published in 2010, and includes new provisions for complying with SB 375, as well as new guidelines for regional travel demand.

SB 375 requires MPOs to prepare a Sustainable Communities Strategy (SCS) that demonstrates how the region will meet its greenhouse gas (GHG) reduction targets through integrated land use, housing and transportation planning. Specifically, the SCS must identify a transportation network that is integrated with the forecasted development pattern for the plan area and will reduce GHG emissions from automobiles and light trucks in accordance with targets set by the California Air Resources Board.

In compliance with SB 375 and the CTC guidelines, the eight San Joaquin Valley Metropolitan Planning Organizations (SJV MPOs) have collaborated and developed the San Joaquin Valley Model Improvement Plan (SJV MIP). The new MIP includes a number of model upgrades that respond directly to the requirements of the CTC guidelines and allow for measurable outputs that help ensure transportation system investments benefit all populations, without consistently burdening any single one. The upgrades include:

- Land Use – demographic characteristics that influence travel behavior
- Geographic scale – land use and transportation system refinements in transit oriented developments, central business districts, and mixed-use development
- Sensitivity to mode – person trips, auto availability, mode choice/split, transit assignment
- Pricing – auto operations (fuel, maintenance, etc.), parking, toll, transit fare
- Sensitivity to congestion – time of day refinements, influence on auto availability and distribution
- Air Quality/Greenhouse Gas – speed, trucks, interregional travel

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- Best Management Practices – sensitivity to smart growth, demand and/or system management within model or as quick-response tools
- Validation – formal static and dynamic tests
- Documentation – Clear and fully documented executive/public and technical staff including limitations and potential ways to overcome limitations.

Complete documentation on the SJV MIP can be found at <http://www.kerncog.org/transportation-modeling>.

Measuring Performance

Performance measures: (1) provide information on how well the transportation system is performing compared to the base year and/or future no-build scenario; (2) identify opportunities for system improvements to meet the plan's goals; and (3) assess the system-wide impacts of future improvements.

System-wide performance measures should not be applied unilaterally, but should only be used as an indicator that the plan's policies and actions are headed in the same direction as the goals. Often progress shown in one performance measure can show a negative effect in another area.

Demonstrating improvements in all performance measures may be nearly impossible to achieve. For example, improvements in congestion may increase travel speeds and negatively affect air quality. In addition, improvements under a specific performance measure may take several planning cycles to achieve. The existing activity in the plan has a certain level of inertia created by previously adopted RTPs. Projects that have completed environmental review need to move to right-of-way acquisition and construction fairly quickly, before the environmental work is out of date and more resources are needed to update the environmental work. The performance measure process is designed to provide feedback in areas upon which the region should focus the subsequent plan update, while minimizing disruptions to the project delivery process.

The Kern Regional Transportation Model is the primary tool for measuring system-level performance of the plan. Kern COG uses an integrated one-model approach for its performance measures analysis. The model uses monitoring data and growth assumptions to compare the performance measures for the RTP and SCS. The two primary categories of performance measures used are the Smart Mobility Framework and EJ. The EJ measures have been in place since 2001 and have been adapted for use with the Smart Mobility Framework performance measure category.

The State of California prepares an annual Regional Progress Report. This RTP includes measures that are coordinated with the measures in the statewide progress report. In February 2010, the California Department of Transportation (Caltrans) released *Smart Mobility 2010: A Call to Action for the New Decade* that establishes performance measures based on place types in recognition of a "one-size does NOT fit all" philosophy. Kern County has been split into two broad place-types for the smart mobility analysis. The first is the Metropolitan Bakersfield or urban place type. The second is made up of the outlying communities or rural place type. The RTP performance measure analysis differs somewhat for these two place types. One of the performance measures for sustainability/livability uses a slightly different modeling method to analyze air quality on a per-capita basis. This measure differs from the other performance measures in that a second model, EMFAC, developed by the California Air Resources Board, uses the output vehicle travel from the Regional Transportation Model to generate nitrogen oxide (NOx) by air basin analysis areas rather than urban and rural. NOx is a precursor gas that contributes to ozone and particulate matter, Kern's two most significant air pollutants.

Tracking Progress

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Performance measures are often driven more by the tools available to measure than by the policies that need to be tracked. Performance measures can be divided into two types. The first includes future performance measures that are used in modeling to compare scenarios such as the ones in this Chapter. A second type is a monitoring indicator that measures real-world data, such as traffic counts and air quality. The following indicator variables are already tracked and provide longitudinal data to help update forecasts and track progress toward our goals:

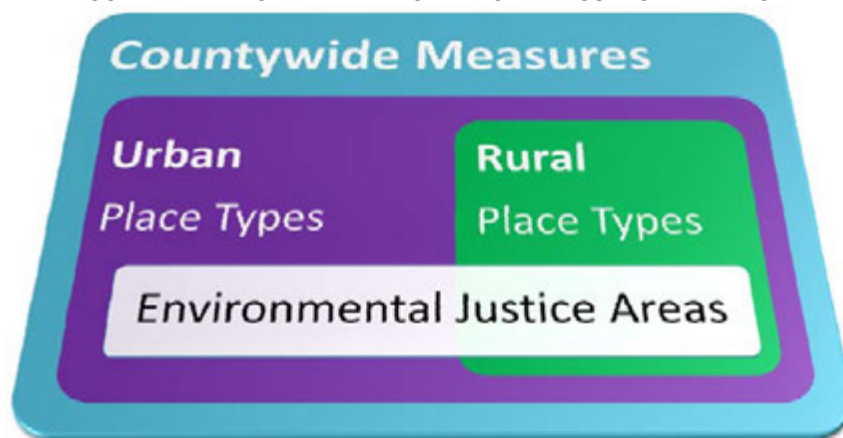
- Traffic count information
- Truck origin destination studies along key corridors
- Traffic speed survey program
- Transit ridership travel survey
- Bike rider survey
- Air Quality Monitoring System

These datasets are incorporated into the base year validation of the regional transportation model and provide the basis for forecasting future performance measures and tracking progress toward the goals.

Performance Measures Analysis Methodology

Kern COG has developed an integrated framework for eleven performance measures to demonstrate consistency of the RTP and SCS with its seven established goals. Some of the performance measures comply with as many as five goals.

FIGURE D-2 INTEGRATED PERFORMANCE MEASURES FRAMEWORK



This figure illustrates the overlap among the eleven performance measures used for countywide analysis, the two smart mobility framework place types, and environmental justice areas. For example, some measures are the same for environmental justice, urban and rural place types, and countywide, while other measures may only be used in two of the three categories. The following table contains a breakdown of which measure applies to which categories and goals.

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**Table D-3 RTP Goals, Performance Measures, and Smart Mobility Framework Place Types
Adapted for Kern County**

	RTP Goal/Measure Category	Performance Measure Description	Performance Target	Applicability by Smart Mobility Place Types/ Geographic Coverage
1	Mobility	Average Travel Time – Peak Highway Trips, Peak Transit Trips	Improvement over No Project Baseline	Urban
2	Accessibility/economic well being	Average Travel Time to Job Centers – Highway Trips, Transit Trips	Improvement over No Project Baseline	Urban
3	Reliability/congestion	Average Level of Congestion in Hours	Improvement over Base Year	Urban, Countywide
4	Reliability/safety	Annualized Accident Statistics for Annual Average Daily Traffic	Improvement over Base Year	Urban, Rural, Countywide
5	Efficiency/cost effectiveness	Average Daily Investment per Passenger Mile Traveled – Highways, Transit	Improvement over Countywide Average	Urban, Rural, Countywide
6	Livability/customer satisfaction	Average Trip Delay Time in Hours	Improvement over Base Year	Urban, Rural, Countywide
7	Environment/health	Percentage Change NOx/PM by air basin	Improvement over Base Year	Air Basins (San Joaquin Valley, Mojave Desert, Indian Wells Valley)
8	Environment/health	Percentage Change in Households within ¼ mile of Roadway Volumes Greater than 100,000	Improvement over Base Year	Urban, Rural, Countywide
9	Sustainability/preservation	Percentage Change in Maintenance Dollars Per Lane Mile	Improvement over Base Year	Countywide
10	Equity	Percentage of Expenditures versus Passenger Miles Traveled in 2035 – Highways, Transit	Improvement over Countywide Average	Urban, Rural, Countywide
11	Land Consumption	Percentage of Farmland outside City Spheres of Influence	Improvement over No Project Baseline	Countywide

**Due to the limitations of the analysis methodology, Environmental Justice areas were not able to be analyzed for Performance Measures 7, 9 and 11.*

Performance Measure Results

As discussed above, as part of the Directions to 2050 outreach process Kern COG held Environment and Social Equity Roundtable stakeholder meetings. The meetings built on the federally recognized best practices effort began by Kern COG in 2000. The Environment and Social Equity Roundtable identified low-income, minority, elderly, and disabled people as the target populations for analyzing federal Title VI EJ efforts. Areas with higher than average concentrations of the target populations were identified and mapped by census block groups. Kern COG used the transportation model output stratified by EJ areas and the urban and rural place types to determine whether the goals of the RTP were being met. Following is a more detailed description of the performance measures used to measure progress toward the RTP Goals described in Chapter 2.

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- 1) **Mobility** – Calculates average trip time by mode (auto and transit) from environmental justice Transportation Analysis Zones (TAZs) and countywide.
- 2) **Accessibility/Economic Well-Being** – Calculates average trip time by mode (auto and transit) to major job centers from a group of approximately 2,400 TAZs. Accessibility also provides an economic measure by indicating the level of congestion around major job centers that may affect freight movement.
- 3) **Reliability/Congestion** – Calculates the distance of level of service D through F links inside environmental justice TAZs and countywide.
- 4) **Reliability/Safety** – Calculates the percentage increase between property damage, injury, and fatal accident rates between base year 2008 and 2040.
- 5) **Efficiency/Cost-Effectiveness** – Calculates the planned expenditure per passenger miles traveled. Calculates passenger miles traveled by both vehicle and transit networks for current and planned transit projects (increased headway, new routes) and capacity-increasing road projects links in future years, inside EJ TAZs and countywide. These figures are divided by the total investment in these projects and used to calculate their cost-effectiveness.
- 6) **Livability/Consumer Satisfaction** – Calculates the average trip delay after feedback between constrained and unconstrained roadways on links inside EJ TAZs and countywide.¹
- 7) **Environment/Health** – Calculates vehicle emissions of NO_x per person for the valley and mountain/desert portions of Kern and PM-10 for the Indian Wells Valley. NO_x is a precursor emission for both ozone and particulate matter 2.5 which the Mojave Desert (including mountain areas) and the San Joaquin Valley portions of Kern have exceeded the federal standards. The Indian Wells Valley portion of Kern has only exceeded the PM-10 standard.
- 8) **Environment/Health** – Calculates the percentage change in households within ¼ mile of roadway volumes greater than 100,000 in urban and rural place types and in environmental justice communities.
- 9) **Sustainability/Preservation** – Provides for maintenance as the system expands.
- 10) **Equity** – Calculates the passenger miles traveled and compares to the percentage of investment in EJ areas and urban and rural place types.

The model generated several factors, including travel times, vehicle miles traveled, passenger miles traveled, transit boardings, transit trip hours, transit trip distance, and road miles of LOS C or worse for 2008 (base year), 2040 build scenario, and 2040 no-build scenario. The 2040 build scenario assumes all projects listed in Table 5-1 of the 2014 RTP will have been completed, whereas the No-Build scenario assumes 2040 traffic levels on the same network used in 2008. An additional assumption was that funding sources and technology will remain constant. The model also stratified its factors along three separate lines: all of Metropolitan Bakersfield (urban); all other areas of Kern County, including the ten other incorporated cities (rural); and countywide. Kern COG paid particular attention to the accessibility and mobility criteria because they represent overall system performance now and in the future.

¹ Delay refers to the amount of additional time a vehicle spends on the road because of congestion. Constrained and unconstrained roads refer to those streets, highways, or freeways where congestion is either typical or atypical.

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Mobility

Mobility is defined as the ability to move throughout the region and the time it takes to reach desired destinations; it is considered to be the most informative performance measure in the RTP. The criterion is measured by calculating average travel times during the base year 2008, in 2040 when all RTP projects are completed, and in a 2040 no-build scenario where none of the RTP projects are completed. The goal for mobility is to demonstrate that EJ TAZs perform better, or at least no worse, than the countywide average. Peak highway and transit trip periods (evening commute times) were used to demonstrate the worst-case scenario.

Metropolitan Bakersfield's average travel time in 2008 for all trips was 12.13 minutes, compared to a rural time of 23.94, for a countywide average of 15.85 minutes. In considering just Metro Bakersfield's EJ TAZs, the average travel time was 11.89, versus rural EJ TAZs at 18.59, for a countywide average of 13.01 minutes. During the 2008 base year, EJ TAZs throughout the county enjoyed shorter average travel times than in the county as a whole. As depicted in the table below, that trend is maintained over both the 2040 build and the 2040 no-build scenario. On the whole, people living in EJ TAZs will have shorter average travel times anywhere within the county than the county will have as a whole.

TABLE D-4 AVERAGE TRAVEL TIME – PEAK HIGHWAY TRIPS (IN MINUTES)

Place Type	2008	2040 Build	2040 No Build
Urban/Metro	12.13	11.39	20.46
Rural Areas	23.94	23.50	24.74
Countywide	15.85	16.38	23.25

TABLE D-5 EJ TAZs AVERAGE TRAVEL TIME – PEAK HIGHWAY TRIPS

Place Type	2008	2040 Build	2040 No Build
Urban/Metro	11.89	11.21	14.30
Rural Areas	18.59	17.54	18.93
Countywide	13.01	12.33	15.27

Because rural transit ridership comprises such a small percentage of trips in the model, and because no data is being forecasted by rural transit agencies regarding trip lengths and travel times, staff is unable to compare the rural transit network to the Golden Empire Transit system in Metro Bakersfield. However, in judging average travel times for transit trips between EJ TAZs in Metro and the rest of Metro as a whole, EJ TAZs also continue to fare better in this category. In 2008, the average peak hour transit trip took 32.61 minutes in Bakersfield. However, transit trips emanating from EJ TAZs were clocked at 32.33 minutes. In 2040, the model estimates the difference to decrease from 29.45 minutes in Bakersfield as a whole to 27.89 minutes in Bakersfield EJ TAZs.

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TABLE D-6 AVERAGE TRAVEL TIME – PEAK TRANSIT TRIPS²

Place Type	2008	2040	2040 No Build
Urban/Metro	32.61	29.45	34.10
Rural Areas	39.80	46.31	43.63
Countywide	33.25	31.37	35.04

** Includes portions of trips outside of Metro that drive to use metro transit*

TABLE D-7 EJ TAZs AVERAGE TRAVEL TIME – PEAK TRANSIT TRIPS

Place Type	2008	2040 Build	2040 No Build
Urban/Metro	32.33	27.89	33.27
Rural Areas	39.51	42.94	40.96
Countywide	32.79	28.99	33.99

** Includes portions of trips outside of Metro that drive to use metro transit*

Accessibility/Economic Well Being

Accessibility differs from mobility in that it is measured by commuter trip times to major job centers rather than overall trip times. Major job centers are defined as those TAZs containing employment sites with 75 or more workers. Specifically, accessibility is defined as the ease of reaching destinations as measured by the percentage of commuters who can get to work within a given period of time. As with mobility, the goal is to ensure that commuters in EJ TAZs throughout the county have average trip times that are shorter, or at least no longer, than in the county as a whole. The measure on highways also provides an indicator of the ability of freight to get to major employment sites, providing a measure of economic well-being for the region.

In 2008, the average trip length from anywhere in Bakersfield to a major job center was 9.76 minutes. For areas outside Bakersfield, the time was approximately 7 minutes longer at 16.8 minutes. The average commute time to a major job center in Kern County was 11.89 minutes in 2008. This compares to 9.72 minutes for all commutes from EJ TAZs to major job centers throughout the county in 2008.

EJ TAZs generally fare better across the board against urban, rural, and countywide averages for commutes to major job centers under the 2040 build and 2040 no-build scenarios. This is true for both private vehicle trips countywide and transit trips in Bakersfield. Rural transit data is unavailable.

TABLE D-8 AVERAGE TRAVEL TIME TO MAJOR JOB CENTERS – HIGHWAY

Place Type	2008	2040 Build	2040 No Build
Urban/Metro	9.76	9.09	10.56
Rural Areas	16.80	17.97	15.94
Countywide	11.89	11.88	13.41

² No data are maintained on average travel times for rural fixed-route and dial-a-ride services. The countywide average listed under Average Travel Time – Peak Transit Trips and EJ TAZs Average Travel Time – Peak Transit Trips reflects statistics on the Golden Empire Transit network only. Rural transit ridership is a small percentage of countywide and would result in a negligible increase.

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TABLE D-9 AVERAGE TRAVEL TIME FROM EJ TAZs TO MAJOR JOB CENTERS – HIGHWAY

Place Type	2008	2040 Build	2040 No Build
Urban/Metro	8.99	8.16	8.84
Rural Areas	15.23	14.38	12.67
Countywide	9.72	8.86	9.44

TABLE D-10 AVERAGE TRAVEL TIME TO MAJOR JOB CENTERS – TRANSIT ³

Place Type	2008	2040 Build	2040 No Build
Urban/Metro	31.45	26.31	32.65
Rural Areas	38.44	45.10	42.51
Countywide	32.14	28.26	33.69

* Includes portions of trips outside of Metro for those who drive to use metro transit

TABLE D-11 AVERAGE TRAVEL TIME FROM EJ TAZs TO MAJOR JOB CENTERS – TRANSIT

Place Type	2008	2040 Build	2040 No Build
Urban/Metro	30.84	24.57	31.38
Rural Areas	38.15	42.22	40.15
Countywide	31.31	25.52	32.09

* Includes portions of trips outside of Metro for those who drive to use metro transit

Reliability/Congestion

Reliability is the percentage of on-time arrivals for both transit and highway trips. For highways, it is measured by the number of hours daily that passengers spend in congested traffic. Congestion on roadways is measured by levels of service (LOS) on roadways and also by the amount of time in hours that a vehicle is not able to reach the speed limit on a given roadway segment. LOS also affects the reliability of transit service in Metropolitan Bakersfield. The Metro transit system lacks any facilities immune to congestion such as carpool lanes, bus lanes, or rail. The level of congestion is not a significant measure for rural place type areas based on the smart mobility framework analysis; however, the numbers are provided for comparison purposes.

For transit, reliability is judged by the percentage of on-time arrivals for each operator. Golden Empire Transit District has developed its own environmental justice analysis, "Title VI Update," last produced in August 2013. Based on observations through February 2004, GET estimated its on-time arrival rate for July 2009 through February 2010 was 76% of all trips.

Metropolitan Bakersfield residents will see the number of hours spent in congested traffic rise 73.6% from 2008 to 2040 as compared to the Metropolitan Bakersfield EJ TAZs with only a 55.9% increase. Hours spent in congestion countywide for EJ TAZs will be 27% less than the county as a whole.

³ No data are maintained on average travel times for rural fixed-route and dial-a-ride services. The countywide average listed under Average Travel Time – Peak Transit Trips and EJ TAZs Average Travel Time – Peak Transit Trips reflects statistics on the Golden Empire Transit network only.

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TABLE D-12 AVERAGE LEVEL OF CONGESTION IN HOURS

Place Type	2008	2040	Percentage Increase
Urban/Metro	204,972	355,798	73.6
Rural Areas	228,562	433,011	89.5
Countywide	433,535	788,808	81.9

TABLE D-13 AVERAGE LEVEL OF CONGESTION IN HOURS – EJ TAZs

Place Type	2008	2040	Percentage Increase
Urban/Metro	88,128	137,432	55.9
Rural Areas	8,669	12,566	44.9
Countywide	96,797	149,999	54.9

Reliability/Safety

For Kern COG's environmental justice policy purposes, safety is considered to be the minimal risk of accident or injury as measured by reduced accidents. While the model does make predictions regarding the number of accidents that cause property damage, injury, and fatalities, it cannot stratify that information specifically by project, as the environmental justice safety goal requires. On new facilities within environmental justice TAZs, projects outlined in the 2014 RTP will demonstrate no more accidents than the countywide average.

Despite the model's inability to predict accident rates on specific projects, it does provide an aggregate look at annual accidents in 2008 compared to 2040. Results show that injury accidents will rise sharply throughout the county by 2040. Meanwhile, EJ TAZs will see a slower increase for injury accidents than the region as a whole. For example, in Metro Bakersfield, the injury accident rate is predicted to rise from 575 in 2008 to 975 in 2040, a 69.6% increase. In urban EJ TAZs, however, the rate for the same type of accident will go from 255 to 394, a 54.5% rise.

Using the Smart Mobility 2010 philosophy, safety is a higher concern in rural place type areas than congestion. Based on this plan's funded project list, accidents in rural areas are forecast to rise at a slightly lower rate than the countywide average as travel increases on Kern's roadway network.

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TABLE D-14 ANNUALIZED ACCIDENT STATISTICS FOR ANNUAL AVERAGE DAILY TRAFFIC

Place Type	2008	2040	Percentage Increase
Urban/Metro			
Property damage	1,060	1,799	69.7
Injury	575	975	69.6
Fatality	24	41	70.8
Rural			
Property damage	1,037	1,686	62.6
Injury	562	914	62.6
Fatality	24	39	62.5
Countywide			
Property damage	2,098	3,485	66.1
Injury	1,137	1,889	66.1
Fatality	48	80	66.7

TABLE D-15 ANNUALIZED ACCIDENT STATISTICS FOR ANNUAL AVERAGE DAILY TRAFFIC – EJ TAZs

Place Type	2008	2040	Percentage Increase
Urban/Metro			
Property damage	470	727	54.7
Injury	255	394	54.5
Fatality	11	17	54.5
Rural			
Property damage	44	61	38.6
Injury	24	33	37.5
Fatality	1	1	0
Countywide			
Property damage	514	788	53.3
Injury	279	427	53.0
Fatality	12	18	50.0

Efficiency/Cost-Effectiveness

Efficiency and cost-effectiveness can be measured by maximized returns on transportation investments. This criterion was measured by dividing the average daily capital investment from 2014 RTP projects through 2040 by the average number of daily passenger miles traveled (PMT) on the transportation network, both inside and outside of EJ TAZs for urban and rural place types. In general, highways are carrying higher volumes and tend to be more cost effective on a daily basis, however transit has a higher capacity during peak periods, making it more cost-effective to expand during peak traffic periods. In addition transit expands the carrying capacity of road investments. This analysis looks at daily cost effectiveness of capital expenditures.

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In the Metropolitan Bakersfield area, the average daily investment in highways will amount to \$.01 per PMT versus \$.02 per PMT in Bakersfield EJ TAZs illustrating that highway investment is \$.01 more cost effective than in EJ TAZs. In rural areas outside Bakersfield, the highway cost is \$.01 versus \$.09 in rural EJ TAZs reflecting the lower traffic volumes in rural areas. For transit service in Bakersfield, the daily investment per PMT is \$.19 versus \$.13 in Bakersfield EJ TAZs illustrating that transit is receiving greater usage in EJ areas. Overall, daily investment per PMT for roads is using more funds per PMT in EJ areas than in the county as a whole, while the transit system performs better in EJ areas in terms of cost effectiveness.

Because the cost-effectiveness criterion assumes that RTP projects will be built, the no-build scenario is not displayed.

Table D-16 Average Daily Investment per Passenger Mile Traveled – Highways

Place Type	2040
Urban/Metro	.01
Rural Areas	.01
Countywide	.01

TABLE D-17 AVERAGE DAILY INVESTMENT PER PASSENGER MILE TRAVELED – HIGHWAYS – EJ TAZs

Place Type	2040
Urban/Metro	.02
Rural Areas	.09
Countywide	.02

TABLE D-18 AVERAGE DAILY INVESTMENT PER PASSENGER MILE TRAVELED – TRANSIT⁴

Place Type	2040
Urban/Metro	.19
Rural Areas	.79
Countywide	.28

TABLE D-19 AVERAGE DAILY INVESTMENT PER PASSENGER MILE TRAVELED – TRANSIT – EJ TAZs

Place Type	2040
Urban/Metro	.13
Rural Areas	.13
Countywide	.13

⁴ Because Kern COG's regional transportation model cannot estimate passenger miles traveled for rural transit services, estimates for daily investment per PMT countywide are unable to be calculated.

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Livability/Consumer Satisfaction

Consumer satisfaction is one potential measure of livability and is defined as the condition where consumers can largely agree that their transportation needs are being met in a safe, reliable, efficient, and cost-effective manner. The criterion is measured by the daily amount of trip delay in hours. On roadways, trip delay refers to the difference between the time a trip should take and the time it actually requires, or the difference between free-flow traffic and some level of congestion. Traffic congestion also affects the on-time performance of transit operations, limiting alternative transportation choices during peak periods and impacting the region's livability.

For example, between 2008 and 2040, Kern COG's traffic model estimates the number of daily trip delay hours in the urban metro area will rise from 5,963 to 14,370, a 141% increase. However, in Metro Bakersfield's EJ TAZs, the number would increase from 4,273 to 8,340, a 95% rise. While neither scenario is desirable, EJ TAZs within Metropolitan Bakersfield increase 46% less than the area as a whole. In rural areas, travel delay grows faster than in the county as a whole.

TABLE D-20 AVERAGE VEHICLE DELAY TIME IN HOURS

Place Type	2008	2040	Percentage Increase
Urban/Metro	5,963	14,370	141
Rural Areas	51	19,980	39,076
Countywide	6,013	34,349	471

TABLE D-21 AVERAGE VEHICLE DELAY TIME IN HOURS FOR EJ TAZs

Place Type	2008	2040	Percentage Increase
Urban/Metro	4,273	8,340	95
Rural Areas	0	4	400
Countywide	4,273	8,344	95

Environment/Health

This measure is defined as enhancing the existing transportation system while improving the environment and health of the population. It is the one factor in Kern COG's environmental justice criteria set that the transportation model currently cannot measure. Environmental effects vary among different transportation projects and can only be determined meaningfully on a project-by-project basis. The goal is for projects in this RTP to demonstrate no difference in unmitigated impacts between environmental justice populations and the region as a whole. This goal is measured through conformity with the Clean Air Act Amendments of 1990 according to measures of certain pollutants such as nitrous oxide and particulate matter.

Both Kern COG's long-term RTP and the short-term Federal Transportation Improvement Program (FTIP) require a demonstration of air quality "conformity" prior to being adopted by Kern COG and the federal government. This conformity process is necessary because the San Joaquin Valley Air Basin is nonattainment for ozone and particulate matter. The process ensures that new transportation projects will either benefit or at least have no negative effect on air quality. Kern COG's conformity analysis for its most recent FTIP amendment was approved by the US Department of Transportation on November 4, 2013. A revised conformity analysis has been undertaken to support the 2014 RTP and the 2014 FTIP.

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TABLE D-22 VEHICLE NOX/PM10 EMISSIONS DECREASE

Air Basin (portion of Kern)	Base 2008	Horizon 2040	Percentage Decrease	Federal Air Standard Met?
San Joaquin Valley NOx	75.5	18.4	76	YES
Mojave Desert NOx	14.6	3.9	73	YES
Indian Wells Valley PM10*	1.3	.9	31	YES

**Indian Wells Valley totals are for all particulate matter 10 microns or smaller, not just the NOx precursor.*

The above table illustrates that federal standards are being met with this RTP. For a more detailed discussion of air quality, see the 2014 Conformity Analysis for simultaneous adoption with the 2014 RTP and FTIP.

In addition to maintaining federal air standards for each air basin/planning area, an analysis has been performed that indicates that the RTP shows improvement in households with in ¼ mile of major high volume roadways. However, environmental effects vary among different transportation projects and can only be determined meaningfully on a project-by-project basis.

TABLE D-23 HOUSEHOLDS WITHIN ¼ MILE OF ROADWAY VOLUMES GREATER THAN 50,000

Place Type	2013	2040	Percentage Increase
Urban/Metro	12,175	35,396	191%
Rural Areas	1,442	7,086	391%
Countywide	13,617	42,482	212%

TABLE D-24 HOUSEHOLDS WITHIN ¼ MILE OF ROADWAY VOLUMES GREATER THAN 50,000 FOR EJ TAZs

Place Type	2013	2040	Percentage Increase
Urban/Metro	5,496	16,079	193%
Rural Areas	-	1,820	#DIV/0!
Countywide	6,732	17,899	166%

The analysis indicates that additional revitalization in the urban/metro area may significantly increase housing closer to high volume transportation corridors which may negatively impact this Environment/Health goal. However, environmental justice areas are being affected at a slower rate than all areas countywide. This is partially due to the fact that majority of volume increases are not in areas that affect environmental justice communities consistent with Federal Title VI goals.

Sustainability/Preservation

Sustaining and preserving the transportation system can be measured by the total annualized amount of maintenance funding divided by the number of lane miles in the model. Countywide maintained lane miles are calculated from the transportation model. In November 2006, an initiative with 56% voter approval failed to garner the two-thirds vote required to pass. Had it passed, approximately 40% of the funding would have been reserved for maintenance. This RTP assumes a modest increase in funding of 11% over previous RTPs reflecting possible increase to federal, state and/or local sources such as a local

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transportation measure (see Ch. 6 – Financing Transportation for a detailed discussion). The following tables illustrate the growing issue of maintaining an expanding road system and underscores the need for rapid action to provide new funding sources to maintain the system.

TABLE D-25 MAINTENANCE DOLLARS PER LANE MILE FOR THE TRANSPORTATION SYSTEM

Countywide	Base 2008	Horizon 2040	Percentage Change
Lane Miles	7,421	9,579	29
Annual Maintenance	\$64,000,000	\$92,000,000	44
Maintenance per Mile	\$8,624	\$9,604	11

**TABLE D-26 MAINTENANCE DOLLARS PER LANE MILE FOR THE
TRANSPORTATION SYSTEM IF ADDITIONAL FUNDING DOES NOT BECOME AVAILABLE**

Countywide	Base 2008	Horizon 2040	Percentage Change
Lane Miles	7,421	9,579	29
Annual Maintenance	\$64,000,000	\$64,000,000	0
Maintenance per Mile	\$8,624	\$6,681	-23

Equity

Equity is defined as a fair and reasonable distribution of transportation investment benefits (as a share of benefits). Kern COG took a similar approach to equity as with cost-effectiveness, comparing the total investment in roads and transit through 2040 with total passenger miles traveled in Bakersfield, rural areas, and the county as a whole. All numbers were converted to percentages for simplicity. The EJ transportation analysis zones (TAZs) percentages compare to the table above with all TAZs being reported.

In 2040, Urban/Metro Bakersfield EJ TAZs will account for 38% of all passenger miles traveled (PMT) in the Urban/Metro region, coincidentally approximately 38% of transportation expenditures will go directly into the metropolitan EJ TAZs. Rural EJ TAZs will represent 3% of Rural PMT, and 23% of all highway funding will be spent in those areas. Countywide, approximately 18% of all PMT will occur in EJ TAZs, which will collect 36% of funding and projects.

In 2040, the model predicts that EJ TAZs countywide will make up approximately 48% of transit PMT. Those same TAZs, however, will receive 60% of all transit funding attributable to the metropolitan area.

TABLE D-27 PERCENTAGE OF EXPENDITURES VERSUS PASSENGER MILES TRAVELED IN 2040 – HIGHWAYS

Place Type	2040 PMT	Total Investment*	PMT % (countywide)	Investment % (countywide)
Urban/Metro	22,000,983	\$2,438,000,000	44	86
Rural Areas	28,593,586	\$412,000,000	56	14
Countywide	50,594,510	\$2,850,000,000	100	100

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**Investment totals include all forecasted funding sources. Funding by place type is subject to the adopted Project Delivery Policies and Procedures (<http://www.kerncog.org/publications/policies-and-procedures>) as implemented in each Regional Transportation Improvement Program (RTIP) 2-year cycle.*

**TABLE D-28 PERCENTAGE OF EXPENDITURES VERSUS
PASSENGER MILES TRAVELED IN EJ TAZs BY 2040 – HIGHWAYS (EJ AREAS SHOULD RECEIVE INVESTMENT
ROUGHLY EQUAL OR GREATER THAN THE % PMT)**

Place Type	2040 PMT	Total Investment	PMT % (compared to table above)	Investment % (compared to above)
Urban/Method	8,279,662	\$918,000,000	38	38
Rural Areas	823,269	\$94,000,000	3	23
Countywide	9,102,933	\$1,012,000,000	18	36

**TABLE D-29 PERCENTAGE OF EXPENDITURES
VERSUS PASSENGER MILES TRAVELED IN 2040 – TRANSIT**

Place Type	2040 PMT	Total Investment	PMT % (countywide)	Investment (countywide)
Urban/Metro	94,220	1,323,500,000	63	65
Rural Areas	55,513	698,700,000	37	35
Countywide	149,733	2,022,200,000	100	100

**TABLE D-30 PERCENTAGE OF EXPENDITURES
VERSUS PASSENGER MILES TRAVELED IN EJ TAZs BY 2040 – TRANSIT (EJ AREAS SHOULD RECEIVE
INVESTMENT ROUGHLY EQUAL OR GREATER THAN THE % PMT)**

Place Type	2040 PMT	Total Investment	PMT % (compared to table above)	Investment % (compared to above)
Urban/Metro	54,252	1,150,672,370	57	87
Rural Areas	17,340	66,428,253.71	31	27
Countywide	71,592	1,217,100,623	48	60

Land Consumption

The California Department of Conservation maps farmland throughout California under the Farmland Mapping and Monitoring Program (FMMP) shows a 2010 FMMP map of these farmlands outside the spheres of influence boundaries. For more detailed analysis through the year 2035, see Chapter 4, Table 4-3. The definition of farmland under Government Code Section 65080.01 (b) excludes farmland from spheres of influence boundaries. In the 22 year period from 1988 to 2010, an average of -0.4 square miles of farmland per year was converted to urban use. With this RTP, farmland consumption may be reduced as much as 33% compared to the No Project Baseline (2011 RTP) for a total of 1.43 square miles through 2040.

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TABLE D-31 KERN COUNTY IMPORTANT FARMLAND CONVERSION 2040

Place Type	No Project Baseline Farmland Consumed Outside Spheres of Influence 2040	Planned Farmland Consumed Outside Spheres of Influence 2040	% Reduction
Countywide	-2.13	-1.43	33

Environmental Justice Conclusions

Considering the analyses as a whole, it is clear that the 2014 RTP meets the Federal Title VI EJ requirements by ensuring that all of the population is subject to proportionate benefits and detriments. Note that EJ does not create an entitlement; however, it does attempt to assure that transportation projects do not have discriminatory effects or disparate impacts on any segment of the population, especially those traditionally disadvantaged groups such as racial minorities and low-income communities. The above analyses demonstrate that the 2014 RTP meets those expectations. However, Kern COGs EJ Strategy focuses equally on our public information process as well as this planning analysis.

From a public information perspective, Kern COG's commitment to environmental justice and both rural and urban community types is demonstrable through its efforts in gathering public input. These efforts include broadcasting its monthly meetings on television, using display advertising and electronic notices to announce workshops and public hearings, and developing web and social media advertisements for long-range planning efforts. Kern COG has been visible in every community over the last three years during city council meetings, street fairs, and community festivals. Kern COG's quarterly newsletter is distributed to 2,000 organizations and individuals. Over 8,000 people have provided input to the 2014 RTP's development. Appendix C summarizes the RTP outreach effort.

From a planning standpoint, the transportation model indicates that, with few exceptions, Kern COG has and will continue to divide its resources equitably, with no single population group suffering disproportionate and adverse effects from agency activity. However, analyses demonstrated some shortcomings that will be addressed. For example, Metropolitan Bakersfield will see the number of hours spent in congested traffic rise from 204,972 in 2008 to 355,798 in 2040, a 73.6% increase. Metro area EJ TAZs will only experience a 55.9% rise in congestion levels over the same period.

While delay times will rise 95% in EJ areas, delay times for the region are predicted to increase by 471% over the long term. As such, the model shows that the EJ areas are actually less impacted by the inevitable increase in delays in the transportation network as compared to the county as a whole.

Similarly, cost-effectiveness and equity measures both attempt to determine how expenditures are being divided between EJ areas and the region as a whole. While each measure uses a different analysis method, the conclusions demonstrate the Kern COGs 2014 RTP does not disproportionately impact EJ communities.

Other examples are the environment/health performance measures. These measures indicate that policies related to environmental concerns such as air quality and noise will be affected by this plan, but EJ areas will again not be impacted to the same degree as countywide. The increased impact in EJ areas is linked to the increased revitalization and new households in those areas.

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Smart Mobility Conclusions

The smart mobility framework method divided the performance measures into two place types—urban and rural. The measures reveal that a relatively even distribution of resources in efficiency/cost-effectiveness. For example, highway investment is \$.01 per passenger mile traveled in both urban and rural area highways, while transit investment is 4 times less cost effective than rural compared to urban areas primarily due to the long distance lower volume trips that Kern Regional Transit provides.

A new trend in the rural place type appeared in this RTP compared to the 2011 RTP. Rural areas are receiving greater congestion than urban place types. This is primarily due to an anticipated increase in traffic on I-5 to and from L.A and developments proposed near Frazier Park.

As urban growth and traffic increase, both rural and urban place types are anticipated to see an increase in traffic accidents, however rural areas will not increase as fast as urban areas.

The performance measures examined all funding sources, and not just those subject to the 60–40 guideline policy adopted by the Kern COG Board. It is interesting to note that more passenger miles are traveled outside of Metropolitan Bakersfield than within. That is because the metro area makes up 5% of the total area of the county, and through-county trips make up about 25% of all travel in Kern County.

System-wide Conclusions

System-wide, the performance measures indicate that the Kern region is losing ground in its battle with overall congestion. With the focus of more than \$640 million in federal demonstration funds to the region, accessibility to major job centers countywide is forecasted to improve by 1 second between 2008 and 2040.

Many of the future improvements will be more expensive. The cheap, easy fixes are no longer available. Changing a six-lane arterial to eight or ten lanes can be costly. Not only does the congestion affect the reliability of our transportation system, it affects transit operations as well.

Transit can only provide a relief for congestion if the express bus service is not stuck in the same traffic as single-occupant vehicles. Planned investment in carpool and bus lanes on freeways, ramps, and arterial streets is not much more expensive than adding free-flow lanes; however, they can provide a vital relief valve during peak travel times. The ability to get around during peak periods is important to ensure the economic vitality of the region and can stretch the effectiveness of Kern's transportation dollar.

The Sustainability/Preservation measure indicates the importance of increasing maintenance funding with the expanding transportation system. This is consistent with the input during the Directions to 2050 public outreach that placed maintenance as a top priority.

Some local successes have occurred for new funding sources. Recently, the City of Bakersfield passed a utility tax for transportation maintenance, and the City of Delano has approved a 1-cent general fund measure that can be used for road maintenance. The national American Recovery and Reinvestment Act (ARRA) has provided a one-time influx of funding to catch up on maintenance backlogs for more than 80 projects in Kern County. The state and federal highway trust funds are insolvent and must be fixed as part of the federal surface transportation act reauthorization now under way. Innovative long-term pay-as-you-go solutions, such as a phased-in odometer-based gas tax, should be seriously considered.

APPENDIX D - INTEGRATED PERFORMANCE MEASURES, SMART MOBILITY AND ENVIRONMENTAL JUSTICE ANALYSIS

Appendix D Attachment

D-1 – Kern Travel Model EJ Performance Measures Output

2014 RTP Performance Measures Output	Alternatives:	2008	2040 A	2040 C	2040 E	2040 Nbid
ACCESSIBILITY AND MOBILITY - COUNTYWIDE						
*** Average travel times (minutes) from county zones to all zones						
Peak All-Auto Travel Time		15.85	15.24	16.38	16.28	23.25
Peak Transit Travel Time		88.25	84.80	81.87	81.86	85.04
*** Average travel times (minutes) from county zones to Job Centers						
Peak All-Auto Travel Time		11.89	12.39	11.88	11.72	13.41
Peak Transit Travel Time		32.14	32.00	28.26	28.36	33.69
*** Average travel times (minutes) from county EJ zones to all zones						
Peak All-Auto Travel Time		13.01	12.99	12.33	12.23	15.27
Peak Transit Travel Time		82.79	88.52	28.99	29.07	88.99
*** Average travel times (minutes) from county EJ zones to Job Centers						
Peak All-Auto Travel Time		9.72	9.28	8.86	8.85	9.44
Peak Transit Travel Time		31.31	31.65	25.52	25.70	32.09
*** Average travel times (minutes) from county zones to EJ zones						
Peak All-Auto Travel Time		11.78	12.18	11.80	11.65	13.16
Peak Transit Travel Time		82.61	88.84	29.49	29.56	84.15
ACCESSIBILITY AND MOBILITY - URBAN/METRO						
*** Average travel times (minutes) from metro zones to all zones						
Peak All-Auto Travel Time		12.13	12.14	11.39	11.53	20.46
Peak Transit Travel Time		32.61	33.57	29.45	30.90	34.10
*** Average travel times (minutes) from metro zones to Job Centers						
Peak All-Auto Travel Time		9.76	9.88	9.09	9.82	10.56
Peak Transit Travel Time		31.45	31.91	26.31	27.98	32.65
*** Average travel times (minutes) from metro EJ zones to all zones						
Peak All-Auto Travel Time		11.89	12.00	11.21	11.11	14.30
Peak Transit Travel Time		32.33	33.04	27.89	28.75	33.27
*** Average travel times (minutes) from metro EJ zones to Job Centers						
Peak All-Auto Travel Time		8.99	8.70	8.16	8.32	8.84
Peak Transit Travel Time		30.84	31.19	24.57	25.45	31.38
*** Average travel times (minutes) from metro zones to EJ zones						
Peak All-Auto Travel Time		9.87	9.83	9.22	9.96	10.51
Peak Transit Travel Time		31.97	32.52	27.69	29.22	33.36
ACCESSIBILITY AND MOBILITY - RURAL/NON METRO						
*** Average travel times (minutes) from nonmetro zones to all zones						
Peak All-Auto Travel Time		23.94	19.69	23.50	24.56	24.74
Peak Transit Travel Time		39.80	38.62	46.31	46.68	43.63
*** Average travel times (minutes) from nonmetro zones to Job Centers						
Peak All-Auto Travel Time		16.80	15.59	17.97	18.64	15.94
Peak Transit Travel Time		38.44	38.72	45.10	48.21	42.51
*** Average travel times (minutes) from nonmetro EJ zones to all zones						
Peak All-Auto Travel Time		18.59	16.42	17.54	18.51	18.93
Peak Transit Travel Time		39.51	38.89	42.94	45.91	40.96
*** Average travel times (minutes) from nonmetro EJ zones to Job Centers						
Peak All-Auto Travel Time		15.23	12.47	14.38	15.00	12.67
Peak Transit Travel Time		38.15	36.73	42.22	46.21	40.15
*** Average travel times (minutes) from nonmetro zones to EJ zones						
Peak All-Auto Travel Time		16.55	15.03	17.35	17.52	15.40
Peak Transit Travel Time		39.42	38.94	40.76	44.63	38.59

APPENDIX D - INTEGRATED PERFORMANCE MEASURES, SMART MOBILITY AND ENVIRONMENTAL JUSTICE ANALYSIS

COST EFFECTIVENESS CONSUMER SATISFACTION & RELIABILITY - COUNTYWIDE							
Area	Condition	Congested Vehicle Hours					
county	all	Total	433535	810100	788808	780540	1101686
county	EJ	Total	96797	135754	149999	150594	152272
COST EFFECTIVENESS CONSUMER SATISFACTION & RELIABILITY - URBAN/METRO							
Area	Condition	Congested Vehicle Hours					
metro	all	Total	204972	250699	855798	851166	671614
metro	EJ	Total	88128	116203	137432	137990	138423
COST EFFECTIVENESS CONSUMER SATISFACTION & RELIABILITY - RURAL/NON METRO							
Area	Condition	Congested Vehicle Hours					
nonmetro	all	Total	228562	289031	433011	429373	430072
nonmetro	EJ	Total	8669	4201	12566	12606	13849
COST EFFECTIVENESS CONSUMER SATISFACTION & RELIABILITY - COUNTYWIDE							
Area	Condition	Vehicle-Delay Hours					
county	all	Total	6013	29949	34349	33652	308563
county	EJ	Total	4273	4682	8344	8576	17112
COST EFFECTIVENESS CONSUMER SATISFACTION & RELIABILITY - URBAN/METRO							
Area	Condition	Vehicle-Delay Hours					
metro	all	Total	5963	7623	14370	14745	293404
metro	EJ	Total	4273	4331	8340	8571	17104
COST EFFECTIVENESS CONSUMER SATISFACTION & RELIABILITY - RURAL/NON METRO							
Area	Condition	Vehicle-Delay Hours					
nonmetro	all	Total	51	6390	19980	18906	15159
nonmetro	EJ	Total	0	0	4	4	8
SAFETY - COUNTYWIDE							
All county							
ACCIDENTS DATA							
Total =			3283	5663	5454	5380	5727
PDO =			2098	3618	3485	3437	3659
Injury =			1137	1962	1889	1864	1984
Fatal =			48	83	80	79	84
county EJ Links only							
ACCIDENTS DATA							
Total =			804	1142	1233	1230	1163
PDO =			514	729	788	786	743
Injury =			279	395	427	426	403
Fatal =			12	17	18	18	17
SAFETY - URBAN/METRO							
All metro							
ACCIDENTS DATA							
Total =			1659	2118	2816	2761	3119
PDO =			1060	1353	1799	1764	1993
Injury =			575	734	975	956	1080
Fatal =			24	31	41	41	46
metro EJ Links only							
ACCIDENTS DATA							
Total =			735	968	1137	1134	1056
PDO =			470	619	727	725	675
Injury =			255	335	394	393	366
Fatal =			11	14	17	17	15
SAFETY - RURAL/NON METRO							
All nonmetro							
ACCIDENTS DATA							
Total =			1624	1629	2639	2619	2608
PDO =			1037	1041	1686	1673	1666
Injury =			562	564	914	907	903
Fatal =			24	24	39	38	38
nonmetro EJ Links only							
ACCIDENTS DATA							
Total =			69	36	95	96	107
PDO =			44	23	61	61	69
Injury =			24	12	33	33	37
Fatal =			1	1	1	1	2

Kern Council of Governments



Appendix E

A Great Start: Sustainable Communities Success Stories

June 19, 2014

PROJECT TITLE: City of Tehachapi General Plan – Form Based Code General Plan

PROJECT SPONSOR: City of Tehachapi

PROJECT DESCRIPTION:

The City of Tehachapi adopted the 2035 General Plan Update, and the new General Plan will contribute towards the implementation of SB 375.

The new General Plan can be characterized as a Form Based General Plan because it emphasizes facilitating mixed use, walkable neighborhoods and developments.

PROJECT BENEFITS:

The new General Plan will maintain a compact urban form by maintaining all areas outside of the current City limits and within the sphere of influence area as Open Space. This approach will prevent urban sprawl, protect important agricultural resources and provide a clear line of demarcation between town and countryside.

COST BENEFIT RATIO: Unknown

TOTAL COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION: Unknown











STATUS: In Progress

Reference: City of Tehachapi General Plan, 2012

The Walkable Neighborhood example

FIGURE INTRO-1: THE WALKABLE NEIGHBORHOOD

KEY TO NEIGHBORHOOD DIAGRAM

-  Block defined by streets. Streets vary according to vision/intended physical context for particular area of neighborhood.
-  Civic / Open Space. Types vary according to vision/intended physical context for particular area of neighborhood
-  Streets connect where possible and traffic is calmed by using a variety of street types and alignments to promote pedestrian and bicyclist safety.
-  Important locations are preferred site for civic buildings.
-  Short face of blocks along boulevard (without slip road).
-  Boulevard with slip road provides additional location for shopping, office, and housing above while buffering the neighborhood from large volumes of traffic.
-  School location shared by adjacent neighborhoods.
-  A variety of open/civic space is distributed.
-  Mixed-use area and civic focus of neighborhood. Depending upon each neighborhood's physical location and particular intensity, this area will vary in the types of buildings and uses that sustain it as the neighborhood's center. For example, in a low-intensity neighborhood, it may be configured with house-scale buildings near or at the sidewalk with live-work/office activity on the ground floor while in a higher intensity neighborhood, it may be configured with a combination of house-scale and block-scale buildings with retail, restaurant, live-work and office activity.
-  High-volume corridor oriented activity



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: City of Tehachapi General Plan – Transect Zone or “T” Zone

PROJECT SPONSOR: City of Tehachapi

PROJECT DESCRIPTION:

The City of Tehachapi adopted the 2035 General Plan Update, and the new General Plan will contribute towards the implementation of SB 375.

The Transect Zone “T” concept can be applied to the Town Form Element. Each transect zone has been calibrated to the scale and character of the City. Each zone consolidated typical ‘land use designations’ into a broader set of topics to coordinate the ultimate zoning for each parcel with the community’s vision.

PROJECT BENEFITS:

The “T” Zone will facilitate high density mixed use development opportunities.

COST BENEFIT RATIO: Unknown

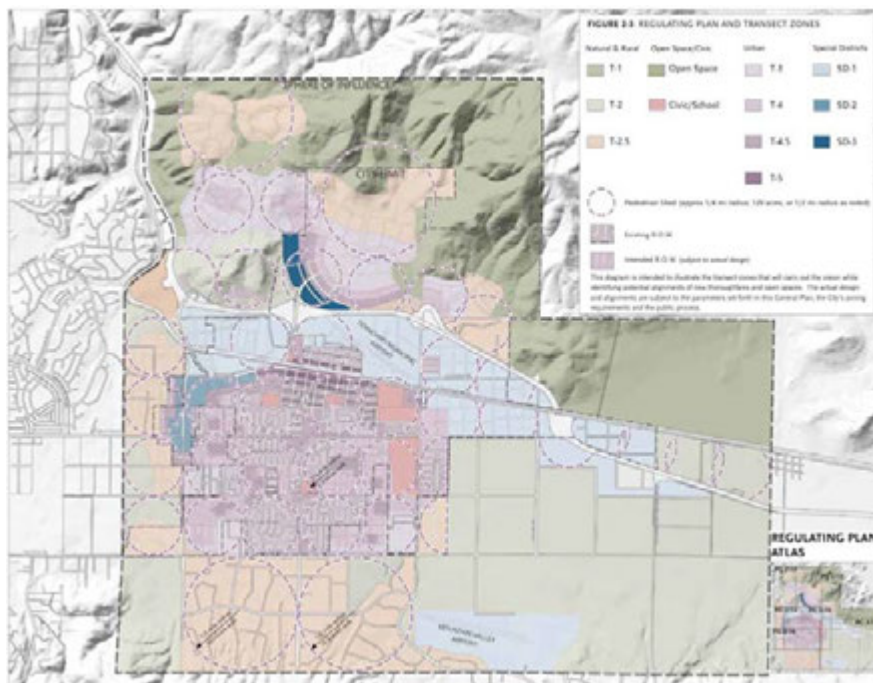
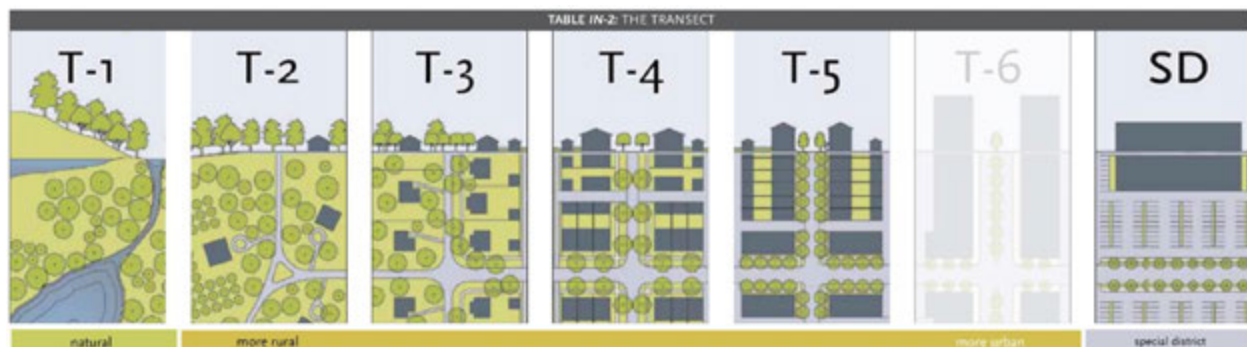
TOTAL COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION: Unknown

STATUS: In progress

Reference: City of Tehachapi General Plan, 2012

Conceptual Transect System



Regulating Plan and Transect Zones

PROJECT TITLE: City of Tehachapi General Plan – Mobility Element
PROJECT SPONSOR: City of Tehachapi

PROJECT DESCRIPTION:

The City of Tehachapi adopted the 2035 General Plan Update, and the new General Plan will contribute towards the implementation of SB 375.

The Mobility Element is the City's renamed Circulation Element. The Mobility Element incorporates the Circulation Element requirements but expands the Conventional application of a Circulation Element to facilitate a balanced approach between the need to move both vehicles and people, through a variety of transportation modes.

PROJECT BENEFITS:

The Mobility Element is still linked to the Land Use Element with an emphasis on greater connectivity, walkability, and opportunities for mixed use developments.

COST BENEFIT RATIO: Unknown

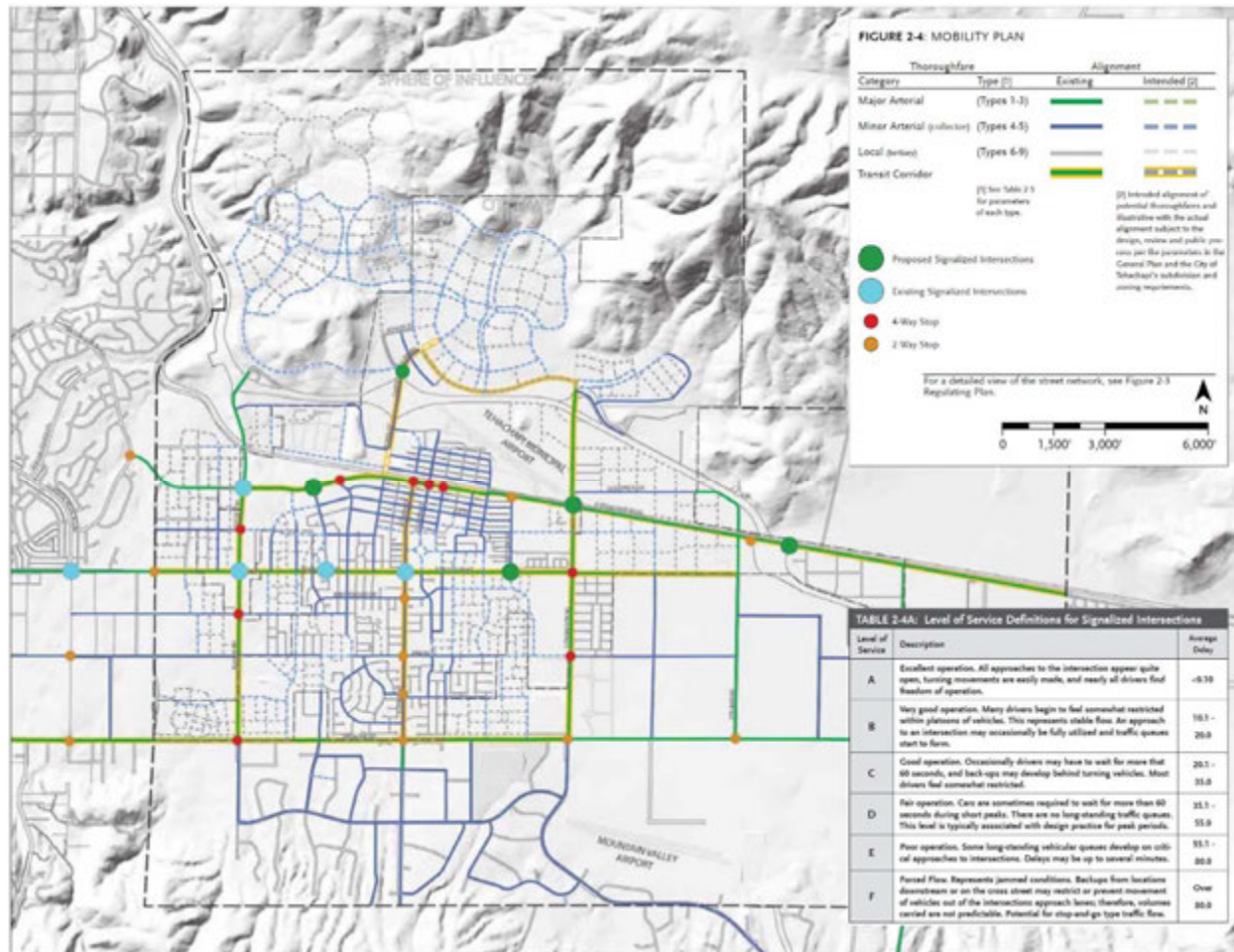
TOTAL COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION: Unknown

STATUS: In progress

Reference: City of Tehachapi General Plan, 2012

Mobility Plan



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: City of Tehachapi General Plan – Town Form (Land Use) Element
PROJECT SPONSOR: City of Tehachapi

PROJECT DESCRIPTION:

The City of Tehachapi adopted the 2035 General Plan Update, and the new General Plan will contribute towards the implementation of SB 375.

Within the Town Form (Land Use) Element will segregate the Planning area into two broad categories, the “O” Sector which primarily consists of open space preservation and the “G” Growth Sector which allocates where growth may occur.

PROJECT BENEFITS:

The “O” Sectors will reinforce the preservation of the Sphere of Influence area as open space, prevent urban sprawl and maintain our compact urban form. The “G” Sectors will emphasize infill development as our highest priority as the General Plan continues to build out.

COST BENEFIT RATIO: Unknown

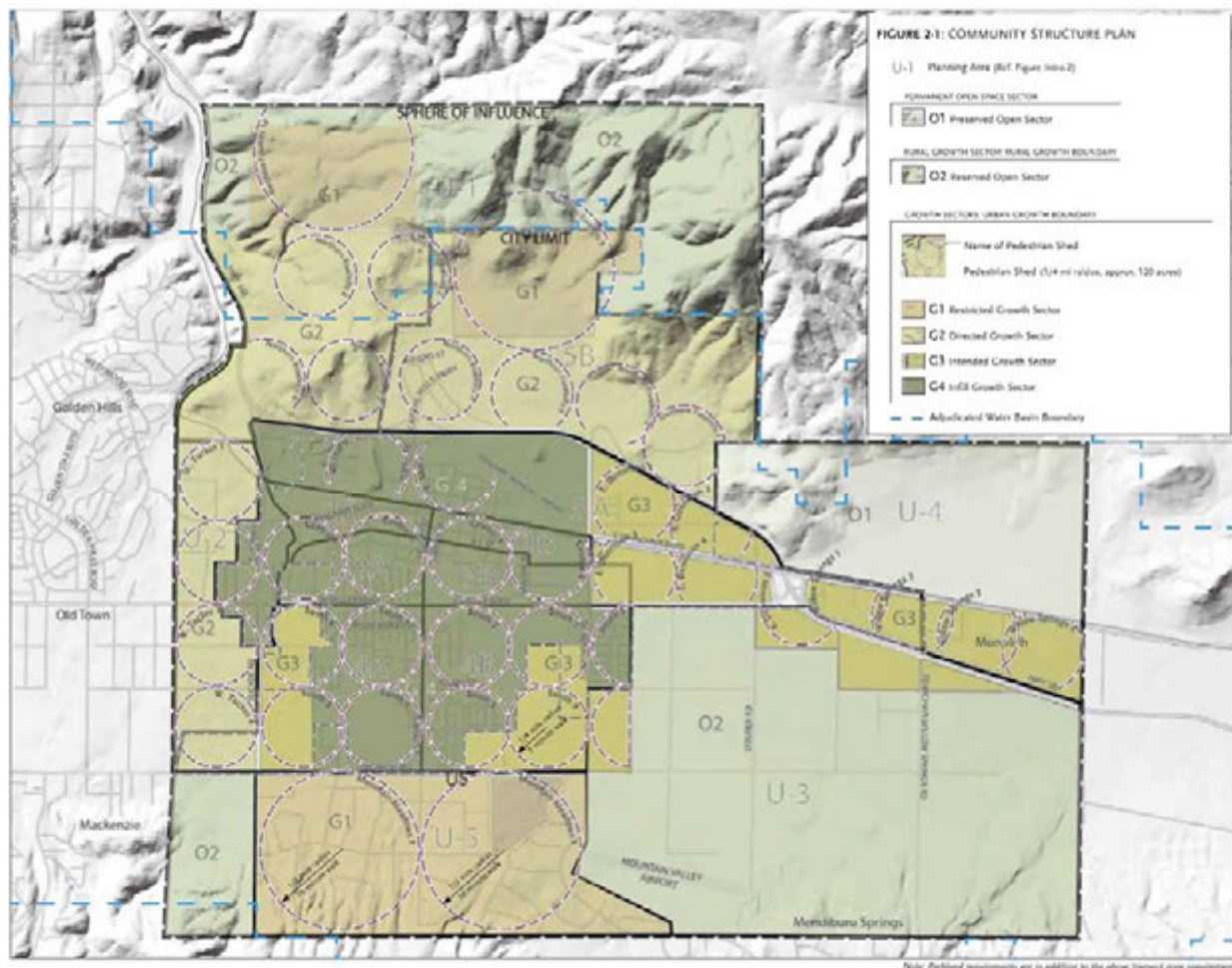
TOTAL COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION: Unknown

STATUS: In progress

Reference: City of Tehachapi General Plan, 2012

Community Structure Plan



PROJECT TITLE: Transportation Impact Fee Core Area (City of Bakersfield & City of Tehachapi)
PROJECT SPONSOR: City of Bakersfield / City of Tehachapi

PROJECT DESCRIPTION:

The Transportation Impact Fee (TIF) Core Area is a designated area within Metro Bakersfield that has been identified through the City's Land Use policies as an area where development is encouraged. Developers who plan projects in the TIF Area will have reduced permitting fees. The TIF Core Area would allow an increase of approximately four times the number of households that are currently in this area.

The City of Tehachapi also has implemented a TIF Core Area.

PROJECT BENEFITS:

Implementing incentives for development in the TIC Core Area can promote infill, mixed-use, and discourage sprawl. Future development in the TIF Core Area will also bring the public closer to quality transit service.

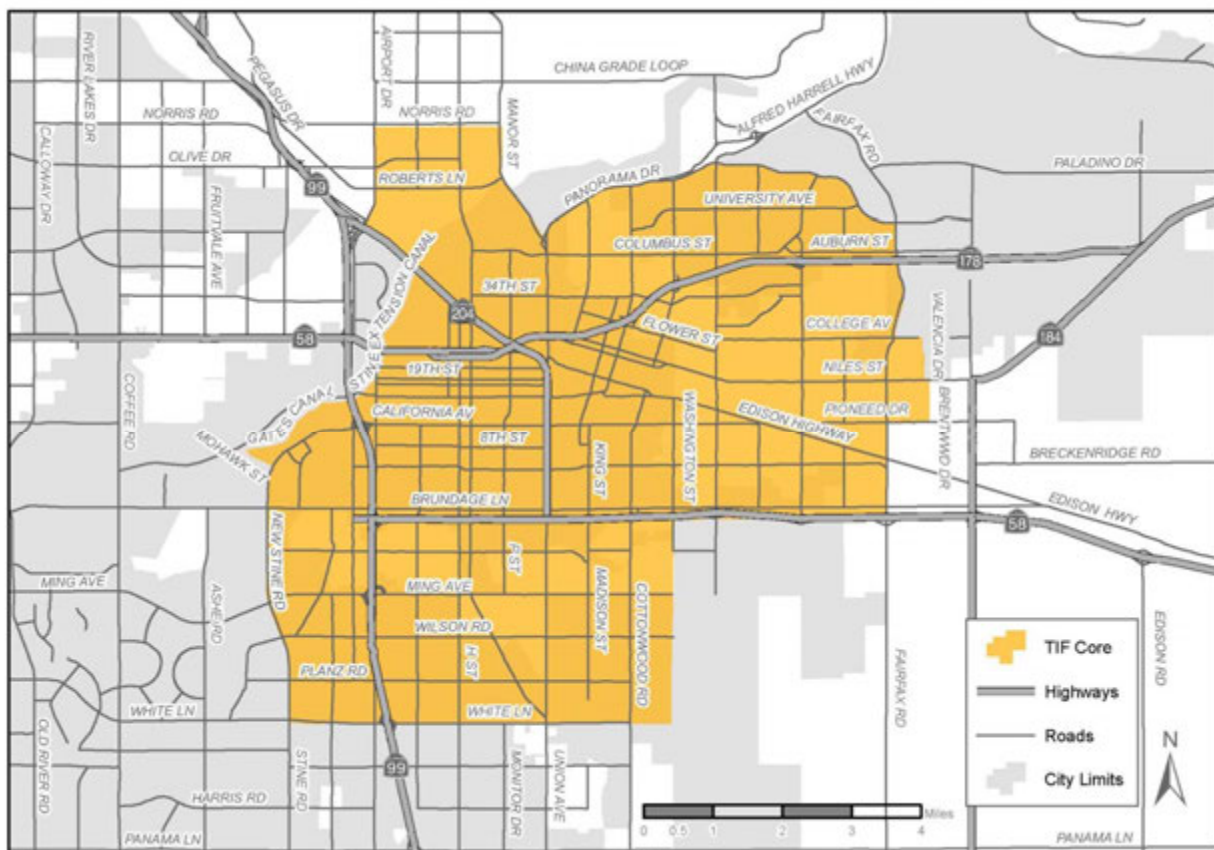
COST BENEFIT RATIO: Unknown

TOTAL COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION:

STATUS: In process

Map of TIF Core Area



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: City of Taft General Plan

PROJECT SPONSOR: City of Taft

PROJECT DESCRIPTION:

The City of Taft's General Plan incorporates sustainable principles throughout the elements of the General Plan. The City's principle involves the three aspects of sustainability: environment, economy, and equity. Throughout the General Plan, there is a leaf symbol adjacent to goals and policies based on the sustainable or "green" principles.

PROJECT BENEFITS:

The City of Taft's General Plan promotes the development of a sustainable community by ensuring its general plan policies are crafted to cut greenhouse gas emissions and move toward cleaner energy sources.

COST BENEFIT RATIO: Unknown

TOTAL COST OF PROJECTS: Not Applicable

YEAR OF CONSTRUCTION: Not Applicable

STATUS: In Progress

Reference: City of Taft General Plan, 2009

Table of Sustainable Principles by Element

	Land Use	Circulation	Open Space & Conservation	Energy Resources	Noise	Safety	Public Facilities & Services	Economic Development
Environment								
Promote compact, walkable, mixed-use development.	•	•	•					•
Focus new development in existing developed areas in the Planning Area, while limiting growth of undeveloped lands.	•		•	•				
Promote infill development.	•		•	•			•	•
Protect open space and agricultural lands.	•		•					•
Promote the efficient use of energy and resources (water, soil, building materials, etc.).			•	•			•	
Economy								
Create strong local and regional economies.	•		•	•				•
Encourage jobs/housing balance.	•			•			•	•
Support energy and resource efficient industries.			•	•				•
Promote energy and resource efficient buildings.	•		•	•				
Promote economic opportunity for all segments of the community.	•							•
Enhance the design character of commercial and office development.	•							•
Equity								
Provide adequate housing for all income levels.	•							
Provide a fair and predictable land use planning process.	•		•					•
Promote development that is equitable in terms of sharing costs and benefits among all Taft residents and businesses.		•					•	
Require fair treatment in the development, adoption, and enforcement of regulations and policies.	•	•	•	•	•	•	•	•
Promote alternative transportation options to increase access.		•	•					

PROJECT TITLE: City of Ridgecrest General Plan and Circulation Element

PROJECT SPONSOR: City of Ridgecrest

PROJECT DESCRIPTION:

In 2009, the City of Ridgecrest adopted its most recent General Plan. The guiding principles that are included in the updated general plan are: explore land use and policy alternatives; provide guidance in the planning and evaluation of future land and resource decisions; and provide a vision and framework for the future growth of the City. In addition, the Circulation Element addresses automobile travel, public transit, aviation, and trails for bicyclists and pedestrians.

PROJECT BENEFITS:

The City of Ridgecrest's updated General Plan includes new goals, policies, and implementation measures that are sustainable approaches. A new Land Use goal in the City's General Plan is to provide an appropriate mix of land use opportunities and provide incentives for infill development. In addition, the Circulation Element includes a goal to encourage and provide alternative modes of transportation and alternatives to travel for Ridgecrest residents to decrease dependence on single-occupant vehicular travel and reduce vehicle emissions.

Non-Motorized Circulation Map



COST BENEFIT RATIO: Unknown

TOTAL COST OF PROJECTS: Not Applicable

YEAR OF CONSTRUCTION: Not Applicable

STATUS: In Progress

Reference: City of Ridgecrest General Plan, 2009

APPENDIX E – SUCCESS STORIES

PROJECT TITLE: Metropolitan Bakersfield General Plan Sewer Policies

PROJECT SPONSOR: City of Bakersfield

PROJECT DESCRIPTION:

In November 2005, the Kern County Board of Supervisors approved revisions to the Metropolitan Bakersfield General Plan including its sewer policy. The revisions required all new commercial, industrial and residential developments including residential land divisions proposing parcels smaller than six gross acres to connect to public sewer.

PROJECT BENEFITS:

The policy is intended to ensure that new growth be based on the availability of the extension of sewer infrastructure. The policy greatly curtails large lot development on the periphery of Metro Bakersfield.

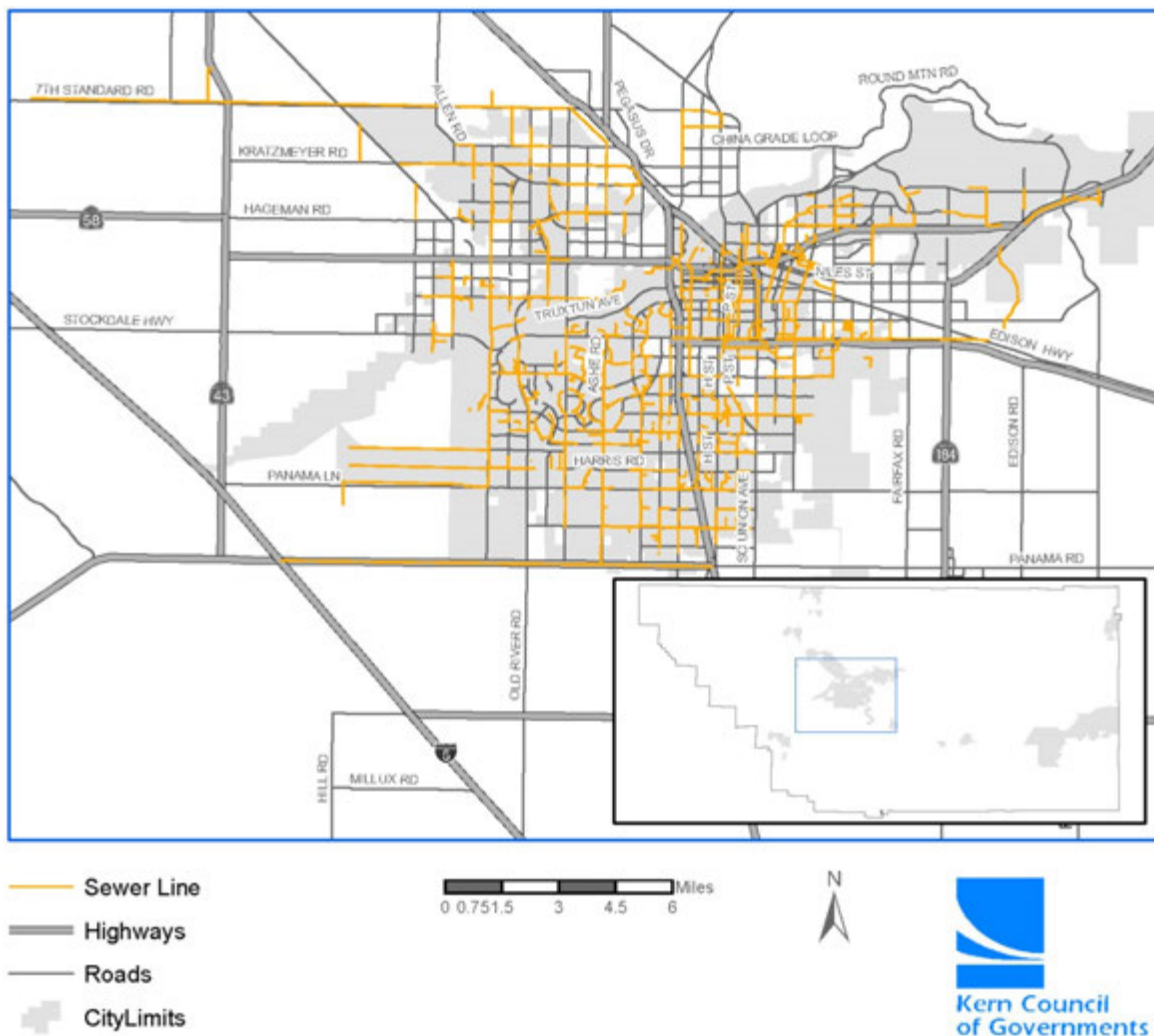
COST BENEFIT RATIO: Unknown

TOTAL COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION:

STATUS: In process

Map of Sewer Area in Metro Bakersfield



PROJECT TITLE: City of Bakersfield Zoning Strategies

PROJECT SPONSOR: City of Bakersfield

PROJECT DESCRIPTION:

In November 1995, the City of Bakersfield amended Section 17.14.070 of the Municipal Code relating to minimum lot area zoning. The amendment reduced the minimum lot size for R-2 zone dwellings to four thousand five hundred square feet per dwelling unit.

The City of Bakersfield also has a Planned Unit Development (PUD) zone, which enables developers to propose any lot size they desire, subject to discretionary approval by either the Council or Planning Commission. An example of a project that achieved higher density in a single-family residential development is University Park located in southwest Bakersfield.

The housing project includes a mixture of small, but traditional lots as well as cluster lots where six lots share a single driveway. In addition, the City has the Commercial-Center (C-C) zone which permits mixed use development by-right.

PROJECT BENEFITS:

Building on smaller lot sizes allows for compact and sustainable development. Planning and implementing compact sustainable development provides opportunities to reduce greenhouse gas emissions.

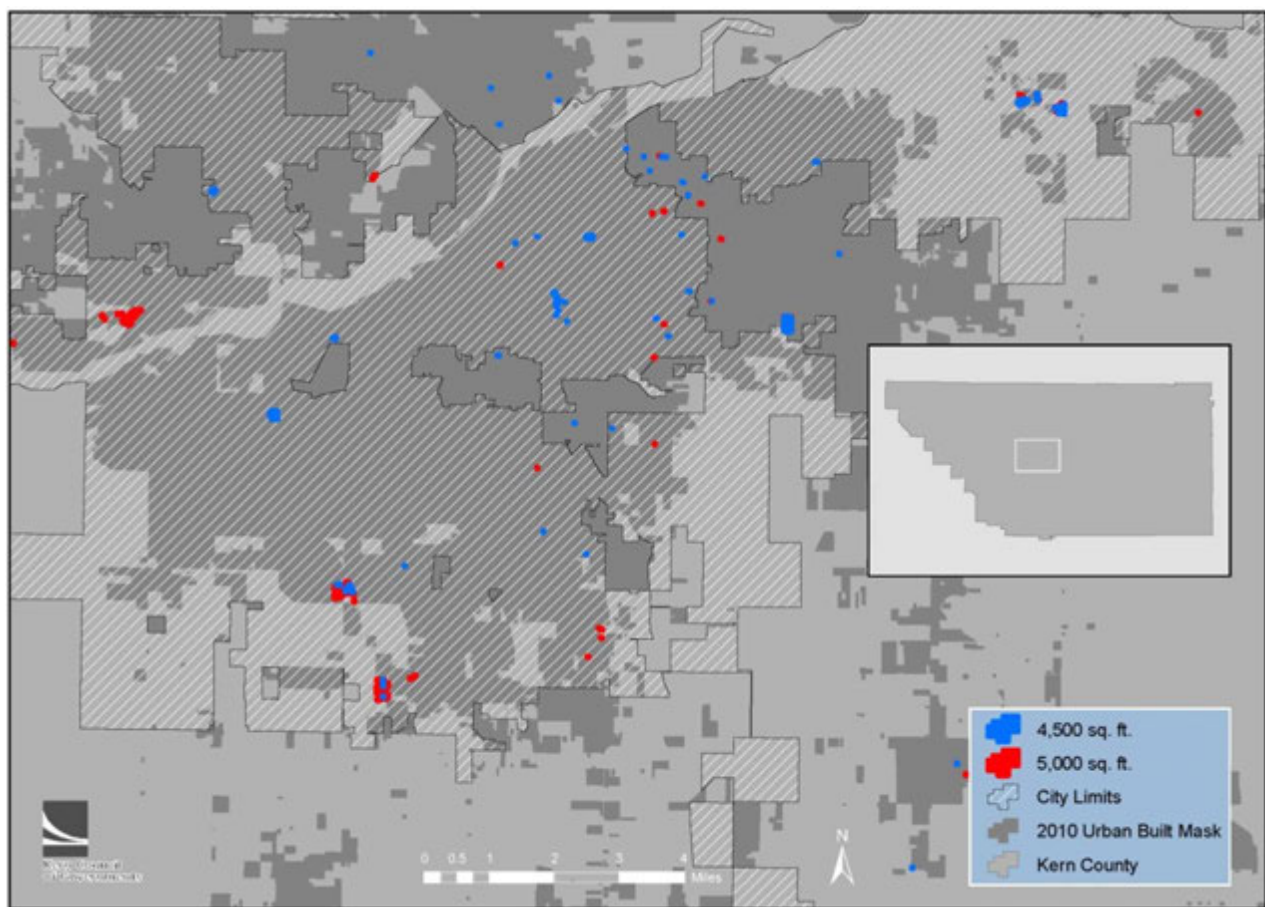
COST BENEFIT RATIO: Unknown

TOTAL COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION: Ordinance implemented in November 1995

STATUS: In process

Map of Small Lot Areas in Metro Bakersfield



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: San Joaquin Valley Air Pollution Control District – Indirect Source Review (ISR)

PROJECT SPONSOR: San Joaquin Valley Air Pollution Control District (SJVAPCD)

PROJECT DESCRIPTION:

The SJVAPCD adopted Indirect Source Review (Rule 9510) to reduce the impacts of growth in emissions from all new land development in the San Joaquin Valley. Indirect air emissions are emissions indirectly caused by growth in population. ISR applies to development projects that have not yet gained discretionary approval.

PROJECT BENEFITS:

The ISR Rule looks to reduce the emission of harmful pollutants, specifically NO_x and PM₁₀ associated with the construction and operation of new development projects in the San Joaquin Valley.

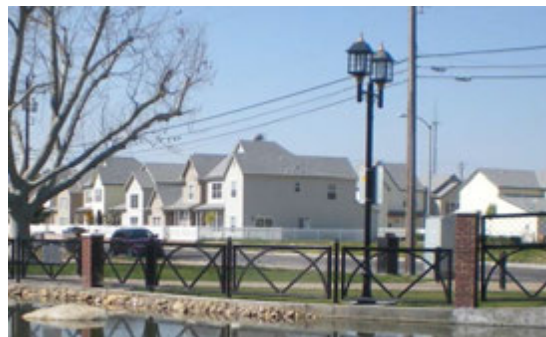
COST BENEFIT RATIO: Unknown

COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION: Unknown

STATUS: Adopted

Examples of Smart Growth Development Located in Downtown Bakersfield



PROJECT TITLE: City of Bakersfield Redevelopment Projects – Mill Creek and Baker Street

PROJECT SPONSOR: City of Bakersfield

PROJECT DESCRIPTION:

The Mill Creek Linear Project was a redevelopment project in Downtown Bakersfield, and included the renovation and redesign of Central Park. The Mill Creek Project includes a 1.5 mile linear park, housing, senior housing, and commercial developments, along with landscaping and street improvements.

The Baker Street Village Project was also a redevelopment project that involved the revitalization of Olde Town Kern. The Project mixes condos and lofts, along with 10,000 square feet of commercial and community space.

PROJECT BENEFITS:

These two mixed-use redevelopment projects help reduce auto dependency, roadway congestion, and improve air quality. In addition, these projects promote pedestrian and bicycle travel, and promote efficient use of land and infrastructure.

COST BENEFIT RATIO: Unknown

COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION:

STATUS: In progress

Images of Mill Creek Linear Project



Images of Baker Street Village Project



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: Transit Priority Areas (TPA)
PROJECT SPONSOR:

PROJECT DESCRIPTION:

SB 375 addresses Transit Priority Areas (TPA) as part of the SCS. TPA are areas within ½-mile of either rail stations or bus services with 15 minute headways in the peak period. The current TPA only includes the Amtrak stations with a total -population of 5,628 within the TPA. In October 2012, the GET Short Term Transit Plan will implement their 2012 plan which will increase the TPA coverage to 26.40 square miles and include a household population of 127,022 within the TPA. With the implementation of the GET Long Range Plan by 2035, the TPA coverage will increase 87.58 square miles and include a household population of 415,431. The TPA difference from existing and 2035 is a 5,478.3% increase in the TPA coverage and a household population of 7,281.5%.

PROJECT BENEFITS:

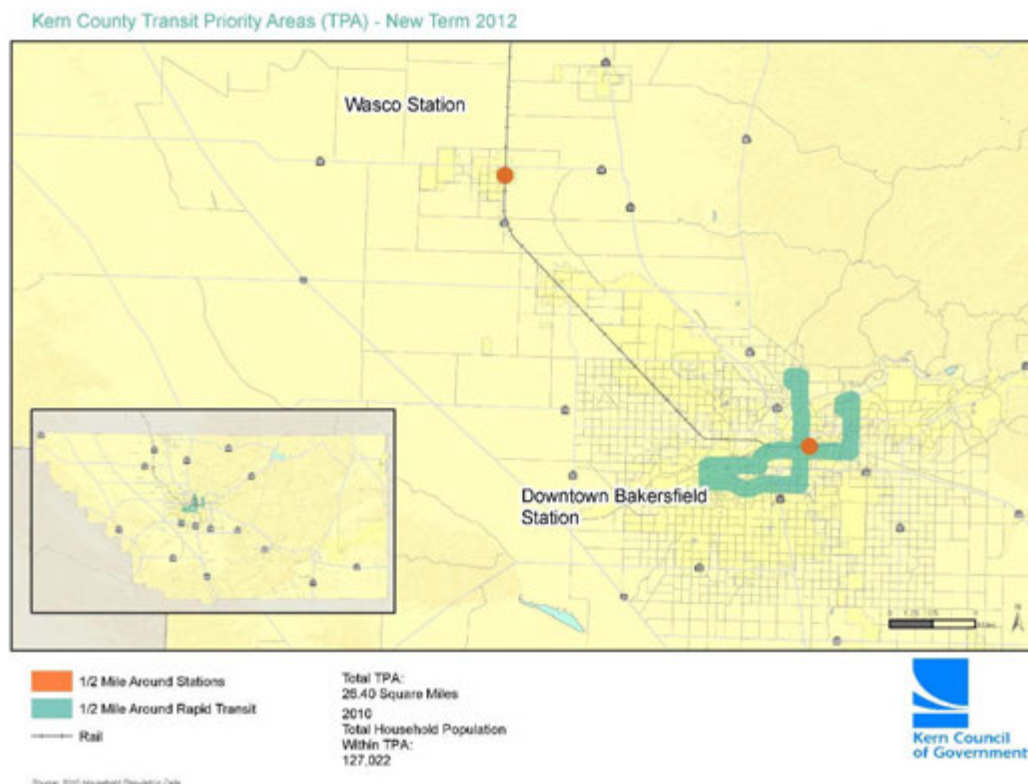
TPA encourages sustainable development by providing accessibility to quality transit which can reduce vehicle miles traveled and reduce the region's GHG.

COST BENEFIT RATIO: Unknown

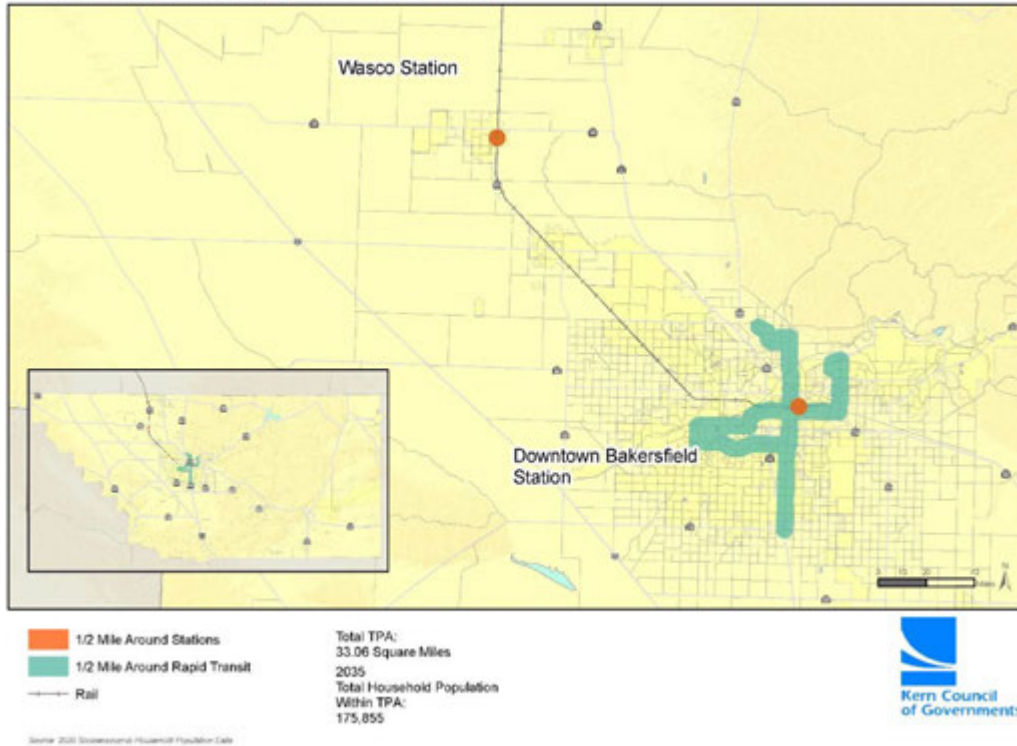
TOTAL COST OF PROJECT: Unknown

YEAR OF CONSTRUCTION: October 2012

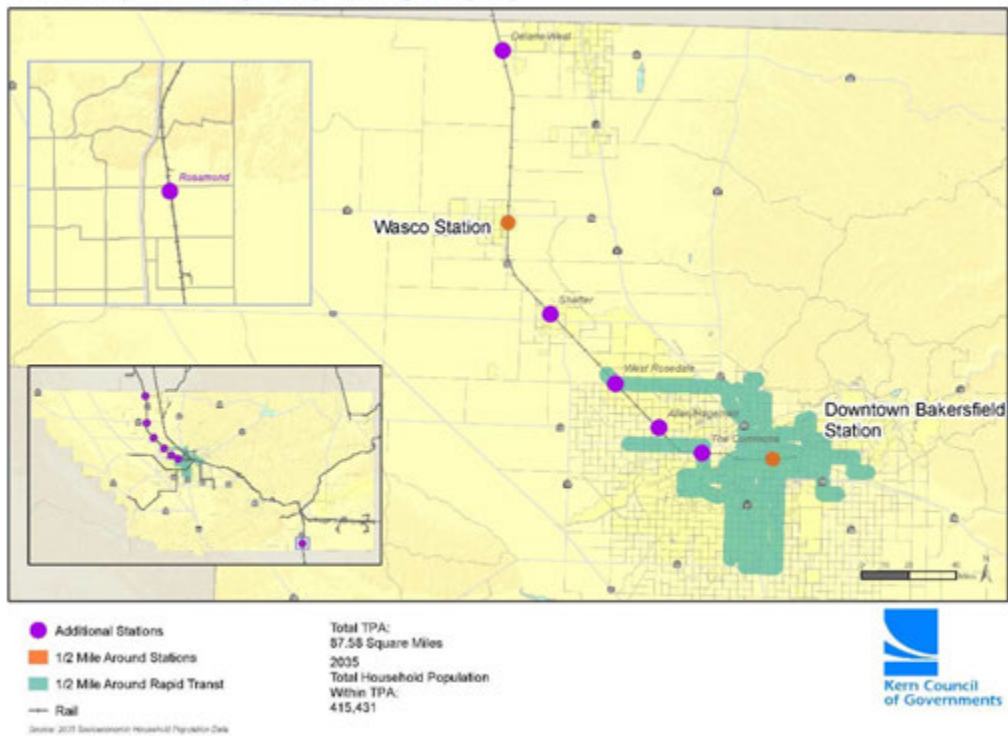
STATUS: Planned



Kern County Transit Priority Areas (TPA) - Mid-Term (2020)



Kern County Transit Priority Areas (TPA) - Long-Term (2035)



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: **Metropolitan Bakersfield General Plan Centers Concept – Transit Priority & Strategic Employment Place Types**

PROJECT SPONSOR: Kern Council of Governments

PROJECT DESCRIPTION:

Below is a map based on the Metro Bakersfield General Plan Centers Concept that was adopted in 1992. The Centers Concept was incorporated into the 2008 Kern Regional Blueprint Conceptual View maps. These map series were designed to illustrate some of the Regional Blueprint Principles designed to promote sustainable communities. The Maps are distinguished in phases; resources and other layers, existing, planned, and potential centers, along with a map that combines all the phase layers. The Maps include City spheres of influence from the County General Plan (included in the Public/Resources layer), the transportation model network, and the major transit routes.

PROJECT BENEFITS:

Transit Priority Centers and Strategic Employment Place Types are illustrated in three phases; existing, planned, and potential. The Planned and Potential centers are located along major transit services within the urban area.

COST BENEFIT RATIO: Unknown

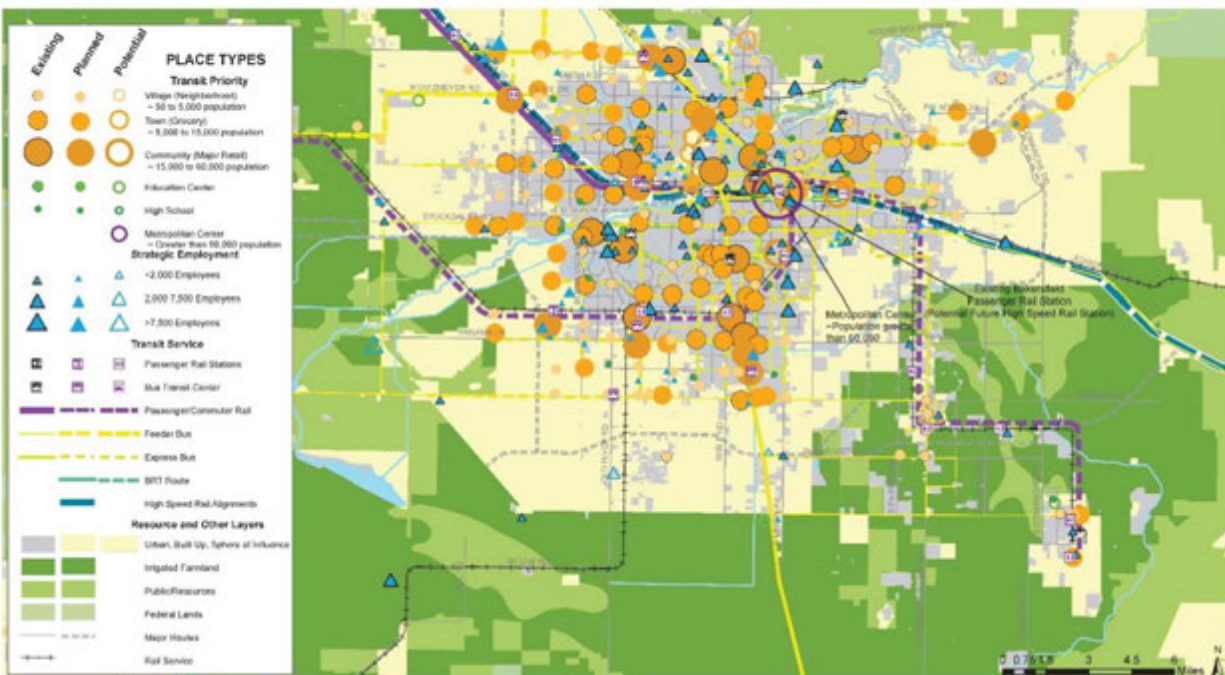
TOTAL COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION: N/A

STATUS: N/A

DISCLAIMER: These maps are for conceptual purposes only. The RTP is updated every 4 years. Local general plans and other data can be updated more frequently. For more detailed information on the latest planning assumptions, please refer to the latest locally adopted general plan for each community or other latest data source. Local general plans and other data updates will be incorporated into the next RTP update every 4 years.

**Conceptual View - Bakersfield, Arvin
Transit Priority & Strategic Employment Place Types Map**



PROJECT TITLE: Commuter Rail Feasibility Study

PROJECT SPONSOR: Kern Council of Governments

PROJECT DESCRIPTION:

Kern COG contracted with a consultant to develop a feasibility study for Federal Small Starts or New Starts program, and to determine alternative commuter bus and passenger rail service to replace or enhance the Amtrak San Joaquin passenger rail service between Bakersfield and Fresno once high-speed rail is implemented.

If the existing Amtrak San Joaquin trains move off of the current Burlington Northern Santa Fe (BNSF) tracks and onto the proposed grade-separated high-speed rail tracks from north of Shafter to Fresno, what will happen to Amtrak service from Bakersfield to Wasco? The Commuter Rail Feasibility Study was designed to answer this question and determine other possible commuter rail possibilities countywide.

PROJECT BENEFITS:

The Study recommends a long-term alternative service strategy for the San Joaquin's Amtrak if high-speed rail trains begin to operate in six to eight years. If funding is available, strategies include:

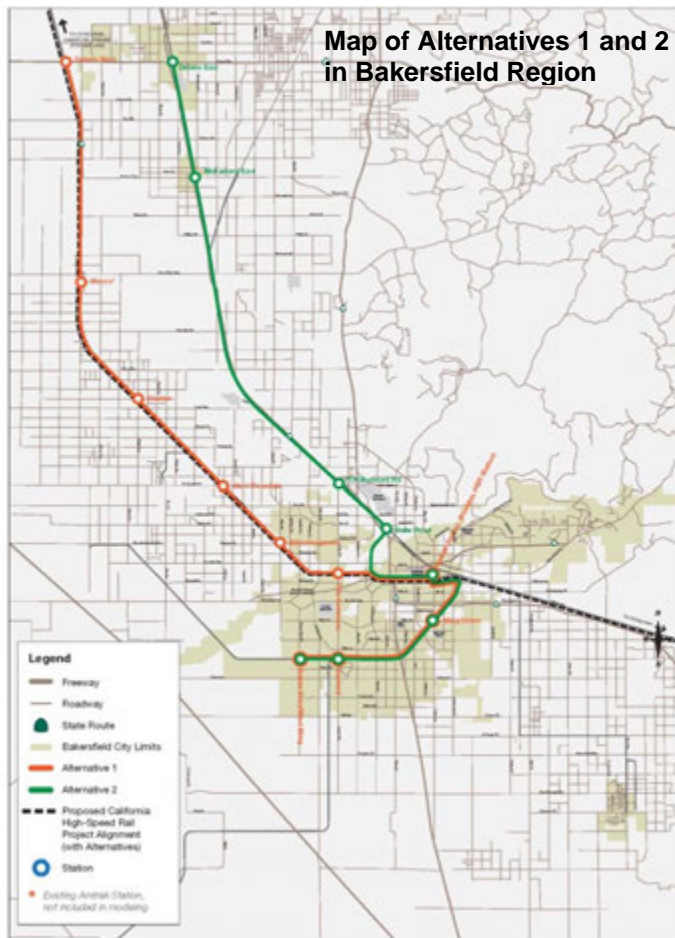
- A possible commuter passenger rail service from Bakersfield to Delano with stops in northwest Bakersfield, Shafter, Wasco, and Delano.
- A possible commuter passenger rail service to rural employment sites such as Frito Lay, Grimmway, Bolthouse, etc.
- An extension of the Metrolink commuter passenger rail services from Palmdale to Rosamond.

COST BENEFIT RATIO: Unknown

COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION:

STATUS: In progress



Source: Commuter Rail Feasibility Study, Draft
July 2012

APPENDIX E – SUCCESS STORIES

PROJECT TITLE: Rideshare Program – Commute Kern

PROJECT SPONSOR: Kern Council of Governments

PROJECT DESCRIPTION:

Commute Kern provides customer service upon request from the general public, employers, colleges, vanpool operators, other agencies and the media regarding ridesharing opportunities. As an on-line transportation demand management program, Commute Kern's website-commutekern.org, serves as a resource for carpooling, vanpooling, public transit, park-and-ride facility use, telework, walking and bicycling for commutes to work and school to help improve our air quality. The program also allows for flexible scheduling, daily tracking, vanpool management, outreach to employers, resources to commuters such as concierge services, and forum for discussion and sharing resources.

PROJECT BENEFITS:

Using rideshare services reduces the number of single occupancy vehicles on the road, and ultimately helps to improve our air quality.

COST BENEFIT RATIO: Not Applicable

COST OF PROJECT:

2012-2013: \$ 189,000

2013-2014: \$ 216,300

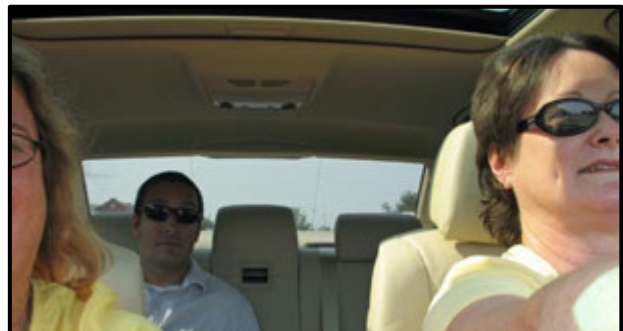
YEAR OF CONSTRUCTION: Non-construction

STATUS: Ongoing

Bicycle



Carpool



Public Transit

PROJECT TITLE: Park and Ride Lots

PROJECT SPONSOR: Caltrans and California City

PROJECT DESCRIPTION:

The purpose of the development of Park and Ride lots is to provide a safe and centralized location for commuters to meet and either carpool, vanpool, or use transit. There are seven existing Park and Rides within Kern County that Caltrans (Districts 6 and 9) operates. There are lots in Lake Isabella, Delano, Taft, Ridgecrest, and three in Bakersfield.

The newest Park and Ride location was created through a partnership with Tejon Ranch, GET Bus, and IKEA Industrial Plaza. A bus picks up and drops off the Industrial Plaza employees from the newest park and ride lot at South H Street and McKee Road.

An addition proposed project is the construction of College Station Park and Ride with a bus turnout at the intersection of California City Blvd. (South) and Yale Ave in California City. The primary purpose of the project is to provide a place to park and car/van pool for those working

at the Borax Plant in Boron, and Edwards Air Force base.

PROJECT BENEFITS:

Provides a meeting point for commuters to leave their individual cars as they join carpools or vanpool services. This service helps eliminate the number of single occupied vehicles from the roads on a daily basis.

In addition, the proposed project is anticipated to reduce the number of vehicle trips for those who will car or van pool to work. Using the latest emission factors, it is estimated that this project would remove between 865 and 1,100 pounds of emissions annually over a twenty year life expectancy.

COST BENEFIT RATIO: \$23 / lbs.

COST OF PROJECT: \$375,000

YEAR OF CONSTRUCTION: 2014

STATUS: Planned

Park and Ride lot at South H Street and McKee Road

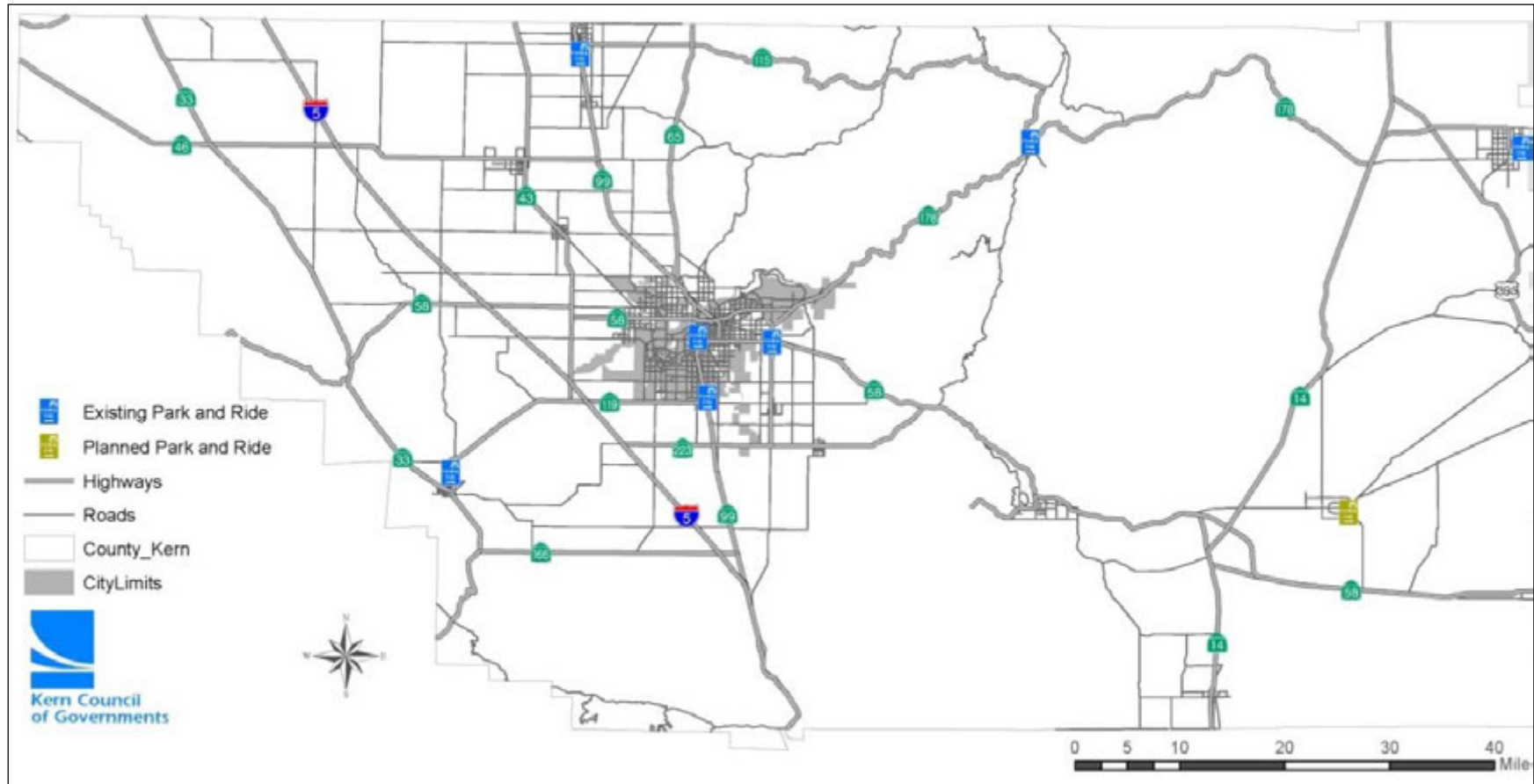


Park and Ride lot at Stockdale Hwy. and Real Road



APPENDIX E – SUCCESS STORIES

Map of Park-and-Ride Lots within Kern County



PROJECT TITLE: GET - Short-Term Service Plan (2012-2020)

PROPOSED SPONSOR: Golden Empire Transit District (GET)

PROJECT DESCRIPTION:

In the Metropolitan Bakersfield Transit System Long-Range Plan, there is a proposed Short-Term Service Plan (2012-2020). In the Short-Term plan, GET's fixed-route bus network would be reconfigured to reflect population and employment growth since the 1980's and to improve customer service and cost-effectiveness. In addition, the area covered within half a mile from the Short-Term transit routes is 26.40 square miles containing a household population of 121,394 residents.



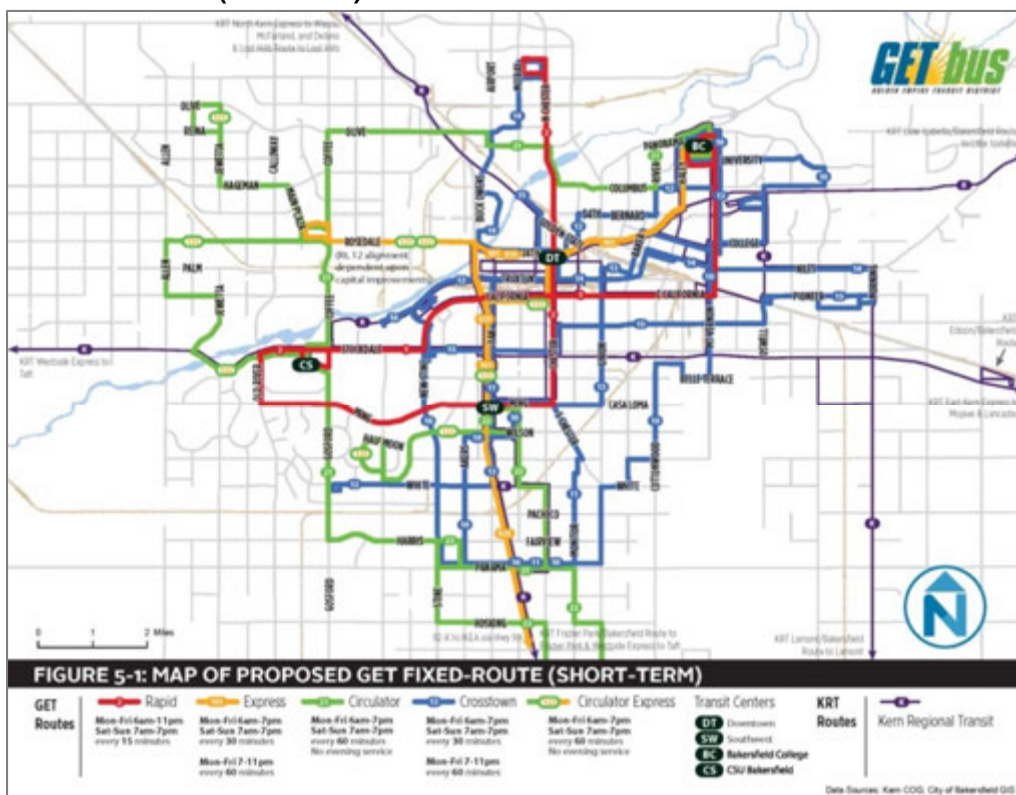
PROJECT BENEFITS:

The prominent features of the Short-Term Plan includes a new transit center at CSU Bakersfield, increased service to CSU Bakersfield and Bakersfield College, faster cross-town trips, and decreased emphasis on timed connections at transit centers. The public will have more access to quality transit which will influence more people to use public transportation.

COST BENEFIT RATIO: -
TOTAL COST OF PROJECT: -
YEAR OF CONSTRUCTION: -
STATUS: Planned

Reference: *Metropolitan Bakersfield Transit System Long-Range Plan, April 2012*

Short Term Service Plan (2012-2020)



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: GET X-92 Commuter Express bus service to Tejon Industrial Complex
PROJECT SPONSOR: Golden Empire Transit District (GET)

PROJECT DESCRIPTION:

For four years, GET has been using federal and local funds to provide a round-trip commuter express bus service that begins at 22nd Street and Eye Street, travels to a Park and Ride facility at McKee Road, and then terminates at the Tejon Industrial Complex (TIC). The purpose of this service is to provide employees of the TIC an efficient, inexpensive commuter alternative to driving to work in their own car.

GET staff has worked closely with the employers at TIC to ensure the X-92 Route arrivals and departures match the work schedules as much as possible. GET currently offers nine round-trip schedules beginning at 3:50 a.m. and ending as late as 10:30 p.m. to accommodate as many TIC employers/employees as possible. Approximately 19,000 employees per year use the X-92. A 31-day pass for the service currently costs \$51; a significant value given the fluctuation of today's fuel prices!

PROJECT BENEFITS:

The X-92 Route provides the benefits below:

- Lowers employee driving costs such as general vehicle wear and tear, oil changes, fuel costs, etc.
- Allows for TIC employers to offer fare subsidies to meet SB 375 requirements.
- Reduces the number of single occupancy vehicle trips.
- Reduces vehicle emissions throughout metro-Bakersfield and the surrounding rural area.

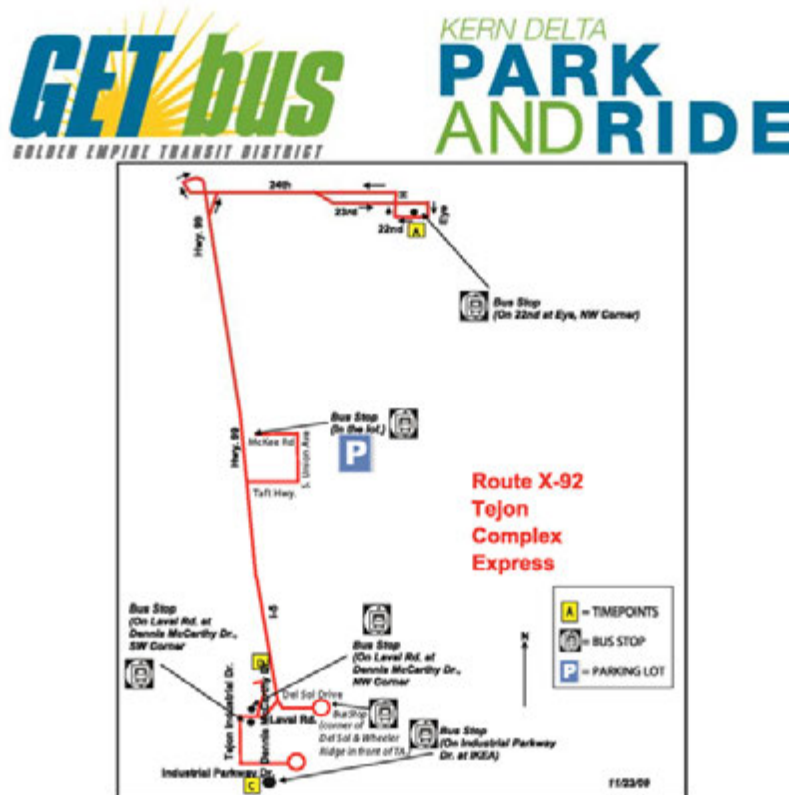
COST BENEFIT RATIO: Unknown

COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION:

STATUS: In progress

Map of GET's X-92 Route



PROJECT TITLE: Dial-A-Ride and Local Transportation Services

PROJECT SPONSOR: City of Arvin, California City, City of Delano, City of McFarland, City of Ridgecrest, City of Shafter, City of Taft, City of Tehachapi, City of Wasco, City of Bakersfield (GET)

PROJECT DESCRIPTION:

The following cities provide Dial-A-Ride service to the public within their city limits: Arvin, California City, Delano, McFarland, Ridgecrest, Shafter, Taft, Tehachapi, and Wasco. The Dial-A-Ride services vary from city to city; some cities provide services to all the public while some limit services to seniors and the disabled. In addition, Bakersfield through Golden Empire Transit (GET) provides the GET-A-Lift service to eligible seniors and disabled.

PROJECT BENEFITS:

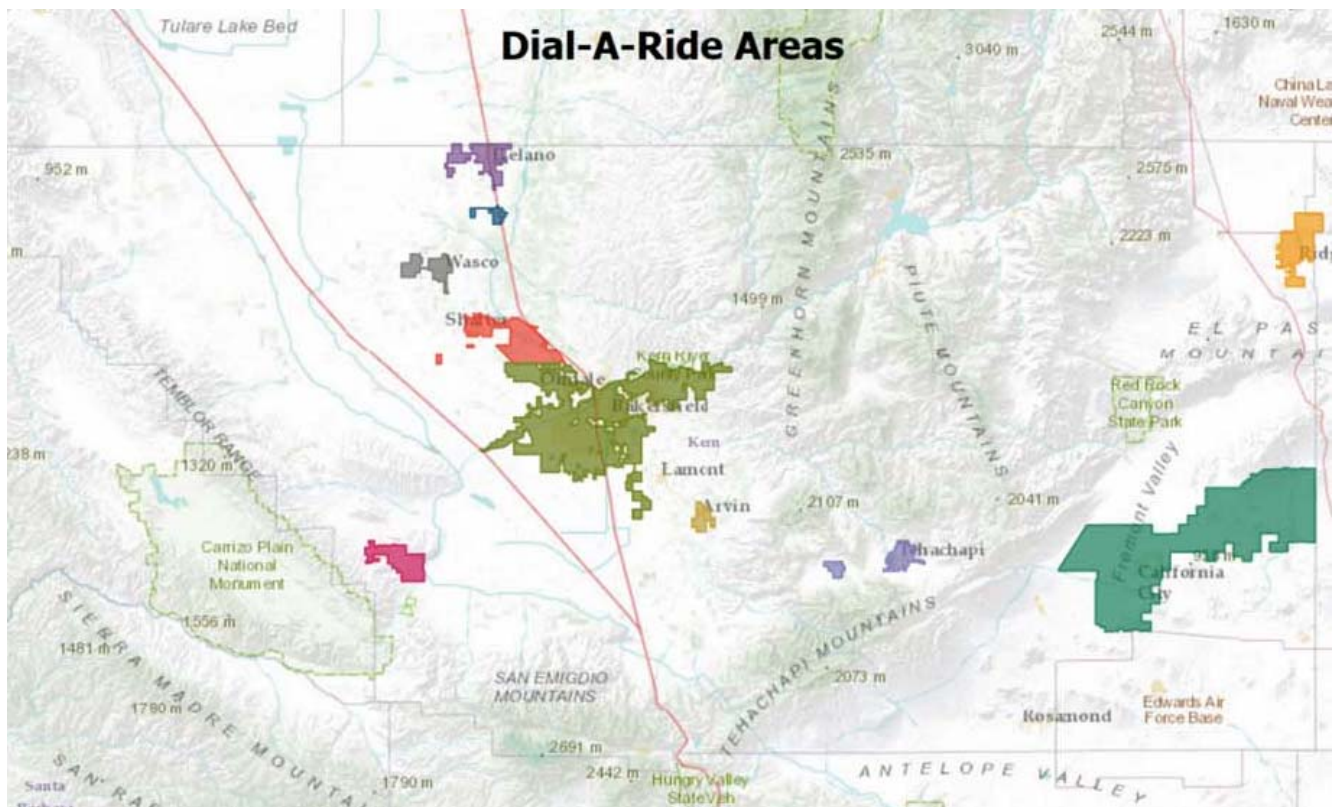
The Dial-A-Ride service is a form of ridesharing that benefits the Kern region by reducing the number of single occupancy vehicles on the road which ultimately helps improve our air quality.

COST BENEFIT RATIO: Unknown

COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION:

STATUS: In progress



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: Kern County Bicycle Master Plan and Complete Streets Recommendations / City of Tehachapi Master Bike Plan

PROJECT SPONSOR: Kern Council of Governments/ City of Tehachapi

PROJECT DESCRIPTION:

The Kern County Bicycle Master Plan and Complete Streets Recommendations proposed 664 miles of new bikeways, including 30 miles of Class I bike paths, 297 miles of Class II bike lanes, 46.6 miles of Class III bike routes, and 186 miles of Class II bike routes on State Routes. In addition, the Plan also presents recommendations for complete streets.

The City of Tehachapi Master Bike Plan proposed 31.69 total miles of bikeways, including 4.66 miles of Class I Bike Paths and 25.24 miles of Class II bike lanes.

PROJECT BENEFITS:

Replacing vehicular trips with bicycle trips can reduce human-generated GHGs in the atmosphere, reduce VMT, reduce fuel consumption and lessen mobile source pollutants, such as carbon dioxide being released into the air.

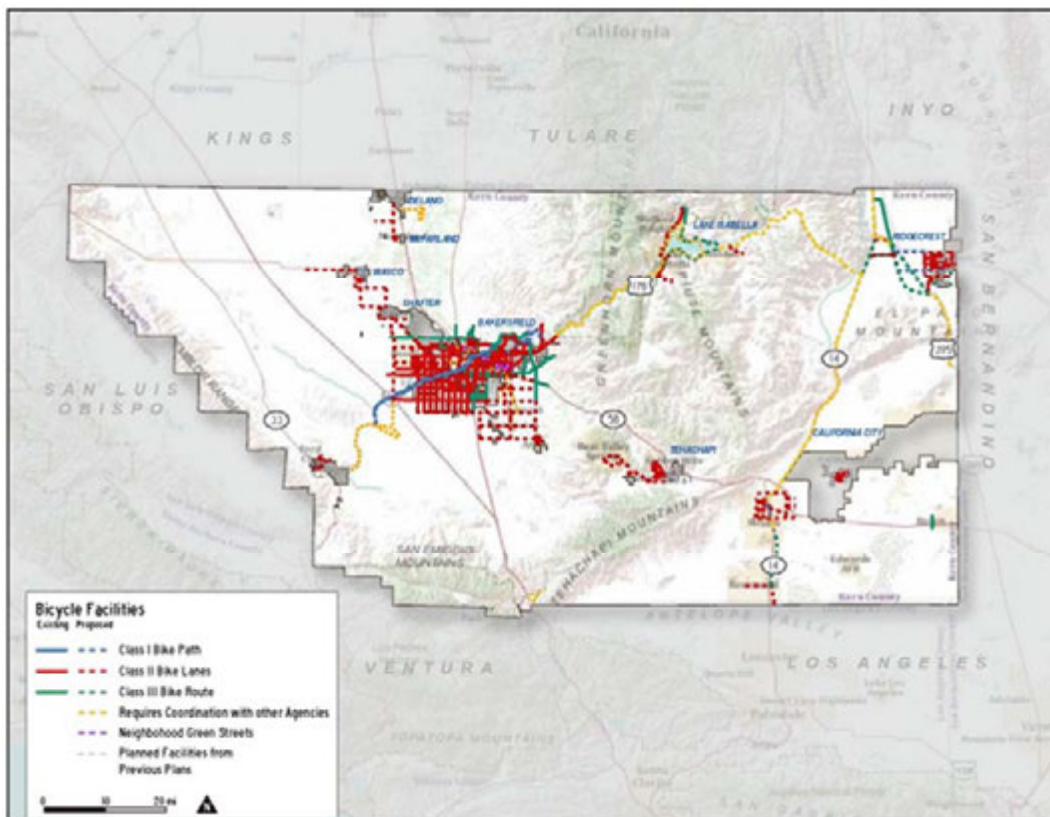
COST BENEFIT RATIO: Unknown

COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION:

STATUS: Kern County Final Plan will be issued in September 2012 and the City of Tehachapi Master Bike Plan was adopted in June 2012.

Map of Proposed Bicycle Facilities in Kern County



Sample Bike
Route Signage

Source: Kern County Bicycle Master Plan and Complete Streets Recommendations. June 2012.

PROJECT TITLE: City of Bakersfield Bicycle Facilities

PROJECT SPONSOR: City of Bakersfield Public Works Department

PROJECT DESCRIPTION:

These projects relate to bicycle facilities at numerous locations within the City of Bakersfield. There were a total of two proposed bicycle facilities projects (total of eight proposed lanes) for the Fiscal years of 2012-2013. Both projects proposed the installation of Class 2 bicycle lanes along each corridor including pavement striping, markings and roadway signage. The map also includes the existing bicycle facilities.

PROJECT BENEFITS:

On-street bike lanes (Class 2) along major roadways help raise bicycle usage resulting in lower emissions and congestion, while resolving safety issues.

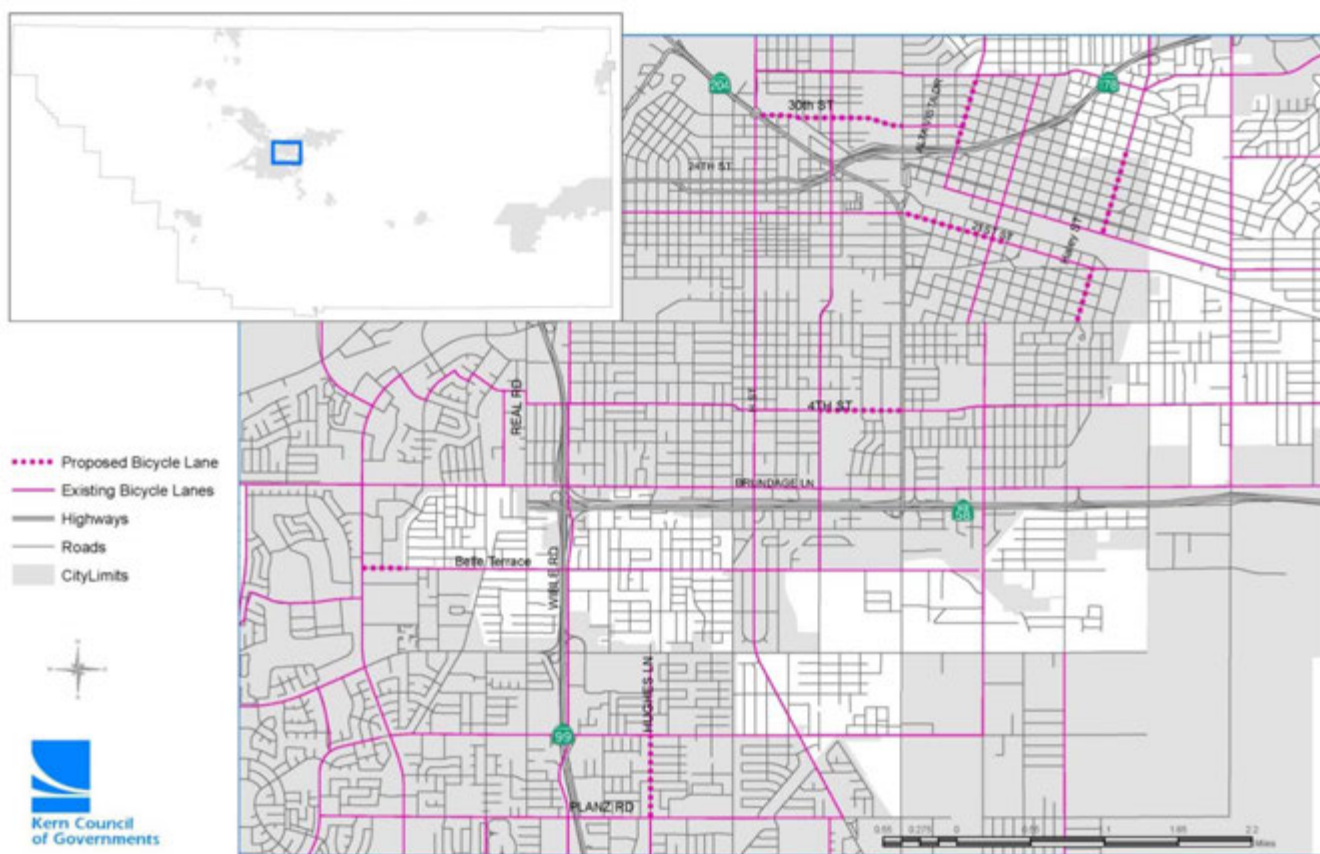
COST BENEFIT RATIO: \$7 – \$21/ lbs.

TOTAL COST OF PROJECTS: \$35,000 - \$60,000

YEAR OF CONSTRUCTION: 2013

STATUS: Constructed, Planned

Map of Bicycle Lanes



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: **Westside Station – Multi-modal Transit Center**

PROJECT SPONSOR: California City

PROJECT DESCRIPTION:

The completed project provides the eastern Kern region with a multi-modal transit center on City owned property in the Wonder Acres neighborhood at the southwest corner of California City Blvd. and Wonder Ave. The Transit Center includes a parking lot, lighting, restrooms, landscaping, and Kern Regional Transit bus stops.

The purpose of this project is to provide a comfortable, accessible, and a safe place to park that encourages residents who were parking at the previously undeveloped site to commute to work or school using car pools, ride sharing or public transit.

PROJECT BENEFITS:

Improves site accessibility to local area residents desiring to use van pools, ride sharing and public transit throughout the Kern region. Encourages future users of alternative transportation options.

COST BENEFIT RATIO: All emissions: \$8.34/lbs.

COST OF PROJECT: Approximately \$500,000

YEAR OF CONSTRUCTION: Completed in 2013

STATUS: Constructed

Westside Station – Multi-modal Transit Center, California City



PROJECT TITLE: KERN COUNTY 511

PROJECT SPONSOR: Kern Council of Governments

PROJECT DESCRIPTION:

Establish a 511 Traveler Information System in Kern County. The Kern 511 System will include a website and an Interactive Voice Recognition System (IVR).

The purpose of this project is to provide real-time information to the traveling public to improve traffic flow and safety on highways throughout Kern County.

PROJECT BENEFITS:

Provides traveler information including traffic speeds, traffic alerts, transit services, carpool information, and trip planning.

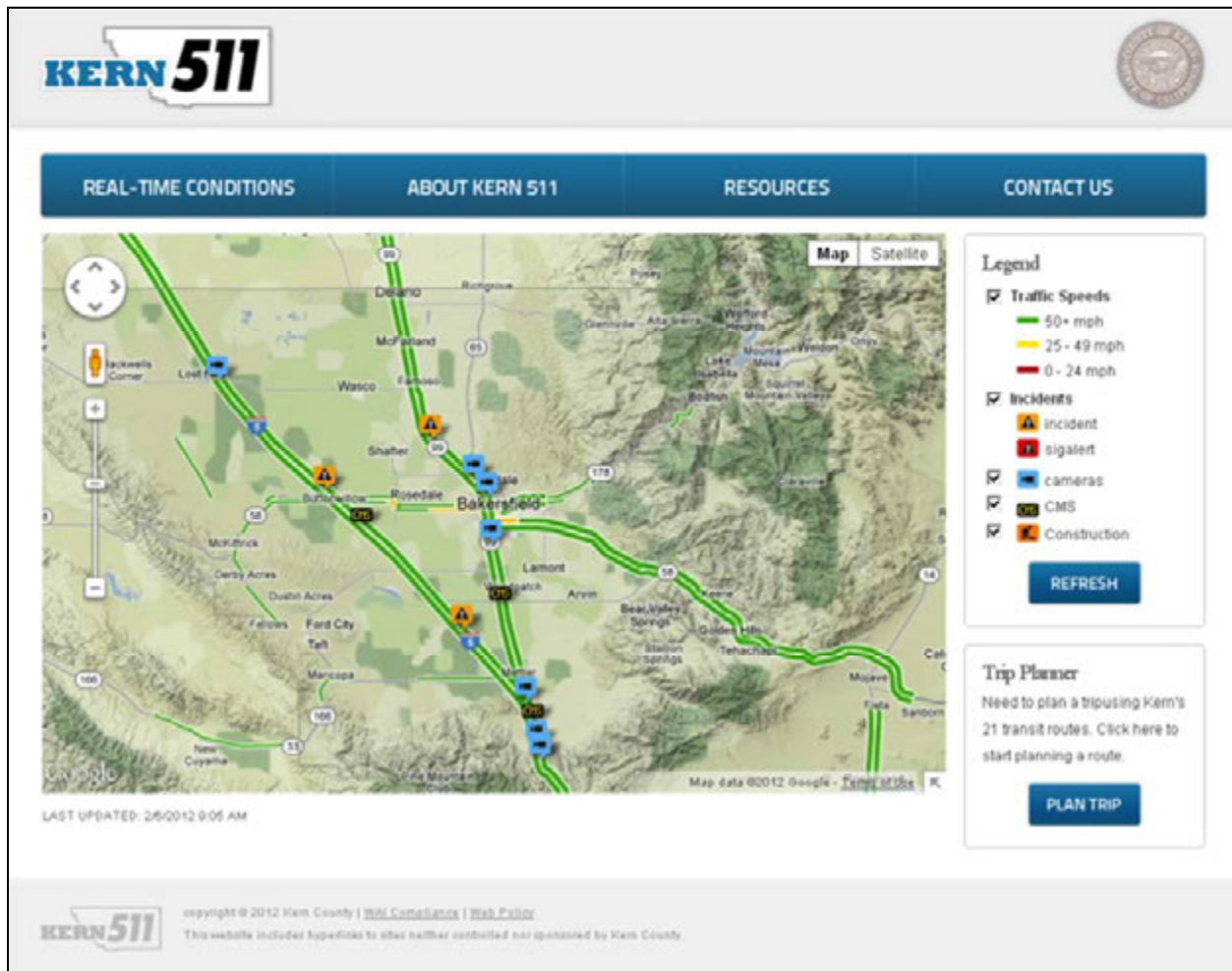
COST BENEFIT RATIO: Unknown

COST OF PROJECT: \$773,762

YEAR ESTABLISHED: 2012

STATUS: In Process

Kern County 511 Website



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: San Joaquin Valley Vanpool Program (CalVans)
PROJECT SPONSOR:

PROJECT DESCRIPTION:

The San Joaquin Valley vanpool program (CalVans) is a public vanpool service that serves Central California and began serving Kern County residents in 2009. CalVans provides public transit services to people in transportation uses that are difficult for traditional public transit operators to provide. CalVans currently provides transportation services to farmworkers throughout the county and has also provided services to Shafter students attending Taft Community College.

PROJECT BENEFITS:

CalVans provides a higher level of vanpooling while reducing overall miles traveled and carbon dioxide emissions from passenger vehicles.

CalVans provides 7, 8, and 15-passenger vans to its customers. Currently CalVans has over 65 vanpools in operation which in turn saves nearly 13,000 vehicle miles traveled per day. Growing demands project a market for nearly 500 vans pools which can save approximately 100,000 vehicle miles traveled per day.

COST BENEFIT RATIO: Unknown

TOTAL COST OF PROJECTS:

YEAR OF CONSTRUCTION:

STATUS: In process

Local college students who use CalVans



PROJECT TITLE: San Joaquin Valley Blueprint Integration Project

PROJECT SPONSOR: San Joaquin Valley Blueprint

PROJECT DESCRIPTION:

The San Joaquin Valley Blueprint Integration Project is a valley-wide program to provide support to cities in the valley whose population is under 50,000. The Project integrates Blueprint Smart Growth principles into the cities' General Plan and planning policies. A team of planning consultants will serve as Circuit Planners and will provide hands-on support to local agencies to integrate the appropriate Blueprint principles into local planning programs.

PROJECT BENEFITS:

The SJV Blueprint Integration Project assists in implementing the 12 Blueprint Smart Growth Principles. The Principles include creating walkable neighborhoods, mixing land uses, and providing a variety of transportation choices.

COST BENEFIT RATIO: Unknown

COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION:

STATUS: In progress

Within Kern County, the following small cities are involved in the Project and will be integrating the corresponding Blueprint Integration (BPI) tool:

Ridgecrest – Sign Ordinance

Wasco – Design guidelines SR 46 Corridor

Arvin – Design guidelines

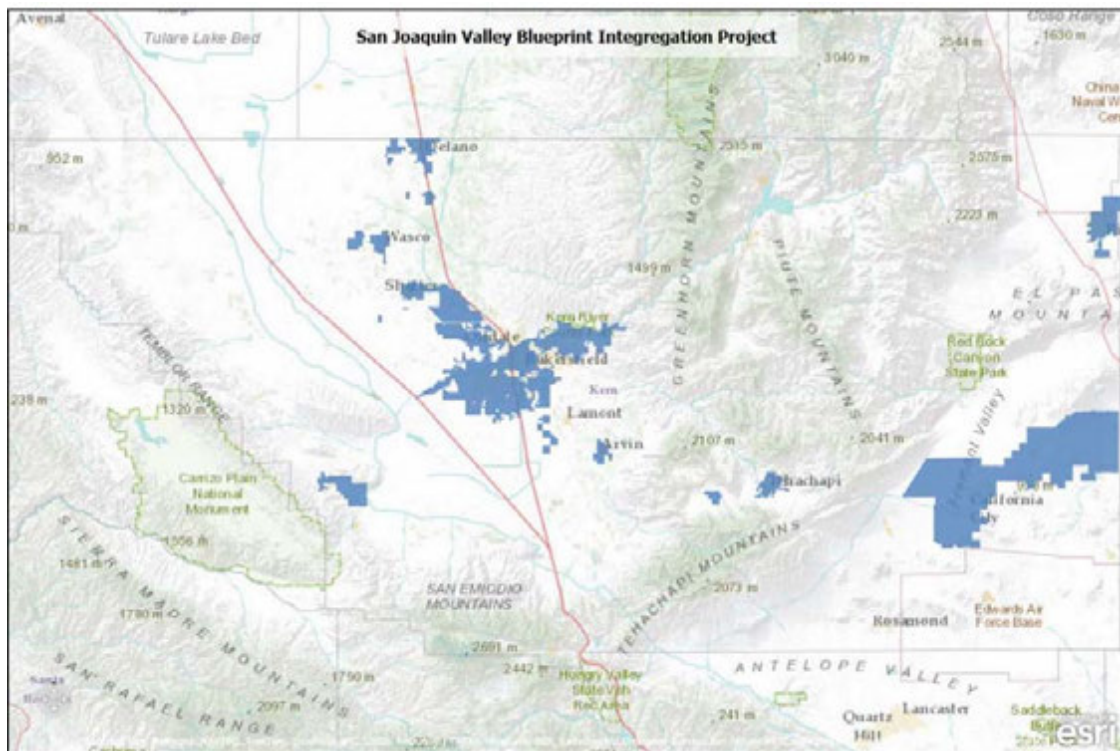
Shafter – Strategy to link transportation/land use

California City – infill strategy

McFarland – Ag mitigation program

Tehachapi – Climate Action Plan Guidance

Taft – Zoning Ordinance audit tool



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: Caltrans Detection Systems - State Route 43 Intersection Improvements and East Bakersfield Vehicle Detection Systems

PROJECT SPONSOR: Caltrans

PROJECT DESCRIPTION:

The SR 43 Intersection Improvements in Shafter installed vehicle detection systems (loops, vehicle signal heads, conduit and connectors) and new signal controllers with GPS clocks to reduce traffic congestion and improve operations at the following intersections of SR 43: Lerdo Hwy, Shafter Ave, Central Ave and Kimberlina Rd.

The East Bakersfield Vehicle Detection Systems proposed project will install vehicle detection systems in order to reduce traffic congestion and maximize efficiency of existing highways. The system will be on State Route 58 through the City of Bakersfield from Real Road to Vineyard Street at various locations. The system may be traditional loops installed in roadways or microwave radar detection systems.

PROJECT BENEFITS:

The system will provide travelers with real time information to make decisions to choose alternate routes for more efficient travel. These efficiencies will also help to improve air quality.

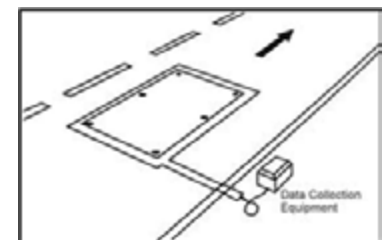
COST BENEFIT RATIO: All emissions – \$7.00 - \$21.00 / lbs.

COST OF PROJECTS: \$1,038,000

YEAR OF CONSTRUCTION: 2010, 2012

STATUS: Operating, In Construction

Detection System



PROJECT TITLE: California Highway Patrol's Safety Corridors

PROJECT SPONSOR: California Highway Patrol

PROJECT DESCRIPTION:

The California Highway Patrol (CHP) has received funds from the Office of Traffic Safety (OTS) to establish task forces comprised of representatives from city, county, regional, state, and federal government agencies, and the private sector. The mission of each task force is to assess a high collision highway or pedestrian corridor, and make recommendations to improve traffic safety on the roadways of interest.

PROJECT BENEFITS:

With the increased CHP presence along these highway safety corridors, drivers will be more sensible of their driving habits. Sensible driving and observing the speed limits can impact fuel efficiency and have a fuel economy benefit of 5% to 33% (fuelconomy.gov). Fuel efficiency can reduce CO2 emissions through reducing the burning of gasoline and diesel.

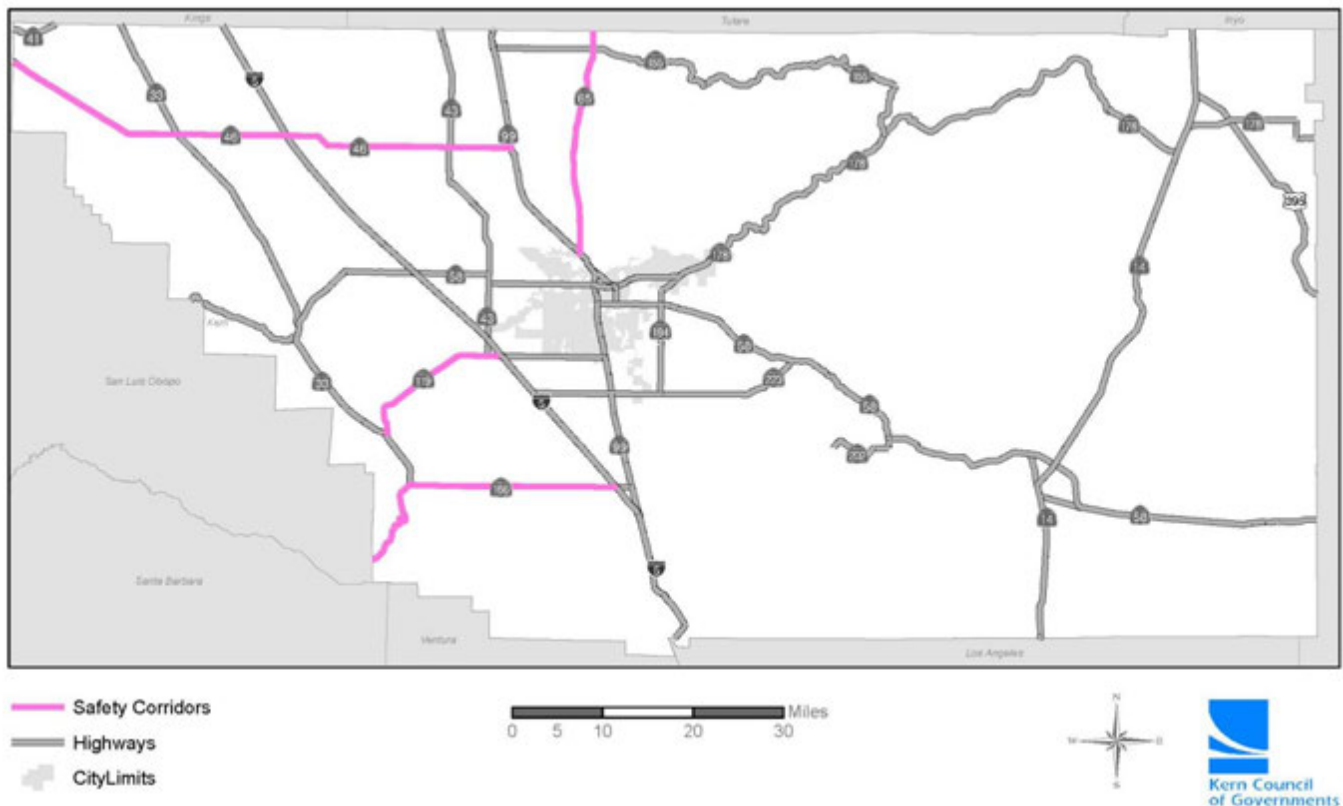
COST BENEFIT RATIO: Unknown

COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION: Started in 2002

STATUS: In progress

Map of Safety Corridors in Kern County



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: Kern County Wind Farm Areas

PROJECT SPONSOR: County of Kern

PROJECT DESCRIPTION:

The County of Kern has 21,752 acres of existing wind energy areas, 57,524 acres of approved wind projects and 14,998 acres of wind projects that are in progress.

PROJECT BENEFITS:

Wind is a clean source of renewable energy that produces no air pollution. In addition, wind turbines create power without producing greenhouse gases.

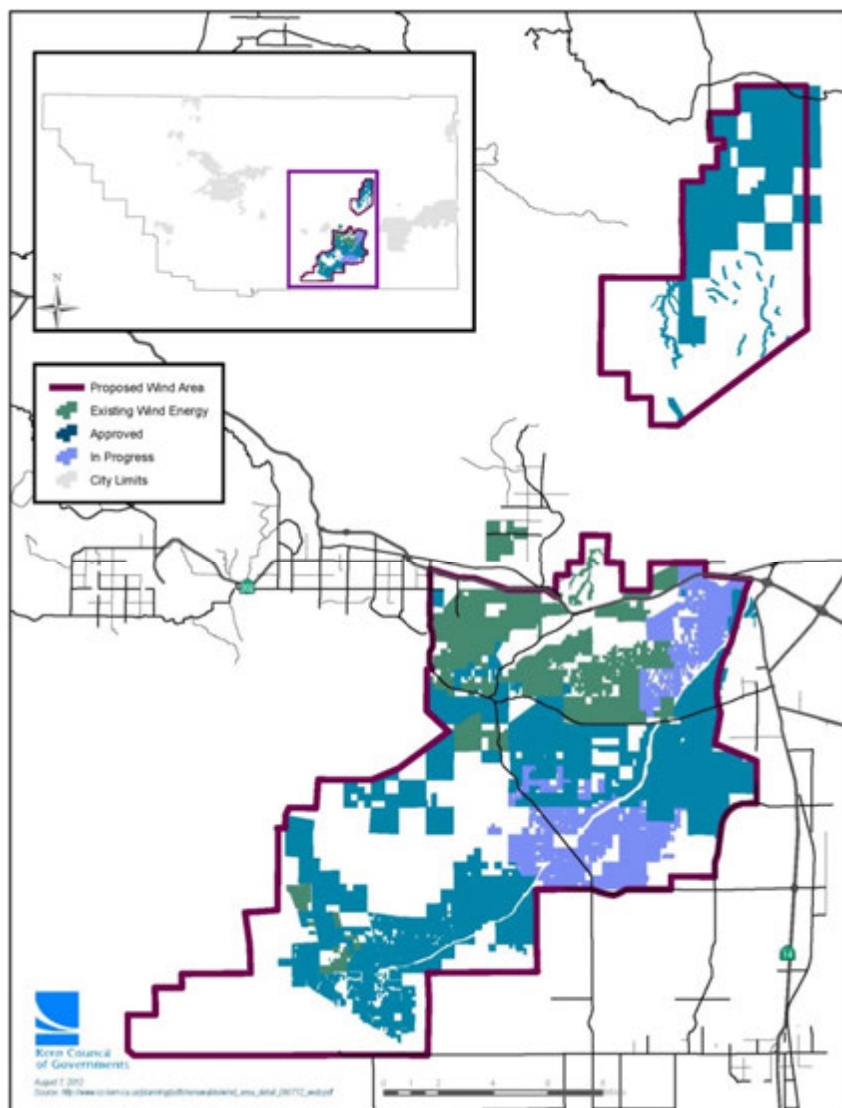
COST BENEFIT RATIO: Unknown

TOTAL COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION:

STATUS: In process

Map of Preliminary Wind Farm Areas (DRAFT)



PROJECT TITLE: Purchase of CNG Buses

PROJECT SPONSOR: Golden Empire Transit District, County of Kern Roads/Kern Regional Transit

PROJECT DESCRIPTION:

Purchasing and replacing CNG buses for Golden Empire Transit (GET) and Kern Regional Transit (KRT). There are three proposed projects that relate to the acquisition of CNG buses for Fiscal Years 2012-2014.

The purpose of these projects is to invest in alternate fuel fleets which promote the reduction of automobile trips, while also reducing the emission of harmful pollutants.

PROJECT BENEFITS:

Increasing the available capacity for passengers will encourage the public not to drive their own vehicles and decrease the number of buses for services that will reduce fleet emission levels.

COST BENEFIT RATIO: \$ 34+ / lbs.

COST OF PROJECTS: \$400,000 - \$575,000 per bus

YEAR OF CONSTRUCTION: 2013-2014

STATUS: Planned

GET CNG Bus



KRT CNG Bus



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: **The Electric Cab Company of Delano**

PROJECT SPONSOR: The Electric Cab Corporation and Private Organization

PROJECT DESCRIPTION:

The Electric Cab Company of Delano is a business organization founded in the City of Delano. The company currently provides local transportation services to the community members of Delano.

PROJECT BENEFITS:

The Electric Cab Company provides alternative transportation services to the community of Delano by using electric vehicles which reduce the emission of harmful air pollutants.

COST BENEFIT RATIO: Unknown

COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION: 2012

STATUS: In progress

<http://www.theelectriccab.com/>

Images of Electric Cab Company's electric vehicles



Photos from: <http://www.theelectriccab.com/>

PROJECT TITLE: City of Shafter Intermodal Rail Facility Expansion

PROJECT SPONSOR: City of Shafter

PROJECT DESCRIPTION:

The City of Shafter Intermodal Rail Facility Expansion will expand Shafter's existing rail facility by providing a 4,900 ft. lead extension and a 5,400 ft. run around extension with two Type 15 switches. The rail facility will establish a dedicated reliable intra-state rail shuttle connecting the Port of Oakland in northern California with the southern San Joaquin Valley.

PROJECT BENEFITS:

The rail shuttle will better utilize existing port facilities, highways, and rail infrastructures in California to reduce the relocation of empty containers, remove trucks from overcrowded highways, and improve air quality. The proposal is to create an intermodal facility which will divert the freight transported by 600 trucks per day to 2 unit trains per day to and from the Port of Oakland.

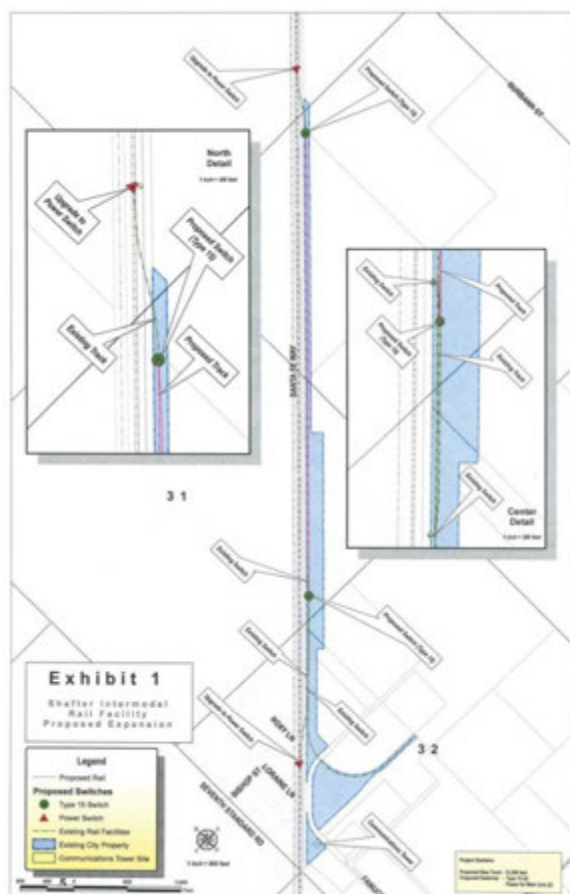
COST BENEFIT RATIO: \$99 / lbs.

TOTAL COST OF PROJECTS: \$3,712,000

YEAR OF CONSTRUCTION: 2013

STATUS: In process

Proposed Shafter Intermodal Rail Facility Expansion



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: **Downtown Elementary School (City of Bakersfield)**

PROJECT SPONSOR: Bakersfield City School District

PROJECT DESCRIPTION:

Downtown Elementary School is located in the City of Bakersfield's Downtown. The school serves K-8 students and provides extended day programs where the school day is extended before and after school to accommodate working parents. Downtown Elementary was recently expanded to accommodate more students.

PROJECT BENEFITS:

Downtown Elementary was designed to support families of the employees working in the downtown area.

COST BENEFIT RATIO: Unknown

TOTAL COST OF PROJECTS: Unknown

YEAR OF CONSTRUCTION:

STATUS: In process



PROJECT TITLE: Intersection Signalization

PROJECT SPONSOR: City of Bakersfield Public Works, Kern County Roads Department, City of Ridgecrest, Caltrans

PROJECT DESCRIPTION:

Existing and proposed intersection signalization projects at numerous locations throughout the Kern region. A total of 13 intersection signalization proposed projects have been scheduled for the Fiscal years of 2012-2014.



PROJECT BENEFITS:

Improves signal timing along the reference corridor which will reduce overall vehicle stops and starts, and limits delay in travel time. The reduction in vehicle stops and starts will improve the corridor's average speed, thereby reducing the harmful pollutants generated by vehicles traveling at low speeds and when idling.

COST BENEFIT RATIO: \$ 3 – \$ 60/ lbs.

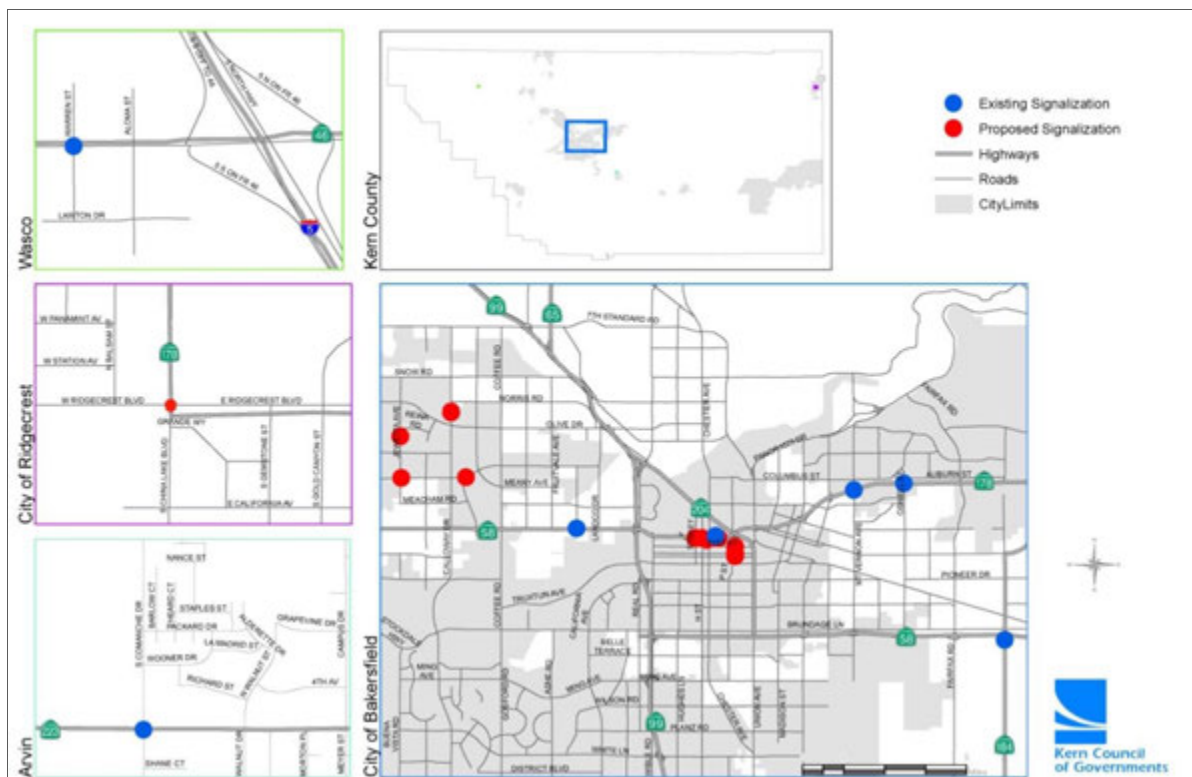
TOTAL COST OF PROJECT:

\$ 104,500 - \$ 652,500

YEAR OF CONSTRUCTION: 2009, 2011, 2013-2014

STATUS: Constructed/Operating, Planned

Proposed Intersection Signalization Projects



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: **Traffic Control Devices**

PROJECT SPONSOR: City of Bakersfield

PROJECT DESCRIPTION:

Implements traffic control devices at numerous locations within the City of Bakersfield. There were a total of four proposed traffic control device projects (total of nine monitoring cameras) for the Fiscal years of 2012-2014.

The purpose of these projects is to improve traffic flow and safety through better signal timing and accident detection through main corridors. The cameras will be controlled and monitored from the City's Traffic Operation Center (TOC), and changes to signal time can be made through the City's existing signal communication system.

PROJECT BENEFITS:

Signal timing improvements as well as visually monitoring traffic flow on central corridors will reduce overall vehicle stops and starts and limit delays in travel time. This reduction in vehicle stops and starts will improve the corridor's average speed, thereby reducing the harmful pollutants generated by vehicles at low speeds and when idling.

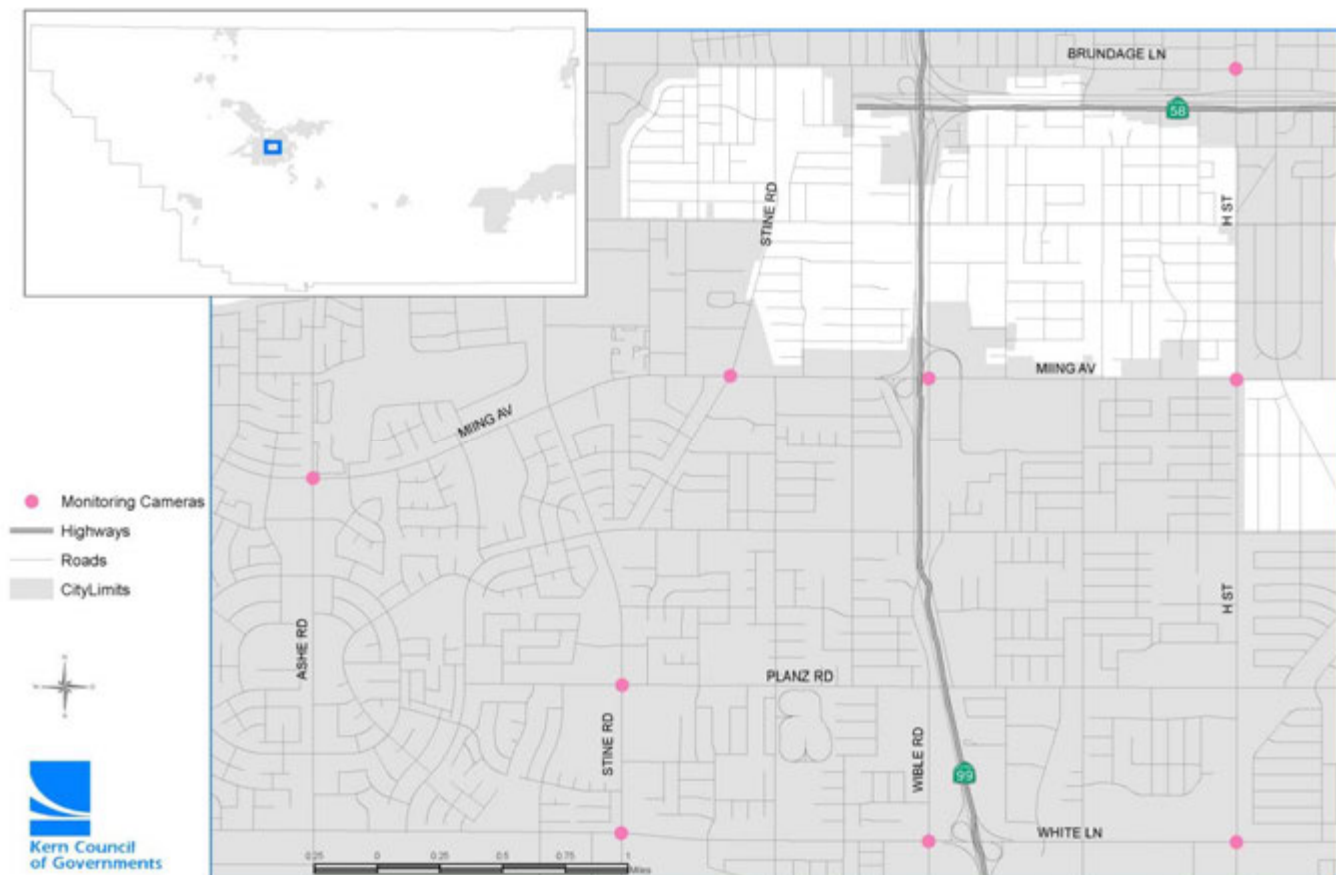
COST BENEFIT RATIO: \$15 – \$30 / lbs.

TOTAL COST OF PROJECTS: \$168,000 - \$460,000

YEAR OF CONSTRUCTION: 2013-2014

STATUS: Planned

Proposed Traffic Control device Projects (Traffic Monitoring Cameras)



PROJECT TITLE: Kern Region Energy Action Plans (Kern REAP) and Kern Energy Watch Goal 3

PROJECT SPONSORS: Kern Energy Watch Partnership with Southern California Edison (SCE), Pacific Gas & Electric (PG&E), and Southern California Gas Company (SCG)

PROJECT DESCRIPTION:

Kern COG is coordinating Greenhouse Gas Inventories based on energy use and Energy Action Planning (EAP) for ten cities and the County of Kern. Energy Action Plans identify policies, goals, and strategies for the city or county to adopt and enforce or to implement to improve energy efficiency.

Through SCE's Flight #5.6 Funding Opportunity and the Kern Energy Watch Partnership, Kern COG was awarded funding for activities that support California's Long-Term Energy Efficiency Strategic Plan along with the Great Valley Center, which was awarded funding to implement PG&E's Green Communities Program. Kern COG coordinates the efforts of all of the partners and programs. As of October 2013, the County of Kern and ten cities have completed baseline inventories for the years 2005 and 2010. Five

cities and the County of Kern have adopted Energy Action Plans. Work will continue to update the inventories in 2014, to identify strategies to address natural gas use, then to update the plans, and to establish plans for the remaining local government partners.

PROJECT BENEFITS:

Through the development of EAPs, the participating municipalities will be the lead in conducting energy inventories and using energy efficiency to reduce global warming emissions and energy use in both their own facilities and throughout the communities.

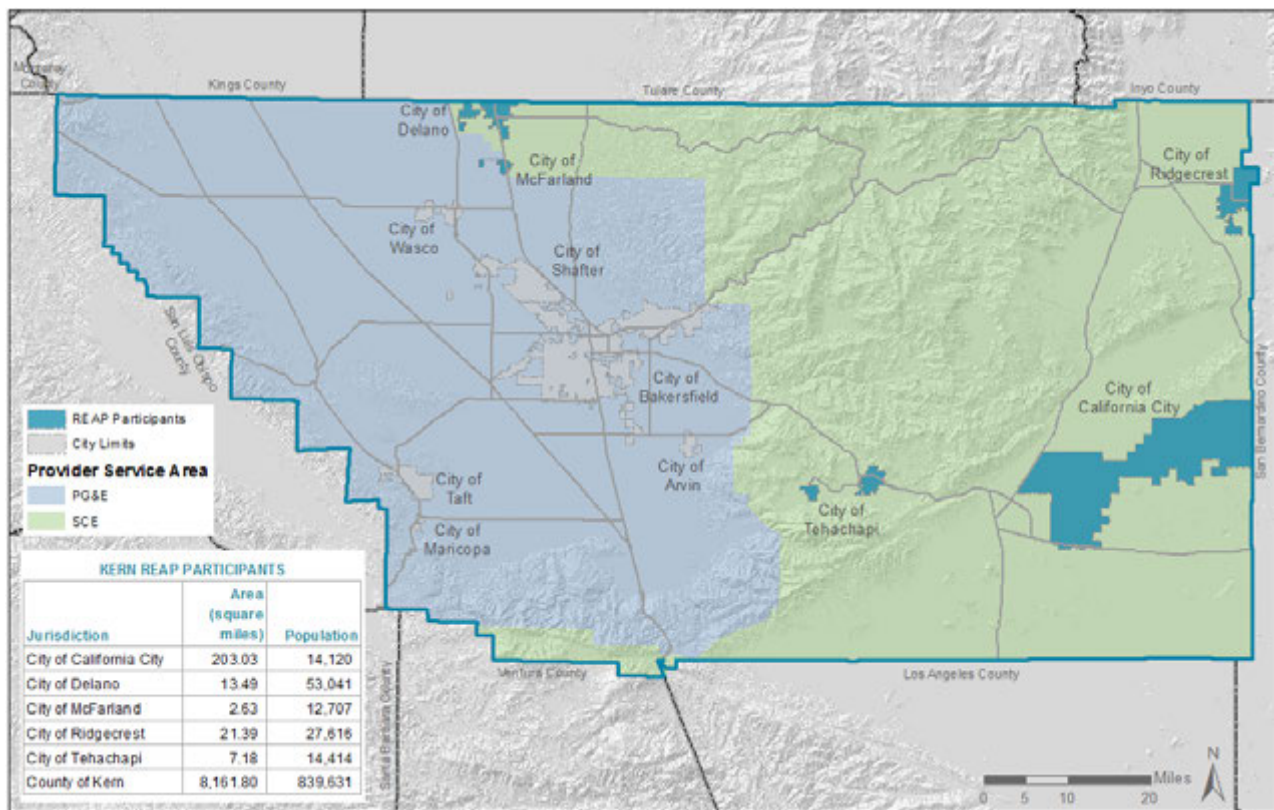
COST BENEFIT RATIO: Unknown

TOTAL COST OF PROJECTS: N/A

YEAR OF CONSTRUCTION: N/A

STATUS: In Process

Map of Kern Region Energy Action Plans and Utility Service Areas



APPENDIX E – SUCCESS STORIES

PROJECT TITLE: Tejon Ranch Conservation and Land Use Agreement

PROJECT SPONSOR: Tejon Ranch Co.

PROJECT DESCRIPTION:

On June 17, 2008, Tejon Ranch Co. and the nation's major environmental organizations, including The Sierra Club, Natural Resources Defense Council, Audubon California, the Planning and Conservation League and the Endangered Habitats League, unveiled a landmark agreement on the future of the Tejon Ranch. The agreement provides for the permanent protection of 240,000 acres of the historic Ranch — approximately 90 percent of the entire landholding. The remaining 10 percent, or 30,000 acres, of the Ranch is designated for responsible master-planned community development. The agreement and land use plan serve as a major regional sustainability success story, and the scale of the landscape makes it a state-wide and national success.

PROJECT BENEFITS: The Ranch's location between Bakersfield and Los Angeles and its adjacency to major California and national infrastructure corridors offer opportunities for regionally-beneficial development. The Conservancy has developed and is implementing a Ranch-wide management plan in collaboration with the Tejon Ranch Company.

The agreement also provides new opportunities for public access, including realignment of 37 miles of the Pacific Crest Trail to the Blue Ridge on Tejon Ranch, a potential location for a new CA state park, and a potential UC Reserve research site. In addition, the Conservancy leads public access programs that have brought approximately 5,000 visitors to the Ranch since 2008 and are serving approximately 1,000 per year through docent-led tours.

COST BENEFIT RATIO: Unknown

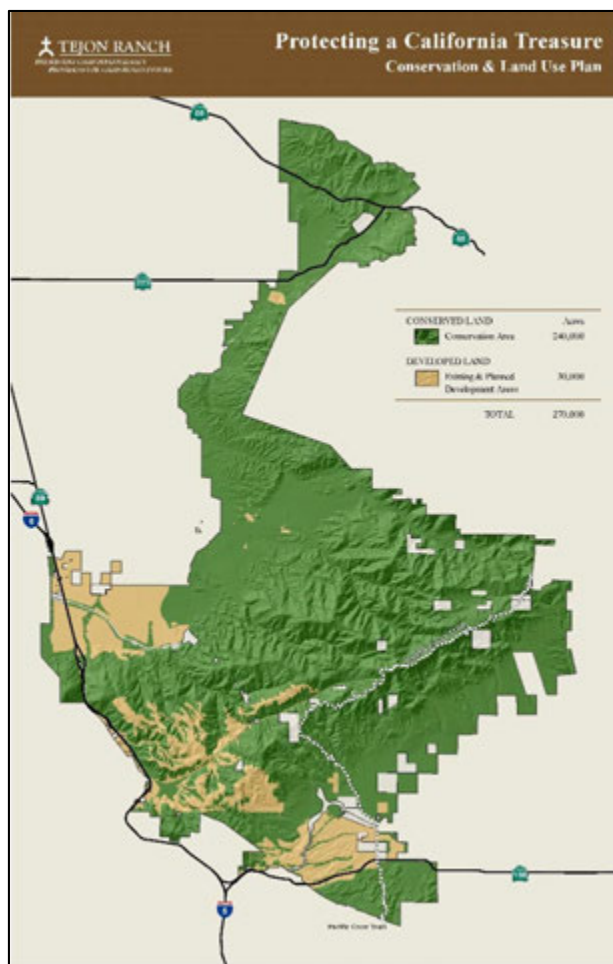
TOTAL COST OF PROJECTS: Not Applicable

YEAR OF CONSTRUCTION: Not Applicable

STATUS: In Progress

Reference: Tejon Ranch Co.

Tejon Ranch – Conservation and Land Use Plan Map



PROJECT TITLE: Kern County Community Revitalization Program

PROJECT SPONSORS: County of Kern

PROJECT DESCRIPTION:

With the recent loss of redevelopment agencies, the County of Kern Planning and Community Development Department established a centralized Economic Opportunity Areas and developed the RENEWBIZ grant-funding mechanism to assist communities with initiating projects that improve and enhance the quality of life within the community as well as increase the economic benefit to the County as a whole. The Kern County Community Revitalization Program provides the seed money for a focused visioning process that is tailored to each community to develop a visual road map and unique identity. Each community visioning effort is highly collaborative and requires the County's close collaboration with an outreach/visioning consultant and the local community. Many times,

initial funising for the visioning efforts have come from private businesses.

PROJECT BENEFITS:

The program has attracted investment and real improvements of over \$4 million in the communities of Oildale, East Bakersfield, Rosamond, Mojave, Boron, and soon, Olde Town Tehachapi. The outreach efforts established a collaboration between residents, businesses, and stakeholders with the county that continues with physical improvements and additional planning efforts to be completed into the future.

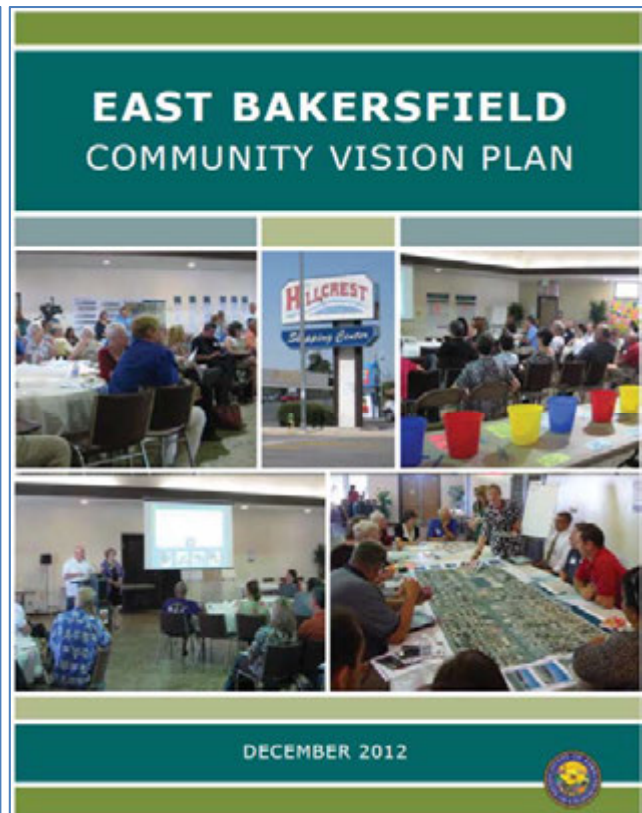
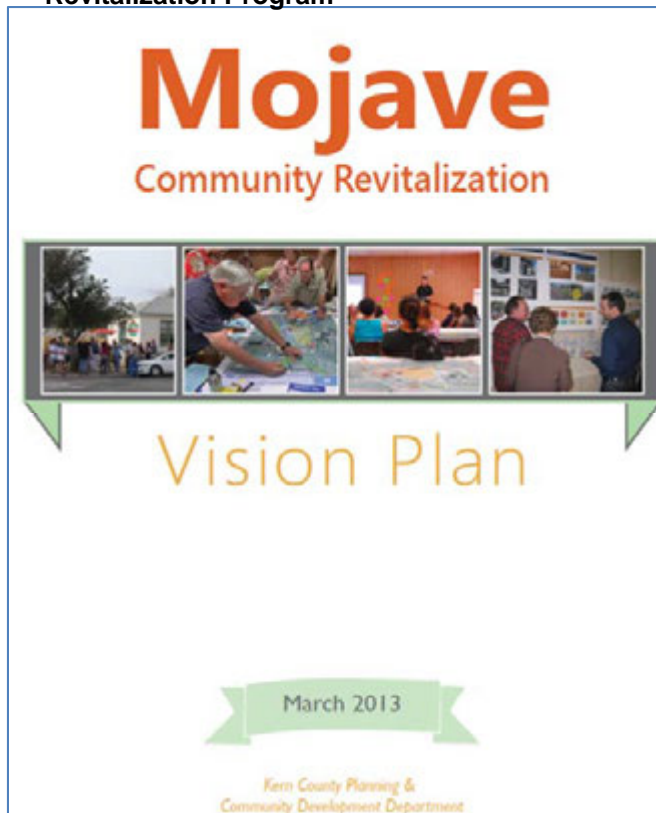
COST BENEFIT RATIO: Unknown

TOTAL COST OF PROJECTS: N/A

YEAR OF CONSTRUCTION: N/A

STATUS: In Process

Two of the community vision plans developed throught the Kern County Community Revitalization Program



Kern Council of Governments



Appendix F San Joaquin Valley Regional Overview

June 19, 2014

DRAFT San Joaquin Valley Regional Overview

June 2014

One Valley: The San Joaquin Valley Profile

Geography

The San Joaquin Valley (Valley) is the southern portion of the Great Central Valley of California [Exhibit 1-1]. The San Joaquin Valley stretches from the Tehachapi Mountains in the south to the San Joaquin Delta in the north, a distance of nearly 300 miles. The eastern boundary is the Sierra Nevada Mountains, which reaches elevations of over 14,000 feet, while the western boundary is the lower coastal ranges. The Valley floor is about 10,000 square miles in size.

**Exhibit 1-1
San Joaquin Valley Topography**



For the purposes of this report, the San Joaquin Valley is considered to include the entirety of the counties of San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare and Kern. The total area of the eight counties is 27,383 sq. mi. (larger than West Virginia). Kern County straddles the Sierra Nevada Mountains and occupies a portion of the Mojave Desert. The desert portion of Kern County (about 3,650 sq. mi.) is within the Southeastern Desert Air Basin.

On the Valley floor, the topography is generally flat to rolling, and the climate is characterized by long, very warm summers, and short, cool winters. Precipitation is related to latitude and elevation, with the northern portions of the valley receiving approximately 12-14 inches of rain a year, while the southern portion has an annual average of less than six inches. Snow rarely falls on the Valley floor, but heavy winter accumulations are common in the Sierra Nevada Mountains.

The Valley occupies an area between the two largest metropolitan areas in California, San Francisco and Los Angeles. The major transportation facilities run generally north/south through the Valley and include State Route 99, Interstate 5, Union Pacific Railroad and Burlington Northern & Santa Fe Railroad. Several highways and some rail lines cross the Valley east/west including State Routes 4, 120, 152, 198 and 58 among others. In addition, the Valley contains numerous oil and natural gas pipelines, a myriad of telecommunication facilities, distribution centers, the Port of Stockton, and air travel corridors.

Population

While the Valley is largely rural in nature, it does contain several large cities and suburbs with a total population of nearly 4 million people (more than the population of 24 states). The eight Valley counties are a part of seven Metropolitan Statistical Areas (MSAs): Stockton (San Joaquin County), Modesto (Stanislaus County), Merced, Fresno-Madera, Hanford-Corcoran (Kings County), Visalia-Porterville (Tulare County) and Bakersfield (Kern County). The large majority of the Valley's population resides along the State Route 99 corridor including four cities of over 150,000 people (Fresno, Bakersfield, Stockton and Modesto) *[Exhibit 1-2]*. Population growth has been sustained and significant *[Figure 1-1]*. In 1970, the eight San Joaquin Valley counties had a population of just over 1.6 million. By 2012, the population had increased 149% to over 4 million *[Exhibit 1-3]*. The Valley continues to be one of the fastest growing regions in the state. The Valley accounted for 8.2% of California's total population in 1970 and has grown to account for 11% of California's total population now. By 2050, the Valley is projected to capture 15% of the state's population *[Exhibit 1-4]*.

Exhibit 1-2

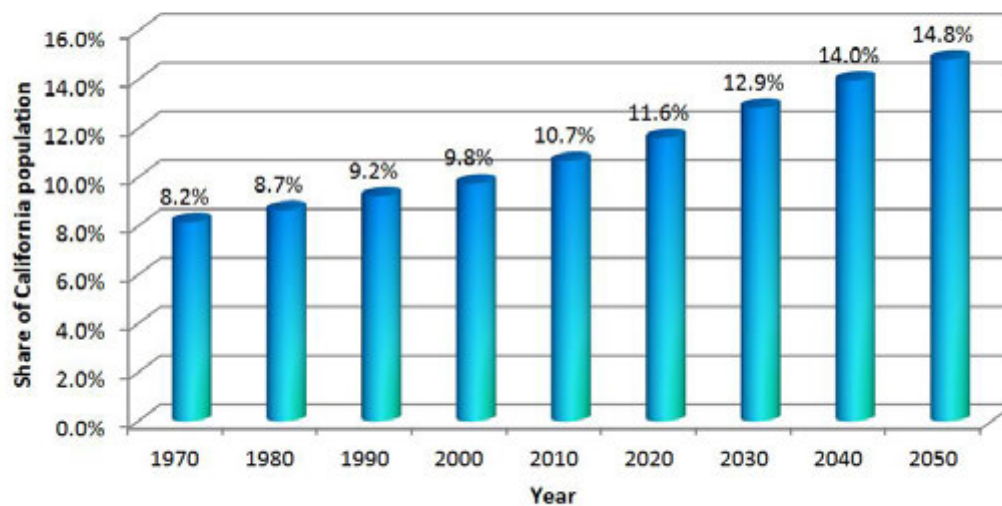
San Joaquin Valley



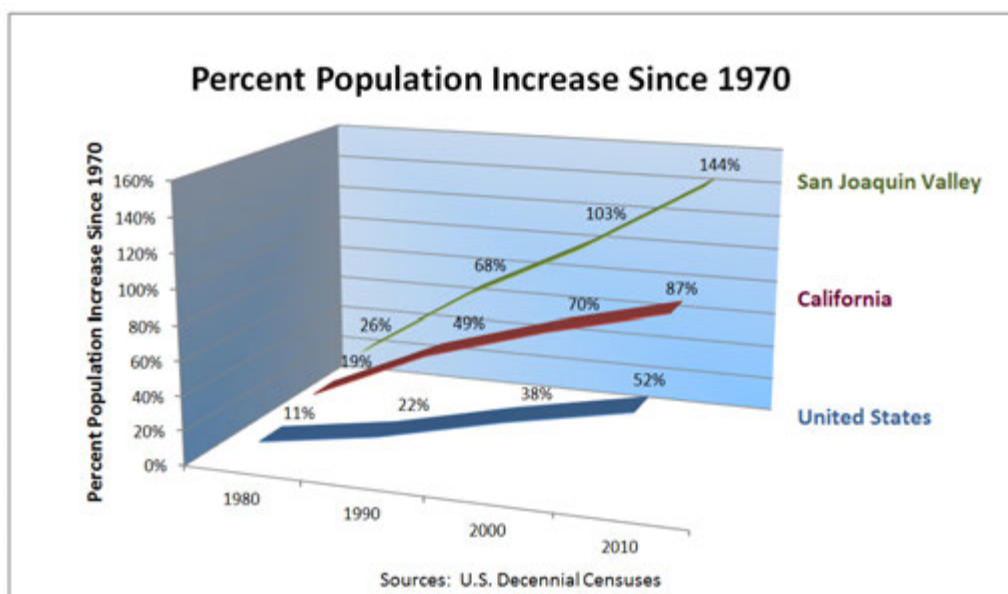
Exhibit 1-3**San Joaquin Valley Population Growth by County**

	1970	1980	1990	2000	2012	2020	2030	2040
Fresno	413,329	514,621	667,490	799,407	945,711	1,071,728	1,241,773	1,397,138
Kern	330,234	403,089	544,981	661,645	850,006	1,057,440	1,341,278	1,618,681
Kings	66,717	73,728	101,469	129,461	152,419	176,647	205,627	235,129
Madera	41,519	63,116	88,090	123,109	152,074	185,056	229,277	278,011
Merced	104,629	134,560	178,403	210,554	258,736	301,376	366,352	436,188
San Joaquin	291,073	347,342	480,628	563,598	695,750	810,845	1,004,147	1,213,708
Stanislaus	194,506	265,900	370,522	446,997	519,940	589,156	674,859	759,027
Tulare	188,322	245,738	311,921	368,021	450,840	526,718	630,303	722,838
Total San Joaquin Valley	1,630,329	2,048,094	2,743,504	3,302,792	4,025,476	4,718,966	5,693,615	6,660,720
California	19,971,069	23,667,764	29,760,021	33,871,648	37,678,563	40,643,643	44,279,354	47,690,186
% of San Joaquin Valley of out California	8.2%	8.7%	9.2%	9.8%	10.7%	11.6%	12.9%	14.0%

Sources: U.S. Census 1970-2010, California Department of Finance 2020-2050

Exhibit 1-4**San Joaquin Valley's Share of California Population
1970 - 2050**

Sources: U.S. Census 1970-2010, California Department of Finance 2020-2050

Exhibit 1-5

Future population growth is also expected to be sustained and significant. Both ends of the Valley are under growth pressure from the neighboring metropolitan areas of Los Angeles and the San Francisco Bay Area in addition to the natural growth rate in the Valley. Population in the eight Valley counties is projected to reach nearly 7.5 million by the year 2050, using growth projections from the California State Department of Finance (DOF) [Exhibit 1-3].

Economy

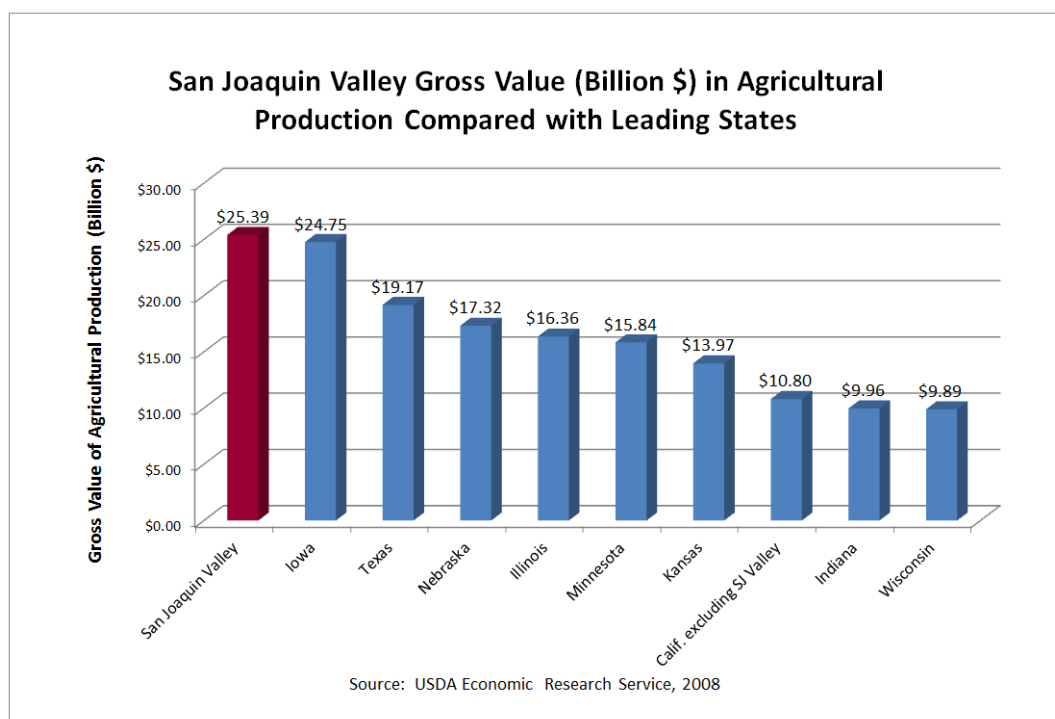
The San Joaquin Valley is famous for agricultural production. All eight counties rank within the top twelve of California's 58 counties. In addition, if the Valley were a state, it would be the top agricultural producing state in the country. The Valley produced \$25.4 billion in agricultural products in 2008. This amount is over double the remainder of California and more than the next highest producing state, Iowa [Exhibit 1-7].

Exhibit 1-6

**San Joaquin Valley Counties Rank
in Gross Value of Agricultural Production
Among all California Counties**

1	Fresno	\$6.886 billion
2	Tulare	\$5.629 billion
3	Kern	\$5.365 billion
5	Merced	\$3.259 billion
6	Stanislaus	\$3.070 billion
7	San Joaquin	\$2.247 billion
8	Kings	\$2.220 billion
12	Madera	\$1.570 billion

Source: California County Agricultural
Commissioners' Reports, 2011

Exhibit 1-7

Agriculture accounts for 12% of the Valley's jobs [Exhibit 1-8]. In comparison, only 3% and 2% of the state and nation's jobs are in agriculture [Exhibit 1-9]. Other major employment sectors in the Valley are education, health and social services (21.5%) and retail trade (11.3%).

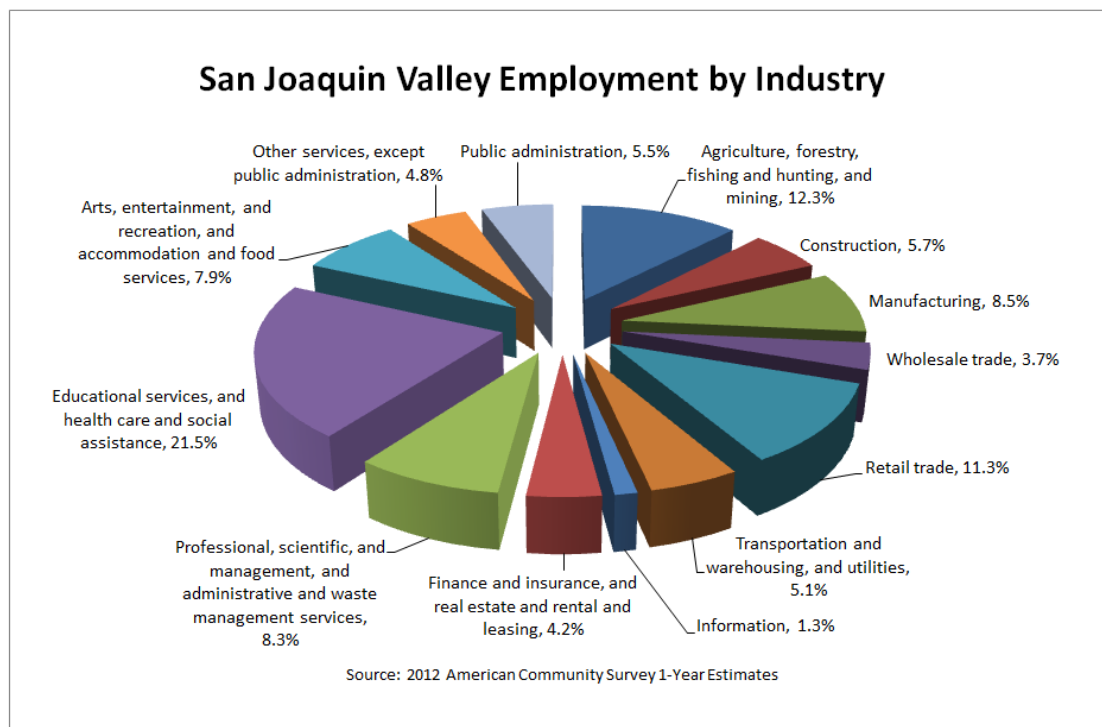
Exhibit 1-8

Exhibit 1-9
EMPLOYMENT BY INDUSTRY

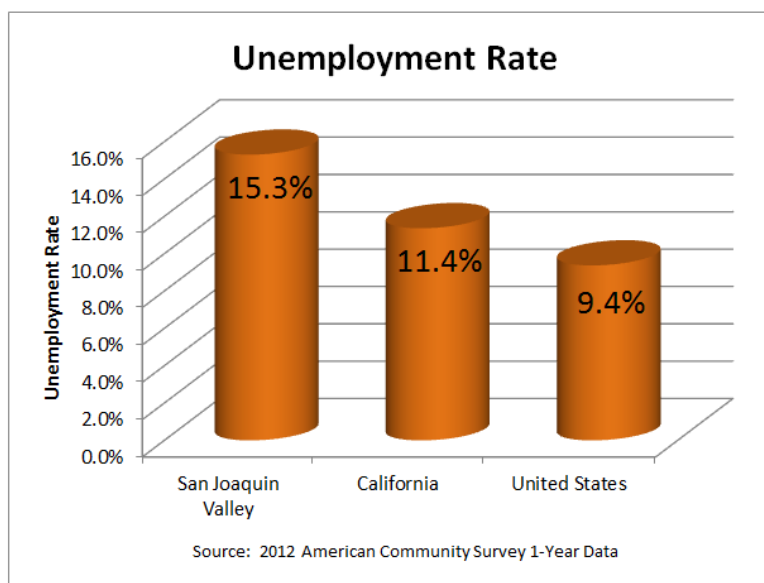
Industry	San Joaquin Valley		California		United States	
Agriculture, forestry, fishing and hunting, and mining	187,439	12.3%	412,318	2.5%	2,830,729	2.0%
Construction	86,743	5.7%	983,602	5.9%	8,802,312	6.2%
Manufacturing	129,388	8.5%	1,660,819	9.9%	14,988,864	10.5%
Wholesale trade	55,747	3.7%	503,594	3.0%	3,785,841	2.6%
Retail trade	171,575	11.3%	1,892,209	11.3%	16,639,780	11.6%
Transportation and warehousing, and utilities	77,522	5.1%	769,009	4.6%	7,020,960	4.9%
Information	19,498	1.3%	475,122	2.8%	2,975,482	2.1%
Finance and insurance, and real estate and rental and leasing	63,437	4.2%	1,058,597	6.3%	9,414,894	6.6%
Professional, scientific, and management, and administrative and waste management services	126,130	8.3%	2,140,616	12.8%	15,591,744	10.9%
Educational services, and health care and social assistance	326,927	21.5%	3,518,296	21.0%	33,113,097	23.2%
Arts, entertainment, and recreation, and accommodation and food services	120,223	7.9%	1,701,284	10.1%	13,697,912	9.6%
Other services, except public administration	72,582	4.8%	916,873	5.5%	7,118,937	5.0%
Public administration	84,440	5.5%	745,722	4.4%	6,941,135	4.9%
TOTAL Civilian employed population 16 years and over	1,521,651	100.0%	16,778,061	100.0%	142,921,687	100.0%

Source: 2012 American Community Survey 1-Year Estimates

Economically Distressed Area

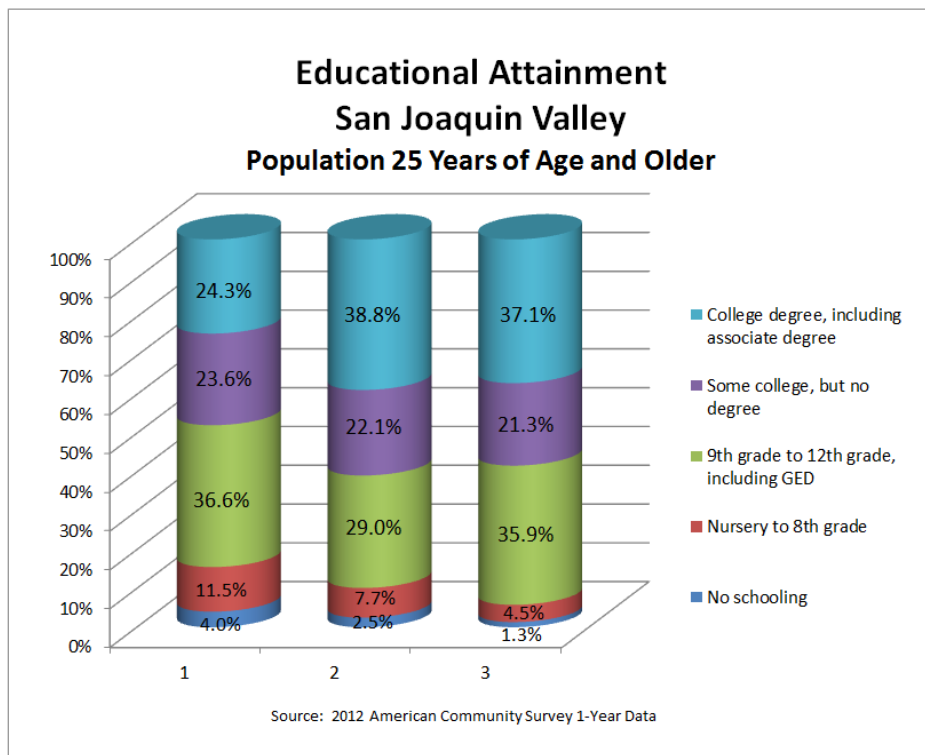
The San Joaquin Valley is one of the most economically distressed regions in the United States. High unemployment rates have historically plagued the Valley. As shown in Exhibit 1-10, in 2012 the Valley's unemployment rate was 15.3%, in contrast to 11.4% and 9.4% for the state and that nation, respectively.

Exhibit 1-10



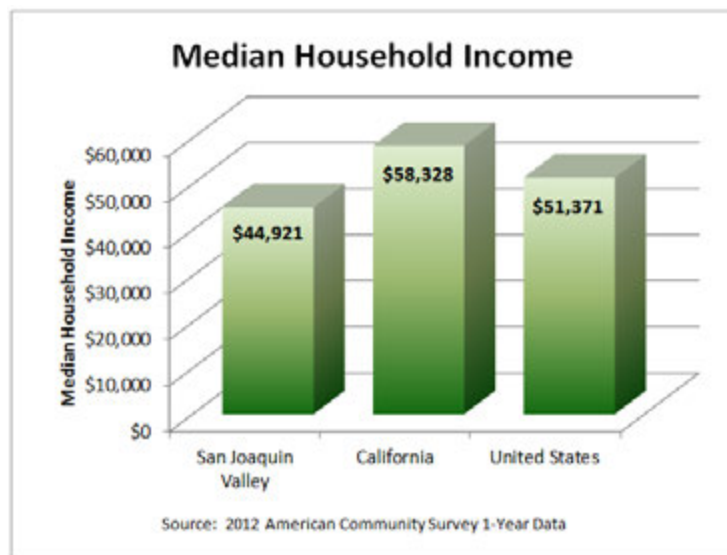
Educational levels for Valley residents lag behind those of California and the United States. Only 24.3% of persons 25 years of age and older have a college degree, compared to 38.8% and 37.1% for the state and nation, respectively [Exhibit 1-11].

Exhibit 1-11



With the Valley's mix of employment types, high unemployment, and low educational attainment levels, the Valley is plagued with a low median household income. As shown on Exhibit 1-12 below, the Valley's median household income of \$45,000 is far below the state and nation's averages of \$58,000 and \$51,000.

Exhibit 1-12

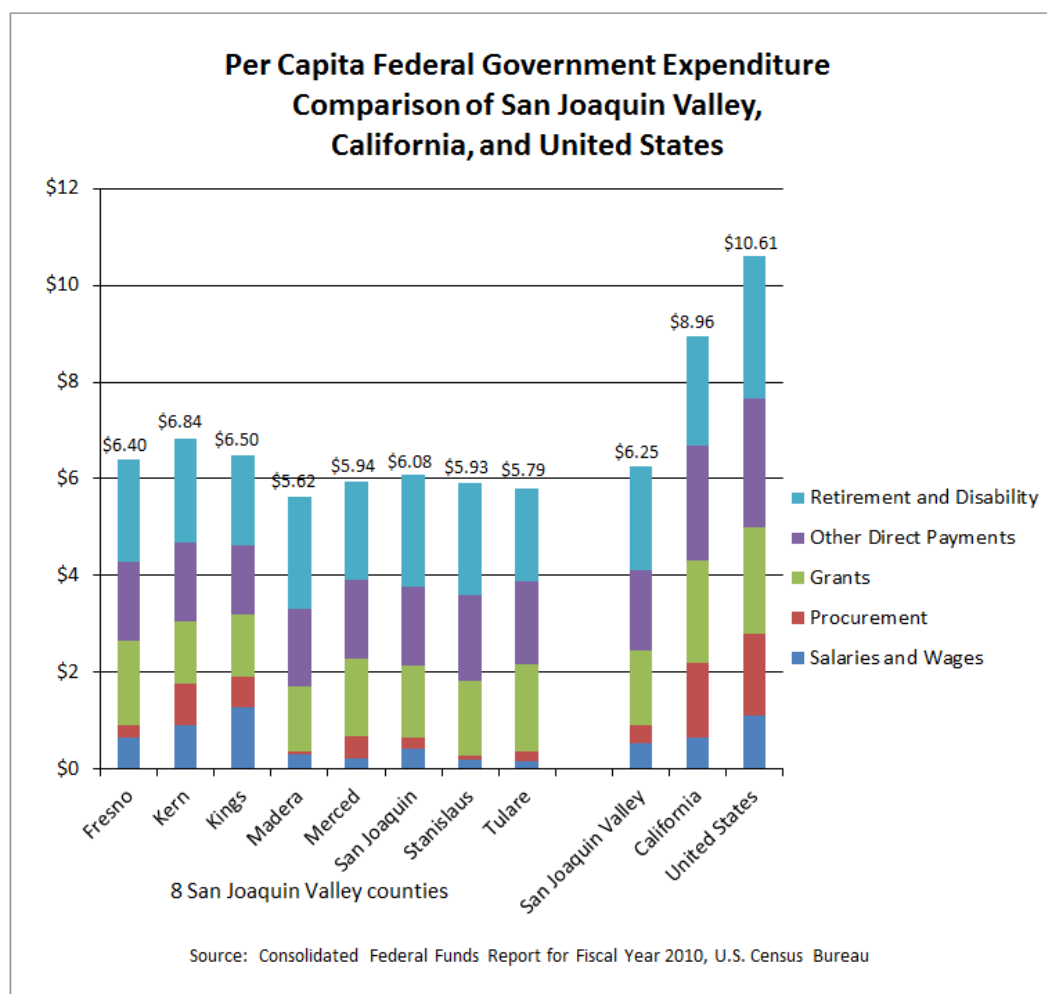


The economic plight of the San Joaquin Valley is starting to be recognized at a national level. The Congressional Research Service (CRS) completed a study in 2005 (California's San Joaquin Valley: A Region in Transition) comparing the economic conditions of the San Joaquin Valley to the Central Appalachian region, another severely economically distressed region. The Central Appalachian region (primarily eastern KY and parts of WV, TN and VA) is the most economically distressed sub-region within the Appalachian Regional Commission (ARC). ARC was created by Congress in 1965 in response to the persistent socioeconomic challenges in the Appalachian region. Economic conditions in the Valley were shown to be comparable to Central Appalachia and lagging far behind the state of California as a whole and the United States. For example, poverty rates in the Valley are similar to the poorest region of the Appalachians and are actually trending worse than the Central Appalachian region.

While being one of the most economically challenged regions in the country, the Valley has traditionally received far less federal assistance than other regions in the United States. The CRS study also showed that the Valley is lagging behind the Appalachian region, California and the United States in per capita federal expenditures.

Exhibit 1-13 below indicated that in 2010, the per capita federal government expenditure for the Valley and each of its eight counties was still far below that of California and the United States.

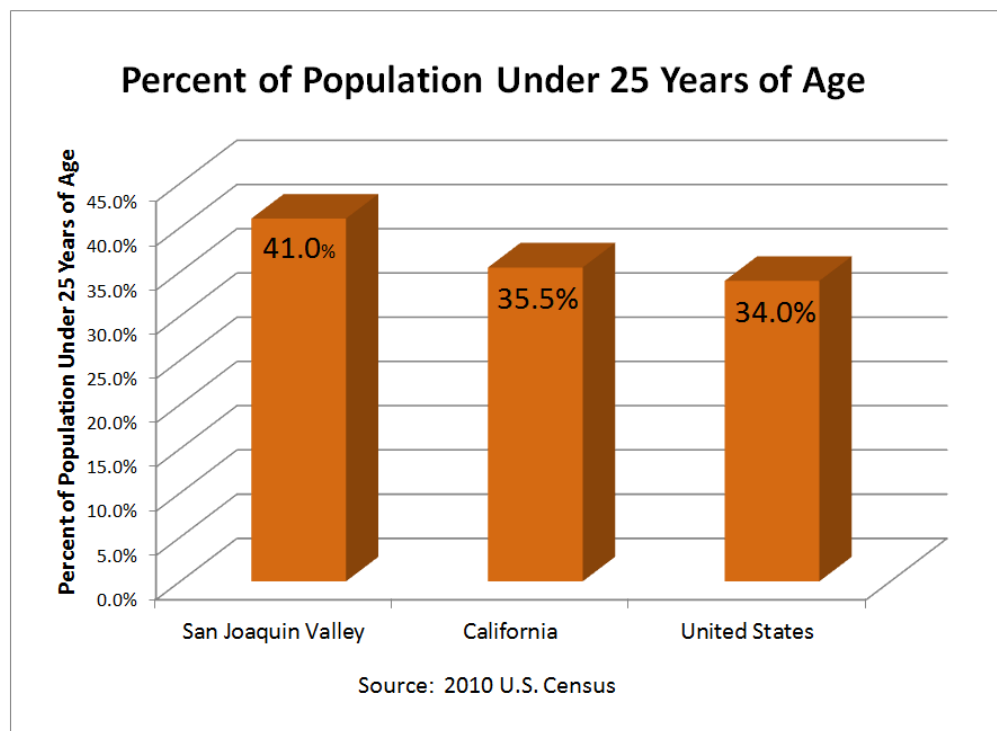
Exhibit 1-13



Demographics

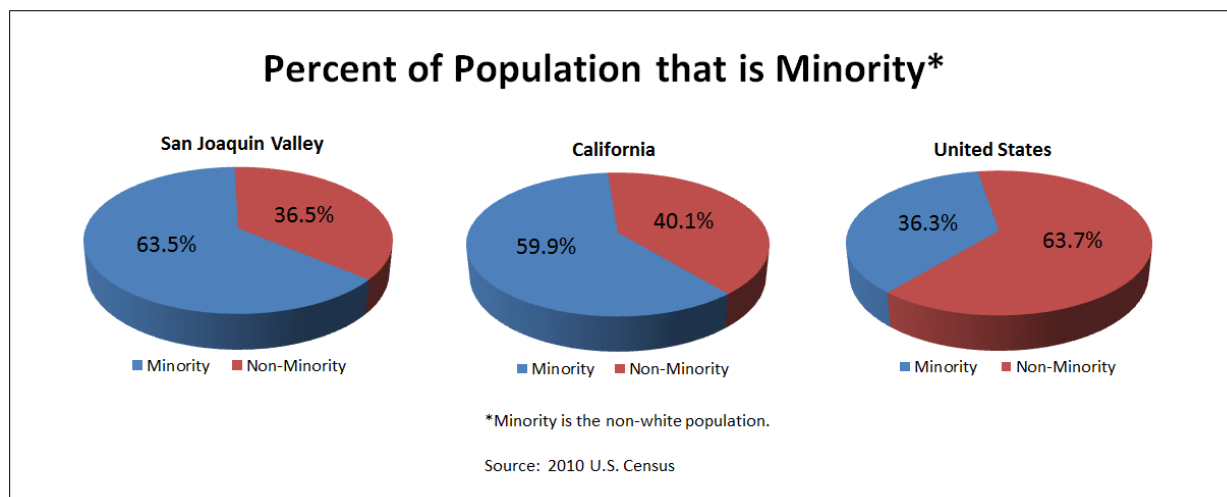
The Valley has a younger population than California as a whole and the United States. In 2010, 41.0% of Valley residents were under the age of 25 compared to 35.5% for California and 34.0% for the United States [Exhibit 1-14].

Exhibit 1-14



The residents of the Valley are more ethnically diverse than those of California and the United States. According to the 2010 U.S. Census, 63.5% of the Valley's inhabitants are minority (non-white), compared to 59.9% and 36.6% for the state and nation [Exhibit 1-15].

Exhibit 1-15



Valley Success in Partnering and Planning

Air Quality

Background

The SJV is one of the largest and most challenging air quality nonattainment areas in the United States. The SJV nonattainment area includes eight counties from San Joaquin County to Kern County on the Western border of the Sierra Nevada range. These counties represent a diverse mixture of urban and rural characteristics, yet are combined in a single nonattainment area that violates federal health standards for ozone and particulate matter. Air quality monitoring stations continue to indicate that the San Joaquin Valley is among the worst polluted regions in the country. Since the eight counties are combined into a single nonattainment area, a coordinated approach is used for compliance with the federal Clean Air Act. That coordinated approach is essential in meeting the Valley's goal to provide clean air to all residents.

Coordination

On-going coordination with federal, state, and local partners has been, is, and will continue to be critical to the meeting the goal of providing clean air to all San Joaquin Valley residents. As one of the few multi-jurisdictional planning areas in the country, the individual decisions and actions of each of the SJV Regional Planning Agencies (RPAs) have the potential to affect the entire San Joaquin Valley. The process is critical to documenting compliance with the Federal Clean Air Act, as well as enabling the expenditures that build and maintain transportation infrastructure; investments which provide valuable jobs to San Joaquin Valley residents.

Transportation Conformity

The primary goal is to assure compliance with transportation conformity regulations with respect to the requirements for Regional Transportation Plans (RTPs), Federal Transportation Improvement Programs (FTIPs), amendments, compliance with the California Environmental Quality Act (CEQA), implementation of applicable transportation control measures (TCMs), and applicable State Implementation Plans (SIP). Since coordination efforts have begun, the SJV RPAs have been successful in complying with conformity requirements for the 2004 TIP/RTP, 2006 TIP, 2007 TIP/RTP, and 2011 TIP/RTP. In addition, FHWA has determined that the SJV RPA planning processes substantially meet the federal planning requirements. TIP/RTP Amendments, including coordinated amendment cycles and development of valley-wide process to be federally approved.

Continued examples of SJV RPA coordinated efforts with respect to transportation conformity include the following:

- Monitoring and testing of transportation model updates;
- Continued documentation of latest planning assumptions and compliance with the transportation conformity rule and corresponding guidance documents;
- Drafting of valley-wide procedures for RPA staff use, with detailed instructions from the execution of EMFAC to post-processing of emissions results consistent with applicable SIPs; and
- Preparation of boilerplate documentation, including draft public notices and adoption resolutions, as well as draft response to public comments.

Sustainable Communities Strategies

Introduction

California's Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act, SB 375, Chapter 728, Statutes of 2008) supports the State's climate action goals to reduce greenhouse gas (GHG) emissions through coordinated transportation and land use planning with the goal of more sustainable communities.

Under the Sustainable Communities Act, the California Air Resources Board (ARB) sets regional targets for GHG emissions reductions from passenger vehicle use. The ARB established these targets in the San Joaquin Valley as GHG reductions of 5% by 2020 and 10% by 2035. Under Senate Bill 375, each Metropolitan Planning Organization (MPO) in the State must have a Sustainable Communities Strategy (SCS) that demonstrates the respective region's ability to attain and exceed these GHG emission-reduction targets. The SCS outlines the plan for integrating the transportation network and related strategies with an overall land use pattern that accounts for projected growth, housing needs, changing demographics, and forecasted transportation needs among all modes of travel.

For the San Joaquin Valley, each MPO is scheduled to approve their SCS as an element of their Regional Transportation (RTP/SCS) in 2014. Referred to as the RTP/SCS, each Valley COG has developed an investment strategy that outlines their region's transportation future through 2040. Each RTP/SCS in the Valley goes in-depth into the projects, policies, and strategies that will achieve compliance with state laws while delivering a financially constrained plan matching forecasted revenues with transportation demands. Some achievements of the collective RTP/SCS include:

- Provision of transportation and travel choices
- Improving safety, mobility, efficiency of the transportation system
- Maximizing economic competitiveness/economic vitality
- Facilitating goods movement
- Building healthy and active communities
- Improving the environment
-

Valleywide Coordination on RTP/SCS

Valley Visions

While SB 375 mandated individual development of the RTP/SCS, the eight San Joaquin Valley Councils of Government decided also to collaborate in this process to share information, best practices, and foster consistent approaches to RTP/SCS development. The eight COGs participated in a joint grant proposal to the California Strategic Growth Council for Proposition 84 funding. The grant was funded and launched as "Valley Visions."

Valley Visions was implemented as a series of planning efforts underway throughout the San Joaquin Valley. It took a big-picture look at how the Central Valley grows over time in a way that uses resources efficiently, protects existing communities, conserves farmland and open space, and supports the Central Valley economy, ultimately reducing future greenhouse gas emissions. The Valley Visions logo was provided to each COG to use and customize to their region if they wanted.

One of the tasks identified in the successful grant proposal was enhancement of the eight COG's individual public outreach efforts



with a valleywide campaign. The project scope for this task included templates/written materials for customization, a media campaign to engage residents and publicize outreach efforts (social media, newspapers, radio and/or TV), and to assist with the development of SB 375 required workshops and hearings.



Valley Visions is a regional planning effort underway in the San Joaquin Valley to improve the quality of life in our communities by expanding transportation and housing choices. It takes a big-picture look at how the Central Valley can grow over time in a way that uses resources efficiently, protects existing communities, conserves farmland and open space, and supports the Central Valley economy.


What is Valley Visions?
Valley Visions is the name of the collective efforts of the eight Metropolitan Planning Organizations of the San Joaquin Valley. These agencies (known as MPOs) are responsible for setting transportation policy and priorities for a region and documenting how transportation funds will be spent in a Regional Transportation Plan. In Fresno County, this effort is being led by the Fresno Council of Governments.

Why Are We Doing This?
A new state requirement directs MPOs to add an element to the Transportation Plan (known as a Sustainable Communities Strategy) that coordinates land use, housing and transportation planning to reduce the amount people have to drive. This effort is part of a statewide strategy to reduce greenhouse gas emissions to meet regional targets. These plans may also help attract funding to our communities and streamline permitting processes.

Who is Involved?
In your community, Fresno Council of Governments is taking this opportunity to engage residents, elected officials, businesses, local governments, community groups and others to create a plan that benefits our neighborhoods, cities and the entire San Joaquin Valley. Everyone interested is invited to participate in this process to help shape our community's future. Most of the Valley Visions plans will be complete by the end of 2013.

How Can I Share My Ideas?
We want to hear from you! Your input can help us create communities we all want to live, work and invest in, and that reflect our community values. Good planning will preserve the community and natural features that we enjoy, now and for our children and grandchildren.

Find out more from the Fresno Council of Governments:
Visit www.fresnocog.org "or" www.valley-visions.org
Call: (559) 233-4148
Write to us at: Fresno COG, 2035 Tulare Street, Suite 201, Fresno, CA 93722



People. Choices. Community.

Be Part of Planning our Region's Future!

After seven months of gathering input and a comprehensive review of the future needs of the County, the Stanislaus Council of Governments (StanCOG) is ready to present the four proposed alternatives for the Valley Vision Stanislaus plan; a long range regional transportation plan that will provide the framework for investment in roads, freeways, public transit, bike trails and other ways people move around our County for the next 28 years. Join us at one of our upcoming workshops!

City of Patterson Wednesday, August 14th 6:30 – 8:30 PM 1 Plaza Patterson, CA	City of Oakdale Tuesday, August 20th 6:30 – 8:30 PM 110 South Second Ave Oakdale, CA	City of Ceres Tuesday, August 27th 6:30 – 8:30 PM 2701 Fourth Street Community Room Ceres, CA
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Valley Vision Stanislaus is a project of the Stanislaus Council of Governments, the metropolitan planning agency for the Stanislaus Region.



Of particular note was an informational video on the SCS process provided in three languages: English, Spanish, and Hmong and the media campaign that was active during the months of August, September, and October 2013. The videos were made available on YouTube, with links on the Valley Visions web page (www.valley-visions.org).



Valley Visions is yet another example showcasing the successes in valleywide collaboration. The eight counties of the San Joaquin Valley coordinated some aspects of these planning efforts and maximized resources, while each area's Metropolitan Planning Organization (MPO) developed a separate plan. This effort helped the Valley COGs brand a consistent message about sustainability.

Goods Movement

Introduction

In the Statewide Goods Movement Action Plan, the California Department of Transportation (Caltrans) designated the Valley as one of the State's four major international trade corridors. The Valley is the leading agricultural producer in the world, and it also supports major food processing industries. Portions of the Valley continue to be major oil and gas producers. Due to its central location, relatively inexpensive land, labor force, and multimodal transportation system, the Valley also is becoming a major distribution point for international exports and consumer products. Prior to the recession, the Valley was the fastest growing population center in California and is poised to return to this position as the economy recovers.

Many of the agricultural products that the Valley produces are exported through California's marine and airport systems using the highway and roadway systems to move commodities from farm, to processor/packer, to market. While Interstate 5 and State Route 99 are the two primary north/south transportation arteries, SR 99 is the transportation backbone of the San Joaquin Valley and is served by many significant east-west corridors such as SR-58, SR -120, SR-180, I-580 to 205, SR-152, SR-198, and SR-46.

The Valley, as a region, needs to effectively plan for efficient goods movement and successfully partner with the private sector, state and Federal agencies to make necessary investments. A failure to effectively plan and invest could result in congested and poorly maintained highways, lost economic opportunities due to inadequate access to markets, land use conflicts between logistics-oriented business and growing communities, and poor air quality due to diesel emissions. Emphasis on system-wide efficiency and a comprehensive goods movement system seem to have become key elements of competitive funding. It is anticipated these trends will continue to shape transportation policy and that future funding may emulate the approach of the state's Trade Corridor Improvement Fund (TCIF), tying transportation funding to trade corridors and movement of goods.

Background

In 2007, The San Joaquin Valley Regional Planning Agencies developed the *San Joaquin Valley Regional Goods Movement Action Plan (2007)*. The purpose of the plan was to provide a knowledge base for the understanding of freight and goods movement issues facing the San Joaquin Valley. The plan identified freight flows for the region, and developed the San Joaquin Valley Truck Model tool and scenario testing.

Previous goods movement works efforts for the Valley:

- San Joaquin Valley Regional Goods Movement Action Plan, 2007
- Draft San Joaquin Valley Regional Goods Movement Action Plan, 2008
- California Interregional Intermodal System (CIRIS) Implementation Plan 2006
- SR 58 Origin and Destination Study
- State Route 99 Business Plan
- Interstate 5 and State Route 99 Origin and Destination Study, 2009
- East Side Business Plan (Short Haul Rail), Tulare County, 2010
- SR 223, 166, 119, 46 and 65 Truck Origin and Destination Studies, 2011

In fiscal year 2010-2011, the eight Valley RPAs received a funding award for a Caltrans Partnership Planning grant for the San Joaquin Valley Interregional Goods Movement Plan. The Plan will build on previous work efforts and further refine the criteria and decision-making process while identifying vital goods movement networks for the multi-county region.

San Joaquin Valley Interregional Goods Movement Plan

This San Joaquin Valley Interregional Goods Movement Plan is intended to take the next steps to develop and implement the region's freight transportation vision. This effort, more than the prior phases of the Valley Goods Movement Study, is focused on developing actionable project recommendations and implementation plans. There are many project concepts that have been developed over the last decade that include strategies, such as short-haul intermodal rail services, short sea container barge services, mainline rail capacity projects, SR 99 capacity and operational improvements, east-west highway improvements, and a host of other innovative goods movement systems ideas. Not all of these can be funded, and not all are of the highest priority. At the conclusion of this planning effort, it is important that the Valley goods movement stakeholders prioritize this project list based on clear criteria that reflect the region's goals and objectives. The projects need to be market-based, and at least some need to demonstrate state and national benefits.

The San Joaquin Valley Goods Movement System

Through this data driven 18 month process, the final plan anticipated in May 2013 will include an investment plan of project improvements and strategies that will increase the efficiency and reliability of the Valley's goods movement system. This multi-modal project list and strategies will build on the regional strengths, while identifying a funding and implementation strategy. Transportation improvements and investments in the multi-modal infrastructure will support economic growth in higher-value crops, logistics and warehousing/distributions facilities, light manufacturing, oil production, and export products. Goods movement improvements can reduce congestion and delays for California businesses, carriers, and shippers and provide more reliable access to domestic and international markets. These improvements will increase productivity, profits, growth, and competitiveness within the San Joaquin Valley.



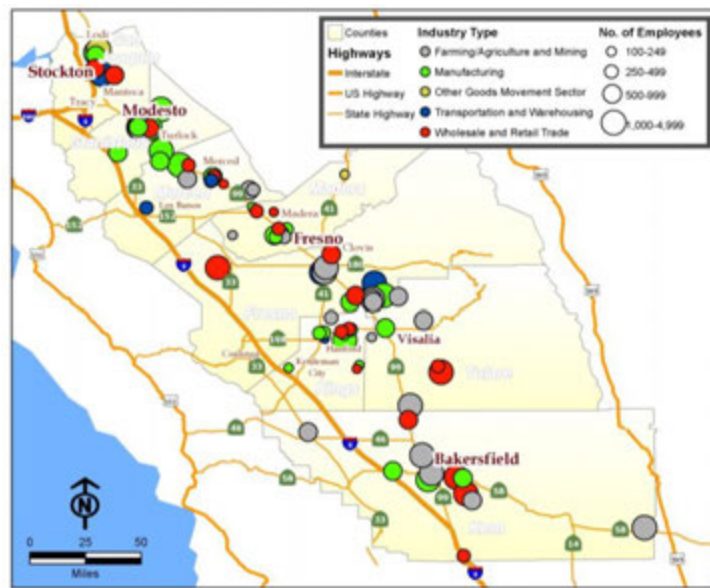
San Joaquin Valley Goods Movement Key Findings

The San Joaquin Valley is the sixth fastest growing region in the United States and is projected to nearly double in population by 2040.

SJV Employment Clusters

Population and employment centers within the SJV are generally located adjacent to major highway facilities such as SR 99, I-5, SR 152, SR-198, and SR 41. Access to major population centers is critical for the movement of goods, not only for local deliveries of consumer products but to access warehousing and distribution facilities and services for transportation operators.

In 2010, there were about 1.2 million people employed across all sectors in the San Joaquin Valley. Of this total, over 44 percent (564,000 jobs) are associated with goods movement-dependent industries. By 2040, goods movement-dependent jobs are expected to increase by over 45 percent (nearly 250,000 jobs).



The highway and local road system is the primary freight infrastructure for the region, and trucking is the dominant freight mode. There are over 31,420 roadway miles in the San Joaquin Valley. There are over 2,700 miles of truck routes in the 8-County study region, with over 80 percent designated STAA National Truck Routes.

Rail freight operations and facilities in the study area are primarily owned by the Union Pacific (UP) and Burlington Northern Santa Fe (BNSF). The region also has several short-line operations, including 417 miles of the San Joaquin Valley Railroad (SJVR). However, there currently is no intraregional service within the SJV. The air cargo system in the San Joaquin Valley is comprised of seven airports – all of which offer limited commercial passenger airline and air cargo service.

Truck Tonnage in the SJV, 2007



Truck is the dominant goods movement mode in the San Joaquin Valley. Nearly 500 million tons of goods moved by all modes on the San Joaquin Valley goods movement system in 2007. Over 90% of this (425 million tons) was moved by truck.

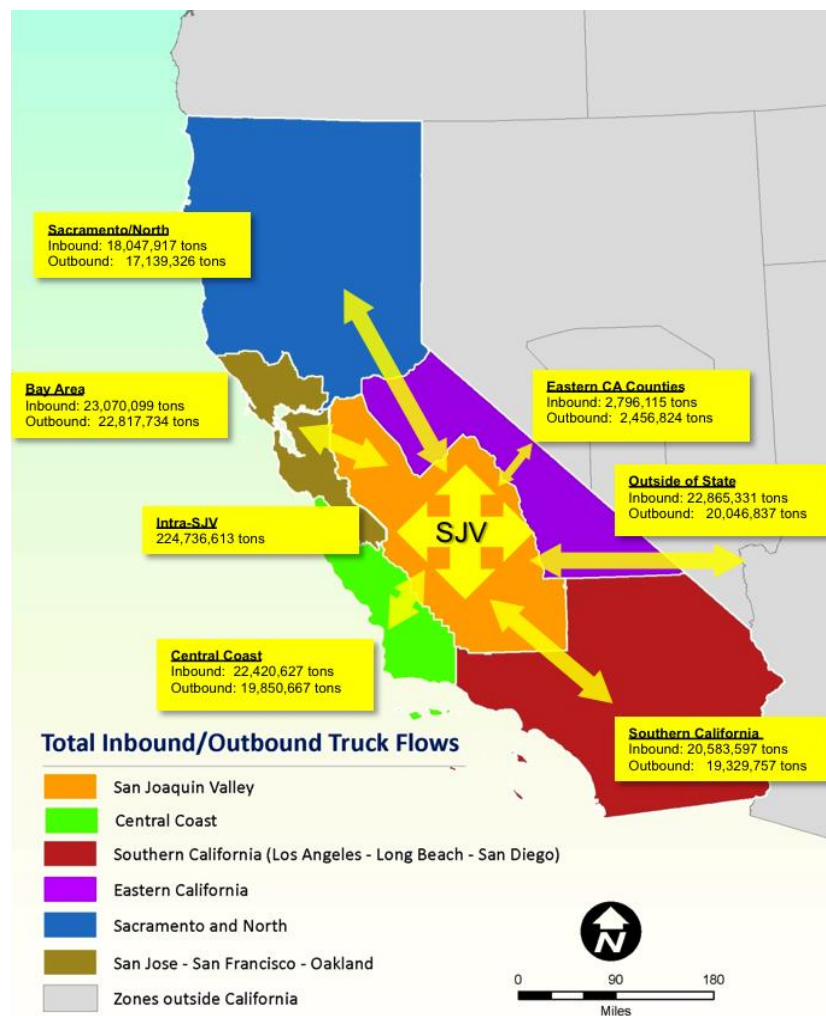
Industries depend heavily on intra-regional movements within the San Joaquin Valley, both between Counties and within the same County. Fifty-three percent of all truck tonnage is intra-regional with raw agricultural products (such as animal feed or cereal grains) and mining materials (such as stone and sand) playing a prominent role. Contrary to truck traffic, nearly all SJV rail traffic moves to or from other states.

Products moved by air continue to use airports outside of the San Joaquin Valley. Airports in the San Joaquin Valley collectively account for less than one percent of all air cargo handled by California's civilian airports.

The Port of Stockton is primarily a bulk commodity port and in 2010 handled nearly 1.4 million tons of bulk and break-bulk commodities.

Many prominent industries in the San Joaquin Valley (such as food processing) rely on the transportation system to receive raw materials and to deliver goods to market. For example, tomato processing facilities located throughout the SJV provide about 76% of all tomato processing capacity in California.

SJV Trading Partner Truck Tonnage Distribution



Between 2007 and 2040, freight moving on the SJV goods movement system is anticipated to grow substantially, reaching over 800 million tons by 2040. Similar to 2007, trucks are projected to carry the majority of all goods by 2040. In fact, trucks are projected to carry 93% (750 million tons) of this tonnage, while rail is projected to carry 7% (50 million tons). Air and water modes will continue to play a role in delivering specific types of commodities, but will continue to command less than 1% of the total commodity flow volume.

The region has several critical goods movement corridors (most notably I-5 and SR-99) that carry the highest volumes of trucks within the San Joaquin Valley. However, there are also many corridors and local roads that, though carrying smaller total volumes of trucks, are still vital to the region's goods movement. East-West corridors throughout the SJV (including SR 152, SR 58, SR 198 and SR 46) are especially important, as are numerous smaller facilities (such as farm to market roads and County roadways) that connect single industrial sites, farms, agricultural processing centers, or other freight-generating activities to the Statewide and National freight system.

Growth in Truck Flows in the SJV, 2007-2040 (FAF3)

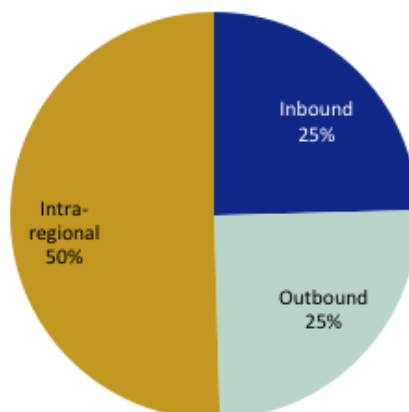


2040 Anticipated Highway Performance

Movement of freight between counties in the San Joaquin Valley (intra-regional) will continue as the dominant pattern of goods movement. Intra-regional movement will be responsible for over 50% of the total expected tonnage (nearly 400 million tons) in the San Joaquin Valley in 2040. Between 2007 and 2040, outbound tonnage will increase at a greater rate (90%) than inbound tonnage (60%), indicating a growing importance of outbound shipments from the SJV.

Inbound carload rail flows will experience marginal declines by 2040 due to declines in cereal grains, animal feed, and fertilizers. Contrarily, outbound carload tonnage will increase over 100%, largely due to increasing demand for prepared foodstuffs, alcoholic beverages (including wine), and other agricultural products. Rail intermodal flows will increase substantially by 2040, both inbound and outbound, led by outbound intermodal tonnage associated with mixed freight (including consumer products, shipped using domestic trailers or containers). Growing warehousing and distribution hubs, as well as SJV manufacturing facilities may be beneficiaries of this increased demand.

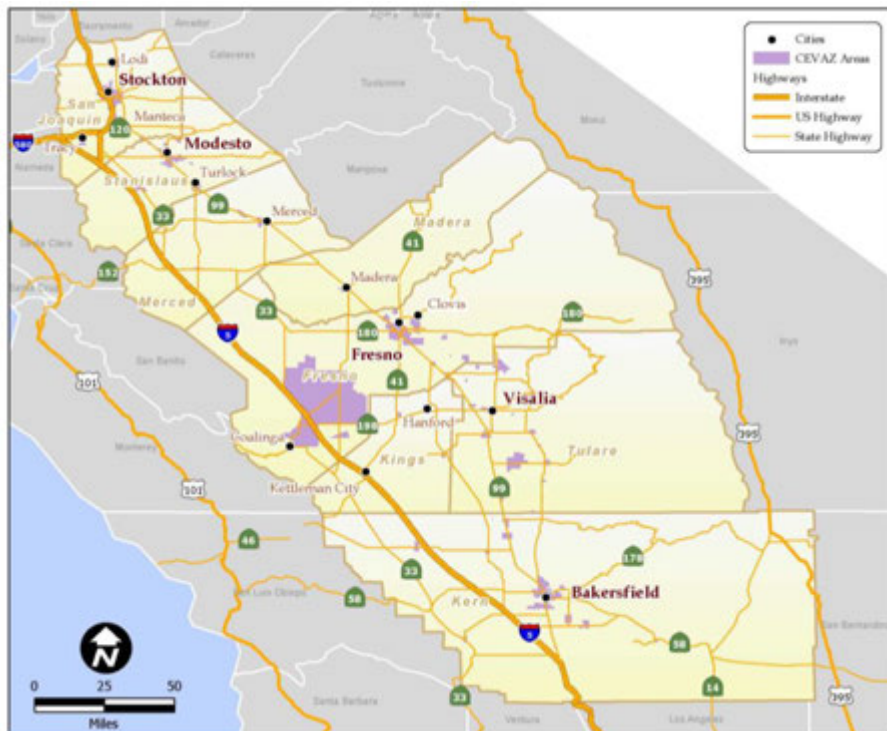
***Inbound, Outbound and Intra-Regional
Commodity Distribution – 2007 to 2040***



Air cargo has not been a growth industry in California over the past decade, and there is little indication that air cargo volumes will soon rise.

Goods movement activities contribute to the SJV's air quality concerns. Poor air quality – a serious issue in the SJV, is partially caused by exhaust emissions from trucks, rail, and equipment involved in freight movement. The San Joaquin Valley Air Pollution Control District estimates that trucks emit 10% of the Valley's directly emitted particulate matter (PM_{2.5}).

High – CEVAZ (Most Vulnerable) Population Clusters in the SJV



Congestion on roadways in the San Joaquin Valley results in economic impacts and in public health consequences. Traffic congestion translates to economic losses, wasted fuel, and also contributes to localized emissions “hot spots” from increased emissions due to idling engines. Increased emissions can lead to negative impacts to public health – including respiratory ailments, reduced lung function, a weakened immune system and headaches. In the SJV, traffic volumes on portions of SR 99, SR 120, SR 58, SR 41, and I-5 already exceed the capacity of the facility. Projections are for rapidly increasing vehicle and truck volumes by 2040, which will likely exacerbate existing congestion throughout the Valley.

The Future of Goods Movement in the Valley

Through planning efforts such as the eight-county San Joaquin Valley Goods Movement Plan, the Valley is seriously looking at all of the existing conditions, growth implications and environmental impacts on our communities to develop a strategic and comprehensive understanding and strategies for implementing an efficient goods system.

Public and private stakeholders have met and discussed throughout the Goods Movement planning process the criteria and metrics for evaluating projects to enhance the socio-economic status of the San Joaquin Valley via improvements in our transportation systems.

SJV Goods Movement Advisory Committee Meeting in Tulare CA



The San Joaquin Valley Interregional Goods Movement plan focused on several outcomes and processes:

- Worked with regional freight stakeholders from throughout the SJV to understand the issues, challenges, bottlenecks, and opportunities of the Valley's multi-modal goods movement system, including a three-tiered stakeholder outreach process to public, private, and other freight system stakeholders.
- Assessed supply chain and logistics trends of key industries, their current needs, and how they will impact goods movement in the future, including creating simplified supply chain diagrams to illustrate the transportation system needs of industries.
- Created a prioritized investment plan of multimodal project improvements and strategies to increase the efficiency and reliability of the region's goods movement system, including evaluation using the valleywide truck model, IMPLAN economic input-output software, and other tools to quantify the environmental, economic, and mobility benefits of each project / strategy.
- Contributed to economic development, strong industries, and environmental health throughout the entire San Joaquin Valley.

The culmination of the Goods Movement Plan is a stand-alone, data-driven, multimodal project list that reflects the combined goods movement vision of the entire eight-county region. The outcomes and priorities identified in the Plan are being integrated into the MAP 21 required National Primary Freight Network, the Valley has two members on the California Freight Advisory Committee, and our planning efforts are being integrated into the California Freight Mobility Plan.

Advocacy

San Joaquin Valley Regional Policy Council

The voluntary creation of the San Joaquin Valley Regional Policy Council (Regional Policy Council) in 2006 is a key partnership that exemplifies the Regional Transportation Planning Agencies' approach to working on regional issues.

This sixteen member Regional Policy Council was established to discuss and build regional consensus on issues of Valley importance. The Regional Policy Council consists of two elected officials and one alternate appointed from each of the eight regional planning agencies' governing boards in the San Joaquin Valley. The Regional Policy Council is positioned to have a unique and potentially pivotal position in further Valley collaborative efforts and improving the quality of life for all Valley residents.

The Regional Policy Council provides guidance on common interregional policy issues and also represents the San Joaquin Valley at public forums such as the California Transportation Commission, the Governor and his administration, as well as State and Federal legislative bodies that require a common voice. Issues of common interest, include:

- Intercity Rail
- State Route 99 Coordination
- Joint Funding Strategies
- San Joaquin Valley Interregional Goods Movement
- Short Haul Rail (SB 325 Implementation)
- Air Quality Transportation Planning Coordination
- Relationship Development with External Agencies & Entities
- San Joaquin Valley Regional Blueprint Planning
- Valley Legislative Affairs Committee
- Valleywide Model Improvement Plan
- Coordination with the California Partnership for the San Joaquin Valley
- Proposition 84, Sustainable Communities Implementation

- Regional Energy Planning
- Regional Transportation Plans
- Fall Policy Conference
- San Joaquin Valley Websites
- Coordination of the Policy Council and Executive Directors' Committee

Valley Legislative Affairs Committee

The San Joaquin Valley Regional Transportation Planning Agencies have established a staff-level Valley Legislative Affairs Committee (VLAC), consisting of staff from the San Joaquin Valley Regional Transportation Planning Agencies. The VLAC track pertinent legislation, updates the RTPA Directors, and makes recommendations when warranted to the San Joaquin Valley Regional Policy Council. The Regional Policy Council is made up of two elected officials from each of the eight RTPAs and provides a forum for elected officials to discuss topics and build consensus on issues of Valleywide importance. Every year, State and Federal legislative platforms are developed to provide guidance to the RTPAs. The annual "Valley Voice" advocacy trips are coordinated by the VLAC. The latest Washington D.C. trip was held in September 2011 and the Sacramento trip was conducted in March 2013. The next trip to Washington D.C. is scheduled for September 2013.

Other Collaborative Planning Efforts

For over the last fifteen years the Valley RTPAs have explored the mutual benefits and economies of scale in working together on voluntary planning efforts. Oftentimes the funding for these projects is the result of a successful grant application that is submitted on behalf of all the Valley RTPAs. Developing the themes and consensus for the grant application requires a high level of coordinated effort between the Executive Directors and the governing boards.

Several impressive examples of this voluntary collaboration between the Valley RTPAs include the San Joaquin Valley Blueprint, the San Joaquin Valley Greenprint, the San Joaquin Valley Express Transit Study, and the San Joaquin Valley Tribal Transportation Environmental Justice Study. Each of the above named studies represents countless hours of conference calls, face to face meetings, working with Valleywide and local stakeholders, and often times retaining a subject matter consultant(s) between the Valley RTPAs to develop a specific product.

The San Joaquin Valley Blueprint is an outstanding example of this voluntary collaborative planning effort. A commitment to work together and submit a grant application in 2006, has since grown into a seven year cooperative valleywide and regional planning effort to identify smart growth strategies for the Valley communities. This planning effort involved all levels of government and the opportunity for local citizens in all eight counties to participate. From this unprecedented level of outreach, several other planning efforts have emerged and continue to gain momentum. As a counterpart to the San Joaquin Valley Blueprint, the San Joaquin Valley Greenprint continues to explore how to best preserve the vast productive acres of farmland and vital habitat in the region.

As part of the latter Blueprint effort, the Valley RTPAs worked with several other agencies to create the Blueprint Awards program. This award program began in 2010 and is used to recognize the outstanding achievements, the greater aesthetics or progressive details as demonstrated in a sustainable development project.

The Valley RTPAs in the recent years were successful in obtaining a grant for the purpose of assisting Valley jurisdictions with populations of 50,000 or less persons to implement smart growth principles into their local planning documents. Jurisdictions in the eight counties were divided into northern, central, and southern counties and well respected local consultant firms were retained in the three regions to provide technical services. This effort highlights a coordinated voluntary effort in which the Valley RTPAs came together on behalf of the smaller population member agencies.

Aside from regional planning, the RTPAs have explored Valleywide transit and strategies to improve regional planning with our Tribal Governments. The goal of the SJV Express Transit Study was to identify recommendations for inter-county commuter-express transportation services within the SJV region and non-Valley urbanized population centers. The study recommends improvements to transportation services such as to the Altamont Commuter Express and CalVans.

In 2010, the SJV COGs concluded a series of workshops held throughout the San Joaquin Valley to engage state and federally recognized tribes and Native Americans in the region. Over 65 tribal members participated from the 47 invited Central California tribes in the workshops held in Fresno, Madera and Hanford. Numerous meetings have been held with Native American participants since, including: Santa Rosa tribe, Tubatulabals, Chumash, Tejon Indians, and Tule River tribe. The SJV COGs are continuing to work with their respective local tribes in the development of their regional transportation plans. The final report is available at http://www.kerncog.org/attachments/265_SJVTribalEJSummary.pdf.

The Valley RTPAs work on specific studies often times when key information is unavailable. Recent examples include the San Joaquin Valley Demographic Forecast 2010 to 2050 Study and the Market Demand Analyses for Higher Density Housing in the San Joaquin Valley. These two technical data driven projects included a high level of subject experts from the private real estate and larger economics field. The Valley RTPAs made a coordinated effort to work with subject matter experts to ensure that the final end products were creditable with the high level of validity.

The Valley RTPAs continue to work very closely with the San Joaquin Valley Partnership. The San Joaquin Valley Partnership consists of members appointed by the Governor, California Cabinet Secretaries, and civic leaders that work with several work groups that explore economic development to water.

In conclusion, the Valley Regional Transportation Planning Agencies have a strong history of working together on other collaborative voluntary planning efforts and will continue to do so as resources allow.

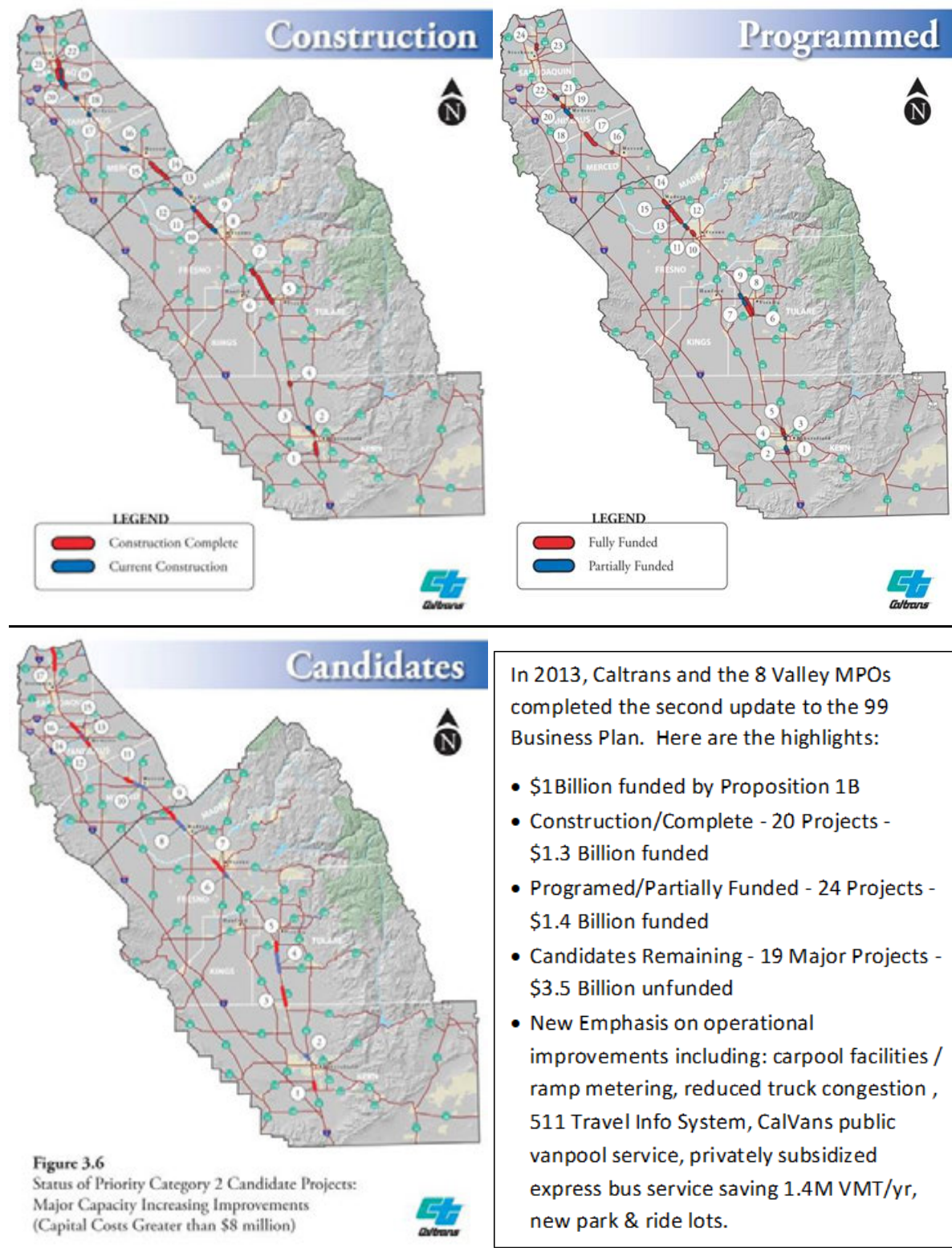
Valley Success in Implementation

Passenger Rail

Proposition 1B and State Route 99 Bond Program

The \$1 billion for State Route 99 included in Proposition 1B made a small dent in the nearly \$6 billion in immediate needs identified in Caltrans' 99 Business Plan. Far greater funding is needed, however, to bring the "Main Street" and the primary goods movement corridor of the Valley up to a full six lanes from Bakersfield to Sacramento. Widening to at least six lanes has been a long term goal of the Valley and is necessary to accommodate the forecasted growth and avoid major congestion problems along the SR 99 corridor in the future. As the Proposition 1B program nears its sunset date, the recent update of the SR 99 business plan paints a clear picture of the continuing needs for upgrading and improving the roadway and interchanges.

State Route 99 Business Plan



Kern Council of Governments



Appendix G Regional Growth Forecast, Modeling Assumptions

June 19, 2014



Kern Council
of Governments

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APPENDIX G – REGIONAL GROWTH FORECAST, MODELING ASSUMPTIONS

PART I - REGIONAL GROWTH FORECAST 2009

OVERVIEW

The regional growth forecast is reviewed, and revised every three to five years. The Kern COG Board adopted this update to the regional growth forecast on October 15, 2009. A 30-Day public comment period closed September 17, 2009. Prior to the 2009 update, the last adopted forecast was in July 2005. The report recommends maintaining the existing forecast adopted in July 2005. The report has been summarized for this appendix, the full report is available through the Kern COG website by following this link: (http://www.kerncog.org/images/docs/transmodel/growth_forecast_20091015.pdf).

The Regional Growth Forecast Defined - The Kern COG regional growth forecast is a long-range projection for countywide total population. The population total is used to predict housing, employment, school enrollment, and income. The forecast is used for local transportation and air quality planning as well as by the member agencies for a variety of long range planning activities. This forecast revision will serve as the growth assumption for the 2014 Regional Transportation Plan (RTP) and Federal Transportation Improvement Program (FTIP). The forecast is expected to be used for new Climate Change law (AB32/SB375) planning and modeling. The forecast is used as a control target for distribution of socio-economic data throughout the county sub areas. The forecast is tied to the California Department of Finance (DOF) estimates for the base year. The periodic development and update of the countywide forecast totals use accepted and adopted planning procedures.

Review Requirements – Section 3 of the Kern COG Policy and Procedure Manual revised in May 2001 contains the Regional Transportation Modeling Policy. This policy states:

“Socio-Economic Forecast Data – Countywide forecasts for households, employment and other socio-economic data shall be updated not less than 3 years from the time of the Socio-economic forecast. A minimum of three years between Countywide forecast revisions is needed to allow responsible state and federal agencies time to complete their review of large environmental documents without major changes to transportation circulation modeling results...”

The Kern COG adopted Public Policy and Procedure manual requires a 30-day advertised public review period and meetings/workshops regarding the regional growth forecast. Additional, extensive opportunities for public comment on the forecast were provided as part of the 2011 RTP adoption.

It is important to note that the State of California RTP Guidelines recommend the use of DOF population forecast or the P-1 report. However, regions were allowed under the guidelines to deviate from the DOF forecast if the locally adopted forecast was supported by substantial documentation.

Government Code Section 65584.01 required, for the fourth and subsequent revision of the housing element pursuant to Section 65588, regional planning agencies to maintain a growth forecast within 3 percent of the DOF forecast. For Kern COG this forecast requirement began in 2012, after the 2010 Census and new DOF forecast was available. The forecast for the 2011 RTP was not required to match DOF forecasts. The growth forecasts for the 2014 RTP is required to be within 3% of the DOF forecast.

Background: Final Regional Growth Forecast Report - October 2009

Committee Oversight - This process is implemented by a subcommittee of the Kern COG Transportation Technical Advisory Committee (TTAC) called the Kern Regional Transportation Modeling Committee (KRTMC). The Kern COG Board set up this committee in May 2001 with the adoption of the Transportation Modeling Policy and Procedure. Section 5 of the procedure establishes the “Kern Regional Transportation Modeling Sub-Committee (KRTMC) of the Transportation Technical Advisory Committee (TTAC).” This procedure was re-confirmed with the adoption of a Memorandum of Understanding on Transportation

APPENDIX G – REGIONAL GROWTH FORECAST, MODELING ASSUMPTIONS

Modeling Coordination between Caltrans, City of Bakersfield, Kern County and Kern COG on January 15, 2004.

The KRTMC consists of technical staff from Kern COG member agencies planning and public works departments and meets every other month. The committee is also responsible for sub-area distribution of the growth forecast as well as numerous other regional transportation modeling issues.

Recommendations on the regional growth forecast by the KRTMC are sent to the Kern COG TTAC for consideration, and on to the Kern COG Board for final adoption. The process was used in 2005 to select the Alternative 1B forecast.

REGIONAL GROWTH ASSUMPTIONS

Apparent LA Commuter Influx to Subside – During the peak of the housing boom in 2006, the City of Bakersfield estimates that 2 out of 5 new houses in the Southern half of Metro Bakersfield are being purchased by Southern Californians. This could account for as much as 20 percent of new housing purchases in the Metropolitan area. However in the 1990 and 2000 Censuses the number of commuters from Kern to LA remained at three percent of total workers.

During the peak of the boom Kern had posted a growth rate greater than 3 percent. As anticipated with the 2005 forecast, that growth rate subsided considerably. Over the past 50-years Kern has averaged 2.2 percent growth rate. Factors such as interest rates, housing prices, fuel costs, and traffic congestion, continue to rise, making Kern less attractive to LA commuters. New developments such as Centennial on Tejon Ranch in Northern L.A. County are expected to siphon off some of the apparent spillover from the Southland into Kern. This slowdown would mirror what happened during the mid-1990s after the record growth in 1991.

Water Conservation and Mobility – Despite current water availability issues, the KRTMC assumed that through extreme water conservation and mobility practices water could be expected to sustain current growth patterns in the Southland and statewide. New technology such as “hot water on demand” and “increased use of reclaimed water” can save a residence 1700 gallons per year in water usage, freeing up tremendous capacity for expansion in existing urban areas. Innovative water purchase agreements made possible by the Monterey Agreement allow aqueduct water from Kern to go to Santa Clarita, thereby freeing-up Colorado River Water for new development in Palm Springs. In essence, transferring water from the San Joaquin Valley to Palm Springs. Other deals involving groundwater-banking operations in Kern provide similar opportunities for water to flow up and over the hill during drought years. These factors will likely stave off an inordinate influx of development in the valley portion of the county while ensuring that water is available to sustain local growth trends and agriculture.

Job Growth Not Keeping Pace With Housing - Job growth in Kern has improved, according to the California Employment Development Department (EDD), but the County is still subject to high unemployment rates. In March 2004 the unemployment rate for Kern was 10 percent. By 2009 it had increased to nearly 15%.

Over the first 5-years of the decade Kern added approximately 4 new jobs for every 7 households. In the 2000 Census there were 1.22 jobs per household in Kern. Assuming that the region should be maintaining this jobs housing ratio, we should be adding 8.5 jobs for every 7 new households. This meant that 47 percent of the new housing built in Kern is for commuters outside the county, retirees, second homes or are vacant. As anticipated, climbing housing prices collapsed because of a lack of jobs that could afford the new housing.

APPENDIX G – REGIONAL GROWTH FORECAST, MODELING ASSUMPTIONS

It is important to note that as Kern grows, the percentage of workers who are employed by agriculture, and affected by seasonal employment will become a lesser share of the overall employment picture in Kern. A large part of Kern's double-digit unemployment rates are due to seasonal unemployment, which may eventually subside as Kern becomes less dependent on Agriculture for employment opportunities.

Chart 1a. Kern County Population by Age, Ethnicity and Gender – 2000

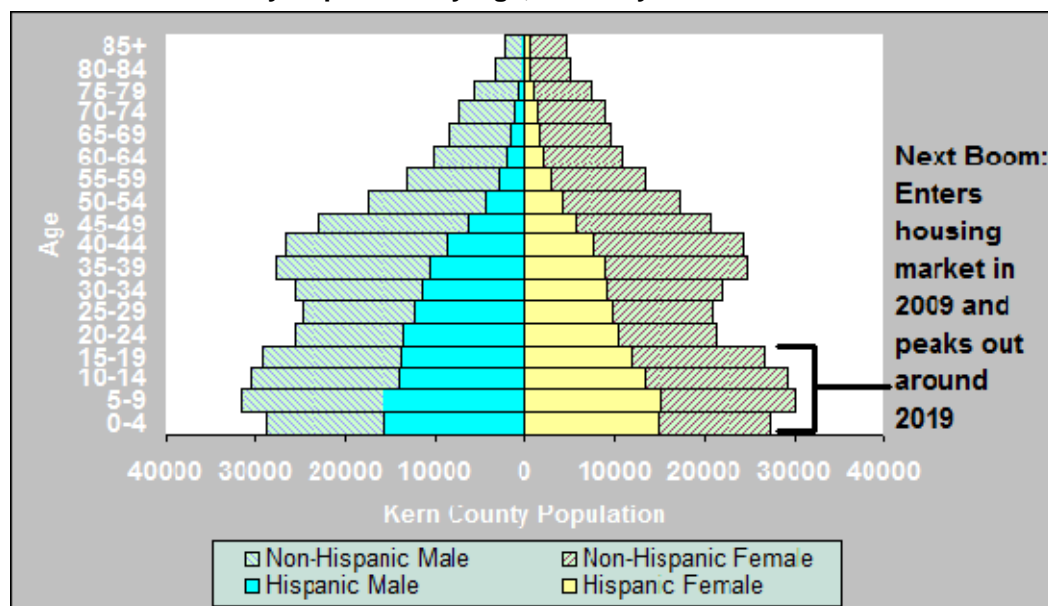
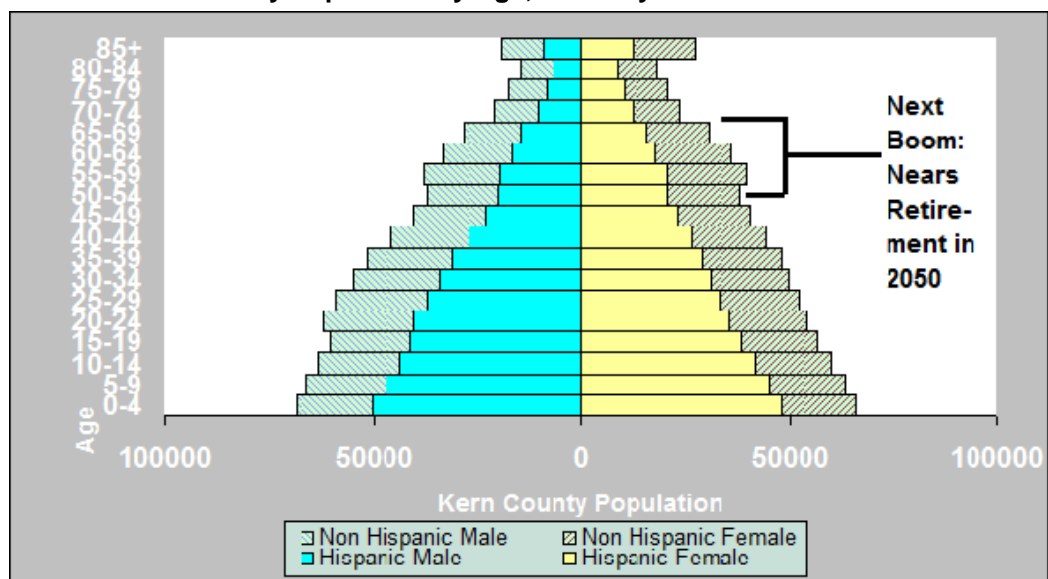


Chart 1b. Kern County Population by Age, Ethnicity and Gender – 2050



Source: California Department of Finance, U.S. Census Bureau

APPENDIX G – REGIONAL GROWTH FORECAST, MODELING ASSUMPTIONS

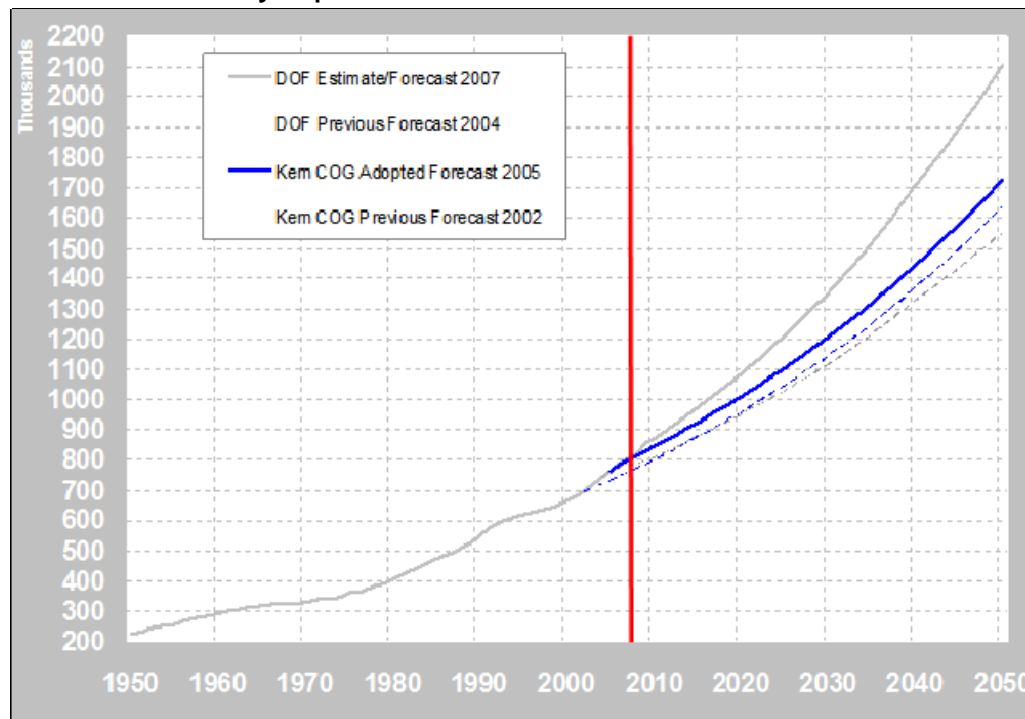
Hispanic/Latino Population Boom – Hispanic/Latino population is playing a key role in local growth and statewide. The DOF Forecasts suggest that a Hispanic/Latino baby boom is moving through the schools now and should be entering the housing market between 2009 and 2019. This will likely trigger another surge in the housing market as a new crop of first time homebuyers allow existing homeowners to trade-up. Lower end housing in California will be in great demand. Kern housing costs relative to the rest of the state will be in great demand at the beginning of the next decade, likely triggering another building boom and migration surge into the county.

Chart 1a illustrates the “Next Boom” identified in the 2000 Census. Sometimes referred to as the Millennium kids, this group is fueled by a larger proportion of Hispanics/Latinos than in previous generations in Kern. According to the 2004 DOF Forecast, Kern County is expected to grow from 39 percent Hispanic/Latino in 2000 to 68 percent in 2050. The 2050 histogram in Chart 1B indicates a relatively young population pyramid still, with the boom ripples becoming less noticeable.

LONG RANGE TREND ANALYSIS

58 Year Trend - The following chart depicts the historic trends and forecasts for Kern County Population over a 100 year period.

Chart 2. Kern County Population Trend & Forecasts 1950 to 2050



This chart shows the California Department of Finance (DOF) historical population estimates for July of each year from 1950 to 2008. In addition, the chart shows four forecasts. The lowest and highest forecasts were developed by the DOF in 2004 (thin dashed grey line) and 2007 (thick grey line). The two forecasts in the middle include the previously adopted 2002 Kern COG forecast (thin dashed blue line), and the current adopted Kern COG 2004 forecast (thick blue line).

For very long range planning purposes the forecasts are within 3.6 percent of each other. In the year 2035 there is only 2.5% difference between the high and the low, making the current forecast close enough to the other three, to be considered to be left unchanged. The current Kern COG adopted forecast for 2035

APPENDIX G – REGIONAL GROWTH FORECAST, MODELING ASSUMPTIONS

shows 1.3 million 6-years later than the 2007 DOF and 5 years earlier than the previous DOF forecast, making the difference between them relatively insignificant from a long range planning perspective.

SHORT RANGE TREND ANALYSIS

Since the regional growth forecast must be updated every three to five years, it is helpful to take a closer look at how the forecasts compare in the near years.

Department of Finance Projections – The DOF projections released in the April 2009 report, show preliminary January 2009, as well as revised January 2008, population data for the cities and counties. California added 409,000 new residents in 2008 to a total population of 38,293,000 as of January 1st, 2009.

California's housing growth continued a recent trend by declining once again from the previous year. Since peaking in 2005, when the state was estimated to have added 197,707 new housing units, there has been a steady reduction in residential construction. In 2006, the state added 172,604 units; in 2007, there were 131,912 units built, then in 2008 only 86,745 were constructed – the smallest change since 1998.

Chart 3. Recent Kern County Population Trends and Forecasts 2004 - 2009

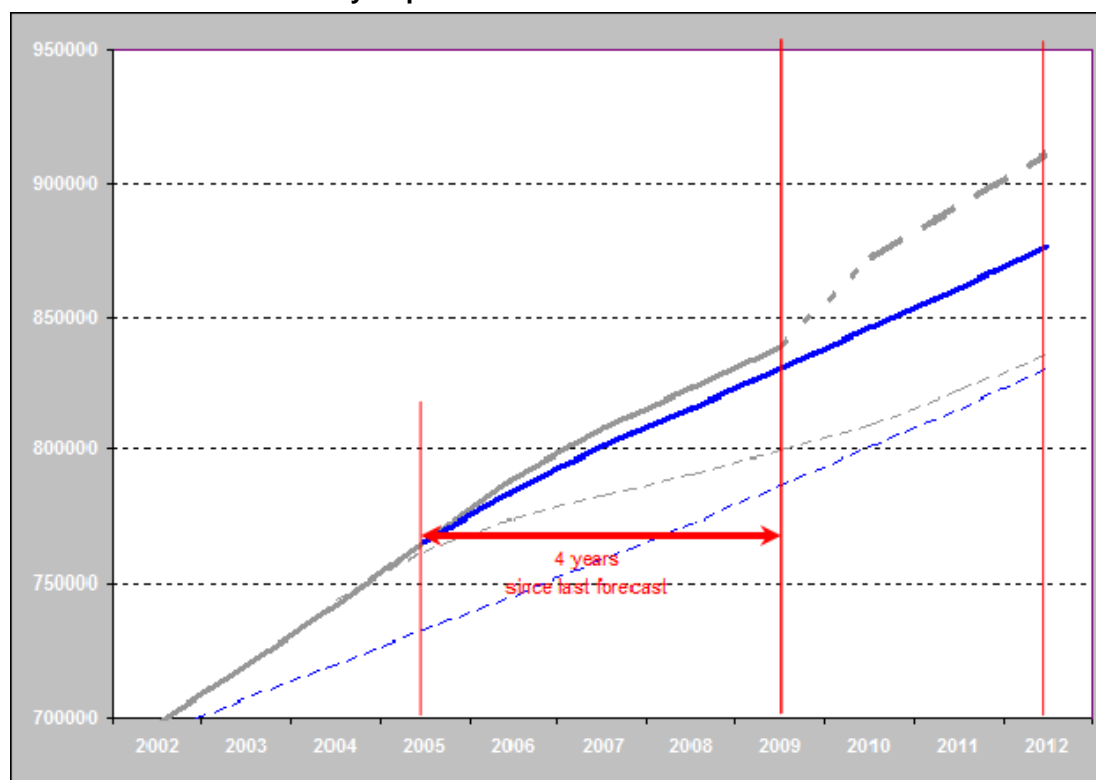


Chart 3 shows that in the four years since the 2005 adopted forecast, the Kern COG forecast has remained below the DOF year to year estimates during the economic recession. The 2008 DOF estimates (thick grey line) show the need for a rapid population increase between 2009 and 2010 to keep up with the higher DOF forecast. This would require a one year growth spurt double the current annual population growth. However desirable, economic recovery is not likely to occur that soon. It is more likely that we will continue to see slow growth for the next several years, and a gradual merging of the Kern COG forecast with the year to year DOF estimates. It is important to note that an official count of population has not been taken since the 2000 census. The next forecast update window begins in 2012, after most of the 2010 census data becomes available making for more accurate data to base future projections on.

APPENDIX G – REGIONAL GROWTH FORECAST, MODELING ASSUMPTIONS

Chart 4. 2008 Estimated Population vs. Kern COG and DOF Forecast

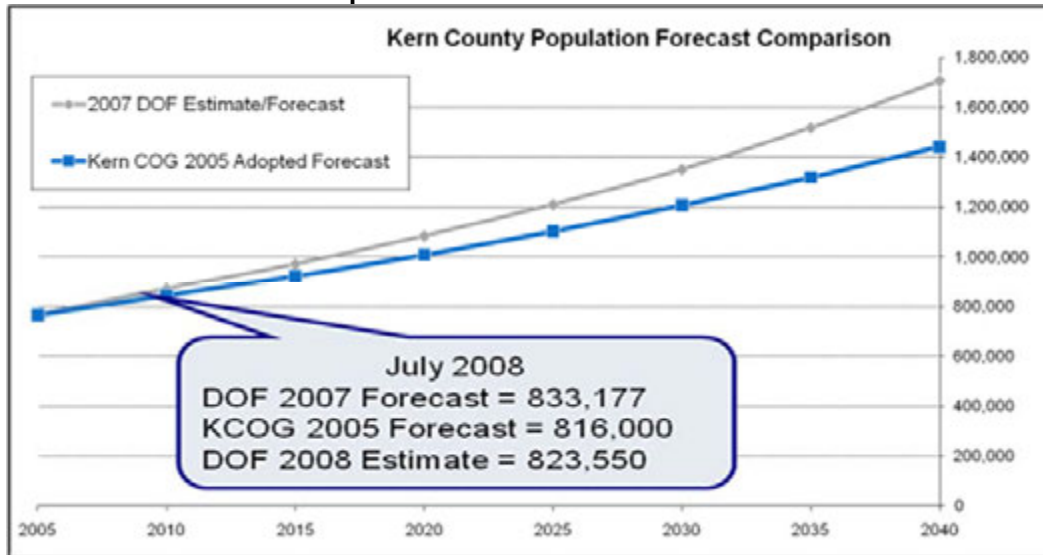


Chart 4 shows DOF's July 2008 population estimate. The July 2008 DOF estimate is only 7,550 above Kern COG's forecast, a difference of less than 1%. DOF's 2007 forecast for July 2008 is 9,627 above the 2008 estimate, a difference of just over 1%. This chart shows that Kern COG's 2005 forecast is closer to the latest DOF estimates than the DOF 2007 forecast.

FINDINGS FOR RECOMMENDED ALTERNATIVE 1B

- The regional growth forecast must be revised every three to five years in accordance with adopted Kern COG procedure and a Memorandum of Understanding between the City of Bakersfield, County of Kern, Caltrans and Kern COG.
- The current regional growth forecast (alternative 1b) was adopted in July 2005 and differed from the 2004 DOF forecast.
- Alternative 1b is closer to recent 2008 DOF estimates than the latest 2007 DOF P-1 forecast.
- Alternative 1b lies between the last two DOF forecasts for Kern County.
- DOF has no plans to revise future year projection figures until after the 2010 Census is available.
- State law requires regional planning agencies to maintain a growth forecast within 3% of the DOF growth forecast for the 4th and subsequent revision of the housing element. The next forecast to fall within this requirement will be in the year 2012 at which time new DOF forecasts and 2010 Census data will be available.
- Kern COG shall reconsider the adopted regional growth alternative 1b forecast after the 2010 Census and DOF has released new projections based on the 2010 Census. This is anticipated to be in 2012.

The Final 2009 Regional Growth Forecast Targets are shown in the following table:

APPENDIX G – REGIONAL GROWTH FORECAST, MODELING ASSUMPTIONS

Table 1 - Final Regional Growth Forecast

	1950	1960	1970	1980	1990	2000	2006	2007	2008	2009
Kern County Historic Population Trend										
U.S. Census	229,600	294,900	331,100	406,100	548,000	665,308				
Kern County Population Estimates										
DOF Estimate 2008 (E-6 Report)*	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	665,308	681,293	698,264	719,432	741,819	765,499	789,655	808,700	823,550	858,900
Kern COG Previous Adopted 2002			694,174	706,696	719,421	732,349	745,481	758,919	772,560	786,507
Kern COG Adopted Alternative 1b 2005					744,325	765,600	784,700	801,600	816,000	830,700
Kern County Population Forecasts										
DOF P-1 Forecast 2007	2010	2020	2030	2040	2050					
	871,728	1,086,113	1,352,627	1,707,239	2,106,024					
DOF P-1 Forecast 2004	808,808	950,112	1,114,878	1,325,648	1,549,594					
Kern COG Previous Adopted 2002	800,700	957,000	1,143,900	1,367,200	1,634,300					
Kern COG Adopted Alternative 1b 2005	845,600	1,010,800	1,208,200	1,444,100	1,726,200					

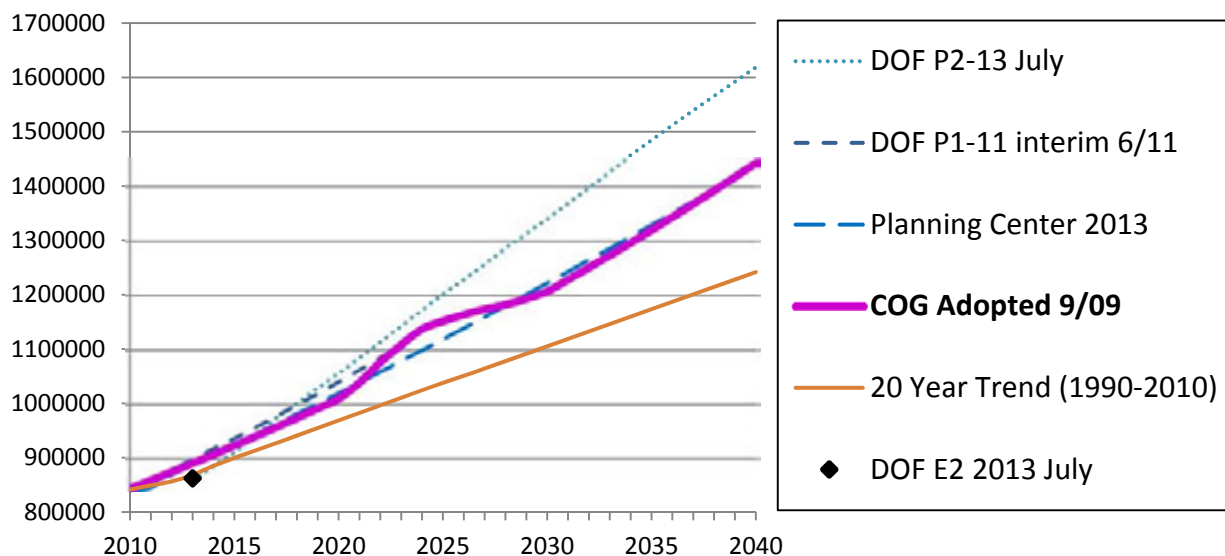
APPENDIX G – REGIONAL GROWTH FORECAST, MODELING ASSUMPTIONS

PART II - ADDITIONAL MODELING ASSUMPTIONS

Kern COG reviewed the adopted the 2009 forecast by comparing it to a forecast and forecast methodology developed by the Planning Center in 2012 for the 8 San Joaquin Valley COGs. The methodology validated the adopted Kern forecast of 1.8% average annual growth.

The Kern forecast assumes a growth rate increase in the first half of the 2020 decade illustrated by the bump in trend line in Figure 1. The bump reflects an assumption for increased in-migration caused by several factors including increased out-of-county commuting, telecommuting and retirement of the baby boomer population. As with historical growth boom and bust cycles in Kern, the forecast is predicted to settle back to more historic trends by the end of that decade as commuters realize that commuting from the Metropolitan Bakersfield area is not sustainable over more than a few years, and as retirees move closer to medical services. The bump brings the Kern forecast within 3% of the latest DOF projections (P2-13 released in July 2013) and aligns with the 2011 interim DOF projection, but settles back toward historic trends anticipated by the forecast using the Planning Center methodology developed for the 8 Valley COGs in 2013.

FIGURE 1 COMPARISON OF RECENT POPULATION FORECASTS FOR KERN COUNTY



HOUSING MIX AND INFILL ASSUMPTIONS

SB 375 requires analysis of a land use pattern that if possible could achieve the greenhouse gas targets. Kern looked at 5 different housing demand studies and surveys, performed between 2011 and 2013, to assist in the development of the land use pattern assumptions that are consistent with local market demand. The five housing studies and surveys include: Planning Center Forecast - March 2012, The Concord Group Forecast - June 2012, Godbe Annual Kern Community Survey - spring 2012, Council of Infill Builders - January 2013, Godbe Annual Kern Community Survey Spring - 2013. Each of these studies provided separate perspectives on how the future mix of housing might play out. In analyzing the results of each study, different definitions of housing type made it difficult to compare results. For example, in the rural Kern region where lots 10,000 sq. ft. and larger are very common, the interpretation of a small lot would greatly differ from the definition used in dense urban environments where 10,000 sq. ft. lots are very uncommon and might be considered very large.

APPENDIX G – REGIONAL GROWTH FORECAST, MODELING ASSUMPTIONS

Kern COG analyzed the data from all 5 studies and developed a range of scenarios using the range of housing mix presented by the studies. Table 1 shows the ranges developed and how they correspond to the multiple definitions and classification of housing present in these studies.

Table 1 - Range of Study Results				
Note that because some the surveys allowed selection of more than one response, the ranges do not add to 100%				
Category	Single Family Detached		Multi-Family Attached	
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo
RTP Range	47% - 84%		15% - 52%	
	47% - 82%	15% - 70%		15% - 33%
	47% - 82%	47% - 70%	15% - 52%	15% - 33%

Through Kern COGs public participation process, thousands of Kern County residents were surveyed for their housing preference. In addition, the input from the public participation has been incorporated into the plan alternative; Table 2 depicts the housing mix for the plan alternative based on the range of studies. The housing mix information is an input to the Uplan model, which assists planners in distributing future growth according to locally adopted general plans and latest planning assumptions. Uplan documentation is available at: http://www.kerncog.org/images/docs/transmodel/uplan_documentation_V12_073013.pdf

Table 2 - Kern COG 2014 Preliminary RTP Assumptions (Consistent with Range of Studies)					
Note that these values do not exceed the capacity of existing local general plans and latest planning assumptions					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo	Total
2010-2020	66%	18%		15%	100%
2020-2035	56%	26%		19%	100%
2035-2040	49%	31%		20%	100%
2010-2035	60%	23%		17%	100%
2010-2040	58%	24%		18%	100%

Notes: (1) Landuse categories are based on assumptions developed by the Regional Planning Advisory Committee. Medium land use and Single Family Detached (SFD) - Small lot are 6000 sq. ft. or smaller. (2) 2-4plex includes apartments, condominiums and townhomes with 2-4 attached units and Apt./condo includes higher density housing such as bi- and tri-level apartment buildings.

The output from the Uplan model is then analyzed and adjusted to meet any additional planning criteria which the model might not be able to account for. The results are then input into the MIP travel model. The complete MIP model documentation is available at <http://www.kerncog.org/transportation-modeling>.

APPENDIX G – REGIONAL GROWTH FORECAST, MODELING ASSUMPTIONS

EMPLOYMENT ASSUMPTIONS

The employment forecast was adjusted separate from the 2005 and 2009 population growth forecasts. Major adjustments to the employment forecast have coincided with model validation years 2006 and 2008. The 2006 growth forecast is based on the Caltrans economic forecast. The 2008 model validation incorporated the Census' Longitudinal Employer-Household Dynamics data. Minor adjustments to the distribution of employment growth are made by collecting local planning assumptions through the Kern Regional Transportation Modeling Committee a subcommittee of the Kern COG Transportation Technical Advisory Committee (TTAC).

The jobs/housing balance, which has historically fluctuated around 1.1 and 1.3 jobs per household, is anticipated to continue to vary based on several factors. First, fluctuations in the number of out-of-county commuter households affect the jobs housing balance. Second, when employment levels do not keep up with baby booms - like the echo boomer generation now entering the workforce - the jobs housing balance goes down as unemployment goes up and/or out-migration increases. The third factor affecting the jobs housing balance is Kern's latent supply of second homes in the mountain communities. As the baby boomers retire we anticipate an increase in households that will be supported by a pension/retirement savings rather than a job in the region, lowering high vacancy rates in the mountain communities. This trend factor is difficult to detect because no building permit is required to convert a second home to a primary residence. Over the long term we anticipate the jobs/housing balance to settle down to 1.1. Total Employment is anticipated to grow to just over 500,000 by forecast year 2040.



Regional Transportation Plan - Appendix H

REGIONAL HOUSING NEEDS ALLOCATION PLAN

January 1, 2013 – December 31, 2023



**Kern Council
of Governments**

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Regional Housing Needs Allocation Plan
January 1, 2013 – December 31, 2023
Scheduled for Adoption
June 19, 2014

Prepared by:



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Note: The Regional Housing Needs Allocation may also be discussed as the Regional Housing Needs Assessment.

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EXECUTIVE SUMMARY

State housing element law assigns the responsibility for preparing the Regional Housing Needs Assessment (RHNA) for the Kern County region to Kern Council of Governments (Kern COG). Kern COG, and other California councils of governments (COGs), undertake the RHNA process prior to each housing element cycle. The current RHNA is for the fifth housing element cycle and covers an 11-year projection period (January 1, 2013 – December 31, 2023).

The Regional Housing Needs Allocation Plan (RHNA Plan) for the Kern Council of Governments (Kern COG) includes the cities of Arvin, Bakersfield, California City, Delano, Maricopa, McFarland, Ridgecrest, Shafter, Taft, Tehachapi, Wasco, and Kern County. The purpose of the RHNA Plan is to allocate to the Cities and County their “fair share” of the region’s projected housing need by household income group over the projection period covered by the plan. As the RHNA Plan tables demonstrate, each jurisdiction received one “overall” allocation, which was then divided into four income categories. By distributing the overall allocation into four income categories, which are defined by state law, the methodology reduces the over-concentration of lower income households in one community versus another.

The plan is required by state law (Government Code Section 65584) and is based on countywide housing projections developed by the California Department of Housing and Community Development (HCD). HCD works with regional COGs to determine the amount of housing needed within the region. The determination of housing need is based on existing need and estimated population growth. Need is determined for households in all income categories: very low, low, moderate and above moderate incomes. On December 30, 2013, HCD provided Kern COG its RHNA determination. HCD determined Kern COG’s regional housing need to be 67,675 for the 11-year projection period. Appendix B contains a copy of the HCD determination letter.

Once the total regional need is determined, Kern COG works with local governments to allocate the total need to individual cities and counties. Local governments are then required to plan where and how the allocated housing units will be developed within their communities. This is done through the Housing Element of each local government’s General Plan. The Housing Element Planning Period for this cycle is December 31, 2015 to December 31, 2023. Pursuant to SB 375, the start of the planning period is 18 months from the estimated adoption date Kern COG’s Regional Transportation Plan (RTP) and the end of the planning period was calculated 18 months after the adoption of the second RTP (Government Code 65588)(e)(3)(A).

Table 1: 2013-2023 Final Draft RHNA Allocations by Income Category

Projection Period January 1, 2013 - December 31, 2023		Very Low Income		Low Income		Affordable Allocation (Combined Low + Very Low Income)		Moderate Income		Above Moderate Income	
	Total RHNA Allocation	Units	% of Total RHNA	Units	% of Total RHNA	Units	% of Total RHNA	Units	% of Total RHNA	Units	% of Total RHNA
Arvin	1,168	398	34.0%	239	20.5%	636	54.5%	183	15.6%	349	29.9%
Bakersfield	36,290	9,706	26.7%	5,800	16.0%	15,506	42.7%	6,453	17.8%	14,331	39.5%
California City	1,268	254	20.1%	131	10.3%	385	30.4%	155	12.2%	728	57.4%
Delano	1,462	396	27.1%	277	18.9%	673	46.0%	243	16.6%	546	37.4%
Maricopa	35	11	30.0%	5	14.8%	16	44.8%	6	16.3%	14	38.8%
McFarland	311	93	29.9%	73	23.6%	166	53.5%	66	21.2%	79	25.3%
Ridgecrest	1,346	159	11.8%	131	9.8%	291	21.6%	207	15.4%	848	63.0%
Shafter	2,036	417	20.5%	426	20.9%	843	41.4%	397	19.5%	796	39.1%
Taft	254	52	20.3%	26	10.4%	78	30.7%	30	11.9%	146	57.4%
Tehachapi	496	127	25.6%	64	13.0%	191	38.6%	88	17.8%	216	43.6%
Wasco	1,426	350	24.5%	275	19.3%	624	43.8%	280	19.7%	521	36.6%
Unincorporated County	21,583	4,888	22.6%	3,107	14.4%	7,995	37.0%	3,126	14.5%	10,462	48.5%
Total	67,675	16,850	24.9%	10,555	15.6%	27,405	40.5%	11,235	16.6%	29,035	42.9%

Note: Percentages may not sum to 100 percent due to rounding.

Source: Kern COG

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I. INTRODUCTION

The Regional Housing Needs Allocation Plan (RHNA Plan) for the Kern Council of Governments (Kern COG) includes the cities of Arvin, Bakersfield, California City, Delano, Maricopa, McFarland, Ridgecrest, Shafter, Taft, Tehachapi, Wasco, and Kern County. The purpose of the RHNA Plan is to allocate to the Cities and County their “fair share” of the region’s projected housing need by household income group over the 11-year (January 1, 2013 – December 31, 2023) projection period covered by the plan.

The plan is required by state law (Government Code Section 65584) and is based on countywide housing projections developed by the California Department of Housing and Community Development (HCD). HCD works with regional Councils of Governments (COGs) to determine the amount of housing needed within the region. Kern COG is this region’s COG. The determination of housing need is based on existing need and estimated population growth. Need is determined for households in all income categories: very low, low, moderate and above moderate incomes. On December 30, 2013, HCD provided Kern COG its RHNA determination. HCD determined Kern COG’s regional housing need to be 67,675 for the 11-year projection period. Appendix B contains a copy of the HCD determination letter.

Once the total regional need is determined, Kern COG works with local governments to allocate the total need to individual cities and counties. Local governments are then required to plan where and how the allocated housing units will be developed within their communities. This is done through the Housing Element of each local government’s General Plan. The Housing Element Planning Period for this cycle is December 31, 2015 to December 31, 2023. Pursuant to SB 375, the start of the planning period is 18 months from the estimated adoption date Kern COG’s Regional Transportation Plan (RTP) and the end of the planning period was calculated 18 months after the adoption of the second RTP (Government Code 65588)(e)(3)(A).

This RHNA Plan summarizes current housing element law, documents the process for determining the total regional housing need, and describes the allocation methodology and the rationale for each component of the method.

KERN COUNTY PROFILE

Kern County spans across the southern end of the Central Valley, covering 8,161 square miles. Kern County is seen as the gateway to Southern California, the San Joaquin Valley, the Sierra Nevada and the Mojave Desert. The geography of the county is diverse, containing mountainous areas, agricultural lands, and desert areas. The population of Kern County was 839,631 in 2010, making it the eleventh most populous county in the state.

Kern County was initially developed by settlers searching for gold, and the county became known as the Golden Empire. In subsequent years, the county developed a large agricultural base, as well as significant energy production and resource extraction industries. There is also a strong aviation, space, and military presence, such as Edwards Air Force Base and China Lake Naval Air Weapons Station.

II. THE REGIONAL HOUSING NEEDS ALLOCATION PROCESS

STATE HOUSING ELEMENT LAW

State law requires each city and county to adopt a general plan. The general plan must contain seven elements, including a housing element. Unlike other mandatory general plan elements, the housing element, which is required to be updated every eight years, per Senate Bill 375, is subject to detailed statutory requirements, housing element law, and a mandatory review by the HCD.

Housing elements have been mandatory portions of general plans since 1969. This reflects the statutory recognition that the availability of housing is a matter of statewide importance. The limitation of the state's housing supply through planning and zoning powers affects the state's ability to achieve its housing goal of "decent housing and a suitable living environment for every California family." A limited housing supply also impacts the state's ability to remain economically competitive.

Housing element law requires local governments to plan for their existing and projected housing need. It is the state's primary "market-based strategy" to increase housing supply. The law recognizes that in order for the private sector to adequately address housing needs and demand, local governments must adopt land use plans and regulations, i.e., zoning, that provide opportunities for housing development, rather than constrain opportunities.

The state is required to allocate the region's share of the statewide housing need to COGs based on Department of Finance population projections and regional population forecasts used in preparing regional transportation plans. Kern COG serves as the region's COG. Housing element law requires the COG to develop a RHNA Plan. The plan describes the region's allocation method and the actual allocation of housing need to the cities and counties within the region. This document serves as the Kern County's RHNP.

According to state housing law (Government Code Section 65584(d)), the RHNA Plan is to promote the following objectives:

1. Increasing the housing supply and the mix of housing types, tenure, and affordability in all cities and counties within the region in an equitable manner, which shall result in all jurisdictions receiving an allocation of units for low and very low-income households.

2. Promoting infill development and socioeconomic equity, the protection of environmental and agricultural resources, and the encouragement of efficient development patterns.
3. Promoting an improved intraregional relationship between jobs and housing.
4. Allocating a lower proportion of housing need to an income category when a jurisdiction already has a disproportionately high share of households in that income category, as compared to the countywide distribution of households in that category from the most recent decennial United States census.

SB 375: INTEGRATING LAND USE, HOUSING, AND TRANSPORTATION PLANNING

In 2008, Senate Bill 375 (SB 375) was passed to support the State's climate action goals that were identified in Assembly Bill 32, to reduce greenhouse gas (GHG) emissions through coordinated land use and transportation planning. SB 375 mandates each of the metropolitan planning organizations (MPOs), Kern COG, to prepare a sustainable communities strategy (SCS) as part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG reduction targets. Because SB 375 requires better coordination between transportation planning with land use and housing planning, the RHNA process is now integrated to the adoption of every two cycles of the regional RTP/SCS. As a result, RHNA Plans must be adopted every eight years, following the adoption of the update of the RTP/SCS.

GROWTH PROJECTIONS FOR THE RTP/SCS AND RHNA

The 2014 RTP forecast serves as the basis for the RHNA methodology, allocation share, and for the 2014 Regional Transportation Plan and Sustainable Communities Strategy. The 2014 forecast is a locally-driven study that provides housing unit, employment, and population projections for each jurisdiction in the Kern region through the year 2040. The RTP forecast complies with all applicable statutes and regulations in relation to the RTP, SCS, and RHNA from SB 375 and the California Transportation Commission's RTP Guidelines. Local general plans, specific plans and other community plans, growth trends, and jobs/housing balance were just some of the factors that were considered in the development of RTP forecasted growth pattern. Consultation with local jurisdiction staff, Regional Planning Advisory Committee, and Transportation Modeling Committee was integrated in the development of the RTP forecast and growth pattern. There is a difference between the housing units projected in the 2014 RTP forecast and the HCD RHNA determination because the two projections have different purposes, but still integrate and are consistent with each other in the RHNA process. The 2014 RTP forecast is oriented toward actual housing production, whereas the RHNA determination is focused on planning to meet anticipated housing demand. The RTP forecast reflects the number of

housing units that are likely to be built in the region based on market considerations and other policy factors. Upon completing the RHNA determination, HCD applied methodology and assumptions regarding factors from Government Code Section 65584.01(c)(1), see the Draft RHNA Plan for a copy HCD's Determination Letter to Kern COG.

KERN COUNTY'S REGIONAL SHARE OF PROJECTED STATEWIDE HOUSING NEED

HCD determines the regional share of the state's existing and projected housing needs for Kern County. Kern COG received the determination from HCD to accommodate housing units during the projection period of January 1, 2013 to December 31, 2023.

As required by state law, the county and eleven cities will have to agree to plan for this region's share of housing. The total number of housing units for the region are further broken down by HCD into four income categories:

- **Very Low Income**—Four-person household does not exceed 50 percent of the median family income of the county.
- **Low Income**—Four-person household with income between 51 percent and 80 percent of the county median family income.
- **Moderate Income**—Four-person household with income between 81 percent and 120 percent of the county median family income.
- **Above Moderate Income**—Four-person household with income 121 percent or more of the county median family income.

On December 30, 2013, Kern COG received its 5th cycle regional housing need assessment determination from HCD (Appendix B). HCD is required to determine Kern COG's existing and projecting housing need pursuant to State housing law (Government Code Section 65584, et. seq.). The income category percentages reflect the minimum housing need that the RHNA Plan must address in total and also for very-low, low, and moderate income categories. Below is a table the Regional Housing Needs Determination by Income Category that HCD provided to Kern COG.

Regional Housing Needs Determination by Income Category for Projection Period: January 1, 2013 through December 31, 2023		
Income Category	Percent (minimum)	Housing Units (rounded)
Very-Low	24.9%	16,850
Low	15.6%	10,555
Moderate	16.6%	11,235
Above-Moderate	42.90%	29,035
Total	100.0%	67,675

Source: California Department of Housing and Community Development

KERN COG REGIONAL HOUSING NEEDS ASSESSMENT SCHEDULE

August 2012 – May 2014	RHNA development process commenced. Regular RHNA updates were provided during RPAC meetings.
December 30, 2013	HCD determines Kern County Regional Housing Need
April 19, 2013	Kern COG proposes Draft RHNA Methodology (Start 60-day public comment period)
May 16, 2013	Public hearing held for Draft RHNA Methodology
February 20, 2014	Kern COG approves Final Methodology
February 3, 2014 – April 4, 2014	Kern COG releases Draft Regional Housing Needs Allocation to local jurisdictions for 60-day comment period
March 12, 2014 – May 6, 2014	55-day Public Review of Draft 2015 FTIP, Draft RTP/SCS with Draft RHNA Plan and Draft EIR, Draft Conformity Analysis

April 15, 2014 and April 17, 2014	Public Hearings held April 15, 2014 in California City and April 17, 2014 in Bakersfield for the Draft 2015 FTIP, Draft RTP with Draft RHNA Plan and Draft EIR, Draft Conformity Analysis
June 19, 2014	Kern COG adopts Final Regional Housing Allocation Plan
August 2014	HCD reviews Proposed Final Regional Housing Allocation Plan
December 31, 2015*	Local Governments complete Housing Element Revisions

**Estimated Housing Element Planning Period is December 31, 2015 – December 31, 2023*

REVIEW AND APPROVAL OF THE REGIONAL HOUSING NEEDS ALLOCATION (RHNA) PLAN

Prior to the approval of a RHNA Plan, specific plan reviews and appeals must be considered. At the very minimum, a 60-day public review period as outlined in subsection (b) of Government Code Section 65584.05 will be provided to local governments. If any local government disagrees with the RHNA allocation as determined by Kern COG, a revision of its share may be considered, which will then trigger the following actions within the time periods outlined below.

- **Revision Request (60 days)**—A jurisdiction may propose to revise the determination of its share of the regional housing need in accordance with the considerations set forth in Government Code Section 65584(a) within 60 days of receiving the draft allocation. The proposed revised share shall be based upon available data and accepted planning methodology, and supported by adequate documentation. Any proposed revision to a jurisdiction's housing need will require a compensating adjustment to one or more of the other jurisdiction's housing needs in order to maintain the total housing need within the region. Within this period, a copy of the Draft RHNA may be submitted to HCD requesting a review for consistency with the statewide housing need which may result in revisions to the Draft RHNA to obtain consistency.
- **Kern COG Action on Revision Requests**—Within 60 days of receiving a timely request for revision to the Draft RHNA, Kern COG shall either accept the proposed revision and modify the Draft RHNA or indicate, based upon available data and accepted planning methodology, why the proposed revision is inconsistent with the regional housing need.
- **Appeal Request and Public Hearing**—A jurisdiction shall have the right to appeal Kern COG's denial of a revision request within 60 days of the date established by Kern COG to file a timely appeal. A public hearing shall be conducted 30–35 days from the date the jurisdiction is notified

when its appeal will be heard. The appealing jurisdiction shall be notified by certified mail, return receipt requested, of at least one public hearing on its appeal

- **Final Determination**—Before making its final determination, Kern COG shall consider comments, recommendations, available data, accepted planning methodology, and local geological and topographical restraints on the production of housing. If Kern COG accepts a revision or appeal and modifies its earlier determination, the city or county shall use the revised determination. If Kern COG grants a revised allocation, pursuant to Government Code Section 65584(c)(1), the current total housing need must still be maintained. If, however, Kern COG indicates that the revision or appeal is inconsistent with the regional housing need, the jurisdictions will be required to use the original shares as previously determined.

PUBLIC OUTREACH

Government Code Section 65584.04 (c)(4) states that “public participation and access shall be required in the development of the methodology and in the process of drafting and adopting the allocation of the regional housing needs.” Kern COG’s public outreach effort for the RHNA process encompassed diverse opportunities to obtain public input.

Website Information

Public outreach was integrated with the Directions to 2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) outreach effort and a separate Internet web tab was created and made available on the Kern COG website. The web tab included project background material, anticipated schedule, and public participation and contact information.

Project Steering Committee Meeting

The Project Steering Committee (PSC) includes members of the Regional Planning Advisory Committee that volunteered to participate in the RHNA process and serve as the working group for the RHNA project. The PSC members represent the Cities of California City, Delano, McFarland, Taft, and Wasco. PSC is notified and invited to all meetings related to the RHNA project.

PMC facilitated a Project Steering Committee meeting on August 9, 2012 during the drafting of the RHNA Plan and Regional Housing Data Report. This meeting was to present the Steering Committee with a background on the RHNA and Housing Element process and requirements. PMC also reviewed the project schedule. Representatives from both the City of Wasco and City of California City attended the meeting. PSC members were also invited to Environment and Social Equity Stakeholder Roundtable meetings held on October 17, 2012 and March 1, 2013.

Environment and Social Equity Stakeholder Roundtable Meeting

The Environment and Social Equity Stakeholder group includes varied stakeholders from the environment and social sectors of Kern County. Kern COG hosted two roundtable meetings to receive input from the stakeholder groups. Appendix C of this documents contains a copy of the meeting notes from the Roundtable Meetings.

First Meeting

October 17, 2012 - As part of the Directions to 2050 Cycle 2 stakeholder roundtable meeting, the Regional Housing Needs Allocation (RHNA) process and Regional Housing Needs Data Report were presented and discussed. The presentation included an overview of RHNA requirements and of the data that will be included in the Regional Housing Data Report. The importance of the data report was also discussed; it was pointed out that by completing this report, Kern COG is assisting each jurisdiction with the 5th round Housing Element updates. Housing preference data was also presented to show the public's preferences for housing types in the county.

Comments Received:

- The RHNA data report process must ensure that cities and unincorporated communities affirmatively further fair housing (AFFH). AFFH can provide cities and counties with an incentive and a starting point that will set the stage for AFFH and ensure compliance with Title 6 requirements.
- Some communities are already impoverished and should not be required to build more low-income housing.
- Make sure each city has a fair share.
- Housing must be accessible and affordable.
- Incorporate universal design

Second Meeting

March 1, 2013 – As part of the Directions to 2050 Cycle 2 stakeholder roundtable meeting, the draft RHNA methodology was presented to the participants.

Comments Received:

After a presentation of the RHNA methodology process and housing needs assessment, meeting participants were invited to ask questions and share feedback. Meeting participants provided the following comments:

- Ensure the types of housing meet the market demands
- Address infrastructure in Housing Element updates

Regional Planning Advisory Committee (RPAC)

The Regional Planning Advisory Committee (RPAC) includes local agency planning representatives who provide technical review and recommendation to Kern COG Board of Directors. RPAC meetings are held monthly, two weeks prior to the Kern COG Board/ Transportation Planning and Policy Committee (TPPC). The RPAC was involved throughout the RHNA development process, and review the Draft and Final versions of the 2013 Kern Regional Housing Report, RHNA Methodology, and RHNA Plan.

III. RHNA METHODOLOGY

One of the critical phases in the RHNA process is the development of the methodology for dividing housing units within the region. The meetings of the Regional Planning Advisory Committee, comprised of local government planning staff but open to the public, served as the forum for the technical development of the methodology. In addition, the RHNA methodology was presented to the Environment and Social Equity Stakeholder Roundtable before the RHNA methodology was released for public comment.

RHNA FACTORS

In the development of the RHNA methodology, state law (Government Code 65584.04(d)) requires Kern COG to consider 10 factors. Kern COG addresses these factors as part of the RHNA determination with HCD, methodology, SCS, and the regional forecast. Kern COG also conducted a Local Government Survey (see Appendix D) where all the local cities and county had the opportunity to address these factors prior to the development of the RHNA methodology. The following section describes how Kern COG addresses the 10 methodology factors as excerpted from the State law:

- 1) **Each member jurisdiction's existing and projected jobs and housing relationship** ~ The balance between jobs and housing for all jurisdictions was a component in regional forecast process. The RTP/SCS projections represent where growth will likely occur so the RTP forecast was used as the basis for the overall RHNA distribution in the RHNA methodology.
- 2) **The opportunities and constraints to development of additional housing in each member jurisdiction, including all of the following:**
 - a. **Lack of capacity for sewer or water service due to federal or state laws, regulations or regulatory actions, or supply and distribution decisions made by a sewer or water service provider other than the local jurisdiction that preclude the jurisdiction from providing necessary infrastructure for additional development during the planning period** ~ From the jurisdictions that completed the Local Government Survey, none of the jurisdictions lack capacity for sewer or water service for

- the reasons listed above. The RHNA methodology also addressed this factor through the RTP forecast and SCS. Both the RTP forecast and SCS incorporate the land use in local general plans and community plans. As required by State law, each jurisdiction's circulation and land use element must consider public utilities and facilities, which includes capacity for sewer and water service.
- b. **The availability of land suitable for urban development or for conversion to residential use, the availability of underutilized land, and opportunities for infill development and increased residential densities. The council of governments may not limit its consideration of suitable housing sites or land suitable for urban development to existing zoning ordinances and land use restrictions of a locality, but shall consider the potential for increased residential development under alternative zoning ordinances and land use restrictions** ~ The RHNA methodology addressed this factor through the RTP/SCS forecasts. As part of the SCS, COG has to identify areas within the region to house all the population and the needs of the areas. The RTP/SCS forecasts considered all jurisdiction's land availability. Table 4-3 of the RTP/SCS demonstrates sufficient land available for suitable development.
 - c. **Lands preserved or protected from urban development under existing federal or state programs, or both, designed to protect open space, farmland, environmental habitats, and natural resources on a long-term basis** ~ The RHNA methodology addresses this factor through the RTP/SCS forecasts. The RTP/SCS forecasts considered all jurisdictions' land supplies. The SCS categorizes land preserved or protected from urban development as resource areas (see RTP Figure 4-15). Since this land is not projected to be developed in local land use plans, the SCS assumes no growth on these lands within the RHNA planning period.
 - d. **County policies to preserve prime agricultural land, as defined pursuant to Section 56064, within an unincorporated area** ~ The RHNA methodology addressed this factor through the RTP/SCS forecasts. The RTP forecast took into consideration policies in the County's General Plan intended to protect agricultural land.
- 3) **The distribution of household growth assumed for purposes of a comparable period of regional transportation plans and opportunities to maximize the use of public transportation and existing transportation infrastructure** ~ The RHNA methodology addressed this factor through the SCS. The SCS development process included a distribution of housing and transportation facilities in close proximity to transit service and mixed-used centers as illustrated in Figures 4-8 and 4-9 Transit Priority and Strategic Employment Place Types of the RTP/SCS.

- 4) **The market demand for housing** ~ The RTP forecast (see Appendix G of the RTP) considered the market demand for housing in Kern and the RTP forecast was the basis for the RHNA methodology. In addition, HCD considered this factor in their determination for the housing need for the Kern region.
- 5) **Agreements between a county and cities in a county to direct growth toward incorporated areas of the county** ~ From the jurisdictions that completed the Local Government Survey, the City of Bakersfield has an agreement with the County of Kern to direct growth toward incorporated areas, the Cities of Wasco and Arvin follow Local Agency Formation Commission (LAFCO) policies and have General Plan policies that guide growth and development to existing cities. This factor was addressed through the RTP forecast and SCS by considering the County of Kern General Plan policies that encouraged new growth by infilling development, redeveloping existing sites, reusing vacant buildings and using under-utilized sites more efficiently before developing peripheral agricultural or resource lands.
- 6) **The loss of units contained in assisted housing developments, as defined in paragraph (9) of subdivision (a) of Section 65583, that changed to non-low-income use through mortgage prepayment, subsidy contract expirations, or termination of use restrictions.** ~ Based on local agencies that responded to the Local Government Data Survey, there are no risks in the loss of units contained in assisted housing developments. State law requires housing elements to address the loss of assisted housing development for lower-income households. Multiple programs and funding streams make it difficult for jurisdictions to compute accurate lists of assisted properties in each jurisdiction, especially larger jurisdictions; therefore Kern COG determined the data available is insufficient and cannot be incorporated in the RHNA methodology in a consistent and rationale manner. However, Kern COG requested data of at-risk assisted housing from the California Housing Partnership Corporation and the data will be included in the Housing Data Report .
- 7) **High-housing cost burdens** ~ Based on HCD's RHNA Determination for the Kern Region for the projection period (2013-2023), 40.5% of all units are affordable (i.e., very low- and low-income). These affordable units are the minimum required that need to be addressed in the RHNA Plan and the RHNA Plan meets this minimum. In addition, the income categories of the RHNA are relative to the median income of the Kern region.
- 8) **The housing needs of farmworkers** ~ The RTP forecast serves as the basis of the RHNA methodology and allocation share. The RTP forecast takes into account all residents and allocation of future growth in the Kern region, and complies with all applicable statutes and regulations in relation to the RTP, SCS, and RHNA from SB 375. Farmworker housing and related data is included in the Housing Data Report, and the housing need of farmworkers is required to be addressed by local jurisdictions in the preparation of their housing elements.

- 9) **The housing needs generated by the presence of a private university or a campus of the California State University or the University of California within any member jurisdiction**
~ A majority of the students that attend California State University of Bakersfield (CSUB) or the private universities in Kern County live at home. However, the SCS assumes appropriate development types adjacent to the local university and college campuses as well as on campus housing.
- 10) **Any other factors adopted by the council of governments.** ~ HCD and other agencies reviewed the initial version of the Housing Data Report and provided feedback and suggestions on additional data sets to include. The final version of the Housing Data Report will include these data sets.

ALLOCATION METHODOLOGY FOR INCORPORATED CITIES AND COUNTY AREAS

The following method was used by Kern COG to allocate the future housing need to the eleven incorporated cities and the unincorporated county. Information used throughout the process, including 2010 US Census household and population counts, 2020 forecasts, and 2030 forecasts from the 2014 Preliminary Regional Transportation Plan (RTP), and estimates for 2013 and 2023 housing units (informed by California Department of Finance (DOF) population and housing estimates for January 2012 (E-5), are provided in **Table 1** for reference. Numbered steps 1–11 correspond to the labeled columns in **Table 2** and steps 12–15 correspond to **Table 3**, **Table 4**, **Table 5**, and **Table 6**.

1. Calculate a compounding annual growth rate for housing units between 2010 and 2020 utilizing the 2010 US Census, and the Kern COG 2014 Preliminary RTP for 2020.
2. Calculate the base year 2013 housing unit count by using results from column 1.
3. Calculate a compounding annual growth rate for housing units between 2020 and 2030 utilizing the Kern COG 2014 Preliminary RTP for 2030.
4. Calculate the forecast year 2023 housing unit counts by using results from column 5.
5. Use the difference between columns 4 and 2 to calculate additional units from 2013–2023.
6. In order to calculate a healthy vacancy adjustment, sum the number of owner-occupied homes and vacant, but sold, homes in 2010. This information comes from the 2010 Census.
7. Apply the HCD-specified vacancy adjustment factor for owner-occupied homes (1.5%) to column 6 to yield these results.

8. As with owner-occupied units, sum the number of renter-occupied and renter-vacant homes in column 8 using the 2010 Census.
9. Apply the HCD-specific vacancy adjustment factor for renter-occupied properties (4%) to column 8 to yield the results in column 9.
10. Sum column 7 and column 9 to produce the total number of additional homes needed to maintain a healthy vacancy rate.
11. Add column 5 and 10 to calculate the vacancy-adjusted housing needs for 2013–2023. These allocations will be broken into allocations by housing income category as described in steps 13–16.
12. To calculate the adjusted minimum additional housing units that is determined by HCD, the percent share must be calculated. Calculate the percent share of additional housing units by dividing the jurisdiction's adjusted additional housing units with the county total from column 11. Apply each jurisdiction's share of additional housing units to HCD's total housing needs determination to yield the results in column 13.
13. Compile the number of households by US Census income range for each jurisdiction. The ranges reported by the US Census are as follows: less than \$10,000, \$10,000 to \$14,999, \$15,000 to \$24,999, \$25,000 to \$34,999, \$35,000 to \$49,999, \$50,000 to \$74,999, \$75,000 to \$99,999, \$100,000 to \$149,999, \$150,000 to \$199,999, and \$200,000 or more.
14. Using the median income provided by HCD for a four person home in Kern County, calculate the income ranges for extremely low (less than 30% of median), very low (30%–50%), low (50%–80%), moderate (80%–120%), and above moderate (120% or more) income households for each city. Four person is the required base for consideration provided in the California Code of Regulations, Title 25, § 6932.
15. Calculate the number of households from each Census income range that fall into the HCD-defined brackets. By using city-specific Census income ranges and applying them to the countywide HCD-defined brackets, the methodology assures that each City's housing allocation is at par with Countywide income levels. In other words, this methodology attempts to bring each city to the income level of the county as a whole. In nearly all cases, not all homes in a certain census bracket fall into the same HCD bracket. In these cases, the homes which earn more than the HCD bracket in question fall into the next highest HCD bracket. For example, 257 homes in Arvin had a household annual income of less than \$20,000 but the HCD bracket for extremely low income was \$0–\$16,900 per year. An even distribution of incomes was assumed in the Census bracket, leading to a "carryover" of 26 homes. These 26 homes, all of which have

income of less than \$20,000 dollars per year but more than \$16,900, are counted in the next highest HCD income break, very low income.

16. Calculate the percent of total homes which lie in each HCD-defined income bracket and apply that percentage to the vacancy-adjusted housing need for each city to show the number of homes needed in each income category in 2023. These final results are presented in **Section IV**.

Table 1 – Housing Units in Kern COG, 2010–2030

Source	Housing Units				
	2010	2013	2020	2023	2030
	2010 US Census	Kern COG 2014 Preliminary RTP with 2012 DOF benchmark	Kern COG 2014 Preliminary RTP	Kern COG 2014 Preliminary RTP	Kern COG 2014 Preliminary RTP
Arvin	4,476	4,568	5,600	6,000	7,100
Bakersfield	120,725	123,066	155,300	168,300	201,100
California City	5,210	5,226	6,300	6,800	8,100
Delano	10,713	10,831	12,100	12,500	13,500
Maricopa	466	464	500	500	500
McFarland	2,683	2,755	3,000	3,100	3,200
Ridgecrest	11,915	12,088	13,200	13,600	14,700
Shafter	4,521	4,612	6,500	7,200	9,300
Taft	2,525	2,522	2,700	2,800	3,000
Tehachapi	3,539	3,622	4,000	4,200	4,700
Wasco	5,477	5,649	6,900	7,400	8,700
Unincorporated County	112,117	113,221	136,200	139,400	147,300
County Total	284,367	288,624	352,300	371,800	421,200

Source: 2010 US Census, Kern COG 2014 Preliminary RTP, CA Department of Finance

Note: Numbers are preliminary

Figure 1 – Housing Units in Kern County, 2010–2030

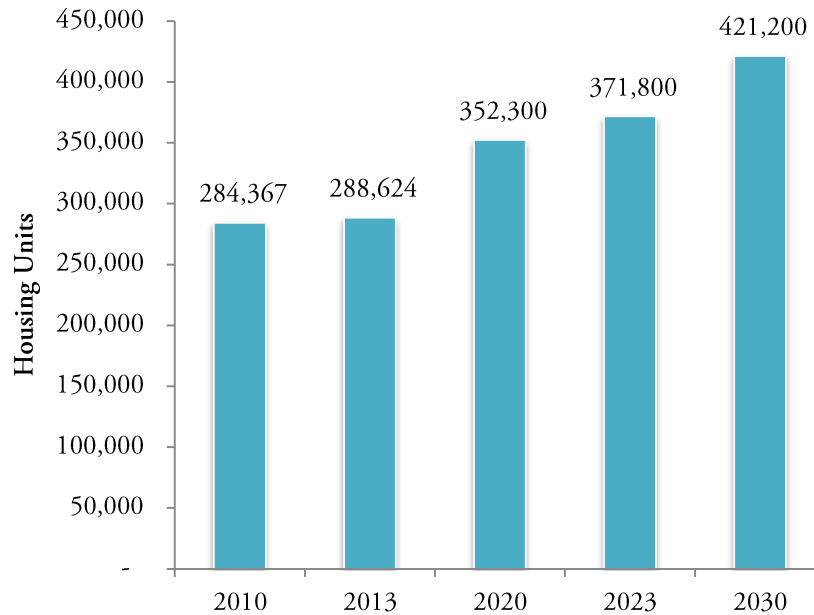


Table 2 – Kern COG Housing Allocation, 2013–2023

Column	1	2	3	4	5	6	7	8	9	10	11	12	13
Information	Housing Unit Growth	Housing Units	Housing Unit Growth	Housing Units	Additional HU	Owner-occ and vacant owned homes	1.5% of Column 6	Renter-occ and vacant rented homes	4% of Column 8	Vacancy Adjustment (column 7 + column 9)	Adjusted Additional HU (Column 5 + column 10)	Percent share of additional HU	HCD-Adjusted Minimum Additional HU
Year	2010-2020	2013	2020-2030	2023	2013-2023	2010		2010		2013-2023	2013-2023		2013-2023
Arvin	2.3%	4,568	2.4%	6,000	1,432	2,273	34	1,974	79	113	1,545	1.72%	1,167
Bakersfield	2.6%	123,066	2.6%	168,300	45,234	66,710	1,001	44,973	1,799	2,800	48,034	53.62%	36,291
California City	1.9%	5,226	2.5%	6,800	1,574	2,533	38	1,641	66	104	1,678	1.87%	1,268
Delano	1.2%	10,831	1.1%	12,500	1,669	5,784	87	4,510	180	267	1,936	2.16%	1,463
Maricopa	0.7%	464	0.0%	500	36	268	4	147	6	10	46	0.05%	35
McFarland	1.1%	2,755	0.6%	3,100	345	1,488	22	1,116	45	67	412	0.46%	311
Ridgecrest	1.0%	12,088	1.1%	13,600	1,512	6,565	98	4,312	172	270	1,782	1.99%	1,346
Shafter	3.7%	4,612	3.6%	7,200	2,588	2,482	37	1,761	70	107	2,695	3.01%	2,036
Taft	0.7%	2,522	1.1%	2,800	278	1,380	21	894	36	57	335	0.37%	253
Tehachapi	1.2%	3,622	1.6%	4,200	578	1,849	28	1,298	52	80	658	0.73%	497
Wasco	2.3%	5,649	2.3%	7,400	1,751	2,680	40	2,457	98	138	1,889	2.11%	1,427
Unincorporated County	2.0%	113,221	0.8%	139,400	26,179	59,787	897	37,204	1,488	2,385	28,564	31.89%	21,581
Total		288,624		371,800	83,176	153,799	2,307	102,287	4,091	6,398	89,574		67,675
Source	2010 Census, 2014 RTP	2014 RTP, DOF	2010 Census, 2014 RTP	2014 RTP	2014 RTP	2010 Census	HCD	2010 Census	HCD				

Note: Numbers are preliminary

The following tables are presented as examples of the analysis completed for all incorporated cities, Kern County, and the unincorporated county. To serve as an example of the calculations performed for those jurisdictions, **Table 3-5** show information for Kern County only. As a caveat, it should be noted that **Table 4** is applicable to all cities within the County and is used in the subsequent analysis for each city. Housing unit totals in **Table 3** and **Table 4** do not match later presentations because the source of information used here is the Census American Community Study which presents an estimate based on a 5-year average.

Table 3 – Kern County Households by Census Income Range

	Kern County
Less than \$10,000	16,811
\$10,000 to \$14,999	18,688
\$15,000 to \$24,999	31,574
\$25,000 to \$34,999	28,807
\$35,000 to \$49,999	35,534
\$50,000 to \$74,999	45,229
\$75,000 to \$99,999	28,284
\$100,000 to \$149,999	30,474
\$150,000 to \$199,999	10,799
\$200,000 or more	6,978
Total Households	253,178
Source: 2008-2012 American Community Survey 5-Year Estimates, Table DP-03	

Table 4 – HCD Income Brackets for Kern County

	Low	High
Extremely Low (<30%)	\$0	\$17,350
Very Low (30%-50%)	\$17,351	\$28,950
Low (50%-80%)	\$28,951	\$46,300
Moderate (80%-120%)	\$46,301	\$69,500
Above Moderate (>120%)	\$69,501	All else
Source: State Income Limits 2013. Department of Housing and Community Development. February 25 2013		

Table 5 – Percent of County Households by HCD Income Bracket

HH in Bracket	Census Income Ranges		Extremely Low		Very Low		Low		Moderate		Above Moderate
			Number	Carryover	Number	Carryover	Number	Carryover	Number	Carryover	Number
16,811	\$0	\$10,000	16,811	1	-						
18,688	\$10,000	\$14,999	18,688	1	-						
31,574	\$15,000	\$24,999	7,421	24,153	24,153						
28,807	\$25,000	\$34,999	-	-	11,380	17,427	17,427				
35,534	\$35,000	\$49,999	-	-	-	-	26,771	8,763	8,763		
45,229	\$50,000	\$74,999	-	-	-	-	-	-	35,280	9,949	9,949
28,284	\$75,000	\$99,999	-	-	-	-	-	-	-	-	28,284
30,474	\$100,000	\$149,999	-	-	-	-	-	-	-	-	30,474
10,799	\$150,000	\$199,999	-	-	-	-	-	-	-	-	10,799
6,978	\$200,000	\$999,999	-	-	-	-	-	-	-	-	6,978
253,178			42,920		35,533		44,198		44,043		86,484
			17.0%		14.0%		17.5%		17.4%		34.2%

Note: "carryover" column reflects calculation of households (ratio) counted in next income group.

Sources: 2008-2012 American Community Survey 5-Year Estimates, Table DP-03; 2008-2010 American Community Survey 3-Year Estimates, Table DP-03, State Income Limits 2013. Department of Housing and Community Development. February 25 2013

IV. REGIONAL HOUSING NEEDS ALLOCATION

In determining the regional housing needs for each jurisdiction, Kern COG applied the allocation formula as detailed in **Section III** of this plan. The applied allocation formula takes into account: (1) growth rate and (2) vacancy rates. **Table 6** represents each jurisdiction's share of the regional housing needs determination. The total number of new housing units to be planned for over the January 1, 2013, to December 31, 2023, planning period is 67,675. Jurisdictions may reduce their allocation by net units developed during the interim period (January 1, 2013, until the date of housing element preparation). To ensure that a mix of housing types serving all income levels is available, the allocation numbers are distributed into income categories. Each jurisdiction must plan for the number of new housing units within each income category. Income categories are defined below:

- **Very Low Income**—Four-person household does not exceed 50 percent of the median family income of the county.
- **Low Income**—Four-person household with income between 51 percent and 80 percent of the county median family income.
- **Moderate Income**—Four-person household with income between 81 percent and 120 percent of the county median family income.
- **Above Moderate Income**—Four-person household with income 121 percent or more of the county median family income.

REGIONAL HOUSING NEED BY JURISDICTION

Table 6: 2013-2023 Final Draft RHNA Allocations by Income Category

Projection Period January 1, 2013 - December 31, 2023		Very Low Income		Low Income		Affordable Allocation (Combined Low + Very Low Income)		Moderate Income		Above Moderate Income	
	Total RHNA Allocation	Units	% of Total RHNA	Units	% of Total RHNA	Units	% of Total RHNA	Units	% of Total RHNA	Units	% of Total RHNA
Arvin	1,168	398	34.0%	239	20.5%	636	54.5%	183	15.6%	349	29.9%
Bakersfield	36,290	9,706	26.7%	5,800	16.0%	15,506	42.7%	6,453	17.8%	14,331	39.5%
California City	1,268	254	20.1%	131	10.3%	385	30.4%	155	12.2%	728	57.4%
Delano	1,462	396	27.1%	277	18.9%	673	46.0%	243	16.6%	546	37.4%
Maricopa	35	11	30.0%	5	14.8%	16	44.8%	6	16.3%	14	38.8%
McFarland	311	93	29.9%	73	23.6%	166	53.5%	66	21.2%	79	25.3%
Ridgecrest	1,346	159	11.8%	131	9.8%	291	21.6%	207	15.4%	848	63.0%
Shafter	2,036	417	20.5%	426	20.9%	843	41.4%	397	19.5%	796	39.1%
Taft	254	52	20.3%	26	10.4%	78	30.7%	30	11.9%	146	57.4%
Tehachapi	496	127	25.6%	64	13.0%	191	38.6%	88	17.8%	216	43.6%
Wasco	1,426	350	24.5%	275	19.3%	624	43.8%	280	19.7%	521	36.6%
Unincorporated County	21,583	4,888	22.6%	3,107	14.4%	7,995	37.0%	3,126	14.5%	10,462	48.5%
Total	67,675	16,850	24.9%	10,555	15.6%	27,405	40.5%	11,235	16.6%	29,035	42.9%

Note: Numbers may not sum up to 100 percent due to rounding.

Source: Kern COG

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APPENDIX A – EXCERPTS FROM HOUSING ELEMENT LAW, CALIFORNIA GOVERNMENT CODE SECTION 65584 AND 65584.04

California Government Code Section 65584

(a)(1) For the fourth and subsequent revisions of the housing element pursuant to Section 65588, the department shall determine the existing and projected need for housing for each region pursuant to this article. For purposes of subdivision (a) of Section 65583, the share of a city or county of the regional housing need shall include that share of the housing need of persons at all income levels within the area significantly affected by the general plan of the city or county.

(2) While it is the intent of the Legislature that cities, counties, and cities and counties should undertake all necessary actions to encourage, promote, and facilitate the development of housing to accommodate the entire regional housing need, it is recognized, however, that future housing production may not equal the regional housing need established for planning purposes.

(b) The department, in consultation with each council of governments, shall determine each region's existing and projected housing need pursuant to Section 65584.01 at least two years prior to the scheduled revision required pursuant to Section 65588. The appropriate council of governments, or for cities and counties without a council of governments, the department, shall adopt a final regional housing need plan that allocates a share of the regional housing need to each city, county, or city and county at least one year prior to the scheduled revision for the region required by Section 65588. The allocation plan prepared by a council of governments shall be prepared pursuant to Sections 65584.04 and 65584.05 with the advice of the department.

(c) Notwithstanding any other provision of law, the due dates for the determinations of the department or for the council of governments, respectively, regarding the regional housing need may be extended by the department by not more than 60 days if the extension will enable access to more recent critical population or housing data from a pending or recent release of the United States Census Bureau or the Department of Finance. If the due date for the determination of the department or the council of governments is extended for this reason, the department shall extend the corresponding housing element revision deadline pursuant to Section 65588 by not more than 60 days.

(d) The regional housing needs allocation plan shall be consistent with all of the following objectives:

(1) Increasing the housing supply and the mix of housing types, tenure, and affordability in all cities and counties within the region in an equitable manner, which shall result in

each jurisdiction receiving an allocation of units for low- and very low income households.

(2) Promoting infill development and socioeconomic equity, the protection of environmental and agricultural resources, and the encouragement of efficient development patterns.

(3) Promoting an improved intraregional relationship between jobs and housing.

(4) Allocating a lower proportion of housing need to an income category when a jurisdiction already has a disproportionately high share of households in that income category, as compared to the countywide distribution of households in that category from the most recent decennial United States census.

(e) For purposes of this section, "household income levels" are as determined by the department as of the most recent decennial census pursuant to the following code sections:

(1) Very low incomes as defined by Section 50105 of the Health and Safety Code.

(2) Lower incomes, as defined by Section 50079.5 of the Health and Safety Code.

(3) Moderate incomes, as defined by Section 50093 of the Health and Safety Code.

(4) Above moderate incomes are those exceeding the moderate-income level of Section 50093 of the Health and Safety Code.

(f) Notwithstanding any other provision of law, determinations made by the department, a council of governments, or a city or county pursuant to this section or Section 65584.01, 65584.02, 65584.03, 65584.04, 65584.05, 65584.06, 65584.07, or 65584.08 are exempt from the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code).

California Government Code Section 65584.04

(a) At least two years prior to a scheduled revision required by Section 65588, each council of governments, or delegate subregion as applicable, shall develop a proposed methodology for distributing the existing and projected regional housing need to cities, counties, and cities and counties within the region or within the subregion, where applicable pursuant to this section. The methodology shall be consistent with the objectives listed in subdivision (d) of Section 65584.

(b)(1) No more than six months prior to the development of a proposed methodology for distributing the existing and projected housing need, each council of governments shall survey each of its member jurisdictions to request, at a minimum, information regarding the factors listed in subdivision (d) that will allow the development of a methodology based upon the factors established in subdivision (d).

(2)The council of governments shall seek to obtain the information in a manner and format that is comparable throughout the region and utilize readily available data to the extent possible.

(3)The information provided by a local government pursuant to this section shall be used, to the extent possible, by the council of governments, or delegate subregion as applicable, as source information for the methodology developed pursuant to this section. The survey shall state that none of the information received may be used as a basis for reducing the total housing need established for the region pursuant to Section 65584.01.

(4)If the council of governments fails to conduct a survey pursuant to this subdivision, a city, county, or city and county may submit information related to the items listed in subdivision (d) prior to the public comment period provided for in subdivision (c).

(c)Public participation and access shall be required in the development of the methodology and in the process of drafting and adoption of the allocation of the regional housing needs. Participation by organizations other than local jurisdictions and councils of governments shall be solicited in a diligent effort to achieve public participation of all economic segments of the community. The proposed methodology, along with any relevant underlying data and assumptions, and an explanation of how information about local government conditions gathered pursuant to subdivision (b) has been used to develop the proposed methodology, and how each of the factors listed in subdivision (d) is incorporated into the methodology, shall be distributed to all cities, counties, any subregions, and members of the public who have made a written request for the proposed methodology. The council of governments, or delegate subregion, as applicable, shall conduct at least one public hearing to receive oral and written comments on the proposed methodology.

(d)To the extent that sufficient data is available from local governments pursuant to subdivision (b) or other sources, each council of governments, or delegate subregion as applicable, shall include the following factors to develop the methodology that allocates regional housing needs:

(1)Each member jurisdiction's existing and projected jobs and housing relationship.

(2)The opportunities and constraints to development of additional housing in each member jurisdiction, including all of the following:

(A)Lack of capacity for sewer or water service due to federal or state laws, regulations or regulatory actions, or supply and distribution decisions made by a sewer or water service provider other than the local jurisdiction that preclude the jurisdiction from providing necessary infrastructure for additional development during the planning period.

(B)The availability of land suitable for urban development or for conversion to residential use, the availability of underutilized land, and opportunities for infill development and increased residential densities. The council of governments may not limit its consideration of suitable housing sites or land suitable for urban development to existing zoning ordinances and land use restrictions of a locality, but shall consider the potential for increased residential development under alternative zoning ordinances and land use

restrictions. The determination of available land suitable for urban development may exclude lands where the Federal Emergency Management Agency (FEMA) or the Department of Water Resources has determined that the flood management infrastructure designed to protect that land is not adequate to avoid the risk of flooding. (C)Lands preserved or protected from urban development under existing federal or state programs, or both, designed to protect open space, farmland, environmental habitats, and natural resources on a long-term basis.

(D)County policies to preserve prime agricultural land, as defined pursuant to Section 56064, within an unincorporated area.

(3)The distribution of household growth assumed for purposes of a comparable period of regional transportation plans and opportunities to maximize the use of public transportation and existing transportation infrastructure.

(4)The market demand for housing.

(5)Agreements between a county and cities in a county to direct growth toward incorporated areas of the county.

(6)The loss of units contained in assisted housing developments, as defined in paragraph (9) of subdivision (a) of Section 65583, that changed to non-low-income use through mortgage prepayment, subsidy contract expirations, or termination of use restrictions.

(7)High-housing cost burdens.

(8)The housing needs of farmworkers.

(9)The housing needs generated by the presence of a private university or a campus of the California State University or the University of California within any member jurisdiction.

(10)Any other factors adopted by the council of governments.

(e)The council of governments, or delegate subregion, as applicable, shall explain in writing how each of the factors described in subdivision (d) was incorporated into the methodology and how the methodology is consistent with subdivision (d) of Section 65584. The methodology may include numerical weighting.

(f)Any ordinance, policy, voter-approved measure, or standard of a city or county that directly or indirectly limits the number of residential building permits issued by a city or county shall not be a justification for a determination or a reduction in the share of a city or county of the regional housing need.

(g) In addition to the factors identified pursuant to subdivision (d), the council of governments, or delegate subregion, as applicable, shall identify any existing local, regional, or state incentives, such as a priority for funding or other incentives available to those local governments that are willing to accept a higher share than proposed in the draft allocation to those local governments by the council of governments or delegate subregion pursuant to Section 65584.05.

(h) Following the conclusion of the 60-day public comment period described in subdivision (c) on the proposed allocation methodology, and after making any revisions deemed appropriate by the council of governments, or delegate subregion, as applicable, as a result of comments received during the public comment period, each council of governments, or delegate subregion, as applicable, shall adopt a final regional, or subregional, housing need allocation methodology and provide notice of the adoption of the methodology to the jurisdictions within the region, or delegate subregion as applicable, and to the department.

(i)(1) It is the intent of the Legislature that housing planning be coordinated and integrated with the regional transportation plan. To achieve this goal, the allocation plan shall allocate housing units within the region consistent with the development pattern included in the sustainable communities strategy.

(2) The final allocation plan shall ensure that the total regional housing need, by income category, as determined under Section 65584, is maintained, and that each jurisdiction in the region receive an allocation of units for low- and very low income households.

(3) The resolution approving the final housing need allocation plan shall demonstrate that the plan is consistent with the sustainable communities strategy in the regional transportation plan.

APPENDIX B – HCD DETERMINATION LETTER

On December 30, 2013, Kern COG received its 5th cycle regional housing need assessment determination from HCD. HCD is required to determine Kern COG's existing and projecting housing need pursuant to State housing law, Government Code (GC) Section 65584, et. seq.. The income category percentages reflect the minimum housing need that the RHNA Plan must address in total and also for very-low, low, and moderate income categories.

STATE OF CALIFORNIA - BUSINESS, CONSUMER SERVICES AND HOUSING AGENCY

EDMUND G. BROWN JR., Governor

**DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF HOUSING POLICY DEVELOPMENT**

2020 W. El Camino Ave
Sacramento, CA 95833-1829
916) 263-2911 FAX: (916) 263-7453
www.hcd.ca.gov



December 30, 2013

Mr. Ahron Hakimi
Executive Director
Kern Council of Governments
1401 19th Street, Suite 300
Bakersfield, CA 93301

Dear Mr. Hakimi,

RE: 5th Cycle Regional Housing Need Determination for Housing Element Updates

This letter provides the Kern Council of Governments (Kern COG) its 5th cycle regional housing need assessment (RHNA) determination for the projection period January 1, 2013 through December 31, 2023. The Department of Housing and Community Development (Department) is required to determine Kern COG's existing and projected housing need pursuant to State housing law, Government Code (GC) Section 65584, et. seq..

As you know, Senate Bill 375 (Chapter 728, Statutes of 2008) further strengthened the existing coordination of regional housing and transportation planning. Metropolitan Planning Organizations (MPOs) are now required to develop and incorporate a new sustainable community strategy (SCS) in their Regional Transportation Plans (RTP) to achieve greenhouse gas emission reductions and accommodate the region's housing need. SB 375 amended the RHNA schedule and methodology requiring the due date for local governments to update their housing elements be no later than 18 months from the date Kern COG adopts the RTP.

The Department has prepared Kern COG's RHNA determination based on Kern COG's estimated RTP adoption date of June 19, 2014. Please note that in the event the RTP is adopted on a different date, the RHNA and projection period will not change, but the housing element planning period and element due date will change accordingly. The Department must be notified of any change to the RTP adoption date and will reflect RTP adoption date changes on its website at: http://www.hcd.ca.gov/hpd/hrc/plan/he/web_he_duedate.pdf.

For your information, GC Section 65584.01(d)(1) allows 30 days from the date of this letter to file an objection and proposed alternative to the Department's determination (Attachment 1). An objection and proposed alternative must be based on demographic and methodology factors set forth in the statute.

The Department determined Kern COG's regional housing need to be 67,675 for the 11-year projection period, from January 1, 2013 to December 31, 2023. In assessing Kern COG's regional housing need, the Department considered the critical role housing plays in developing sustainable communities and supporting employment growth.

Mr. Ahron Hakimi

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The Department further considered Kern COG's growth forecast, socio-economic base and potential for household formation trends to generate housing demand at a changing pace. Consideration was also given to the extraordinary uncertainty regarding national, State, local economies and housing markets. As a result, for this RHNA cycle only, the Department made an adjustment to account for abnormal vacancies and unique market conditions due to prolonged recessionary conditions, high unemployment, and unprecedented foreclosures.

The Department and representatives of Kern COG completed the consultation process specified in statute through correspondence, meetings and conference calls conducted between February and December 2013. The Department appreciates the assistance provided throughout the consultation process by Kern COG representatives which included Mr. Robert Ball, Planning Division Director, Mr. Peter Smith, Senior Planner, Mr. Ben Raymond, Regional Planner II, and Ms. Rochelle Invina, Regional Planner I. The Department also received assistance from Mr. Walter Schwarm, demographics expert with the Department of Finance's Demographic Research Unit.

In completing Kern COG's RHNA, the Department applied methodology and assumptions regarding the following factors (GC Section 65584.01(c)(1)):

- anticipated household growth associated with projected population increases;
- household size data and trends in household size;
- rate of household formation, or headship rates, based on age, gender, ethnicity, or other established demographic measures;
- vacancy rates in existing housing stock, and for healthy housing market functioning and regional mobility, as well as housing replacement needs;
- other characteristics of the composition of the projected population; and
- relationship and any imbalance between jobs and housing.

Data, assumptions, and draft forecasts of population, employment and housing provided by Kern COG in regards to the above factors were considered. Assumptions regarding the absorption rate of vacant "for sale" and "for rent" housing units before the start of the projection period was determined based on consultation with Kern COG.

Attachments 1 and 2 to this letter describe details of the Department's methodology and RHNA income category for Kern COG to distribute the 67,675 regional housing unit need among all its local governments. Each locality must receive a RHNA share of very-low and low-income units. The distribution of RHNA for lower income, moderate-income, and above-moderate income categories in the aggregate cannot be less than the total for each of these income categories shown in Attachment 1.

Upon receipt of the Department's final RHNA determination, Kern COG is responsible for developing a RHNA distribution methodology and adopting a RHNA Plan for the projection period of January 1, 2013 through December 31, 2023. The RHNA represents the *minimum* amount of residential development capacity all jurisdictions must plan to accommodate through zoning and appropriate planning strategies. RHNA is not to be used within local general plans as a maximum amount or cap of residential development to plan for or approve.

Mr. Ahron Hakimi

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Housing element law (GC Section 65584, et. seq.) requires Kern COG's methodology and RHNA Plan to be consistent with the following objectives:

- increasing the housing supply and mix of housing types, tenure, and affordability;
- promoting infill development and socio-economic equity, protecting environmental and agricultural resources, and encouraging efficient development patterns;
- promoting an improved intraregional relationship between jobs and housing; and
- balancing the distribution of households by income category.

Pursuant to GC Section 65584.05(h), Kern COG is required to submit its RHNA Plan to the Department for approval within three days of adopting the RHNA Plan. Upon approval by the Department of the RHNA Plan, Kern COG is to distribute to all its local government members their income category shares of new housing needs to be addressed in their housing element updates covering the 2015 - 2023 planning period.

When updating their housing elements, local governments may take RHNA credit for units approved (entitled or permitted) since the January 1, 2013 start date of the RHNA projection period. Localities are also required to describe how units were credited to different income categories based on actual or projected sale price or rent level data. Any city planning to accommodate a portion of RHNA on sites within its Sphere of Influence (SOI) needs to include an annexation program in the housing element. The annexation program needs to demonstrate SOI sites can be annexed early enough in the planning period to make adequate sites available to avoid other rezoning pursuant to GC sections 65583(c)(1)(A), and 65583(f).

Regarding transfers of housing need among local governments, AB 242 (Chapter 11, Statutes of 2008) amended provisions of GC Section 65584.07. RHNA transfers agreed between local governments may occur until adoption of the RHNA Plan. Once Kern COG has adopted its RHNA Plan, transfers meeting specified conditions may only occur from the county to cities within the county. Transfers after the due date of the housing element are restricted to annexations and incorporations and must be completed within specified timeframes. The numbers of units by income to be transferred are determined either based on mutual agreement between affected local governments, or, when no agreement is reached, by the entity responsible for allocating housing need (Kern COG). The Department must be notified of all transfers; jurisdictions affected by RHNA transfers must amend their housing element within the timeframe specified in the statute.

The Department commends Kern COG's efforts to meet the objectives of SB 375 and especially appreciates the assistance provided by Mr. Robert Ball and Ms. Rochelle Invina. We look forward to a continued partnership with Kern COG and its member jurisdictions in planning efforts to accommodate the region's housing need. If you need assistance or have any question, please contact me or Anda Draghici, HPD Senior Specialist, at (916) 263-2911.

Sincerely,



Glen A. Campora
Assistant Deputy Director

Enclosures

ATTACHMENT 1

HCD REGIONAL HOUSING NEED DETERMINATION: Kern COG
Projection Period: January 1, 2013 through December 31, 2023

Income Category	Percent	Regional Housing Need (rounded) ⁽¹⁾
Very-Low	24.9%	16,850
Low	15.6%	10,555
Moderate	16.6%	11,235
Above-Moderate	42.9%	29,035
Total	100.0% ⁽²⁾	67,675 ⁽³⁾

(1) The statutory objective regarding RHNA requires HCD, in consultation with Department of Finance (DOF) and councils of governments (COGs), to determine projected household growth and housing need based on DOF population projections and COG regional population forecasts and requires regional and local jurisdictions to plan to accommodate capacity for all of the projected RHNA. The Legislature recognizes that different assumptions and variances in methodologies can be used that can result in different population projections. Projection of housing need developed by DOF and HCD for RHNA purposes does not consider local government constraints.

For this RHNA cycle only (due to unique conditions not expected to recur to impact future RHNA cycles), the housing need was adjusted downward to account for an estimated 20 percent absorption level of unprecedented high vacancies in existing stock due to extraordinary conditions including high foreclosures and economic uncertainties.

(2) The income category percentages reflect the minimum percentage to apply against the total RHNA decided by Kern COG in determining housing need for very-low, low, and moderate income households. Each category is defined by Health and Safety Code (Section 50093, et seq.). Percentages are derived from the 2007-2011 American Community Survey's number of households by income, over 12 month periods. Housing unit need under each income category is derived from multiplying the portion of households per income category against the total RHNA determination.

(3) The 67,675 allocation (see Attachment 2) reflects Kern COG's projected minimum housing need (rounded) and an adjustment (-7,256) for existing excess vacant units in estimating 80% of vacant units did not get absorbed before the start of the projection period. This column represents the minimum housing need that Kern COG's RHNA Plan must address in total and also for very-low, low, and moderate income categories.

Based on the region's estimated RTP adoption date of June 19, 2014 (subject to change):

5th Update of the Housing Element Due Date: December 31, 2015

**ATTACHMENT 2
HCD REGIONAL HOUSING NEED DETERMINATION: Kern COG**

1	Population: December 31, 2023 (Kern COG Dec 2023 Pop Projections)			1,124,400
2	less: 2023 Group Quarters Population (based on 2010 Census %)			49,223
3	Household (HH) Population Dec, 2023			1,075,177
	Household Formation Groups	HH Population	HH Formation or Headship Rate	2023 Households
	All Age Groups (DOF)	1,075,177		342,695
	Under 15		0.00%	0
	15 - 24 years	161,996	9.11%	14,760
	25 - 34 years	151,368	38.87%	58,833
	35 - 44 years	130,773	48.87%	63,903
	45 - 54 years	111,251	52.75%	58,683
	55 - 64 years	112,276	55.61%	62,436
	65 - 74 years	87,393	58.45%	51,084
	75 - 84 years	40,207	62.08%	24,962
	84+	12,621	0.00%	8,033
4	Projected Households-December 31, 2023			342,695
5	less: Households at Beginning of Projection Period (January, 2013, DOF Projection)			270,170
6	Household Growth: 11- Year Projection Period			72,525
7	Vacancy Allowance	Owner	Renter	Total
	Tenure Percentage per 2010 Census	60.02%	39.98%	
	HH Growth by Tenure	43,533	28,992	72,525
	Healthy Vacancy Rate	1.50%	4.00%	
	Vacancy Allowance	653	1,160	1,813
8	Replacement Allowance (minimum)	0.80%		74,338
				593
				74,931
9	less: Adjustment for Absorption of Existing Excess Vacant Units			
	Estimate 20% Absorbed, 80% Not Absorbed by 2013	Effective Vacant Units	Healthy Market Units	Differential
	Derived (2012 Census, HH Growth, & Vacancy Rate)	(14,961)	6,669	-8,292
	Total 2012 Housing Stock	287,169		
	Existing Vacant Unit (Others) Adjustment	2.63%	2.36%	
	Total Adjusted Existing Vacant Units (Others)	(7,559)	6,780	-779
	Estimated Total Vacant Units Not Absorbed by 2013	80%		-9,071
				-7,256
	Kern COG FINAL REGIONAL HOUSING NEED DETERMINATION			67,675

- 2023 Population:** Pursuant to Government Code Section 65584.01(b), and in consultation with Kern COG, the 2023 population projections used by the Department were provided by the Kern COG as used in its RTP (within 3% Department of Finance Population Projections for December 2023.)
- Group Quarter Population:** Figure is an estimate of persons residing either in a group home, institution, military, or dormitory using based on the 2010 Census group quarters proportion in total population. As this population doesn't constitute a "household" population generating demand for a housing unit, the group quarter population is excluded from the calculation of the household population, and is not included in the housing need.
- 2023 Household (HH) Population:** The portion of population projected to reside in housing units after subtracting the group quarter population from total projected population. The composition by race/ethnicity for the household population was calculated as an average between DOF's and Kern COG's (Planning Center forecast as used in its RTP) population projections' race/ethnicity compositions.
- Projected 2023 Households (HHs):** The December 2023 number of households is derived by applying (to 2023 HH population by age and race/ethnicity) household formation rates calculated applying half of the 1990-2010 change to the 2010 Census - based household headship rates. HH formation or headship rates reflect the propensity of different population groups (age, racial and ethnic) to form households.

ATTACHMENT 2
HCD REGIONAL HOUSING NEED DETERMINATION: Kern COG

- 5 **Households at Beginning of Projection Period:** The baseline number of households at the beginning of the projection period (January 2013) was projected, as a direct effect of amendment to Section 65588(e)(6) specifying the new projection period to start on either June 30 or December 31 whichever date most closely precedes the end of the current housing element period. As such, the 2013 household number reflects the January 1, 2013 DOF-projected number of households.
- 6 **Household (HH) Growth:** This figure reflects projected HH growth and need for (occupied) new units.
- 7 **Vacancy Allowance:** An allowance (unit increase) is made to facilitate availability and mobility among owner and renter units. Owner/Renter % is based on Census 2010 data. A smaller rate is applied to owner units due to less frequent mobility than for renter households. Information from a variety of authoritative sources supports an acceptable range of 1 to 4% for owner units and 4 to 8% for renter units depending on market conditions.
- 8 **Replacement Allowance:** Rate (0.8%) reflects the housing losses that localities annually reported to DOF each January for years 2002-2011.
- 9 **Adjustment for Absorption of Existing Excess Vacant Units:** For this RHNA cycle only (due to extraordinary uncertainty regarding conditions impacting the economy and housing market not expected to similarly impact future RHNA cycles), a new one-time adjustment was made to account for unprecedented high vacancies in existing stock due to unusual conditions including high foreclosures and economic uncertainties. An absorption rate of 20% of existing excess vacant units is assumed to occur in shrinking current excess vacant units before the start of the 2013 RHNA projection period. This results in applying a 80% adjustment to account for units not absorbed, reflected in a downward adjustment of (- 7,256). Existing housing stock consists of two components: (1) housing units for sale and rent in existing housing stock that are above the housing units required to maintain the healthy market condition, calculated as the number of units in housing stock (for sale + for rent + sold, not occupied+rented, not occupied + occupied units), (2) housing units in the "vacant units others" category of existing housing stock above the "normal" rate considered to be at the level of 2000, at 2.36% of total housing units, as provided by the 2000 Census. The Department used 2010 Census Demographic profile data (DP-1) and desirable "normal" vacancy rates by tenure, in conjunction with the region's household growth and proposed household formation rates. The vacancy adjustment is limited to not exceed the differential between the 2010 Census vacant units and the healthy market vacant units rate associated with the region's annual household growth. As the adjustment was below the differential, the adjustment was applied in calculating the RHNA determination.

RHNA Projection Period January 1, 2013 to December 31, 2023: Pursuant to SB 375, the start of the projection period (in effect January 1, 2013) was determined pursuant to GC 65588(e)(6), which requires the new projection period to start on June 30 or December 31 that most closely precedes the end of the current housing element period, which for Kern County region is June 30, 2013. The end of the projection period was determined pursuant to GC 65588(e)(5) to be the end of the housing element planning period. *Note: For projection purposes the end of the projection period is rounded to the end of the month.*

Housing Element Planning Period December 31, 2015 to December 31, 2023: Pursuant to SB 375, the start of the planning period was determined pursuant to GC 65588(e)(5), 18 months from the estimated adoption date of Kern COG's Regional Transportation Plan, as notified to HCD, with the date rounded to the end of month for projection purposes. The end of the planning period was calculated pursuant to GC 65588(e)(3)(A), 18 months after the adoption of the second RTP, provided that it is not later than eight years from the adoption of the previous housing element. If the actual RTP adoption date differs from the estimated date of June 19, 2014, the RHNA determination and the projection period will not change, however the housing element due date, and implicitly, the housing element planning period would change accordingly.

APPENDIX C – MEETING NOTES FROM ENVIRONMENT AND SOCIAL EQUITY ROUNDTABLE

The Environment and Social Equity Stakeholder group includes varied stakeholders from the environment and social sectors of Kern County. Kern COG hosted two roundtable meetings to receive input from the stakeholder groups. Appendix C of this documents contains a copy of the meeting notes from the Roundtable Meetings.



MEMO

To: Becky Napier
Kern Council of Governments

From: Nora De Cuir

Cc: Rob Ball
Robert Phipps
Andrea Nelson
Abby Monroe

Date: March 29, 2013

Re: Draft Summary of *Directions to 2050* Cycle 2 Stakeholder Roundtable Meetings

This memo summarizes *Directions to 2050* Cycle 2 stakeholder roundtable meetings that were hosted by the Kern Council of Governments (Kern COG) on October 16 and 17, 2012, and March 1, 2013, in the Kern COG Council Chambers. This summary provides key findings of the transportation budget areas that received the greatest support from participants in the October meetings and a brief overview of the small group discussions at all three stakeholder meetings.

INTRODUCTION

Directions to 2050 is a regional plan to meet long-term quality of life, transportation, air quality, and energy efficiency goals. All communities in the Kern region are participating in the project. Development of the plan relies heavily on stakeholder participation.

Kern COG identified a variety of stakeholder groups from the business, industry, environmental, and social sectors to participate in small facilitated group discussions. In March 2012, the first series of stakeholder roundtable meetings took place. In September 2012 and March 2013, participants received a second invitation to attend one of three Cycle #2 roundtable meetings:

1. Stakeholder Meeting #1 (Business and Industry): October 16, 2012, 1:00–3:00 p.m.
2. Stakeholder Meeting #2 (Social Equity): October 17, 2012, 9:00–11:00 a.m.
3. Stakeholder Meeting #3 (Social Equity): March 1, 2013, 10:00 a.m.–12:00 p.m.

Approximately 4 people attended meeting #1, 11 people attended meeting #2, and 30 people attended meeting #3.

MEETING PURPOSE

The purpose of the Cycle 2 stakeholder roundtable meetings was to:

- Continue to share information about the *Direction to 2050* project and process
- Provide an overview of recent studies conducted by Kern COG

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Cycle 2 Stakeholder Roundtable Meetings – Draft Summary
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- Engage participants in a transportation budgeting exercise using an online game

For the social equity stakeholder group, two additional goals were included:

- Present and discuss the Regional Housing Needs Allocation (RHNA) process
- Present and discuss the environmental justice methodology that will be used in the final RTP/SCS
- Present and discuss performance measures and modeling methodology that will be used in the final RTP/SCS

SUMMARY OF MEETINGS #1 & #2

The following is a summary of stakeholder meeting #1 and meeting #2.

KEY FINDINGS

During the second half of each meeting, participants were asked to join a small group (2–4 people) and play an online game together that demonstrated how different transportation budget choices would impact other spending areas as well as personal priorities. Each group could choose up to six priorities to work with, from the following options:

- Energy Independence
- Improved Air Quality
- Reduced Household Expenses
- Enhanced Economic Vitality
- Increased Public Safety
- Healthy Lifestyles
- Reduced Government Regulation
- Adequate Water
- Access to Community Services

After the group agreed on their collective priorities, they discussed the following budget categories where transportation dollars can be spent:

- Maintain Local Streets and Roads
- Increase Bicycles Lanes, Paths, and Sidewalks
- Add Highway and Freight-Only Lanes
- Encourage Carpools and Bus Trips
- Easy Access to Transit from Housing and Jobs

As the group made transportation budget choices, the game indicated if their priority was being met and how close they were getting to the budget limit. The following is a summary of the small group and large group discussions related to this exercise at both stakeholder roundtable meetings.

Cycle 2 Stakeholder Roundtable Meetings – Draft Summary
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Stakeholder Comments Regarding Transportation Budget Allocation

Stakeholder Roundtable Meeting #1 – Business and Industry

Group #1 Comments	<ul style="list-style-type: none"> • Need to manage freight and highways as best as possible as things move through the county • Could take freight off highways (2) • Chose: air quality, economic vitality, healthy community, water, and community services • Remove barriers to development or make government regulation more appropriate • Economic stimulus is not the only way to improve transportation • Bikes are a cheap mode • Check water needs to respond to land use
Group #2 Comments	<ul style="list-style-type: none"> • We've been focused on air quality for the last 5–7 years • Change culture of single-occupancy vehicle use through marketing campaigns • Utilize freight trains, expensive, but stay within budget • Goal should be to stay within budget
General Comments	<ul style="list-style-type: none"> • Important to change behavior if you want to achieve reduced household expenses • Good to see how little the expense is for gains with transit • Calculate \$ saved for each transportation mode

Stakeholder Roundtable Meeting #2 – Social Equity

Group #1 Comments	<ul style="list-style-type: none"> • This group chose air quality, safety, healthy community, water, and access to community services and struggled with deciding between lower household expenses and increased economic vitality • Water icon was not working • Encourage grow-local produce • Think about logistics planning for less trucks on highways • Limit distribution centers for things not produced locally • Highway spending is too expensive (focus the least on this) • Explore truck-only lanes • Community service access should be better linked to local street improvements
Group #2 Comments	<ul style="list-style-type: none"> • Locally, potholes are an issue that impact everyday lives • More highway lanes = more traffic • Indecision between maintaining roads and highways • Freight lanes are expensive, but impactful (trucks will not drive through towns)

Cycle 2 Stakeholder Roundtable Meetings – Draft Summary
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Group #3 Comments	<ul style="list-style-type: none"> • Focus on bike lanes and paths • Maximize spending on busses, carpooling, and jobs close to transit • Maintaining local streets and roads is expensive • Less focus on new traffic lanes and truck only lanes
Overall Comments	<ul style="list-style-type: none"> • Cars are not an accessible mode of transportation for everyone • You can max out on bike lanes, non-motorized modes, and transit before spending very much • Budget easily met top priorities, but highway projects blow the budget • A choice between local road maintenance and more highway lanes depends on where you live • Include VMT trends in RTP model

Additional Comments on the RHNA Process (social equity stakeholders only)

- RHNA data report process must ensure that cities and unincorporated communities affirmatively further fair housing (AFFH). AFFH can provide cities and counties with an incentive and a starting point that will set the stage for AFFH and to ensure compliance with Title VI requirements.
- Some communities are already impoverished and should not be required to build more low-income housing.
- Make sure each city has a fair share.
- Housing must be accessible and affordable.
- Incorporate universal design.

Stakeholder Priorities

The following section outlines priorities for each stakeholder group that surfaced during the large group discussion and through an analysis of all comments above.

Stakeholder Roundtable Meeting #1 – Business and Industry

1. An understanding that highway projects require significantly more dollars than other improvements
2. A request for attention to fair housing allocation
3. Prioritization of spending on buses, bike lanes, carpooling, and jobs close to transit
4. Attention to the micro-local when it comes to logistics and transportation decisions – even within Kern County, priorities vary by community

Stakeholder Roundtable Meeting #2 – Social Equity

1. Support for taking trucks off highways and better freight management
2. An understanding that personal behavior is a major component of any greater change
3. A desire to stay within budget

ADDITIONAL EXERCISE

In addition to the meeting agenda, a community participation exercise that was utilized at several festival events throughout the county was on display. Meeting participants could again vote for up to three transportation budget areas that were important to them. They could also vote three times for one

Cycle 2 Stakeholder Roundtable Meetings – Draft Summary
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budget area, if that was their preference. The results from both stakeholder roundtable meetings are as follows (15 total participants, with 3 votes each):

- Maintain Local Streets and Roads – 8 votes
- Increase Bicycles Lanes, Paths, and Sidewalks – 14 votes
- Add Highway and Freight-Only Lanes – 4 votes
- Encourage Carpools and Bus Trips – 8 votes
- Easy Access to Transit from Housing and Jobs – 11 votes

MEETING CONCLUSION

At the conclusion of the meeting, staff provided information about next steps, how the meeting results would be used, and how participants could stay involved in the project. Attendees were welcomed to stay and ask questions of staff and also to let the project team know about upcoming events in communities throughout Kern County so that additional opportunities to discuss the project and play the game can be arranged.

SUMMARY OF MEETING #3

The following is a summary of stakeholder roundtable meeting #3.

KEY FINDINGS – ENVIRONMENTAL JUSTICE METHODOLOGY

After a presentation of the RTP/SCS outreach process to date and Title VI requirements and goals, meeting participants were invited to ask questions and share feedback. Meeting participants provided the following comments:

- Provide transportation options for all community members
 - Invest in bicycle and pedestrian
 - Fiscally sustainable
- Include bicycle trips in the mobility performance standards
- Continue to revise the environmental justice methodology to ensure all Kern County residents enjoy the same degree of protection from environmental and health hazards

Additional Comments

- Address trash issues at Hart Park
- Provide opportunities for the free market in Kern County
- Include a measure for highway cleanliness

KEY FINDINGS – REGIONAL HOUSING NEEDS ALLOCATION (RHNA)

After a presentation of the RHNA methodology process and housing needs assessment, meeting participants were invited to ask questions and share feedback. Meeting participants provided the following comments:

- Ensure the types of housing meet the market demands
- Address infrastructure in Housing Element updates

Additional Comments

- Consider academic study that demonstrates that if rats are confined in a small space, they will hurt each other as a metaphor for high-density housing.
- Focus less on increasing density; sprawl is less expensive than dense development.

Cycle 2 Stakeholder Roundtable Meetings – Draft Summary
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MEETING CONCLUSION

At the conclusion of the meeting, staff thanked meeting participants for attending and providing feedback.

APPENDIX D – LOCAL GOVERNMENT SURVEY DATA

Pursuant to Government Code 65584.04, Kern COG must confirm with local jurisdictions certain factors to develop the RHNA methodology. Kern COG sent out the 2013 RHNA Data Survey and table to all cities and county. The cities of Arvin, Bakersfield, Delano, and Wasco completed and responded to the survey and copies of their responses are included



2013 RHNA Data Survey

California Assembly Bill (AB) 2158 requires the Kern Council of Governments (COG) to consider certain factors that can affect a jurisdiction's regional housing needs allocation (RHNA). As part of its development of the proposed RHNA methodology, Kern COG is confirming with and gathering the following information from each jurisdiction as required under Government Code 65584.04 (d):

- 1) Jobs housing balance of each jurisdiction
- 2) Lack of capacity for sewer or water service due to federal or state laws, regulations or regulatory actions, or supply and distribution decisions made by sewer or water service provider other than the local jurisdiction that preclude the jurisdiction from providing necessary infrastructure for additional development during the planning period
- 3) The availability of land suitable for urban development or for conversion to residential use, the availability of underutilized land and opportunities for infill development and increased residential densities.
- 4) Lands preserved or protected from urban development under existing federal or state programs, or both, designed to protect open space, farmland, environmental habitats, and natural resources on a long-term basis.
- 5) County policies to preserve prime agricultural land within an unincorporated area.
- 6) The distribution of household growth assumed in the Regional Transportation Plan and opportunities to maximize the use of public transportation and existing transportation infrastructure.
- 7) The market demand for housing.
- 8) Agreements between a county and cities in a county to direct growth toward incorporated areas of the county.
- 9) The loss of low-income housing units in assisted housing developments due to contract expirations or termination of use
- 10) High-housing cost burdens.
- 11) The housing needs of farmworkers.
- 12) The housing needs generated by the presence of a private university or a campus of the California State University or the University of California within any member jurisdiction.
- 13) Any other factors adopted by the Kern COG, i.e. all other tables included in the Kern COG Regional Housing Data Report

Please note that for factor number 1, 6, 7, 10, 11 and 12, the information can be found in the Kern COG Regional Housing Data Report (www.directionsto2050.com/regional-housing-needs) dated March 2013. Please reference the data report to confirm the information presented for these factors (2013 RHNA Data Survey) is correct for your jurisdiction. All other information requested above must be provided by the individual jurisdiction.

If you have any questions, please contact Robert Ball, Planning Division Director, at rball@kerncog.org or Rochelle Invina, Regional Planner, at rinvina@kerncog.org. Please fill out the attached survey and email or mail it no later than April 15, 2013 to:

Kern Council of Governments
Attn: Robert Ball
1401 19th Street, Suite 300
Bakersfield, CA 93301

Kern Council of Governments
1401 19th Street, Suite 300, Bakersfield, California 93301 (661) 861-2191 Facsimile (661) 324-8215 TTY (661) 832-7433 www.kerncog.org

2013 RHNA Data Survey

KERN COUNCIL OF GOVERNMENTS

City/Area: Arvin Contact Person: Karl Schoettler
 Phone Number: (661) 854-6183 Email: karl@weplancities.com

Factor	Input
1. Jobs housing balance of each jurisdiction (Table 2 of Draft Kern Regional Housing Data Report)	<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 2) <input type="checkbox"/> Revised information below:
2. Lack of capacity for sewer or water service due to federal or state laws, regulations or regulatory actions, or supply and distribution decisions made by sewer or water service provider other than the local jurisdiction that preclude the jurisdiction from providing necessary infrastructure for additional development during the planning period (2013-2023)	Provide information below: There are no identified constraints in utility systems serving the City of Arvin. The Arvin Community Services District recently completed drilling an additional well to augment existing water service. This well is currently undergoing testing prior to being put in service.
3. The availability of land suitable for urban development of for conversion to residential use, the availability of underutilized land and opportunities for infill development and increased residential densities. (Transit Priority and Strategic Employment Place Types Map)	<input checked="" type="checkbox"/> Correct as in Place Types Map in Draft Draft SCS (Chapter 4 of RTP) <input type="checkbox"/> Revised information below:
4. Lands preserved or protected from urban development under existing federal or state programs, or both, designed to protect open space, farmland, environmental habitats, and natural resources on a long-term basis. (Resource Areas: Farmland, Habitat, Open Space, and Government Lands)	<input checked="" type="checkbox"/> Correct as in Resource Areas Map in Draft SCS (Chapter 4 of RTP) <input type="checkbox"/> Revised information below:
5. County policies to preserve prime agricultural land within an unincorporated area. (Resource Areas: Farmland, Habitat, Open Space, and Government Lands)	<input checked="" type="checkbox"/> Correct as in Resource Areas Map in Draft SCS (Chapter 4 of RTP) <input type="checkbox"/> Revised information below:
6. The distribution of household growth assumed in the Regional Transportation Plan and opportunities to maximize the use of public transportation and existing transportation infrastructure. (Table 3 of Draft Kern Regional Housing Data Report)	<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 3) <input type="checkbox"/> Revised information below:

Please fill out the survey and email to rinvina@kerncog.org or mail it to Kern Council of Governments no later than April 15, 2013.

Revised: 4/2/2013

KERN COUNCIL OF GOVERNMENTS		2013 RHNA Data Survey	
Factor	Input		
7. The market demand for housing. (Table 10 Draft Kern Regional Housing Data Report)		<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 10) <input type="checkbox"/> Revised information below:	
8. Agreements between a county and cities in a county to direct growth toward incorporated areas of the county.		Describe agreements below: There are no agreements – only General Plan and LAFCo policies that guide growth and development to existing cities.	
9. The loss of units contained in assisted housing developments that changed to non-low-income use through mortgage prepayment, subsidy contract expirations, or termination of use restrictions.		Provide information below: The 2008 -2013 Arvin Housing Element identified two assisted housing developments (totaling 82 units) at risk of conversion. Both of these projects are taking action to continue subsidy programs thereby preserving affordability.	
10. High-housing cost burdens. (Table 7 of Draft Kern Regional Housing Data Report)		<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 7) <input type="checkbox"/> Revised information below:	
11. The housing needs of farmworkers. (Table 12 of Draft Kern Regional Housing Data Report)		<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 12) <input type="checkbox"/> Revised information below:	
12. The housing needs generated by the presence of a private university or a campus of the California State University or the University of California within any member jurisdiction. (Table 12 of Draft Kern Regional Housing Data Report)		<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 12) <input type="checkbox"/> Revised information below:	
13. Any other factors adopted by the Kern COG, i.e. all other tables included in the Kern COG Regional Housing Data Report		<input checked="" type="checkbox"/> Correct as in Draft Data Report <input type="checkbox"/> Revised information below:	

Please fill out the survey and email to rivina@kerncog.org or mail it to Kern Council of Governments no later than April 15, 2013.

Revised: 4/2/2013

2013 RHNA Data Survey

KERN COUNCIL OF GOVERNMENTS

City/Area: Bakersfield Contact Person: Cecelia Griego, Associate Planner
 Phone Number: (661) 326-3788 Email: cgriego@bakersfieldcity.us

Factor	Input
1. Jobs housing balance of each jurisdiction (Table 2 of Draft Kern Regional Housing Data Report)	<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 2) <input type="checkbox"/> Revised information below:
2. Lack of capacity for sewer or water service due to federal or state laws, regulations or regulatory actions, or supply and distribution decisions made by sewer or water service provider other than the local jurisdiction that preclude the jurisdiction from providing necessary infrastructure for additional development during the planning period (2013-2023)	Provide information below: The City of Bakersfield does not have a lack of capacity for sewer or water service due to federal or state laws regulations or regulatory actions, or supply and distribution decisions made by sewer or water service provider other than the local jurisdiction.
3. The availability of land suitable for urban development of for conversion to residential use, the availability of underutilized land and opportunities for infill development and increased residential densities. (Transit Priority and Strategic Employment Place Types Map)	<input checked="" type="checkbox"/> Correct as in Place Types Map in Draft SCS (Chapter 4 of RTP) <input type="checkbox"/> Revised information below:
4. Lands preserved or protected from urban development under existing federal or state programs, or both, designed to protect open space, farmland, environmental habitats, and natural resources on a long-term basis. (Resource Areas: Farmland, Habitat, Open Space, and Government Lands)	<input checked="" type="checkbox"/> Correct as in Resource Areas Map in Draft SCS (Chapter 4 of RTP) <input type="checkbox"/> Revised information below:
5. County policies to preserve prime agricultural land within an unincorporated area. (Resource Areas: Farmland, Habitat, Open Space, and Government Lands)	<input checked="" type="checkbox"/> Correct as in Resource Areas Map in Draft SCS (Chapter 4 of RTP) <input type="checkbox"/> Revised information below:
6. The distribution of household growth assumed in the Regional Transportation Plan and opportunities to maximize the use of public transportation and existing transportation infrastructure. (Table 3 of Draft Kern Regional Housing Data Report)	<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 3) <input type="checkbox"/> Revised information below:

Please fill out the survey and email to rinivina@kerncog.org or mail it to Kern Council of Governments no later than April 15, 2013.

Revised: 4/2/2013

KERN COUNCIL OF GOVERNMENTS		2013 RHNA Data Survey	
Factor	Input		
7. The market demand for housing. (Table 10 Draft Kern Regional Housing Data Report)		<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 10) <input type="checkbox"/> Revised information below:	
8. Agreements between a county and cities in a county to direct growth toward incorporated areas of the county.		Describe agreements below: There is no agreement between the County and the City of Bakersfield to direct growth toward incorporated areas.	
9. The loss of units contained in assisted housing developments that changed to non-low-income use through mortgage prepayment, subsidy contract expirations, or termination of use restrictions.		Provide information below: No losses of units in assisted housing developments are anticipated.	
10. High-housing cost burdens. (Table 7 of Draft Kern Regional Housing Data Report)		<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 7) <input type="checkbox"/> Revised information below:	
11. The housing needs of farmworkers. (Table 12 of Draft Kern Regional Housing Data Report)		<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 12) <input type="checkbox"/> Revised information below:	
12. The housing needs generated by the presence of a private university or a campus of the California State University or the University of California within any member jurisdiction. (Table 12 of Draft Kern Regional Housing Data Report)		<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 12) <input type="checkbox"/> Revised information below: Does the data report take into account that most college students in Bakersfield live at home with family?	
13. Any other factors adopted by the Kern COG, i.e. all other tables included in the Kern COG Regional Housing Data Report		<input checked="" type="checkbox"/> Correct as in Draft Data Report <input type="checkbox"/> Revised information below:	

Revised: 4/2/2013

Please fill out the survey and email to rivina@kerncog.org or mail it to Kern Council of Governments no later than April 15, 2013.

2013 RHNA Data Survey

KERN COUNCIL OF GOVERNMENTS

City/Area: City of Delano Contact Person: Mike McCabe, Senior Planner
Phone Number: (661) 720-2226 Email: mmccabe@cityofdelano.org

Factor	Input
1. Jobs housing balance of each jurisdiction (Table 2 of Draft Kern Regional Housing Data Report)	<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 2) <input type="checkbox"/> Revised information below:
2. Lack of capacity for sewer or water service due to federal or state laws, regulations or regulatory actions, or supply and distribution decisions made by sewer or water service provider other than the local jurisdiction that preclude the jurisdiction from providing necessary infrastructure for additional development during the planning period (2013-2023)	Provide information below: NONE
3. The availability of land suitable for urban development of for conversion to residential use, the availability of underutilized land and opportunities for infill development and increased residential densities. (Transit Priority and Strategic Employment Place Types Map)	<input checked="" type="checkbox"/> Correct as in Place Types Map in Draft Draft SCS (Chapter 4 of RTP) <input type="checkbox"/> Revised information below:
4. Lands preserved or protected from urban development under existing federal or state programs, or both, designed to protect open space, farmland, environmental habitats, and natural resources on a long-term basis. (Resource Areas: Farmland, Habitat, Open Space, and Government Lands)	<input checked="" type="checkbox"/> Correct as in Resource Areas Map in Draft SCS (Chapter 4 of RTP) <input type="checkbox"/> Revised information below:
5. County policies to preserve prime agricultural land within an unincorporated area. (Resource Areas: Farmland, Habitat, Open Space, and Government Lands)	<input checked="" type="checkbox"/> Correct as in Resource Areas Map in Draft SCS (Chapter 4 of RTP) <input type="checkbox"/> Revised information below:
6. The distribution of household growth assumed in the Regional Transportation Plan and opportunities to maximize the use of public transportation and existing transportation infrastructure. (Table 3 of Draft Kern Regional Housing Data Report)	<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 3) <input type="checkbox"/> Revised information below:

Please fill out the survey and email to trivina@kerncog.org or mail it to Kern Council of Governments no later than April 15, 2013.

Revised: 4/2/2013

KERN COUNCIL OF GOVERNMENTS		2013 RHNA Data Survey	
Factor	Input		
7. The market demand for housing. (Table 10 Draft Kern Regional Housing Data Report)	<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 10) ___ Revised information below:		
8. Agreements between a county and cities in a county to direct growth toward incorporated areas of the county.	Describe agreements below: NONE		
9. The loss of units contained in assisted housing developments that changed to non-low-income use through mortgage prepayment, subsidy contract expirations, or termination of use restrictions.	Provide information below: NONE KNOWN		
10. High-housing cost burdens. (Table 7 of Draft Kern Regional Housing Data Report)	<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 7) ___ Revised information below:		
11. The housing needs of farmworkers. (Table 12 of Draft Kern Regional Housing Data Report)	<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 12) ___ Revised information below:		
12. The housing needs generated by the presence of a private university or a campus of the California State University or the University of California within any member jurisdiction. (Table 12 of Draft Kern Regional Housing Data Report)	<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 12) ___ Revised information below:		
13. Any other factors adopted by the Kern COG, i.e. all other tables included in the Kern COG Regional Housing Data Report	___ Correct as in Draft Data Report <input checked="" type="checkbox"/> Revised information below: Data in Table 5 – Housing Tenure is incorrect for City of Delano – figures exceed the total number of City households		

Revised: 4/2/2013

Please fill out the survey and email to rivina@kerncog.org or mail it to Kern Council of Governments no later than April 15, 2013.

2013 RHNA Data Survey	
<div style="display: flex; justify-content: space-between;"> <div> <p>KERN COUNCIL OF GOVERNMENTS</p> <p>City/Area: <u>WATSON</u></p> <p>Phone Number: <u>661-758-7211</u></p> </div> <div> <p>Contact Person: <u>ROGER MOBLEY</u></p> <p>Email: <u>ROMOBLEY@ci.watson.ca.us</u></p> </div> </div>	
Factor	Input
1. Jobs housing balance of each jurisdiction (Table 2 of Draft Kern Regional Housing Data Report)	<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 2) <input type="checkbox"/> Revised information below:
2. Lack of capacity for sewer or water service due to federal or state laws, regulations or regulatory actions, or supply and distribution decisions made by sewer or water service provider other than the local jurisdiction that preclude the jurisdiction from providing necessary infrastructure for additional development during the planning period (2013-2023)	Provide information below: <u>NO LACK OF CAPACITY OR GOVERNMENTAL CONSTRAINTS</u>
3. The availability of land suitable for urban development of for conversion to residential use, the availability of underutilized land and opportunities for infill development and increased residential densities. (Transit Priority and Strategic Employment Place Types Map)	<input checked="" type="checkbox"/> Correct as in Place Types Map in Draft SCS (Chapter 4 of RTP) <input type="checkbox"/> Revised information below: <u>At scale of map hard to comment</u>
4. Lands preserved or protected from urban development under existing federal or state programs, or both, designed to protect open space, farmland, environmental habitats, and natural resources on a long-term basis. (Resource Areas: Farmland, Habitat, Open Space, and Government Lands)	<input checked="" type="checkbox"/> Correct as in Resource Areas Map in Draft SCS (Chapter 4 of RTP) <input type="checkbox"/> Revised information below:
5. County policies to preserve prime agricultural land within an unincorporated area. (Resource Areas: Farmland, Habitat, Open Space, and Government Lands)	<input checked="" type="checkbox"/> Correct as in Resource Areas Map in Draft SCS (Chapter 4 of RTP) <input type="checkbox"/> Revised information below:
6. The distribution of household growth assumed in the Regional Transportation Plan and opportunities to maximize the use of public transportation and existing transportation infrastructure. (Table 3 of Draft Kern Regional Housing Data Report)	<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 3) <input type="checkbox"/> Revised information below:

Revised: 4/2/2013

Please fill out the survey and email to rnmvina@kerncog.org or mail it to Kern Council of Governments no later than April 15, 2013.

KERN COUNCIL OF GOVERNMENTS		2013 RHNA Data Survey	
Factor	Input		
7. The market demand for housing. (Table 10 Draft Kern Regional Housing Data Report)	<input type="checkbox"/> Correct as in Draft Data Report (Table 10) <input type="checkbox"/> Revised information below:		
8. Agreements between a county and cities in a county to direct growth toward incorporated areas of the county.	Describe agreements below: <i>LAFCO policies</i>		
9. The loss of units contained in assisted housing developments that changed to non-low-income use through mortgage prepayment, subsidy contract expirations, or termination of use restrictions.	Provide information below: _____		
10. High-housing cost burdens. (Table 7 of Draft Kern Regional Housing Data Report)	<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 7) <input type="checkbox"/> Revised information below:		
11. The housing needs of farmworkers. (Table 12 of Draft Kern Regional Housing Data Report)	<input checked="" type="checkbox"/> Correct as in Draft Data Report (Table 12) <input type="checkbox"/> Revised information below:		
12. The housing needs generated by the presence of a private university or a campus of the California State University or the University of California within any member jurisdiction. (Table 12 of Draft Kern Regional Housing Data Report)	<input type="checkbox"/> Correct as in Draft Data Report (Table 12) <input type="checkbox"/> Revised information below:		
13. Any other factors adopted by the Kern COG, i.e. all other tables included in the Kern COG Regional Housing Data Report	<input type="checkbox"/> Correct as in Draft Data Report <input type="checkbox"/> Revised information below:		

Please fill out the survey and email to rnhna@kerncog.org or mail it to Kern Council of Governments no later than April 15, 2013.

Revised: 4/2/2013

APPENDIX E – KERN REGIONAL HOUSING DATA REPORT

To comply with Senate Bill 375, the Housing Element planning period has been extended from five years to eight years in some jurisdictions to allow for synchronization with the regional transportation plan; however, jurisdictions that do not meet the deadline (December 31, 2015) for the 2015–2023 Housing Element cycle will revert to a four-year cycle until they have adopted two consecutive revisions by the due date. In addition to providing an analysis of sites and zoning to accommodate the projected housing need as determined by the Regional Housing Needs Assessment (RHNA) Plan, jurisdictions are required to assess their existing housing needs.

Kern COG has processed data from the 2010 decennial Census and the 2008–2012 American Community Survey, along with housing-related statistics from other sources, for the purpose of providing value-added information to member jurisdictions and other stakeholders. Specifically, the purpose of the data sets is to provide information that may help local jurisdictions in preparing housing element updates.

Kern COG also worked with HCD on facilitating the Housing Element data review and approval processes. Kern COG and HCD are developing a regional data review process that would mean data drawn from these data sets would not need to be reviewed again by HCD when the Housing Element is submitted. Kern COG will advise its member jurisdictions when approval is obtained.

The Regional Housing Data Report is available on Kern COG's Regional Housing web page: <http://www.kerncog.org/regional-housing>.

Kern Council of Governments



Appendix I Response to Comments

June 19, 2014

RTP Responses to Comments

**(Please Note the Page Numbers Referenced in
this Document are From the Draft 2014 RTP)**

RTP MASTER RESPONSES

RTP-MR-1: SB 375 Consistency Analysis – Methodology and Assumptions

- A. **Open/Transparent Modeling** – Kern COG maintains an open modeling policy. In an effort to be fully transparent with the modeling for SB 375, Table 4-7 provides full disclosure of the assumptions used in the modeling. Throughout the SCS process Kern COG provided an unprecedented level of access to the preliminary modeling results and administrative drafts of the SCS. Preliminary chapters of the RTP including the SCS chapter were made available online for over 1 year prior to the 55-day public comment period. Over a dozen documents fully disclosing the modeling assumptions and methodologies are available online.¹ Kern COG makes its modeling files and the model available to the public, outside entities and Kern COG’s member agencies upon request. Forecast and modeling assumptions are included in Appendix G to the RTP.
- B. **Model Assumptions vs. Strategies** - It is important to make a distinction between modeling assumptions and strategies. RTP Table 4-7 includes modeling assumptions and strategies as indicated in the table’s header row and to improve the readability of Chapter 4 the highly technical table and discussion has been move to Appendix I.
- C. **Table 4-7 Revisions** – The original draft text “*Policies and Programs to Reduce Major Sources of Emissions*” on p. 4-47 describing Table 4-7 has been revised as follows and has been moved to Appendix I based on feedback during the public outreach process:

“In response to questions and concerns raised during the public outreach process, Kern COG provides the following clarification regarding Table 4-7 “*How the plan reduces per capita greenhouse gas emissions in 2040*”. In the interest of transparency in the planning process, the table was included in the SCS to provide an indication of how the model responds to various assumptions and strategies. In developing this table, we changed one single model input variable (e.g., fuel price, economic activity, land use changes) at a time to see if and to what extent the model output changes. This type of analysis provides some sense of the model sensitivity to the SCS strategies. However, the draft text is misleading as it appears to attribute GHG reductions to individual assumptions and strategies in the SCS. Numerous strategies are reflected in this SCS, not all of which could be modeled at this time. For a complete listing of proposed strategies see Table 4-8.

To better understand and assess the impact of the strategies, we are planning to do additional sensitivity analyses as indicated in the “*Description of Methodology for ARB Staff Review of Greenhouse Gas Reductions from Sustainable Communities Strategies (SCS) Pursuant to SB 375*” document, in consultation with ARB staff. Kern COG is committed to improving its model sensitivity and accuracy related to measuring GHG emissions for purposes of SB375.

¹ <http://www.kerncog.org/transportation-modeling>

The following highlighted revisions to Table 4-7 include the addition of a footnote to clarify the differences between strategies and assumptions, and to correct typos to local transit and commuter rail values. Also, further explanations regarding the pricing assumption, economic activity decrease assumption and road project strategies have been added due to questions raised by commenters regarding the same.”

RTP Table 4-7. How the Plan Affects Travel and Per Capita Greenhouse Gas Emissions in 2040

Model Assumptions/Strategies (2005-2040)¹	Net Change in 2040 CO₂ Per Capita Emissions (lbs.)	Percentage Point Change in 2040 CO₂ Per Capita Emissions (compare to a 16.7% plan reduction below 2005)²	Model Sensitivity Testing/Estimation Method
Pricing Assumption (2/3rds increase in fuel costs, 23% increase in Auto Operating Cost)	- 1.3216	- 7.91%	2040 plan with/without fuel cost change between 2010-2040 ⁶
Economic Activity Decrease Assumption (recession from 2007-2011)	- 0.6488	- 3.88%	2040 plan with/without jobs/housing ratio change from 1.1 to 1.3 ⁷
Land Use Strategies (jobs/housing mix closer/re-balanced)	- 0.4228	- 2.53%	2040 plan network with/without on old plan land use
Road Project Strategies (reduce out of direction travel)	- 0.0363	- 0.22%	2040 plan with/without 2015 network ⁸
Transit Improvement Strategies			
Local transit system	- 0.0061	- 0.06%	removed new BRT/rapid/express/fixed routes
Commuter rail system	- 0.0014	- 0.01%	removed new Amtrak/Metrolink stops
Enhanced intercity passenger rail	- 0.0039	- 0.02%	removed enhanced Amtrak/HSR in 2040
Transportation Demand Management Strategies			
Complete streets/bike/ped. improvements	- 0.0031	- 0.02%	removed bike and ped enhancements in model
Employer based trip reduction (E-Trips)	< - 0.004	< - 0.02%	est. based on 2013 E-Trip VMT of 76,000 emps. (60% of emps.at 100+ employers) ³
Transportation System Management Strategies			
Traffic signalization/synchronization	< - 0.024	< - 0.15%	est. based on smoother traffic flow speeds resulting in a 10% CO ₂ emissions reduction ⁴
HOV/ramp metering	< - 0.002	< - 0.01%	est. based on 16 lane miles of HOV facilities ⁵

¹ Note that SB 375 related CO2 emission reductions from strategies and assumptions are not additive. When run separately some strategies result in a larger or smaller change in emission because they interact to enhance or compete with each other for trips when combined in a single model run. Many strategies are included in the model based on model inputs from household travel surveys (lower multi-family trip generation rates, high vehicle occupancy rates), traffic data, etc., that are difficult to analyze because they exist in the base year condition. Very small changes in CO2 may exceed EMFAC model tolerances.

² An 8 percentage point reduction in the SB 375 related CO2 per capita of 16.7% for the 2040 plan alternative means the plan would only result in an 8.7% reduction in CO2 per capita compared to 2005.

³ E-Trips is a San Joaquin Valley Air District program requiring large employers of 100 or more employees to promote ridesharing and other modes to reduce travel and emissions. The estimate assumes that the equivalent of 60% of Kern’s 2013 large employers carpooled with one other person, reducing VMT from 76,000 employees by 50%, resulting in a corresponding reduction in emissions.

⁴ Barth/Boriboonsomsin, 2008 (<http://www.uctc.net/papers/846.pdf>), suggest that up to a 20% reduction in CO2 emissions on congested streets in Southern California can occur if traffic smoothing techniques are employed. The estimate above assumes conservatively 10% emissions savings for new traffic on arterial streets which are estimated to be 1/10th as congested overall as Southern California arterials.

⁵ Assumes additional 16 HOV lane miles and approximately 60 metered HOV bypass ramps by 2040 will have only a minor effect on the 2040 HOV mode share of 50%.

⁶ The Pricing and Economic Activity Decrease are assumptions in the model, not strategies. The pricing assumption uses the Bay Area MTC 2009 model assumptions as provided by Fehr & Peers and assumes both increased fuel cost to \$6.06/gal. in yr. 2000 dollars (a 66% increase) and increased fuel economy to 32 MPG (a 59% increase). These two factors cancel out each

other's affect, providing a relatively flat vehicle operating cost of increase of 1 cent per mile between 2010 and 2040 compared to the 7 cents per mile increase between 2005 and 2010. In the sensitivity test, when the fuel cost is held constant at 2010 levels (\$3.65/gal.) the increased fuel economy lowers vehicle operating cost 40% back to near 2005 levels, resulting in a significant increase in travel in the model.

⁷ The bulk of the increase in both the Pricing (auto operating cost) and Economic Activity Decrease assumptions in the Plan Alternative happened between 2005 and 2013. Low jobs housing balance are consistent with historic rates, aging population/increased retirement households, high unemployment, and limited educational opportunities. If all the other strategies and assumptions remain the same, and jobs increase from 1.1 to 1.3 jobs per household, the CO2 targets would still be achieved.

⁸ Kern is relatively uncongested in 2013. Eliminating future congestion relief projects in this test run causes a dramatic rise congested travel with higher CO2 emission rates per mile of travel. SB 375 related VMT (minus external thru travel) in the test is 206,000 miles lower than the Plan Alternative with all strategies combined. However, external thru travel (25% of total countywide VMT) increases by 605,000 miles of travel, nearly three times the SB 375 VMT savings from this test run. The longer out of direction detours taken by thru trips to get through severely congested corridors is the likely cause of this 6% increase in thru travel which is not accounted in the per capita emissions reduction under SB 375 rules.

- D. **Pricing/Fuel Cost Increase Assumption** - On p. 4-40 of the Draft RTP/SCS Kern COG identifies four broad components of a sustainable transportation system which include both strategies and assumptions. On p. 4-46, first paragraph under Pricing Measures, pricing is referred to as a strategy which is used interchangeably with the term model assumption. To provide better consistency the word will be changed to "assumptions."

As depicted in the Table MR-1A below, fuel cost increase assumptions between 2000-2035 were used in the Bay Area Metropolitan Transportation Commission (MTC) 2009 RTP assumptions provided by Fehr & Peers consulting. These default assumptions were used in modeling by all 8 San Joaquin Valley MPO models. Data available from ARB's website shows similar assumptions for fuel and vehicle operating cost for the San Joaquin Valley. Table 4-7 is intended to fully disclose both the effects of modeling assumptions and strategies as indicated by the header row titled "Model Assumption/Strategies." RTP Table 6-1 refers to other funding anticipated from several sources that will likely increase vehicle operating costs including: cap and trade revenue, freight fees, odometer based-user fees, local sales tax, and state/federal excise taxes on fuel. The modeling extrapolates the MTC assumption out to the year 2040. The rate is slightly higher than that used by other San Joaquin MPOs beyond 2035 in anticipation of these other strategies that affect fuel costs. Kern is the largest county in California without a local sales tax for transportation. Total funding from other sources accounts for about 11% of the overall RTP budget and is slated mostly to cover maintenance.

Table MR-1A. Comparison of MPO Modeling Vehicle Operating Cost Inputs for First Round of SCSs - 5/16/2014

Metropolitan Planning Organization (MPO)	2008	2020	2035	Change 2008-2035
8-San Joaquin Valley COGs (including Kern COG)*				
Vehicle operating costs (2000\$ per mile)	0.15	0.18	0.19	23%
Gasoline price (2000\$ per gallon)	3.11	4.46	6.06	95%
Bay Area (MTC)				
Vehicle operating costs (2009\$ per mile)	0.23	0.28	0.28	22%
Gasoline price (2009\$ per gallon)	3.25	4.74	5.24	61%
Sacramento (SACOG)				
Vehicle operating costs (2009\$ per mile)	0.21	0.27	0.29	38%
Gasoline price (2009\$ per gallon)	2.67	4.74	5.24	96%
Southern California (SCAG)				
Vehicle operating costs (1999\$ per mile)	0.21	0.23	0.24	15%
Gasoline price (2009\$ per gallon)	3.60	4.74	5.24	46%
San Diego (SANDAG)				
Vehicle operating costs (1999\$ per mile)	0.18	0.21	0.20	11%
Gasoline price (1999\$ per gallon)	2.70	3.70	4.07	51%
<p>* Transportation models commonly use vehicle or auto operating cost per mile assumptions. The 8 Valley COGs used MTC's 2009 RTP vehicle operating costs only reflecting the gasoline cost increase and a 60% increase in average fleet fuel efficiency to 32 MPG by 2035. Variation in vehicle operating costs between regions is a result of differences in methodology and regional costs.</p> <p>Source for big 4 MPOs pricing and cost data: ARB Staff Technical Evaluation Reports for each MPO http://www.arb.ca.gov/cc/sb375/sb375.htm</p>				

Unlike SCS strategies, predicting modeling assumptions long range are subject to factors outside the control of an MPO. Trend bifurcation and other unseen events make assumptions and forecasts beyond 5 years imprecise. Factors such as cost of living, interregional travel, and overall uncertainty of the future are problematic and could be described as uncertainty error. Robert Bain (international expert on forecast uncertainty) has researched uncertainty from multiple perspectives and sources and determined that the uncertainty for a 2035 regional forecast can be up to +/- 25%². To control for this it is important to revisit long range forecasts and assumptions on a regular basis. Using the best available information, the Kern COG RTP and associated model inputs/assumptions are revised every 4 years as required by law for areas in non-attainment of federal air quality standards.

Table MR-1B below demonstrates that even-though fuel costs are anticipated to increase 2/3rds between 2010 and 2035 (95% between 2008 and 2035 as shown in table MR-1A above), average fleet fuel efficiency increases by 60%, resulting in a relatively flat vehicle operating cost increase totaling less than 1 cent per mile (<5%) over the 25 year period. This conservative forecasted auto operating cost increase is significantly less than the 90% increase in the previous decade. However, assuming a larger increase at historic rates could have a disproportionate effect on low income households and communities and would be

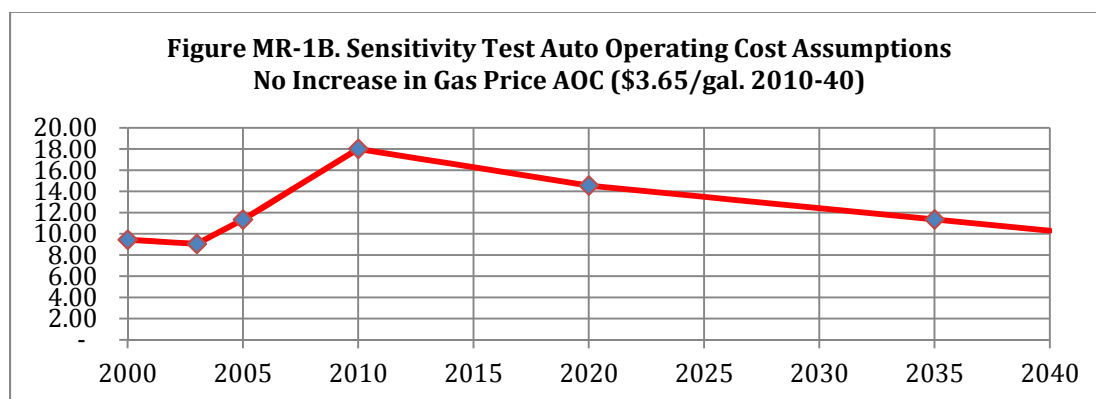
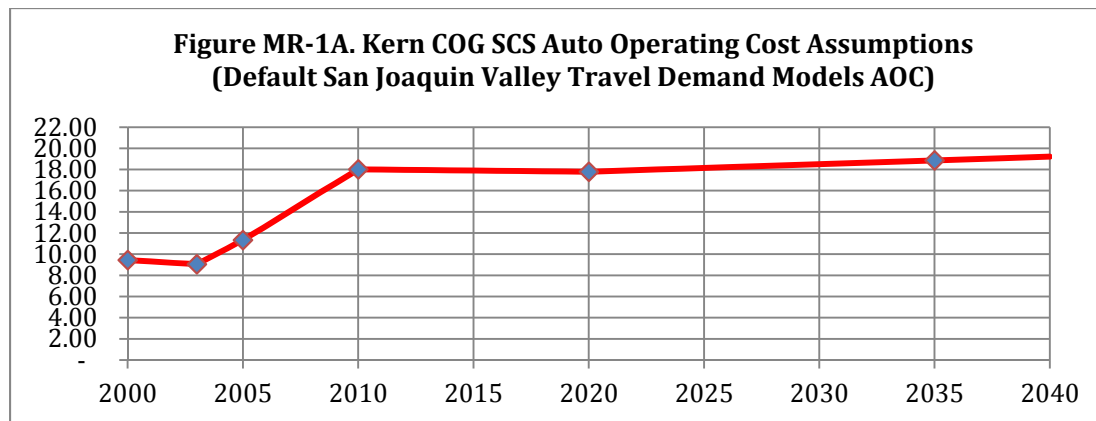
² <http://robbain.com/articlesandpapers.htm>

contrary to Kern COGs equity goal in Chapter 2. As stated previously Kern COG has little control over vehicle operating costs.

Table MR-1B. Default Auto Operating Cost Assumptions – San Joaquin Valley Travel Demand Models

Year	CPI	Gas Price (with inflation)	Gas Price (Yr. 2000 \$)	Avg Fleet MPG	Gas Cost Cents/Mile	Auto Op Cost
2000	180.2	\$1.83	\$1.83	19.40	9.43	9.43
2005	202.7	\$2.52	\$2.24	19.76	11.34	11.34
2010	235.3	\$4.77	\$3.65	20.27	18.01	18.01
2020	313.2	\$7.76	\$4.46	25.08	17.78	17.78
2035	480.9	\$16.17	\$6.06	32.15	18.85	18.85

Source: MTC 2009 RTP Analysis adapted for use in 8-Valley models by Fehr & Peers



Some commenters pointed out that assuming increased gas price has a disproportionate effect on low income housing, however, when taken in context with increased fuel efficiency of the overall vehicle fleet, including older used cars, the affect is moderated and overall operating costs used in the modeling between 2010 and 2040 remain relatively flat as seen in Figure MR-1A, which is conservative when compared to the prior decade. The 23% increase in Table MR-1A occurs mostly between 2008 and 2010. The sensitivity test for Pricing reported in Table 4-7 used the Auto Operating Cost in Figure MR-1B. The chart shows what happens when the gas cost remains unchanged at \$3.65 per gallon and fuel economy

increases to 32 MPG. The result is an overall reduction in auto-operating cost. This sensitivity model run was ran in EMFAC 2011 to get CO₂ emissions per capita for comparison with the RTP Plan Alternative run. The difference between the two was reported in Table 4-7.

- E. **California Transportation Agency Encourages Pricing** - The State Transportation Agency Secretary has identified pricing as a long range cross-cutting recommendation in the February 5, 2014, California Transportation Infrastructure Priorities: Vision and Interim Recommendations report, indicating that Kern COG's modest pricing assumptions are consistent with state policy.
- F. **Federal Law Requires Regional Modeling to Be Sensitive to Travel Costs Factors** - Federal Title 40 CFR Part 93.122 (b)(1)(vi) states: "*Network-based travel models must be reasonably sensitive to changes in the time(s), cost(s), and other factors affecting travel choices.*"
- G. **Economic Activity Decrease Assumption** - Kern COG does not include an assumption for a "future" recession as many commenters suggest, but rather, Kern COG included data from the last recession. Kern COG also performed a sensitivity test to measure what would happen if the recent economic recession from 2007-2012 did NOT occur. A foot note has been added to table 4-7 clarifying this test. The Kern COG model assumes the growth rate originally adopted by the Kern COG Board in 2005 based on the jobs housing balance at that time. In 2005, housing was growing at a rate much faster than jobs, resulting in a relatively low jobs housing balance. The Kern COG Board re-adopted the forecast in the Fall of 2009. With the release of the 2010 Census the forecast was found to be within 1/10th of 1 percent of the actual census count for the region. The 2005 and 2009, Kern COG forecasts successfully anticipated the economic downturn and Kern COG continues the use of this proven forecast for the 2014 RTP. By using the same forecast, the new model update (funded by a grant from the California Strategic Growth Council) more closely compares to the prior model and isolates changes in model results to the model improvements and controls for changes to the input forecast totals. The distribution of the forecast was refined using the 2010 census distribution on households as well as the 2008 Census employment data from the Longitudinal Employer-Household Dynamics (LEHD) data set for Kern. It is important to note, that if a major upswing in Kern's economy were to occur, based on the sensitivity test, Kern COG would still meet the SB 375 targets assuming all other assumptions and strategies remained unchanged.

Kern COG is preparing to retain a consultant to update the population and employment forecasts.

- H. **CARB and Expert Consulting Peer Review of Modeling** – Kern COG modeling and assumptions have been rigorously vetted with the California Air Resources Board (CARB) for the past 4 years, including CARB staff's regular participation in the monthly Kern COG Regional Planning Advisory Committee (RPAC) responsible for oversight of the development of the SCS, the Kern Regional Transportation Modeling Committee (TMC) and regular conference calls between CARB and Kern COG staff. In addition, the California Strategic Growth Council funded the San Joaquin Valley Model Improvement Program

(MIP) which included a diverse team of expert consultants including Fehr & Peers, Dowling Associates, RSG Inc., Cambridge Systematics, Bowman-Bradley, McCoy-Roth, Cari Anderson Consulting and Citilabs. The improved model for Kern was delivered in 2012. As an added layer of independent peer review Kern COG retained DKS Consulting to review and refine the validation/calibration for the MIP model which was delivered in 2013. The results and model documentation from the DKS improvements were prepared under the supervision of a registered civil engineer.³ The 2013 DKS revised MIP model improvements were re-examined independently by Fehr & Peers who performed the same model sensitivity test on the 2012 MIP model. The Fehr & Peers re-test found that *“the model responds equal to or better than the February 2012 version due to the updated inputs and processes that occurred since the original tests were conducted.”*⁴ Kern COG, in coordination with the 7 other San Joaquin Valley COGs, has submitted the proposed technical methodology model documentation, surveys, and files to CARB as required by SB 375, and has received a letter acknowledging receipt of the SB375 Methodology.⁵

In addition, Kern COG’s scenario performance measure results have been provided to Garlynn Woodsong of Calthorpe Associates, who has provided several iterations of voluntary peer review feedback on the performance measures, and adjustments have been made. Mr. Woodsong also provided comments during the public review process which are discussed under comment number 35-1.

- I. **Big Change in Investment in Alternative Transportation Strategies Show Small Change to CO₂ Per Capita Reduction** – Kern COG is making significant investment in alternative transportation strategies such as transit, bike and pedestrian facilities yet they account for less than .2 percentage points reduction in the per capita CO₂. The 2014 Plan includes a 1668% increase in capital funding for transit/HOV facilities of which 93% is funded from existing sources such as HSR/Recovery Act (\$1.5B), LTF (\$301M), STIP (\$140M), CMAQ (\$125M), STA (\$100M), CalVans (\$48M), local impact fees (\$37M), FTA 5307/10/11 (\$30M), other existing sources (\$35.1M) and 7% is from other future sources. Even without high speed rail, transit/HOV capital expenditures increase over 500%. The 2014 Plan also represents a 1000% increase in capital bike and pedestrian funding over the 2011 RTP of which 65% of the funds are redirected to bike and pedestrian projects from local impact fees (\$134.7M), CMAQ (\$72.5M), ATP (\$37.5M), Federal Demonstration (\$30M) and 35% is from future other sources (see RTP Table 6.1 for details).

Some commenters have asked why these significant changes in the expenditure plan don’t have a greater impact on the per capita CO₂ reduction from 2005. The explanation is as follows:

1. **Regional Modeling of Interregional Trips and Commuter Sheds** - Unlike other regions that may be showing greater effectiveness of alternative transportation (transit/bike/pedestrian) investment and land use strategies, Kern’s model is a more accurate depiction of the entire commuter shed for the region. The model covers over

³ http://www.kerncog.org/images/docs/transmodel/MIP_Documentation_revisions_20130701.pdf

⁴ http://www.kerncog.org/images/docs/transmodel/Kern_DynamicValidation_20130828.pdf p. 1

⁵ http://www.kerncog.org/images/docs/transmodel/ARB_tech_method_201402.pdf

8,000 square miles (1/3rd the area of the 8-San Joaquin Valley counties), with only 5% of commuters traveling across county boundaries to/from their place of work. This gives a more realistic picture of the effects of land use strategy changes in a region dominated by rural resource employment areas. The CARB RTAC methodology developed for SB375 recommends regions to account for half of the interregional trips.⁶ Unfortunately, a common method for accounting for travel outside each region, such as the use of the state-wide travel model, was not available. To compensate, Kern and the San Joaquin Valley MPOs are conservatively taking into account 100% of passenger vehicle trips within Kern County borders to/from other counties as part of its SB 375 related travel, even though RTAC recommends only half of these trips to be counted. This method is consistent with the methodology used to set SB 375 targets statewide. In Kern, this travel to/from other counties accounts for approximately 1/5th of the total VMT because trips to the edge of the county from the major urban area can be more than 40 miles.

The result is a disparity in modeling results when comparing regions that incorporate the bulk of their commute shed in their modeling with those that have a significant portion of commute outside and through their region. Table MR1-C contains a comparison of preliminary CO₂ emission results and the corresponding out-of-county commute for MPOs in California. Kern COG has similar percent per capita reductions and percent out-of-county commute patterns as the big 4 MPOs however, Kern COG's emissions of 14.7 lbs. per capita appear to be 30% less than the big 4 MPOs.

⁶ <http://www.arb.ca.gov/cc/sb375/rtac/report/092909/finalreport.pdf> p. 26

Table MR1-C. Comparison of CO2e Emissions Per Capita and Out-of-County Commute

3/4/2014											
				2006-10 U.S. Census ACS Commute Patterns							
	SCS Status as of 2/13/14	CO2e 2035 Percent Reductions Per Capita	CO2e 2035 Pounds Per Capita SB375	Out-Commute	%	In-Commute	%	In+Out Commute	%	Workers by Place of Work	Workers by Place of Residence
CALIFORNIA MPO											
Big 4 MPOs	Average:	-15.4%	20.0	62,425	3.0%	84,211	3.9%	146,636	3.4%	3,333,244	3,369,284
SCAG	adopted	-16.0% (1)	20.5 (6)	101,929	1.3%	74,958	1.0%	176,887	1.1%	7,763,584	7,765,719
ABAG	adopted	-16.4% (8)	17.1 (7)	44,464	1.4%	146,448	4.4%	190,912	2.9%	3,182,385	3,309,530
SACOG	adopted	-16.0% (1)	19.7 (6)	60,365	6.1%	48,074	5.7%	108,439	5.6%	948,145	987,447
SANDAG	adopted	-13.0% (1)	22.6 (6)	42,940	3.0%	67,365	4.7%	110,305	3.9%	1,438,863	1,414,438
8-San Joaquin Valley MPOs	Average:	-15.0%	13.2	26,191	17.7%	20,203	14.5%	46,393	16.1%	175,524	182,765
SJCOG	pre draft	-30.1% (2)	12.6 (2)	67,134	25.7%	38,348	16.5%	105,482	21.4%	232,066	260,852
STANISLAUS	pre draft	-17.7% (2)	13.2 (2)	43,034	21.5%	24,963	13.7%	67,997	17.8%	182,042	200,113
TULARE	pre draft	-17.0% (7)	15.6 (2)	20,634	12.8%	14,366	9.3%	35,000	11.1%	154,866	161,148
KERNCOG	pre draft	-16.6% (7)	14.7 (6)	10,496	6.8%	20,123	6.7%	30,619	5.1%	302,424	302,797
FRESNOCOG	pre draft	-11.1% (7)	13.2 (2)	25,735	7.3%	29,944	8.4%	55,679	7.9%	354,726	350,511
MADERA	pre draft	-10.3% (2)	13.9 (2)	15,328	33.2%	12,462	28.8%	27,790	31.1%	43,256	46,122
KINGS	pre draft	-10.2% (2)	9.6 (2)	4,678	9.4%	11,287	20.1%	15,965	15.1%	56,211	49,622
MERCED	pre draft	-6.7% (7)	12.4 (2)	22,486	24.7%	10,128	12.9%	32,614	19.2%	78,597	90,951
Coastal/N. California MPOs	Average:	-7.4%	18.4	15,586	9.0%	14,613	9.7%	30,200	9.3%	135,290	156,480
SANTA BARBARA	adopted	-15.4% (5)	20.7 (5)	12,098	6.4%	24,086	12.0%	36,184	9.3%	200,623	188,635
TAHOE	adopted	-7.2% (3)	n/a	n/a		n/a		n/a		n/a	n/a
AMBAG	draft	-5.8% (4)	14.5 (4)	41,271	12.8%	28,267	13.6%	69,538	13.1%	207,660	321,660
BUTTE	adopted	-1.0% (3)	16.2 (6)	8,161	9.5%	5,415	6.5%	13,576	8.0%	83,569	86,315
SAN LUIS OBISPO	pre draft	n/a	n/a	12,900	11.0%	10,346	9.0%	23,246	10.0%	115,395	118,039
SHASTA	pre draft	n/a	22.4 (6)	3,502	5.2%	4,953	7.2%	8,455	6.2%	69,201	67,750
Notes:											
(1) ARB SCS Fact Sheets.											
(2) ARB Staff Report Update on SB 375 Implementation in SJV 01/15/13.											
(3) ARB Technical Evaluation for GHG Reductions April 2013.											
(4) AMBAG Draft 2035 MTP/SCS February 2014											
(5) SBCAG 2040 RTP/SCS/EIR adopted 08/15/13.											
(6) RTP/SCS/EIR											
(7) ABAG Draft EIR Table 2.5-7											

- 2. Kern's Ex-urban Commute Pattern** - Kern is a rural resource based economy with an ex-urban commute pattern. Two Thirds of Kern's residents live in the center of the county, Metropolitan Bakersfield, which covers only 1/20th of the region's total area. Approximately half of the jobs in Kern are in the outlying areas (wind/solar, oil/gas/mining, agriculture, logistics, prisons, recreation, etc.) creating a reverse commute that is less conducive for transit, bike and pedestrian solutions and more appropriate for ride share and vanpool options. Greater infill alternatives reduce home-based shopping and other trips, but often increase the commute trip length. This moderates the impact infill and increased alternative transportation investment has on travel reduction.
- 3. Strategy Feasibility Studies** - In anticipation of the development of the SCS, Kern COG commissioned several studies to identify the scope and feasibility of strategies to include in the SCS. These studies drove the identification of alternative transportation strategies that have been included into the plan. This plan fully funds the feasible portions of these strategies including increased investment in: bus rapid transit, express bus, fixed routes, inter-city rail, commuter rail, vanpooling, ride share, transit/HOV facilities, bike and pedestrian facilities and planning for these facilities. The results of these studies were work-shopped throughout the extensive public outreach process of the 2014 RTP and are discussed in detail in RTP Chapter 5.

- J. The SB 375 requirement for the SCS to be “Actions Oriented and Pragmatic” – RTP Table 2-1 Regional Transportation Plan Goals, Policies and Actions contains a list of 145 Actions, implementing the goals and policies of the RTP. These actions are developed in detail in Chapter 5, the Strategic Investments Chapter, demonstrating that the RTP/SCS is action oriented and pragmatic.

RTP-MR-2: 33% Housing Mix Growth Pattern

- A. **33% Alternative Not Rejected** - Many commenters requested that the 33% Housing Mix Alternative be selected as the preferred alternative. Many others requested that it be rejected along with the Intensified and 100% Infill Alternatives. The 33% Housing Mix Alternative differs from the Plan Alternative in that it accelerates or frontloads funding for alternative transportation modes at a faster rate than the Plan Alternative, and it includes a mix of housing growth that is equally 33% for multi-family, small lot/townhome, and large lot single family housing in Metro Bakersfield compared to the Plan Alternative which is 23.3%, 32.3% and 44.4% respectively. Countywide the 33% Mix alternative is 24%, 25%, and 51% and the Plan is 18%, 24%, and 58%.

In developing the Plan, Kern COG has satisfied its obligation under SB 375 to identify a policy and growth pattern that meets desired GHG reduction goals. Imposing additional land use guidelines that would further exceed identified GHG targets would result in greater impacts on local communities (primarily the City of Bakersfield). While these communities (i.e., the City of Bakersfield) may be able to accommodate such growth, without detailed evaluation of infrastructure carrying capacity, the potential increased impacts to these communities likely would offset the decreased GHG emissions and decreased consumption of open space that could be achieved by the more aggressive alternatives. Nonetheless, local jurisdictions, in exercising their land use authority, could choose to interpret the regional SCS policies in terms of the growth pattern identified in the 33 Percent Housing Mix or 100 Percent Infill Alternatives.

The Plan provides general guidance on location of development. The 2014 RTP does not impose specific land use controls. It will be up to each jurisdiction to interpret the 2014 RTP land use policy as it applies to them and through ongoing monitoring of key performance measures (in cooperation with Kern COG), monitor GHG reductions to ensure consistency with the 2014 RTP. Through ongoing monitoring Kern COG will adjust regional policy as needed (in the next RTP or in interim Amendments if needed) to ensure that the region complies with applicable State law including AB 32 and SB 375.

Kern COG is not rejecting the 33 Percent Housing Mix or any alternative with increased density and/or greater percentage of high-density housing as a possible land use scenario for 2040. Rather, Kern COG is rejecting the inclusion of policies in the 2014 RTP that would impose extensive land use intervention (to mandate specific land use densities and/or specific locations) with local jurisdictions because 1) such intervention is not necessary to achieve SB 375 targets and 2) Kern COG has no land use authority and no mechanism exists to impose detailed land use control. In the future, should monitoring indicate that such detailed land use intervention appear necessary, Kern COG will work with local jurisdictions and state officials to determine the best mechanism(s) to implement such controls.

B. Assumptions for 33% Alternative Don't Match the Observed Data - The 33% housing mix alternative includes the following assumptions Kern COG considers less likely to occur than the Plan Alternative.

1. **Consistency with recent studies** - The Kern region has a wealth of recent housing preference data available to base assumptions on for future housing density. The Plan Alternative housing mix assumptions reflect 5 out of 6 of the major studies/surveys including public input during RTP public workshops. Tables MR-2 (A-F) provide a comparison of the data collected on housing preference in Kern. This data is difficult to compare due to differing methodologies. The common header format for each table helps to normalize the results for easier comparability. Table G summarizes historic trends in housing built in Kern going back to 1980. Table H provides the densities used in the Plan in a comparable format. The tables show that the range of preferences are closer to 60% large lot, 40% higher densities countywide (45% large lot, 55% higher density in Metropolitan Bakersfield).

Table MR2-A

Planning Center - Forecast - March 2012					
Part of the SJV Demographic Forecast					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo	Total
2010-2020	69%		31%		100%
2020-2035	67%		33%		100%
	68%		32%		100%

http://www.valleyblueprint.org/files/San%20Joaquin%20Valley%20Demographic%20Forecasts%20-%20Final%2027%20Mar%202012_0.pdf

This study was prepared for the 8-San Joaquin Valley Counties to better account for the economic downturn in the region's forecasts. Kern COG used the methodology to validate the 2009 adopted Kern COG forecast that successfully predicted the downturn. This study predicts a need for 68% single family detached (SFD) 2035, the Plan Alternative assumes 58% single family detached by 2040 countywide. The 33% alternative assumes 51% countywide.

Table MR2-B

The Concord Group - Forecast - June 2012					
Part of the SJV Housing Market Demand Forecast - Market Demand Analysis for Higher Density Housing					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo	Total
2010-2020	59%		17%	23%	100%
2020-2035	58%		18%	24%	100%
	59%		18%	23%	100%

<http://www.valleyblueprint.org/files/11245.00%20FCOG-SJV%20Demand%20Final%20Draft%206.22.12.pdf>

This study was also prepared on behalf of the 8-San Joaquin Valley Counties to provide a better understanding of housing need, and predicts 59% SFD needed by 2035 compared to the Plan Alternative assumption of 58%.

Table MR2-C

Godbe Annual Kern Community Survey - Spring 2012					
Kern COG 1,200 person statistically valid phone survey (respondents could select more than one category resulting in totals >100%) Note that the low end range for detached is the number that would refuse 2-4 plex housing, low end range for attached refuse SFD					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo	Total
Would consider in the next 10 yrs	47% - 84%	47% - 78%	15% - 52%	15% - 25%	
Would NOT consider in the next 10 yrs	15%	21%	47%	65%	

http://www.kerncog.org/images/docs/community_survey/community_survey_2012.pdf

This survey is performed annually for Kern COG by a research consultant and includes a housing question that allows for multiple preferences of housing type. The range for SFD on large lots is 47-84%. The middle of the range is 65%, closer to the Plan alternative of 58%. This survey was used by the next study.

Table MR2-D

Council of Infill Builders - Jan. 2013					
A Home for Everyone: San Joaquin Valley Housing Preferences and Opportunities by 2050 by Dr. Arthur C. Nelson					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo	Total
2010-2020	15%		85%		100%
2020-2035	52%		48%		
2035-2050	69%		31%		
2010-2050	50%		50%		

<http://www.councilofinfillbuilders.org/resources/PDFs/ValleyHousing.pdf>

This study was prepared by a professor from the University of Utah and used the 2012 Godbe Research Community Survey as well as the data from the Concord Group shown in Table MR2-B. The study concludes that the existing housing stock in Kern is oversaturated with large lot SFD. However, the study only used the high end in the range of data provided by the Godbe Survey. In addition, the study frontloads the need for higher density housing, showing growth in SFD need going from 15% of new housing by 2020 to 50% by 2050. This number is at the low end of the range (47%-84% SFD) in the 2012 Godbe Survey and is a rapid departure from current trends and ignores the more than 30,000 lots of SFD tract maps already entitled in the Metropolitan Bakersfield area. The Plan Alternative does assume a reduction of SFD on lots greater than 6000 sq. ft. in Metro Bakersfield shrinking to 45% by 2040, where market changes for higher densities are most likely to occur.

Table MR2-E

Godbe Annual Kern Community Survey - Spring 2013					
Kern COG 1,200 person statistically valid phone survey (respondents could select more than one category resulting in totals >100%) Note that the low end range for detached is the number that would refuse 2-4 plex housing, low end range for attached refuse SFD					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo	Total
Currently living in	43%	38%	5%	13%	100%
Would consider in the next 10 yrs	61% - 82%	61% - 70%	17% - 39%	17% - 27%	
Would NOT consider in the next 10 yrs	17%	30%	61%	72%	

http://www.kerncog.org/images/docs/community_survey/community_survey_2013.pdf

The 2013 annual survey performed by Kern COG shows the range of SFD housing types shifting from a range of 47-84% to 61-82% as the economy recovers. The middle of the range has moved up from 65% to 71% driven primarily by an increase in the number of people who would not consider multi-family. Interest in small lots also appears to be waning as well, possibly indicating that current density assumptions for the Plan Alternative may be on the ambitious side.

Table MR2-F

Kern COG Metro Bakersfield Public Workshops - August 2013					
Kern COG workshops held that analyzed scenarios using an anonymous survey method					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo	Total
Avg Scenario 2010-35	60%	40%			100%

In August 2013 as part of the extensive public outreach effort Kern COG performed two additional workshops in Metro Bakersfield to consider a more detailed range of scenarios for future growth. The workshops compared four alternatives, each one progressively more ambitious. The participant feedback ranged widely from no change to major change alternatives. The weighted average results came in about half way between scenario three and four resulting in a preference for 60% SFD housing, very close the Preferred Alternative of 58% SFD by 2040.

Table MR2-G

California Dept. of Finance Estimates by Housing Type (1980-2013)					
Note that these estimates are adjusted to observed census data, 1980 data SFD includes mobile homes					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo 5+	Total
1980 Census	80%		8%	12%	100%
1980-2006	86%		9%	5%	100%
2006-2013	70%		29%	1%	100%
1980-2013	83%		13%	4%	100%

Table G shows that in 1980 SFD consisted of 80% of the housing stock. In the past 33 years 83% of the housing built has been SFD. However, in the past 7 years beginning in 2006, that trend began to turn with only 70% of new housing being built as SFD.

Table MR2-H

Kern COG 2014 Preliminary RTP Assumptions (Consistent with Range of Studies)					
Note that these values do not exceed the capacity of existing local General Plans and latest planning assumptions					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo	Total
2010-2020	66%	18%		15%	100%
2020-2035	56%	26%		19%	100%
2035-2040	49%	31%		20%	100%
2010-2035	60%	23%		17%	100%
2010-2040	58%	24%		18%	100%

Notes: (1) Land use categories are based on assumptions developed by the Regional Planning Advisory Committee. Medium land use and Single Family Detached (SFD) - Small lot are 6000 sq. ft. or smaller. (2) 2-4plex includes apartments, condominiums and townhomes with 2-4 attached units and Apt/condo includes higher density housing such as bi- and tri-level apartment buildings.

The Plan Alternative provides a logical extrapolation of this trend as can be seen in Table H, showing SFD decreasing from the 70% to 66% over the next 10 years to 56% by 2035 and 49% by 2040. This logical progression fits both the historic trends and the recent housing preference surveys.

Recently, the average square footage of new SFD construction in the City of Bakersfield has begun to creep back up from a low in 2010 of 1,956 to 2,244. It appears that as the economy begins to rebound so too is the demand for larger homes. The housing market is still sluggish, building only about one-half of what is typical.

In addition, the City of Bakersfield has proposed creation of a small-lot zone that would allow a 4,500 square-foot lot by right, providing an option in the near future to allow creation of this type of product without having to use a planned unit development (PUD) zone.

2. **Highly Flexible Local General Plans** - Consistent with the adopted Kern COG SB 375 Framework, Kern COG modeling uses housing mix assumptions reflecting local General Plans. These plans have proven flexibility to allow for significant infill without the need for a General Plan amendment. In addition many of the local General Plans provide incentives such as lower traffic impact fees, reduced parking requirements and flexible mixed use/and form based zoning allowing for an increased housing mix.
3. **Financial Constraint Issue** – The 33% Alternative includes advancement of transit, bike and pedestrian projects that are less likely to be financially constrained without a revenue source that can be bonded against. Some of the projected new funding sources cannot be bonded against. However, if a new funding source is developed that can be bonded against, the Plan Alternative does not preclude frontloading of the alternative transportation projects. SB 375 requires that new local sales tax transportation measures

be consistent with the RTP/SCS. In addition, Kern COG has policies that promote early delivery as funding is available. Kern COG also updated the Project Delivery Policy to provide over half of all points to projects that promote livability and sustainability as part of the effort to implement SB375. This insures that if new funding is available, alternative transportation (transit, bike and pedestrian) projects will receive priority funding.

- C. **Land Use Authority is Local Not Regional** - Kern COG does not have land use authority to require local jurisdictions to provide an increased mix of housing. The SCS must be based on local General Plans and likely housing mix/infill assumptions using the best available data.
- D. **Denser Alternatives Increase Exposure To Localized Emissions** - The alternatives like the 33% housing mix alternative that increase infill and density over the Plan Alternative, increase population exposure to diesel emissions along urban transportation routes.
- E. **Increased Potential for Displacement of Low Income Households** - Alternatives like the 33% housing mix alternative that increase infill and density over the Plan Alternative, have the potential to increase displacement of disadvantaged residents in existing urban areas. Kern COG does not have land use authority to require local jurisdictions to avoid displacement. Note that California Government Code Section 65583.1 imposes local government housing element requirements for preventing displacement caused by rehabilitation.
- F. **Growth is Important in Disadvantage/Outlying Communities as Well** – Over emphasis on higher infill and densities in Metropolitan Bakersfield risks siphoning off more growth from outlying communities. Unemployment rates are higher in outlying communities. Some commenters pointed out an apparent decrease in the jobs housing balance of the communities of Arvin, Greenfield, Lamont and Weedpatch. Kern COG reviewed that data and found an unintended shortfall in the employment in these communities of Arvin, Lamont and Weedpatch consistent with the forecasted household growth for these communities. Kern COG performed a sensitivity test adding employment for these communities and found a minor improvement in overall VMT emissions. Kern COG will incorporate these changes into all future model runs. Since the Plan Alternative as modeled has higher emissions, it can be considered a worse-case scenario should the intended jobs housing balance in these communities not take place.
- G. **Farmland Saved is Limited** – The difference in farmland consumed between the Plan Alternative and the 33% Alternative outside the urban spheres as required by SB 375 is zero. With the 33% Alternative, farmland consumed inside the spheres is slowed, however these properties are already designated in the General Plan for urban use, and are adjacent to existing urban areas, limiting their farming viability. The total consumption of farmland slows from 1.8 square mile per year to less than 1, a 44% reduction in land consumed with the Plan Alternative compared to the Old Plan. It is important to note however, that of the 240 square miles (14% of 1988 Kern farmland) lost over the past 22 years, only 40 square miles (2.4% of 1988 Kern

farmland) was lost to urbanization. The remaining 200 square miles were lost due to lack of water, conversion to habitat, and other reasons. Over the next 26 years it is anticipated that only 26 additional square miles of farmland will be lost to urbanization (1.6% of 2010 Kern farmland).

In addition, RTP Table 4-2 had an errant formula requiring the correction of several data cells.

RTP Table 4-4. Kern County Important Farmland Conversion 1988 to 2040

	Historic Trend				Forecast						Annual Average		
Year	1988	2010	1988-2010	% Change	2035	2010-2035	% Change	2040	2010-2040	% Change	1988-2010	2010-2035 ¹	2010-2040 ¹
Kern County Population	511,200	841,200	330,000	64.6%	1,321,000	479,800	57.0%	1,444,100	602,900	71.7%	15,000	19,192	20,097
Land Including City Spheres of Influence² (square miles)													
Urban/Built-Up	132	222	90	68.2%	294	72	32.4%	313	91	41.0%	4.1	2.9	3.0
Total Important Farmland³	1668	1428	-240	-14.4%	1404	-24	-1.7%	1402	-26	-1.8%	-10.9	-1.1	-1.0
Farmland to urban/built-up	1668	1428	-40	-2.4%	1404	-24	-1.5%	1402	-26	-1.6%	-1.8	-1.1	-1.0
Farmland to other⁴	1668	1428	-200	-12.0%	1404	0	0.0%	1402	0	0.0%	-9.1	0.0	0.0
SB 375 Defined Land Outside City Spheres of Influence (square miles)													
Urban/Built-Up	39	77	38	97.4%	83	5.8	7.5%	84	7.2	8.7%	1.7	0.2	0.2
Total Important Farmland³	1407	1226	-181	-12.9%	1226	-1.1	-0.1%	1227	-1.4	-0.1%	-8.2	-0.1	-0.1
Farmland to urban/built-up	1407	1226	-8	-0.6%	1226	-1.1	-0.1%	1227	-1.4	-0.1%	-0.4	-0.1	-0.1
Farmland to other⁴	1407	1226	-173	-12.3%	1226	0.0	0.0%	1227	0.0	0.0%	-7.9	0.0	0.0

Source: California Department of Conservation FMMP (1988-2010), Kern COG Land Use Model (2013-2040); ¹FMMP data was unavailable from 2010-13; ²analysis used 2013 city sphere boundaries; ³identification of important farmland in 2035/40 includes areas designated for agriculture by the local General Plans; ⁴conversion of farmland to other uses include fallow/no water available, groundwater recharge, habitat and other uses not analyzed with the Kern COG land use model. This land use forecast is limited to land lost from future urbanization. Figures may not add due to independent rounding.

RTP-MR-3: Funding for Alternative Transportation Modes (Transit/Bike/Pedestrian)

A. **Frontload Funding for Transit/Bike/Pedestrian** – Many commenters requested that alternative transportation funding be made a priority over highway investment and that the funding be frontloaded in early years. The 2014 RTP represents a significant departure from prior RTPs with a significant shift in investment away from highway and road widening and investment. The following facts illustrate this shift:

1. **Transit** - 1600% increase in capital transit/HOV funding over 2011 RTP (\$112.8M 2011 RTP, \$2,410M 2014 RTP) including up to \$1.5 Billion in HSR First Construction Segment using Federal Recovery Act (ARRA) funding.

2. **Transit** - 700% increase in capital transit/HOV funding 2011 RTP excluding HSR (\$112.8M 2011 RTP, \$910M 2014 RTP).
 3. **Transit** - 90% of non-HSR capital transit/HOV funding from existing identified sources (\$816.1M 2014 RTP existing sources, \$910M 2014 RTP all sources)
 4. **Bike/Pedestrian** - 1000% increase in active transportation funding over 2011 RTP (\$37.5M 2011 RTP, \$424.7M 2014 RTP)
 5. **Bike/Pedestrian** - 65% of active transportation funding is from existing identified sources (\$275M 2014 RTP existing sources, \$424M 2014 RTP all sources)
 6. **Where is the Existing Funding Coming From in the RTP?** - New funding for transit, bike and pedestrian projects is being created by changing requirements for funding sources (i.e. TE and SRTS are now ATP), more accurate accounting of bike and pedestrian projects in impact fee and federal demonstration projects, and the delay of two beltway projects that are not needed as soon due to slowing VMT growth created in-part by TSM/TDM and other strategies that Kern has been implementing since 1990 to clean up the air which has improved by over 80% even though population has grown 60%.
- B. **Nationally Recognized Best Practice for EJ Analysis** - Kern is recognized both by California and nationally as a best practice for analyzing impacts of the RTP expenditure plan to EJ communities and its outreach program.
- C. **EJ Analysis Demonstrates Proactive Funding For Disadvantaged Communities** - Disadvantaged communities receive a higher share of transportation funding than the passenger miles traveled by their communities. EJ communities receive 36% of highway investment and 60% of transit investment but only account for 18% and 48% of passenger miles traveled respectively. For example, of the more than 1000 miles of planned new, safer bike facilities, over half directly benefit outlying communities yet they only represent about one-third of the total population.
- D. **Full Funding For All Feasible Alternative Transportation Modes** - In the 4 years leading up to this RTP Kern extensively studied bike/pedestrian, complete streets, transit, commuter rail and other strategies in preparation of the 2014 RTP/SCS and identified what was feasible. This plan fully funds identified feasible projects in the bike, pedestrian, complete streets and transit plans. Even if more funding was identified for alternative transportation projects, currently there are no feasible projects un-funded that need to be funded. For example the transit feasibility study titled: Golden Empire Transit (GET) Long Range Transit Plan, identified a \$4B light rail project for Metropolitan Bakersfield, however, the study found that it was not feasible before 2040 and recommended investment in a BRT system instead. Funding the light rail system would create investment in a system that might not carry the ridership needed to operate the system.
- E. **Additional Funding For Planning Active Transportation Projects** - Kern is partnering with the City of Bakersfield, County of Kern and CSUB on ATP planning/study grant applications to refine funding needs for active transportation projects. In addition, Since 2008 Kern COG has programmed over \$400,000 in technical assistance grants to its member agencies to assist with alternative transportation planning. In January 2014, the Kern COG Board approved a program to provide funding for technical planning assistance and voluntary feedback to its member agencies on progress in reducing overall vehicle travel. In May 2014

Kern COG approved \$565,700 in FY 2014/15 in technical assistance funding and staff time for projects like the Boron Visioning and the Valley Floor Habitat Conservation Plan.

- F. **Complete Streets Required By Congestion Management Plan (CMP)** - Kern COG's CMP includes requirements for complete street strategies to address heavily congested corridors, rather than simply requiring increased roadway capacity for single occupancy vehicles. These strategies include transit/HOV lanes/facilities and bike and pedestrian facilities to mitigate congestion. The program is described on RTP p. 5-59 to 5-66.
- G. **New Project Delivery Policy and Procedures Implement SB 375 Goals** – In 2013, Kern COG adopted updated Project Delivery Policy and Procedures to give over half the points to projects that promote SB375 goals of livability and sustainability. The policy facilitates SB 375 goals by ranking and prioritizing projects for funding that score the highest in livability and sustainability. The program is described in the RTP/SCS Chapter on p. 4-54 to 4-56.

RTP-MR-4: Support for Plan Alternative

Many commenters supported the Plan Alternative and noted that growth focused in existing communities, funding specific transportation corridors, and funding alternative transportation is correct.

RTP-MR-5: Rejection of Alternatives

Many commenters requested rejection of all other Alternatives except the Plan Alternative. Rejection of the other Alternatives is not necessary with the adoption of the Plan Alternative; however, the other Alternatives are either unrealistic or do not meet key requirements. For example, the Plan Alternative meets the Federal Clean Air Act and SB 375 requirements as do the other more ambitious alternatives. The Old Plan and No Build Alternatives do not meet the Clean Air Act requirements and are therefore not viable. The 100% Infill Alternative housing assumptions have significant problems related to unreasonable housing assumptions, consistency with General Plans and a potential financial constraint issue for alternative transportation projects, among other issues. The 33% Housing Mix and Intensified Alternatives have a similar problem with financial constraint and, to a lesser degree, problems with housing market assumptions. However, these two Alternatives are within the realm of possibility should market assumptions and funding begin to trend in that direction. These two Alternatives provide some benefits over the Plan Alternative, and some drawbacks as well. Should the assumed funding and housing market assumptions materialize consistent with the activity and future local General Plan updates, these two Alternatives could become more viable in future cycles of the RTP. However, the Plan Alternative clearly provides the best fit to the information as well as the fewest number of impacts. See also RTP MR-1 and RTP MR-2.

RTP-MR-6: Protecting and Conserving Farmland and Open Space

The commenter mentions that 91 square miles of farmland, grazing land and open space are lost with the preferred Alternative, significantly overstating the actual predicted loss of farmland. The 91 miles in Table 4-4 (see RTP MR-G above) is the estimate of total new urban in greenfield areas (farmland, grazing land, open space) as well as revitalized existing urban areas between 2010 and 2040, resulting in about 3 square miles per year to

accommodate 20,000 people per year (most born in Kern). This is a 25% reduction compared to the previous 22 years going back to 1988, which saw urbanization (not counting revitalized areas) grow at 4.1 square miles per year with only 15,000 people per year average growth. However, 21% of the growth in households is anticipated to be in existing revitalized/infill urban areas, 31% of Metro Bakersfield households are forecasted to be built in these infill areas. At the same time, farmland consumption will drop 44% from 1.8 square miles per year over the last 22 years, to less than 1 square mile per year for a total of 26 square miles of farmland lost to urbanization. This is almost half the rate of farmland loss that was being predicted in the Kern Regional Blueprint 6 years ago. In addition, the farmland loss is limited almost entirely to existing spheres of influence with a total loss of 1.4 square miles of the new 26 square miles of urbanization outside of existing spheres of influence. All urbanization in the analysis is on areas already designated by the General Plan for urban use, even though it may currently be farmland.

Some commenters expressed concern about the economic impact created by the loss of farmland. It is important to point out that the projected 26 square miles of farmland loss is less than 2% of all 2010 farmland in Kern, and will likely result in a corresponding 2% loss in agriculture production and economic benefit to the region. However, approximately one-half of the converted farmland is anticipated to be new industrial and commercial developments, which have a much higher property tax return and job creation rate than agriculture land, mitigating the potential economic loss. In addition, it is possible that the agricultural water rights could be transferred for use on other farmland currently not irrigated, further reducing farmland lost to urbanization.

Every indication is that farmland is more threatened by the loss of water in the Valley than urbanization. Since 1988 Kern has lost 240 square miles or 14% of irrigated farmland, however, only 40 square miles of that was lost to urbanization. The rest were driven out of production primarily by the lack of available water, conversion of agricultural land to habitat easements, water banks and other activities. Still Kern has not rejected the 33% Alternative and the more compact development alternatives should local agencies and the market develop an even more compact urban form consistent with the highly flexible local General Plans. As with the Plan Alternative, which uses 10% less water for urban use than the Old Plan, the less water used per household, leaves more water available for farming.

The SCS Chapter 4 includes a rural-urban connectivity strategy that looks at the amount of land needed for market gardening to support the local population. The analysis in Figure 4-3 shows that 80 square miles are needed to meet the needs of the local market network by 2035. Kern will have 1,400 square miles of farmland in 2035, enough land to feed over half of the state's population, assuming the water is available and agricultural exports are curtailed.

Some commenters recommended Kern COG develop a conservation framework. Kern COG does not have land use authority and is not the appropriate entity in this one-county region to implement a Conservation Framework. However, Kern COG has approved hundreds of thousands of dollars in its annual work program in funding to the County for conservation planning including another \$175,000 in the 2014/15 work program to support the Valley Floor HCP/NCCP development effort. This planned funding complements the commitment of \$77M in RTP Table 5-1 for mitigating transportation related habitat impacts in the region. The County has land use authority in the resource

areas of Kern and is the appropriate lead agency for Conservation Framework efforts. Page 4-39 of the RTP states, “*The County of Kern is scheduled to begin the next major General Plan update in 2014. The update will address land use conservation issues such as habitat and farmland. Appropriate changes to the County’s update will be reflected in future RTPs/SCSs*”. Recent conversations with County Planning staff have reconfirmed their commitment to take on this effort in their General Plan update. Kern COG will work with stakeholders including the Southern Sierra Partnership (SSP) to leverage expertise and resources in this effort.

RTP SPECIFIC COMMENT RESPONSES

Letter 1: State of California Department of Transportation (Caltrans), Alec Kimmel, Transportation Planner, Planning South Branch

- 1-1 Thank you for your comment.
- 1-2 Thank you for your comment. The following bullet found on Page 5-49, which reads as follows: “Promote development of revitalized, walkable/bikeable neighborhoods with easy access to transit; Paving/controlling dust from streets and shoulders...” will be revised to read as follows: “Promote development of revitalized, walkable/bikeable neighborhoods with easy access to transit; Paving/controlling dust from streets and shoulders; and improve street intersections that facilitate bicycle travel”
- 1-3 This sentence is in the EIR. The last portion of the sentence was changed to read “but heavy rail lines can also be found in urbanized core areas in the region.”
- 1-4 Please see the 2014 RTP Final EIR, Chapter 2, Corrections and Additions, regarding changes made to Page 4.9-4.
- 1-5 Thank you for your comments. The RTP Checklist is signed, references item locations in the RTP and provides page numbers where feasible. Further clarification is provided in responses 1-6 and 1-9.
- 1-6 Thank you for your comments.

General,

Item 3: Refers to Government Code Section 65080. References to Government Code Section are on pages 1-1, 2-1, 4-1, 4-19, and 4-35.

Item 4: (Please note there are two Item 4s on this Checklist under General). The second Item 4, refers to the Project Intent i.e. Plan Level Purpose and Need Statements. The Project Intent is outlined in Chapter 1 Introduction, on Pages 1-1 through 1-6. Chapter 5 Strategic Investments, outlines system needs for freight movement, public transportation, active transportation, transportation air emissions reduction, intelligent transportation systems, congestion management program, regional streets and highways, aviation, safety/security and land use.

- 1-7 Thank you for your comment. The mailing list for the Notice of Preparation of the Environment Document for the 2014 RTP included the following federal agencies:

USDA Natural Resources Conservation Service
U.S. Air Force Western Region
U.S. Army
U.S. Army Corp of Engineers
U.S. Army Director of Public Works Division
U.S. Bureau of Land Management
U.S. Bureau of Reclamation
U.S. Department of Agriculture/NRCS
U.S. Environmental Protection Agency
U.S. Fish & Wildlife Service
U.S. Forest Service Los Padres
U.S. Marine Corp
U.S. Navy

Kern COG also provided opportunities for federal agency participation through the Regional Planning Advisory Committee and our Environmental and Social Equity and Business and Industry Roundtable Meetings.

- 1-8 Thank you for your comment. The Regional Planning Advisory Committee was formed by the Kern COG Board to provide a forum to review and develop recommendations on key activities associated with regional transportation plans and other planning issues, including SB 375 implementation. Members of the RPAC are planning directors or community development director from each Kern COG member jurisdiction. Additional voting members include the public transit agency and Caltrans District 6. Community at-large voting members represent varied economic, social and geographic sectors and are appointed by the Kern COG Board. Non-voting members consist of the executive officer of the LAFCO and the President/CEO of the Kern Economic Development Corporation. Representatives from the regional air districts also participate in most meetings. (See Chapter 4, Pages 4-14 and 4-15 for more clarification.)

The mailing list for the Notice of Preparation of the Environment Document for the 2014 RTP included the following state and local agencies:

Kern Audubon Society	Kern County Administrator's Office
Kern County Airports Dept.	Kern County Assessor
Kern County Board of Supervisors	Kern County Clerk
Kern County District Attorney	Kern County Eng. Surv. & Permits
Kern County Env. Health Serv. Dept.	Kern County Farm Bureau, Inc.
Kern County Hispanic Chamber	Kern County Parks & Recreation
Kern County Recorder	Kern County Roads
Kern County Sheriff's Dept.	Kern County super. Of Schools
Kern County Transit Coordinator	Kern county Water Agency
Kern Delta Water District	Kern High School District
Kern Kaweah Sierra Club	Kern Mosquito Abatement Dist.
Kern Native American Heritage	Kern Planning & Comm. Dev. Dept.
Kern River Parkway Foundation	Kern River Watermaster
Kern Tulare Water District	Kern Indian Council
Kern Valley RC District	State Air Resources Board

State Clearinghouse OPR
State Dept. of Conservation
State Dept. of Parks & Rec.

State Dept. of Con. Div. of Oil & Gas
State Dept. of Fish & Wildlife
State Office of Historical Preservation

- 1-9 Thank you for your comments. General Heading, Item 4 a: Refers to residential densities and building intensities within the region. Information on growth forecasts and modeling assumptions can be found on pages 3-1, 4-23, 4-32, 4-47, 4-48, 5-1 and 5-64 as well as in Appendix G.

Item 4 f: Refers to state housing goals. Information can be found on pages 4-10 and 4-32 through 4-34 as well as in Appendix H.

Item 4 h: Refers to forecasted development patterns. Information on growth forecasts and modeling assumptions can be found on pages 3-1, 4-23, 4-32, 4-47, 4-48, 5-1 and 5-64 as well as in Appendix G.

Item 4 i: Refers to consistency between the development pattern and allocation of housing units. Information on growth forecasts and modeling assumptions can be found on pages 3-1, 4-23, 4-32, 4-47, 4-48, 5-1 and 5-64 as well as in Appendix G.

Consultation/Cooperation Heading, Item 1: Refers to the public involvement program. Information on Community Engagement can be found on pages 4-10 through 4-16 as well as in Appendix B.

- 1-10 All SHS projects are consistent with local adopted general plans. The RTP does not contain projects not included in local General Plan Circulation Elements.

- 1-11 Thank you for your comment. The following language has been added to Chapter 6, Page 6-1:

For additional information please refer to Chapter 1, Pages 1-2 and 1-3.

- 1-12 Thank you for your comment. Public participation was extensive and a combination of methods to stimulate public involvement were used.

- 1-13 Thank you for your comments. Figure 1-1 is a map of “Non Metro Bakersfield” projects either under construction, completed or existing. Figure 1-2 is a map showing the same information for Metro Bakersfield. The box on Figure 1-1 is to point the reader to Figure 1-2 for Metro Bakersfield projects.

- 1-14 Thank you for your comment

- 1-15 Page numbers have been added as appropriate

- 1-16 Thank you for your comment

- 1-17 Thank you for your comment

- 1-18 The last 4 bullets on p. 5-50 are the long range measures. The heading “Long Term 2021-2040” will be inserted in front of these bullets.

- 1-19 Thank you for your comments. Table 6-1, titled “Revenue Forecast 2014-2040 (\$ x 1,000)” identifies a series of revenue sources classified as “Other Sources”. The additional \$1.3 Billion associated with the collective grouping of these possible revenue sources do not have a regional history and therefore were not estimated individually. The collective funding assumption of \$1.3 billion is a very modest percentage (10%) of a proportionate population ratio assumption used by the federally-approved Southern California Association of Governments 2012 Regional Transportation Plan based on the life of their Plan. With regards to the request for additional information regarding odometer-based user fees, the Kern region does not have specific history with this concept and so we consider the current description to be appropriate.
- 1-20 Thank you for your comment. We know that a user-based fee is a concept under serious consideration by Federal DOT and under trial testing by several states. This idea may be worthy of future detailed analysis by this region or by the State of California.
- 1-21 Comprehensive Transportation Plan was changed to “California Transportation Plan” on Page 9-3.
- 1-22 The following text was added to Page 1-1 to discuss Senate Bill 391, the State’s role and responsibility, and a reference to the California Transportation Plan:

The California Transportation Plan (CTP) vision states the following:

California’s transportation system is safe, sustainable, and globally competitive. It provides reliable and efficient mobility and accessibility for people, goods, and services while meeting our greenhouse gas emission reduction goals and preserving community character. This integrated, connected, and resilient multimodal system supports a prosperous economy, human and environmental health, and social equity.

Senate Bill 391 states the following:

Senate Bill 391 (SB 391, 2009), the California Transportation Plan, requires the California Department of Transportation to prepare the California Transportation Plan (CTP), the long-range transportation plan, by December 2015, to reduce GHG emissions.

This system must reduce GHG emissions to 1990 levels from current levels by 2020, and 80 percent below the 1990 levels by 2050 as described by AB 32 and Executive Order S-03-05. The upcoming CTP 2040 will demonstrate how major metropolitan areas, rural areas, and state agencies can coordinate planning efforts to achieve critical statewide goals.

Letter 2: County of Kern, Planning and Development Department, Lorelei Oviatt, AICP, Director, May 6, 2014

This letter contains comments on the EIR; see EIR Responses to Comments C-1 through C-5.

- 2-1 Thank you for your comment. Kern COG provided the Metro Bakersfield example to demonstrate how Kern COG’s member agencies can bring transportation planning and land use planning together in their General Plans. Kern COG staff has added the following sentence to Chapter 3 to address how other agencies in Kern are encouraging development and land use patterns that reduce vehicle trips: “*Many of Kern COG’s*

member agencies' land use elements have incorporated policies and programs that support development and land use patterns which maximize the efficient use of land and promote reduced vehicle trips by encouraging: balanced jobs and housing, walkable spaces, infill development, mixed use development, and/or development along transit routes."

- 2-2 The following text will be added to page 4-35. A Notice of Conservation Easement can be placed on land to retain land predominantly in its natural, scenic, historical, agricultural, forested, or open-space condition. A conservation easement is a voluntary agreement between a landowner and a land trust or government agency that permanently limits the uses of the land to protect its conservation or agricultural value. The landowner retains ownership of the land, but certain restrictions are agreed on through the easement, and recorded on the deed. Eleven land trusts currently operate in Kern County, covering thousands of acres of land.
- 2-3 Comment noted. We will include the Kern Community Revitalization Program in the success stories in the final RTP/SCS.
- 2-4 See RTP MR-2

Letter 3: Rosamond Municipal Advisory Council, Olaf Landsgaard, Secretary, RMAC, April 14, 2014

- 3-1 Thank you for your comments. The community of Rosamond is part of the political body of the Kern Council of Governments as represented by two County Supervisors. As such, the concerns of the community of Rosamond are of concern to Kern Council of Governments. With specific regards to the request that "Kern Council of Governments include in its plans, in the next four years to: Pave the middle third of the three mile frontage road on the west side of Freeway 14 - and include wider shoulders for a bike lane", we commend this request to the County of Kern Roads Department for their consideration and prioritization. Should there be regional funding opportunities to finance this project, the County of Kern would be informed of such opportunities. Rosamond residents were afforded an opportunity to participate in the development of the Regional Transportation Plan (RTP). A public workshop was held on May 3, 2012, at the Hummel Community Building. The priorities selected by the participants were reducing household expenses and reducing government regulations. Participants also supported maintaining local streets and roads and adding highway capacity, primarily for trucks. Additionally, on December 20, 2012, Kern COG gave a presentation on the development of the 2014 RTP. Two notices were placed in the Rosamond News in May and two notices in December 2012.
- 3-2 Thank you for forwarding the Rosamond Municipal Advisory Council's (RMAC) Resolution 13-05. Resolution 13-05 resolves the need for a bike lane at Avenue "A" (Kern County-Los Angeles County line) to 30th West Street, a distance of .6 miles. The Kern Council of Governments (Kern COG) produced the Kern County Bike Plan and Complete Streets Recommendations in 2011 and 2012. The study was adopted by the Council in October 2012. In the study a suggested route on Sierra Highway from Rosamond Boulevard to the Los Angeles County line was proposed to be constructed as a Class II bicycle facility (striped bike lane with signage designating a bike lane). Additionally, a 9.3 mile section of Sierra Way from Rosamond Blvd to Silver Queen Road was proposed a Class III bicycle facility (route indicated by signs). The study did

- not identify the section of Avenue “A” as a proposed bicycle project. Please forward your resolution to the Kern County Roads Department to include as a bicycle transportation facilities project utilizing the Transportation Development Act Article 3 program, or as a Congestion Mitigation Air Quality program. Rosamond residents were afforded an opportunity to participate in the development of the Regional Transportation Plan (RTP). A public workshop was held on May 3, 2012, at the Hummel Community Building. The priorities selected by the participants were reducing household expenses and reducing government regulations. Participants also supported maintaining local streets and roads and adding highway capacity, primarily for trucks. Additionally, on December 20, 2012, Kern COG gave a presentation on the development of the 2014 RTP. Two notices were placed in the Rosamond News in May and two notices in December 2012.
- 3-3 Thank you for your comments. The community of Rosamond is part of the political body of the Kern Council of Governments as represented by two County Supervisors. As such, the concerns of the community of Rosamond are of concern to the Kern Council of Governments. With specific regards to the request that “Kern Council of Governments include in its plans, in the next four years to: Pave the .6 miles on Dawn Road between the 14 Freeway exit and Sierra Highway”, we commend this request to the County of Kern Roads Department for their consideration and prioritization. Should there be regional funding opportunities to finance this project, the County of Kern would be informed of such opportunities. Rosamond residents were afforded an opportunity to participate in the development of the Regional Transportation Plan (RTP). A public workshop was held on May 3, 2012, at the Hummel Community Building. The priorities selected by the participants were reducing household expenses and reducing government regulations. Participants also supported maintaining local streets and roads and adding highway capacity, primarily for trucks. Additionally, on December 20, 2012, Kern COG gave a presentation on the development of the 2014 RTP. Two notices were placed in the Rosamond News in May and two notices in December 2012.
- 3-4 Rosamond Airport (L00) is not currently registered with the Federal Aviation Administration’s (FAA) National Plan of Integrated Airport Systems (NPIAS). Once the Rosamond Airport owners/sponsors sign covenants with the FAA, they may become listed on the NPIAS and eligible to receive federal and state airport funds for planning and capital projects. When airport owners or sponsors accept funds from the FAA, they must agree to certain obligation (or assurances). The FAA’s Western-Pacific Region Office in Los Angeles may be contacted for further airport funding information. Rosamond residents were afforded an opportunity to participate in the development of the Regional Transportation Plan (RTP). A public workshop was held on May 3, 2012, at the Hummel Community Building. The priorities selected by the participants were reducing household expenses and reducing government regulations. Participants also supported maintaining local streets and roads and adding highway capacity, primarily for trucks. Additionally, on December 20, 2012, Kern COG gave a presentation on the development of the 2014 RTP. Two notices were placed in the Rosamond News in May and two notices in December 2012.
- 3-5 Kern COG’s *Commuter Rail Feasibility Study 2012* addresses the extension of Metrolink service from Lancaster to Rosamond. According to the study, the extension from Lancaster to Rosamond would require approximately \$45 million for track improvements and required facilities. Since no state or federal funding exists to meet the estimated costs of implementing the service, the Study recommended that Kern COG and Metrolink staff

monitor the corridor until funds become available. Additionally, the host railroad is not willing to share its rights-of-way with passenger rail service for the foreseeable future. Rosamond residents were afforded an opportunity to participate in the development of the Regional Transportation Plan (RTP). A public workshop was held on May 3, 2012, at the Hummel Community Building. The priorities selected by the participants were reducing household expenses and reducing government regulations. Participants also supported maintaining local streets and roads and adding highway capacity, primarily for trucks. Additionally, on December 20, 2012, Kern COG gave a presentation on the development of the 2014 RTP. Two notices were placed in the Rosamond News in May and two notices in December 2012.

- 3-6 The Federal Aviation Administration (FAA) is the administrative authority for visual and instrument airways. Currently, Mojave Airport has three departure methods for instrument metrological conditions using the published JERID FOUR DEPARTURE (RNAV). Once airborne via the JERID FOUR published departure, airmen may depart the area using the V197 airway to intercept other airways via a filed FAA instrument flight plan or via FAA navigation instructions. Rosamond residents were afforded an opportunity to participate in the development of the Regional Transportation Plan (RTP). A public workshop was held on May 3, 2012, at the Hummel Community Building. The priorities selected by the participants were reducing household expenses and reducing government regulations. Participants also supported maintaining local streets and roads and adding highway capacity, primarily for trucks. Additionally, on December 20, 2012, Kern COG gave a presentation on the development of the 2014 RTP. Two notices were placed in the Rosamond News in May and two notices in December 2012.
- 3-7 Thank you for your comments. The community of Rosamond is part of the political body of the Kern Council of Governments as represented by two County Supervisors. As such, the concerns of the community of Rosamond are of concern to the Kern Council of Governments. With specific regards to the request that “Kern Council of Governments include in its plans, in the next four years to: Lengthen the on-ramp for southbound Highway 14 from Rosamond Blvd., for 1/2 mile”, we commend this request to the County of Kern Roads Department and the California Department of Transportation (Caltrans) for their consideration and prioritization. Should there be regional funding opportunities to finance this project, the County of Kern and Caltrans would be informed of such opportunities. Rosamond residents were afforded an opportunity to participate in the development of the Regional Transportation Plan (RTP). A public workshop was held on May 3, 2012, at the Hummel Community Building. The priorities selected by the participants were reducing household expenses and reducing government regulations. Participants also supported maintaining local streets and roads and adding highway capacity, primarily for trucks. Additionally, on December 20, 2012, Kern COG gave a presentation on the development of the 2014 RTP. Two notices were placed in the Rosamond News in May and two notices in December 2012.

Letter 4: Bakersfield Public Works, Nicolas Fidler, Acting Director of Public Works, April 11, 2014

- 4-1 Revisions were incorporated into the final 2015 Federal Transportation Improvement Program document.

Letter 5: City of Shafter, Scott Hurlbert, City Manager, May 6, 2014

This letter contains comments on the EIR; see EIR Responses to Comments D-1 through D-2.

5-1 Comment noted.

5-2 The delay of the South and West Beltway projects were done in consultation with the Transportation Technical Advisory Committee and the Transportation Planning Policy Committee which approved the delay of these projects in November 2012. The strategy in Table 4-8 is taking credit for this action.

Table 4-10 is a reprint of the table in the Kern COG Policy and Procedure Manual which was reviewed and approved by the Transportation Technical Advisory Committee and the Transportation Planning Policy Committee in November 2013. The three strategies in Table 4-10 are consistent with the following SB 375 Framework Core Action strategies on p. 4-8.

“2) Identify and model transportation measures with the purpose of reducing vehicle trips and vehicle miles travelled for Kern County’s existing and planned transportation and circulation network to determine anticipated effectiveness. “

“4) Use the adopted land uses that may be amended from time to time, of Kern County and its eleven (11) incorporated cities as the forecasted development patterns.”

“5) Base all models utilized by Kern COG on locally adopted General Plans and identified regional economic centers. Any request to change the baseline model will require approval of the local city and/or county whichever has the appropriate authority.”

“6) Consistent with adopted General Plans, model strategic locations for new retail and employment uses to determine whether they reduce vehicle trips and vehicle miles traveled.”

“7) Allow for the flexibility to amend the adopted land use elements of Kern County and its eleven (11) incorporated cities based on market demands and market responses.”

“12) Develop two types of strategies within the plan: (1) strategies that reduce emissions county-wide; and (2) strategies that reduce emissions sub-regionally.”

The three strategies in Table 4-10 – 1) modifying the distribution of households, population and jobs to reduce travel; 2) rebalancing the mix of land uses; and 3) increasing the level of density – are consistent with the above adopted SB 375 Framework core actions because the alternatives analysis did NOT deviate from locally adopted General Plans and the latest local planning assumptions. All alternatives analyzed used adopted General Plan land uses as the key input for the forecasted development patterns.

5-3 Thank you for your comment. The term “land use pattern” and “land use policies” has been changed on Draft RTP pages 1-9, 3-8, 4-33 and 4-39 to “forecasted development pattern”.

- 5-4 Thank you for your comment. The language on Page 1-2 has been changed to read as follows: “State transportation planning laws (Cal. Gov’t Code § 65080 *et seq.*) also specify that actions by transportation agencies, such as Caltrans and Golden Empire Transit District, must be consistent with the RTP. Land use decisions should consider and accommodate transportation facilities and programs specified in the RTP whenever possible but are not required to be consistent with the RTP. The facilities listed in the RTP should be incorporated into city and county General Plans. Local transportation projects must be consistent with the RTP in order to obtain state or federal funding.”
- 5-5 Thank you for your update on the Paramount Logistics Park. The paragraph in the RTP has been updated with the information provided by the commenter.
- 5-6 Thank you for your comment. We will revise the following description in Table 5-1 as follows: change “Rosedale Hwy to 7th Standard Rd - construct new facility” to “Rosedale Hwy to ½ mile north of 7th Standard Rd - construct new facility”.

Letter 6: City of Shafter, Suzanne Forrest, Senior Planner, April 25, 2014

- 6-1 Thank you for your comment. The bike lane projects being referenced to are found on Page 5-11. The listed improvements for Riverside Street will be revised as follows: revise from “Riverside Street from Central Valley Hwy to Driver Road - 2.6 miles” to “Riverside Street from Central Valley Hwy to Driver Road – 3.0 miles”. Revise from “Riverside Street from Poplar Avenue to Cherry Avenue - 2.5 miles” to “Riverside Street from Poplar Avenue to Central Valley Hwy - 2.4 miles.” With regards to the series of improvements along Palm Avenue, the location of “Shafter” is sufficient since it identifies the general location of the proposed improvements. The location for “Central Avenue from Filburn Avenue to Kimberlina Road” will be revised from “Shafter” to “Wasco”. The location for “S. H Street from Taft Highway to Shafter Road” will be revised from “Shafter” to “Bakersfield County Area”. The location for “Weedpatch Hwy. from Di Giorgio Road to E. Bear Mountain Blvd.” will be revised from “Taft” to “County.”
- 6-2 The Kern County Bicycle Master Plan and Complete Streets Recommendations was tasked with identifying bicycle travel facilities within the unincorporated portions of Kern County. Funding for bicycle facilities would be available projects in Shafter as identified in the Circulation Element of the city’s General Plan.
- 6-3 Removed references to the residences and campground south of the Shafter airport.

Letter 7: City of Tehachapi, David James, Community Development Director, May 6, 2014

This letter contains a comment on the EIR; see EIR Response to Comment E-1.

- 7-1 Thank you for your comments. The Kern Council of Governments Board of Directors approved a significant update to its project delivery policy which included significant revisions to prioritization of those projects which include elements that support complete streets, smart growth and specific SB 375 compliance goals adopted by Kern COG. The Kern COG Project Selection Policy and Procedures document may be found at: http://www.kerncog.org/images/docs/policies/Project_Selection_Process_2013.pdf.

Letter 8: American Farmland Trust, Daniel O’Connell, San Joaquin Valley Program Manager, May 6, 2014

This letter contains a comment on the EIR; see EIR Response to Comment F-1.

8-1 See RTP-MR-2, RTP-MR-6 (8-1 and 8-2 are in reverse order in the letter)

8-2 See RTP-MR-6

8-3 See RTP-MR-6

Letter 9: Greater Bakersfield Chamber of Commerce, April 28 2014

This letter contains comments on the EIR; see EIR Responses to Comments H-1 through H-2.

9-1 Comment noted. See RTP-MR-4.

9-2 Comment noted. See RTP-MR-4.

Letter 10: Greater Bakersfield Chamber of Commerce, Cynthia D. Pollard, May 6, 2014

10-1 Comment noted. See RTP-MR-4.

Letter 11: California Rural Legal Assistance, Inc.; Marisa Christensen Lundin, Registered Leal Services Attorney, May 6, 2014

11-1 See RTP-MR-1.

11-2 See RTP-MR-1, MR-2.

11-3 See **RTP-MR-1** and **RTP-MR-3C**. Regarding the job/housing balance portion of this comment -- the Regional Travel Demand Model is a regional tool and is not intended to be used to model local conditions. It is the goal of the SCS to create balanced growth in each community, and the travel modeling generally reflects that goal. RTP SCS Ch. 4 Figures 4-8 and 4-9 Contain Maps that depict Transit Priority/Strategic Employment Place Types. These maps were derived based on input received during workshops in the communities of Arvin, Lamont and South Bakersfield/Greenfield. Based on the feedback of those communities and local jurisdictions, the maps show the placement of transit oriented villages, towns, community place types (see definitions, p. 4-24) as well as education and strategic employment centers throughout these communities that would become employment and retail centers. The map also shows how these places would connect via transit service corridors.

Kern COG staff reviewed the socio-economic input data used in the modeling and found that potential job increases may not be fully reflected in the modeling. The socio-economic modeling partially reflects and continues recent trends in job losses as a result of the Great Recession, rather than employment opportunities anticipated to occur in each community as a result of land use planning and emerging land use trends. Based on community input, plans and emerging trends, Kern COG has shifted 1200 jobs from Bakersfield to the communities identified above to more fully reflect potential job increases and to improve the jobs-housing balance in these communities. A sensitivity test of the transportation

modeling was undertaken to determine how this shift in jobs affects the model outputs. The sensitivity test showed that the change did not have a significant effect on vehicle miles traveled at the regional level (if anything it shows a slight decrease in VMT and criteria pollutant and GHG emissions).

- 11-4 See RTP-MR-3. In addition, this RTP fully funds maintenance of roadways in existing communities.
- 11-5 See RTP-MR-3.
- 11-6 See RTP-MR-1.
- 11-7 The ten statutory factors were considered during the development of the RHNA methodology; and the Final RHNA Plan will address the factors listed in Government Code 65584, et seq. The RHNA methodology was presented and discussed to the TPPC, RPAC, Environment and Social Equity Committee, and a public hearing and 60-day comment period were held to receive public comments. The RHNA methodology and RHNA plan was developed to be consistent with all of the objectives listed in Government Code 65584. In addition, it is consistent and coordinated with the 2014 RTP and SCS goals and requirements.

The link in the Local Government Data Survey was redirected from the Directions to 2050 website to the Kern COG website when a contract with a consultant who was updating the housing information tab on the Directions to 2050 website ended in June 2013. The information was directly transferred to <http://www.kerncog.org/regional-housing>. The Kern Regional Housing Data Report has been updated to include comments received from the Survey, California Department of Housing and Community Development (HCD), and other agencies. Version 2 of the Data Report is currently on the Kern COG housing webpage and the final version of the Data Report will be included as an attachment to the Final RHNA Plan. In addition, HCD reviewed the initial draft of the Data Report and suggested additional housing data to be included in the Data Report that is also needed for the housing element updates of local jurisdictions. The results of the survey starts are included in Appendix D of the Draft RHNA Plan (pages H-36 - H-43). The cities of Arvin, Bakersfield, Delano and Wasco responded to the survey.

- 11-8 The RHNA methodology is consistent with the 2014 RTP and SCS goals because Kern COG's RTP forecast serves as the basis of the RHNA methodology and allocation share. In addition, HCD used Kern COG's RTP forecast in determining for the regional housing needs for the projection period (2013-2023). The RTP forecast complies with all applicable statutes and regulations in relation to the RTP, SCS, and RHNA from SB 375. Local general plans, specific plans and other community plans, growth trends, and jobs/housing balance were just some of the factors that were considered in the development of RTP forecast. Consultation with local jurisdiction staff, Regional Planning Advisory Committee, and Transportation Modeling Committee was integrated in the development of the RTP forecast.
- 11-9 Based on HCD's RHNA Determination for the Kern Region during the projection period (2013-2023), 40.5% of all units are affordable (i.e., very low- and low-income). These affordable units are the minimum required that need to be addressed in the RHNA Plan and the RHNA Plan meets this minimum. In addition, the income categories of the RHNA are relative to the median income of the Kern region. The RHNA represents the

minimum amount of residential development capacity all jurisdictions must plan to accommodate through zoning and appropriate planning strategies. The RHNA is not to be used within local general plans as a maximum amount or cap of residential development to plan or approve.

- 11-10 Based on local agencies that responded to the Local Government Data Survey, there are no risks in the loss of units contained in assisted housing developments. State law requires housing elements to address the loss of assisted housing development for lower-income households. Multiple programs and funding streams make it difficult for jurisdictions to compute accurate lists of assisted properties in each jurisdiction, especially larger jurisdictions; therefore Kern COG determined the data available is insufficient and cannot be incorporated in the RHNA methodology in a consistent and rationale manner. However, Kern COG requested data of at-risk assisted housing from the California Housing Partnership Corporation and the data will be included in the final version of the Data Report.
- 11-11 The RTP forecast serves as the basis of the RHNA methodology and allocation share. The RTP forecast takes into account all residents and allocation of future growth in the Kern region, and complies with all applicable statutes and regulations in relation to the RTP, SCS, and RHNA from SB 375. Local general plans, specific plans and other community plans, growth trends, and jobs/housing balance were just some of the factors that were considered in the development of RTP forecast. Farmworker housing and related data is included in the Data Report, and the housing need of farmworkers is required to be addressed by local jurisdictions in the preparation of their housing elements.
- 11-12 Comment noted. Kern COG will be consistent and address the requirements under Government Code 65584 (d) in the Final RHNA Plan.
- 11-13 Comment noted. Kern COG will carefully consider to abide laws related to state fair housing in the Final RHNA Plan.
- 11-14 Comment noted. The ten statutory factors were considered during the development of the RHNA methodology, the Final RHNA Plan will address the factors listed in Government Code 65584, et seq.

Letter 12: Leadership Counsel for Justice & Accountability/Center on Race, Poverty & the Environment, Caroline Farrell, Executive Director/Veronica Garibay Co-Director, April 17, 2014

This letter contains a comment on the EIR; see EIR Response to Comment J-1.

- 12-1 See RTP-MR-1, RTP-MR-3
- 12-2 See RTP-MR-1, RTP-MR-2
- 12-3 See RTP-MR-2, RTP SCS Ch. 4 Figures 4-8 and 4-9 Contain Maps that depict Transit Priority/Strategic Employment Place Types. These maps were work-shopped in the communities of Arvin, Lamont and South Bakersfield/Greenfield as well as countywide. Based on the feedback of those communities and local jurisdictions, the maps show the

placement of transit oriented villages, towns, community place types (see definitions, p. 4-24) as well as education and strategic employment centers throughout these communities that would become employment and retail centers. The place types definitions do not match the SB 375 definitions for transit priority areas but are inclusive of areas that could potentially met that more restrictive definition. These transit priority place types better align with the definition proposed in your comment for transit ready areas. The jurisdictions for areas would be eligible to receive planning and financial assistance from the Kern COG technical assistance program for designing more compact, transit/bike/pedestrian friendly communities. The map also shows how these places would connect via transit service corridors. The Plan Alternative includes rebalancing of housing and jobs in outlying communities to provide a better balance and more amenities in these communities and depicted in Figures 4-8 and 4-9

12-4 See RTP-MR-3

12-5 See RTP-MR-2E.

12-6 See RTP-MR-6

12-7 See RTP-MR-3

12-8 See RTP-MR-3

12-9 See RTP-MR-2, RTP-MR-3

Letter 13: Leadership Counsel for Justice & Accountability/Center on Race, Poverty & the Environment, Roots of Resistance, California Walks, May 6, 2014

13-1 See RTP-MR-1

13-2 See RTP-MR-3

13-3 See RTP-MR-1. RTP-MR-3C. In response to the job/housing balance portion of this comment, it is important to remember that the Regional Travel Demand Model is a regional tool and issues can arise when attempting to use a regional model for local analysis. Still it is the intent of the travel modeling to rebalance growth to create a better jobs housing balance. RTP SCS Ch. 4 Figures 4-8 and 4-9 Contain Maps that depict Transit Priority/Strategic Employment Place types. These maps were work-shopped in the communities of Arvin, Lamont and South Bakersfield/Greenfield as well as countywide. Based on the feedback of those communities and local jurisdictions, the maps show the placement of transit oriented villages, towns, community place types (see definitions, p. 4-24) as well as education and strategic employment centers throughout these communities that would become employment and retail centers. The map also shows how these places would connect via transit service corridors. The Plan Alternative includes rebalancing of housing and jobs in outlying communities to provide a better balance and more amenities in these communities and depicted in Figures 4-8 and 4-9.

Kern COG staff reviewed the socio-economic input data used in the modeling and found that while some of the communities showed increased housing, jobs were remaining just above current levels. Kern COG has since added 1200 jobs to the communities in the region to improve the balance. A sensitivity test showed that that the change did not have

a significant effect on vehicle miles traveled at the regional level. We believe the issue may be due in part to the use of U.S. Census LEHD data which shows the Greater Arvin Regional Statistical Area (RSA) over the last 10 years has experienced a net job loss. Kern COG will show the increased jobs in these communities in all future modeling.

The reference to the Metropolitan Bakersfield General Plan was intended to give credit to where the place type concept came from. The Place Type maps in the RTP have been updated with input from all the local communities during the outreach process.

- 13-4 The RHNA allocation is required to be provided by jurisdiction, and not by sub areas of a jurisdiction. The distribution of the RHNA allocation in unincorporated areas should be addressed in the Kern County Housing Element.
- 13-5 The 67,575 housing units is for the projection period from 2013-2023 and was determined by the California Department of Housing and Community Development (HCD). This is the minimum housing needed to be included in the RHNA Plan. HCD is required to determine Kern COG's existing and projected housing need pursuant to State housing law. HCD worked with the Department of Finance and Kern COG during their process for the housing determination for Kern COG. There is a difference between the housing units projected in the 2014 RTP forecast and the HCD RHNA determination because the two projections have different purposes, but still integrate and are consistent with each other in the RHNA process. The 2014 RTP forecast is oriented toward actual housing production, whereas the RHNA determination is focused on planning to meet anticipated housing demand. The RTP forecast reflects the number of housing units that are likely to be built in the region based on market considerations and other policy factors. Upon completing the RHNA determination, HCD applied methodology and assumptions regarding factors from Government Code Section 65584.01(c)(1), see the Draft RHNA Plan for a copy HCD's Determination Letter to Kern COG. In addition, Kern COG worked closely with HCD during the process and provided data, assumptions, and draft RTP forecasts of population, employment and housing. Therefore the RTP and RHNA Plan are consistent because HCD uses Kern COG's RTP forecast data in determining the region's housing need for the projection period. The RHNA represents the minimum amount of residential development capacity all jurisdictions must plan to accommodate through zoning and appropriate planning strategies. The RHNA is not to be used within local General Plans as a maximum amount or cap of residential development to plan or approve.
- 13-6 Comment noted. The RHNA methodology uses an income balance parity with the Kern County state median income, so the draft allocation share for low-income housing may be lower while the above-moderate share may be higher for Bakersfield because the median income for Bakersfield is higher than the countywide average. Kern COG will analyze the low-income housing allocation in Bakersfield and will consider reallocation as appropriate.
- 13-7 In HCD's regional housing need determination to Kern COG, the income category percentages reflect the minimum percentage to apply against the total RHNA by Kern COG. Each income category is defined by Health and Safety Code (Section 50093, et seq.) and the percentages are derived from the 2007-2011 American Community Survey's number of households by income, over 12 month periods.

The Quality of Life Community Survey that is referenced on P. 5-108 – 5-109 of the Draft RTP does contain questions regarding housing options and affordability in the housing preference section of the survey. The Quality of Life Community Survey is commissioned by Kern COG, and is a statistically valid telephone survey of Kern County residents 18 and over. Survey results from 2007-2013 are available on Kern COG's website.

13-8 Appendix D of the RTP provides the required Federal Title VI analysis for transit and highway projects and clearly demonstrates that transit investment and performance measure improvements are benefitting environmental justice (EJ) communities better than the countywide averages. Roadway maintenance funding sources such as RSTP are primarily formula driven and it is up to the local jurisdiction to ensure equitable distribution of those resources within each community.

13-9 See RTP-MR-3

13-10 See RTP-MR-3

- 13-11
1. Transit Priority Place Types are not SB 375 Transit Priority Areas, and were designed to focus transit investment on these communities.
 2. See RTP-MR-3E.
 3. See RTP-MR-2E.
 4. See RTP-MR-3
 5. See RTP-MR-3E.
 6. See RTP-MR-3

13-12 Table 2-1 was updated as follows:

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
1	Mobility, Accessibility	Enhance connectivity to Meadows Field and Inyokern Airport to accommodate future regional growth	Aviation
1.1		Work with Meadows Field and Inyokern Airport to obtain funding from the state and federal governments for their respective development programs.	Aviation
1.2		Work with local and regional transit providers to increase alternative mode ground access options at Meadows Field.	Aviation
1.3		Assist Meadows Field with planning related to high-speed rail connections.	Aviation
2	Mobility, Accessibility	Assist Kern County airports in expanding facilities to meet growing general aviation demands.	Aviation
2.1		Participate in master plan updates for various Kern County airports.	Aviation
2.2		Implement the Action Plan of the Central California Aviation System.	Aviation
2.3		Work with public airports to increase their access to federal and state funding.	Aviation
3	Mobility, Accessibility	Work with privately owned airports and local jurisdictions to support their operations and to maintain compatible uses within the airport area of influence.	Aviation
3.1		Work with the JLUS committee to implement planning activities listed in the JLUS for R-2508 airspace (China Lake Naval Air Weapons Station and Edwards Air Force Base).	Aviation
3.2		Implement planning actions and strategies listed in the JLUS for R-2508.	

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
4	Mobility, Accessibility, Sustainability	Enhance and connect existing and future bikeways and pedestrian walkways in the Kern region.	Active Transport (AT), Air Emission
4.1		Seek and assist member agencies to apply for funding for bicycle and pedestrian projects from local, state, and federal sources.	AT
4.2		Seek and assist member agencies to apply for funding to maintain existing bikeways and pedestrian walkways.	AT
5	Mobility, Accessibility	Encourage and assist Kern COG member jurisdictions to implement their adopted local bicycle plans and to incorporate bicycle facilities into local transportation projects.	AT, Air Emissions
5.1		Fund updated bicycle plans for incorporated cities and unincorporated communities.	AT
5.2		Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, create and fund pedestrian/bicycle facilities.	AT
6	Mobility, Accessibility	Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, update and fund regional and local plans that promote bicycle and pedestrian travel.	AT, Air Emissions
6.1		Fund a Pedestrian facilities Plan for the County of Kern as well as incorporated cities.	AT
6.2		Periodically update the Kern Regional Bicycle Plan.	AT
7	Livability	Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, promote and fund sustainable community design that supports transit use and increases active transportation (AT) while still meeting the mobility needs of residents and employees.	AT, Public Transit, Air Emissions
7.1		Purchase and construct bicycle racks and lockers for Kern County multimodal stations.	AT
7.2		Purchase and construct bike tie-downs and racks on commuter trains and buses.	AT
7.3		Implement Rapid bus Improvements when financially feasible throughout the County.	Transit
7.4		Introduce Express bus service along SR 178/24th Street/Rosedale Highway and SR 99.	Transit
7.5		Consider Bus Rapid Transit in exclusive lanes with traffic signal priority.	Transit
7.6		Consider funding a feasibility study to explore additional Express bus service throughout the county.	Transit
7.7		Consider ramp metering.	Transit
7.8		Consider peak period only HOV lanes.	Transit
7.9		Consider converting BRT corridors to light rail transit.	Transit
7.10		Consider additional peak period HOV lanes.	Transit
7.11		Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, create and fund pedestrian/bicycle facilities	AT
8	Mobility, Accessibility	Identify additions and alternatives that would improve the overall quality of transit service in Kern County.	Transit, Air Emissions
8.1		Assist KRT in refining KRT scheduling practices.	Transit
8.2		Encourage KRT to consider route reconfiguration within Downtown Bakersfield.	Transit
8.3		Assist KRT in analyzing stop placements.	Transit
8.4		Consider a new GET Transit Center at CSU Bakersfield.	Transit
8.5		Increase GET services to CSU Bakersfield and Bakersfield College.	Transit
8.6		Consider introducing “full” GET Bus Rapid Transit.	Transit
8.7		Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, create and fund pedestrian/bicycle facilities.	Air Emissions

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
8.8		Implement traffic flow improvements/railroad grade separations.	Air Emissions
8.9		Promote park and ride lots.	Air Emissions
8.10		Consider High Occupancy Vehicle (HOV) lane additions: Centennial Corridor provides room to accommodate HOV.	Air Emissions
8.11		Encourage transit providers to consider lower transit fares or transit subsidies.	Air Emissions
8.12		Implement flextime program.	Air Emissions
9	Mobility, Accessibility	Identify and fund as appropriate alternatives to traditional transit that address Kern County's regional transit (KRT) rural mobility needs.	Transit, Air Emissions
9.1		Assist KRT in refining KRT scheduling practices.	Transit
9.2		Consider KRT route reconfiguration within Downtown Bakersfield.	Transit
9.3		Assist KRT in analyzing stop placements.	Transit
9.4		Initiate discussions with the Southern California Regional Rail Authority regarding the extension of Metrolink from Lancaster to Rosamond.	Transit
9.5		Continue pursuing extension of Metrolink from Lancaster to Rosamond. (Transit)	Transit
9.6		Initiate discussions with the State regarding adding stops to Amtrak San Joaquin service between Bakersfield and Wasco.	Transit
9.7		Create and promote ridesharing and voluntary employer-based incentives.	Air Emissions
10	Mobility, Accessibility	Develop coordination alternatives that would realize improvements over current Golden Empire Transit (GET) and other transit operations.	Transit, Air Emissions
10.1		GET may consider decreasing emphasis on timed connections at transit centers.	Transit
10.2		GET may consider faster crosstown trips: <ul style="list-style-type: none"> • New Express routes • New "Rapid" routes • More direct routes 	Transit
10.3		GET may consider faster crosstown service connecting one side of Bakersfield to the other.	Transit
10.4		GET may consider circular services within neighborhoods or around outlying areas of Bakersfield.	Transit
10.5		Continuation of GET express routes.	Transit
11	Mobility, Accessibility	Review, identify, and discuss alternative administrative and oversight models for transit services in Kern County.	Transit, Air Emissions
12	Mobility, Accessibility	Create strategies to increase the visibility and importance of transit in Kern County.	Transit, Air Emissions
12.1		Monitor advancement of the California High-Speed Rail (HSR) project.	Transit
12.2		Introduce GET hybrid Circulator/Express service.	Transit
12.3		Develop special presentations, workshops and studies for member agencies on transportation-related control measure strategies for air pollution emissions as new standard, technology, and funding opportunities evolve.	Transit
13	Mobility, Accessibility	Create partnerships between transit and social services agencies in addressing Kern County's transit needs.	Transit, Air Emissions

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
14	Mobility, Accessibility	Improve intercity connections and provide new services to expand the transportation alternatives in the Eastern Sierra region.	Transit, Air Emissions
14.1		Initiate discussions with the Southern California Regional Rail Authority regarding the extension of Metrolink from Lancaster to Rosamond.	Transit
14.2		Initiate discussions with the State regarding adding stops to Amtrak San Joaquin service between Bakersfield and Wasco.	Transit
14.3		Create ridesharing and voluntary employer-based incentives.	Air Emissions
14.4		Reassess feasibility of commuter rail in various corridors.	Transit
14.5		As HSR proceeds to construction: <ul style="list-style-type: none"> Identify preferred corridor to connect Bakersfield and Delano with commuter rail/HSR feeder service Identify potential funding for commuter rail operations Work with local transit providers to connect riders to commuter rail/HSR 	Transit
15	Mobility, Sustainability	Investigate new federal, state, and local funding opportunities to maintain the current transportation system and promote future transportation development.	Highways
15.1		Pursue ground access improvements for Meadows Field.	Highways
15.2		Upgrade the present highway maintenance system whenever feasible.	Highways
15.3		Maintain and enhance existing roadway infrastructure and provide for its efficient use.	Highways
16	Mobility, Accessibility, Sustainability	Work with Caltrans, COG member agencies, and other interested parties to prepare environmental studies and design engineering plans.	Highways
16.1		Widen State Route 119 near Taft	Highways
16.2		Widen State Route 14 near Freeman Gulch/Inyokern.	Highways
17	Mobility, Accessibility, Sustainability	Provide input to neighboring counties conducting Corridor Studies for routes significant to the Kern region.	Highways
17.1		Participate in San Bernardino County's study for the US Highway 395 corridor.	Highways
17.2		Review and analyze available rest areas, layover lots, and truck stops to determine needs for additional parking related to long-distance travel.	Highways
17.3		Implement the recommendations from completed transportation planning studies when appropriate and feasible.	Highways
18	Mobility, Accessibility, Efficiency	Review countywide transportation impact fees and encourage member agencies to invest in active transportation, public transit and maintenance of local streets and roads.	Highways
18.1		Encourage local governments to consider pursuing alternative funding sources such as regional TIFs where justified as a necessary means to address transportation needs.	Highways
19	Livability	Delay the need for future increases in highway capacity and congestion through the implementation of measures that reduce transportation related air emissions.	Highways, Air Emissions
19.1		Pursuant to Transportation Development Act Statutes, encourage member agencies to improve public transit in all communities.	Air Emissions
19.2		Create ridesharing and voluntary employer-based incentives.	Air Emissions
19.3		Facilitate traffic flow improvements/railroad grade separation.	Air Emissions

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
19.4		Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, create pedestrian/bicycle facilities.	Air Emissions
19.5		Consider High Occupancy Vehicle (HOV) lane additions: Centennial Corridor provides room to accommodate HOV.	Air Emissions
19.6		Consider implementing flextime program.	Air Emissions
20	Mobility, Accessibility	Prepare a systems-level planning analysis of various transportation system alternatives using multimodal performance measures.	Highways, Air Emissions
20.1		Maintain Regional Traffic Models to aid in traffic and air quality analyses. Air emissions	Air Emissions
21	Mobility, Accessibility, Efficiency, Livability	Coordinate planning efforts to ensure efficient, economical, and environmentally sound movement of goods.	Highways, Freight
21.1		Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, prioritize and program the capital improvements for highways, regional roads, and interchanges for the RTP planning period, consistent with adopted goals and policies as feasible.	Highways
21.2		Support higher safety level requirement for hazardous material transport on interstates, state highways, and local roads.	Highways
21.3		Encourage coordination and consultation between the public and private sectors to explore innovative and efficient goods movement strategies.	Freight
21.4		Identify opportunities for truck-to-rail and truck-to-intermodal mode shifts, and evaluate the contributions of truck traffic on regional air quality.	Freight
21.5		Encourage the use of rail and air for goods movement to reduce impacts to state and inter county routes and lessen air quality impacts.	Freight
21.6		Oppose higher axle load limits for the trucking industry on general purpose roadways.	Freight
22	Mobility, Accessibility, Efficiency	Advocate programs and projects for the intermodal linkage of all freight transportation.	Highways, Freight
22.1		Consider constructing truck climbing lanes on eastbound SR 58 from General Beale Road to the Bena Road overcrossing. (Freight)	Freight, Highways
22.2		Program Infrastructure improvements such as widening of Seventh Standard Road in response to proposed freight movements activities in the area. (Freight)	Freight
22.3		Widen State Route 184 to four lanes to respond to increasing agriculture trucking activity. (Freight)	Highways, Freight
22.4		Widen Wheeler Ridge Road to four lanes as a gap-closure measure to tie I-5 to SR 58 via SR184.	Highways, Freight
23	Mobility, Efficiency	Develop an annual freight movement stakeholders group for coordination and expansion efforts.	Freight
23.1		Encourage communication between short-line rail operators, shippers, and economic development agencies.	Freight
23.2		Explore options for potential uses of the southern portion of Arvin Subdivision as identifies in the Kern County Rail Study Phase 2.	Freight
24	Mobility, Reliability, Efficiency	Explore rail intermodal, transfer facility, and alternative transfer options for the region.	Freight
24.1		Continue development of the Paramount Logistics Park for intermodal freight transfer activities.	Freight

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
24.2		Continue development of the Delano RailEx Facility for intermodal freight shipping to the east coast.	Freight
24.3		Expand rail service to existing distribution centers throughout Kern County when feasible.	Freight
25	Mobility, Accessibility, Equity	Maintain liaison with Southern California Association of Governments and all San Joaquin Valley Councils of Government for efficient coordination of freight movement between regions and counties.	Freight
25.1		Work with other agencies to create an effective Central Valley-wide truck model to track regional commodity flows and to identify critical economic trends that will drive truck flows on regionally significant truck routes.	Freight
26	Mobility, Reliability, Accessibility, Equity	Provide heavy truck access planning guidance, including a review of the current surface transportation act route system, review of geometric issues, and signaling for all routes identified as major local access routes, as well as the development of performance standards.	Freight, Air Emissions
26.1		Add “missing links” (streets) to roadway network that reduce out of direction travel: Centennial Connector will provide a major free flow traffic connector that will improve air quality by reducing stop and go truck travel on local arterials. Hageman Flyover Project will provide another east/west connection over SR 99 to downtown Bakersfield central business district; Mohawk Street Extension provides an extension from Rosedale Highway south that connects to Truxtun Avenue accessing downtown Bakersfield.	Freight, Air Emissions
27	Accessibility, Reliability, Livability, Sustainability	Provide, as feasible, technical and planning assistance to local jurisdictions for land use, air quality and transportation planning.	Land Use, Air Emissions
27.1		Facilitate the Shafter Intermodal Rail Facility by programming infrastructure to service rail and truck traffic that may be generated by the facility.	Land Use, Air Emissions
27.2		Use the California Environmental Quality Act (CEQA) review process to inform stakeholders and decision makers on the impacts of sensitive land use developments near vital transportation infrastructure necessary to handle increasing air traffic and international cargo, as well as increasing inland port activity.	Land Use, Air Emissions
27.3		Work with the Kern County Department of Airports and local planning departments to preserve existing airports from encroachment by sensitive land uses to strategic global gateways.	Land Use
27.4		Use the CEQA review process to inform stakeholders and decision makers on the impacts of sensitive land use developments near vital transportation infrastructure necessary to handle increasing local, intercity, and interregional transit use.	Land Use, Air Emissions
27.5		Implement the long-range 2014 RTP in partnership with member agencies to preserve near- and long-term transportation infrastructure, thus promoting the gradual intensification of transit use when market demand for compact land uses increases.	Land Use, Air Emissions
27.6		Allow reduced parking requirements near transit centers that have alternative modes of access such as walking and bike paths, circulator buses, etc.	Land Use, Air Emissions
27.7		Monitor progress and allocate funding toward implementing principles developed by the Directions to 2050 outreach process pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013.	Land Use, Air Emissions
27.8		Encourage cities and the county to provide parking requirements (and parking provision) compatible with compact, pedestrian, and transit-supportive design and development. Requirements should account for mixed uses, transit access, and the linking of trips that reduce reliance on automobiles and total parking demand.	Land Use, Air Emissions
27.9		Promote land use along freight corridors that are compatible with goods movement traffic.	Land Use

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
28	Accessibility, Efficiency, Livability, Sustainability	Encourage land use planning by Kern COG local government member agencies that recognizes Kern's large area, dispersed centers and unique geographic features of the region.	Land Use, Air Emissions
28.1		Implement the Directions to 2050 Growth principles vision for economic vitality by planning and programming infrastructure to provide connectivity to air traffic and international cargo facilities.	Land Use
28.2		Monitor progress and allocate funding toward implementing regional principles developed by the Directions to 2050 visioning process consistent with local general plans pursuant to the project Delivery Policies and Procedures adopted November 21, 2013	Land Use
29	Accessibility, Efficiency, Livability, Sustainability	Promote land use patterns that support current and future investments in public transit and that might support future commuter- and high-speed rail alternatives.	Land Use, Air Emissions
29.1		Encourage the adoption of general plan circulation elements that address transit, bike, and pedestrian modes. Consider specific plan lines and form-based codes where appropriate to implement transit improvements along designated transit corridors that connect transit-priority place types and centers.	Land Use, Air Emissions
29.2		Work with Golden Empire Transit, Kern Regional Transit, other local transit providers, and local land use planners to preserve existing and future transit opportunities from the encroachment of low-density land uses within transit-priority place types and centers.	Land Use, Air Emissions
29.3		Encourage the expansion of transportation choices and transit usage by providing housing choices that include more compact and mixed land uses within walking distance to transit priority place types and centers.	Land Use, Air Emissions
29.4		Identify and space transit oriented village, town, and suburban/community centers a minimum of 1 to 4 miles apart.	Land Use, Air Emissions
29.5		Provide convenient and safe walking and bike paths to a fixed transit hub at each transit priority place type.	Land Use, Air Emissions
29.6		Promote more compact and mixed-use centers along transit corridors, where appropriate, to support more intense transit options such as Bus Rapid Transit, light rail and active transportation as areas become revitalized.	Land Use, Air Emissions
29.7		Land uses should be mixed both horizontally and vertically where appropriate. Vertical mixed use, with ground-floor retail in developed areas and activity centers as identified through local land use plans, can increase the vitality of the street and provide people with the choice of walking to desired services. More important for Bakersfield, mixing uses horizontally can prevent desolate, single-use areas and encourage increased pedestrian activity; scale of use and distance between uses are important to successful horizontal mixed-use development.	Land Use, Air Emissions
29.8		Support and enhance transit priority and strategic employment place types. These areas have a strong impact on transportation patterns as the major destinations. To make these places more transit-supportive, they should be enhanced by land use decisions that locate new housing and appropriately scaled retail and employment uses to diversify the mix, creating an environment that maximizes transportation choice.	Land Use, Air Emissions

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
29.9		Encourage cities and the county to provide land use intensities where appropriate at levels that will promote use of transit and support pedestrian and bicycle activity. A general threshold for transit-supportive residential uses is 10 to 15 units per acre within ½ mile of a high-frequency transit stop (15 min. headways or less). This density can be lower, however, if the urban environment supports easy pedestrian/bike access to transit. Nonresidential uses with a floor area ratio (FAR) of 0.5 provide a baseline that can support viable transit ridership levels. Local land use plans should provide flexibility to maximize the intensity of development in transit priority place types to be more responsive to changing market conditions.	Land Use, Air Emissions
29.10		Encourage the adoption of general plan circulation elements with specific plan lines as appropriate to preserve goods movement corridors and high frequency transit corridors.	Land Use, Air Emissions
29.11		The transportation and circulation framework should define compact districts and corridors that are characterized by high connectivity of streets to not overly concentrate traffic on major streets and to provide more direct routes for pedestrians, good access to transit, and streets that are designed for pedestrians and bicycles, as well as for vehicles.	Land Use, Air Emissions
29.12		New residential developments should include streets that provide connectivity. Cul-de-sacs and walls around communities are especially challenging for providing effective pedestrian and bike access to public transit.	Land Use, Air Emissions
29.13		Streets should be designed to support use by multiple modes, including transit, bicycles, and pedestrians, through proper scaling and provision of lighting, landscaping, and amenities. Amenities must be designed to provide comfortable walking environments.	Land Use, Air Emissions
29.14		Buildings should be human scaled, with a positive relationship to the street (e.g. entries and windows facing onto public streets, and appropriate articulation and signage). (Land Use – Highway/Road)	Air Emissions
29.15		The impact of parking on the public realm should be minimized by siting parking lots behind buildings or screening elements (walls or landscaping). Buildings should be close to the road so parking can be located on the side or in the rear.	Land Use, Air Emissions
30	Accessibility, Efficiency, Livability, Sustainability	Promote increased communication with neighboring jurisdictions on interregional land use issues, including the coordination of land use decisions and transportation systems.	Land Use, Air Emissions
30.1		Coordinate with the County of Kern, City of Bakersfield, and City of Shafter on the proposed expansion of Meadows Field in the County of Kern Airport Master Plan.	Land Use
30.2		Coordinate with the Southern California Association of Governments, the Metropolitan Transportation Commission, and the ports to minimize impacts of port activity through Kern County.	Land Use, Air Emissions
30.3		Coordinate with the Kern County Department of Airports, municipalities and airport districts to establish intermodal connectivity for rail, trucking, transit, and passenger vehicles.	Land Use, Air Emissions
30.4		Coordinate with Golden Empire Transit, Kern Regional Transit, and the Kern County Department of Airports to improve intermodal connectivity between transit systems and Meadows Field.	Land Use, Air Emissions
30.5		Continue to use the CEQA review process to inform stakeholders and decision-makers on the impacts of sensitive land use developments near vital transportation infrastructure.	Land Use, Air Emissions
30.6		Work with member agencies to preserve existing and future road and highway rights-of-way from the encroachment of sensitive land uses. (Land Use – Highway/Road)	Land Use, Air Emissions
30.7		Implement the long-range 2014 RTP in partnership with member agencies to preserve near- and long-term transportation infrastructure that promote the preservation of goods movement routes and facilities. (Land Use – Highway/Road)	Land Use, Air Emissions

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
30.8		Transit improvement projects should be targeted at areas with transit-supportive land uses (existing and planned) in and around key destinations and projects that can increase pedestrian activity. (Land Use – Highway/Road)	Land Use, Air Emissions
30.9		Relax roadway level of service (LOS) standards in high-priority transit corridors. In high-demand, high-capacity transit corridors.	Land Use, Air Emissions
30.10		Special presentations and workshops for member agencies on transportation-related emission reduction strategies for air pollution emissions as new standards, technology, and funding opportunities evolve.	Air Emissions
31	Mobility, Efficiency	Support more efficient use of the transportation system through the implementation of Intelligent Transportation Systems technology	Land Use, Air Emissions
31.1		Build upon the momentum and stakeholder coalition generated through the San Joaquin Valley Goods Movement Study to pursue Intelligent Transportation Systems, ITS commercial vehicle projects.	ITS
31.2		Investigate how ITS can support efforts to improve east/ west travel between the inland areas and coastal communities.	ITS
31.3		Use momentum from the valley-wide ITS planning effort in conjunction with federal rules (ITS architecture and standards conformity and statewide and metropolitan planning) to expand ITS actions.	ITS
31.4		Build upon the existing Caltrans District 6 Traffic Management Systems to fill gaps and complete coverage on major facilities, including expansion of their highway closures and restrictions database, to include other agencies.	ITS, Air Emissions
31.5		Capitalize on the extensive ITS technology testing and standards development conducted by Caltrans by using, where appropriate, Caltrans approaches for local traffic management systems.	ITS, Air Emissions
31.6		Build upon lessons learned from past and current transit ITS deployment experience in the San Joaquin Valley (Fresno Area Express, Golden Empire Transit, and San Joaquin Regional Transit).	ITS, Air Emissions
31.7		Build upon Caltrans District 6 experience with sharing facilities, equipment, and information between traffic management and California Highway Patrol staff.	ITS, Air Emissions
31.8		Provide traveler information for commercial vehicle operators at truck rest stops.	ITS, Air Emissions
31.9		Improve visibility and access to existing Caltrans' valley-wide alternate route plans.	ITS, Air Emissions
31.10		Coordinate the Bakersfield area Transportation Management Center with Caltrans' District 6 Transportation Management Center via satellite.	ITS, Air Emissions
31.11		Integrate the ITS capabilities being implemented at Golden Empire Transit (GET) with Bakersfield's traffic management system, including sharing information between the two centers during emergencies.	ITS, Air Emissions
31.12		Facilitate the transfer of lessons learned from GET ITS deployment to other area transit operators, and look for opportunities for those agencies to better coordinate with GET using its capabilities.	ITS, Air Emissions
31.13		Expand the accident reduction campaigns on Kern's rural highways.	ITS, Air Emissions
32	Livability	Achieve national and state air quality standards for healthy air by the mandated deadlines.	Air Emissions

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
32.1		Maintain air quality coordination MOU with the San Joaquin Valley Metropolitan Planning Organizations, San Joaquin Valley and East Kern Air Pollution Control District, and Caltrans Districts 6 and 10.	Air Emissions
32.2		Identification of all Reasonably Available Control Measures (RACM) for ozone and all Best Available Control Measures (BACM) for PM10 by Kern COG's member agencies.	Air Emissions
32.3		Coordinate with all necessary responsible agencies to implement feasible transportation control measures that limit harmful air emissions.	Air Emissions
32.4		Support special presentations and workshops for member agencies on transportation-related emission reduction strategies for air pollution emissions as new standards, technology, and funding opportunities evolve.	Air Emissions
32.5		Seek funding options for Congestion Mitigation Air Quality Program (CMAQ), AB 2766 Motor Vehicle Emissions Reductions Program, and other sources that allow allocations for air emission reduction strategies.	Air Emissions
33	Equity	Take a proactive in implementing Federal Title VI Environmental Justice requirements to ensure non-discrimination.	Environ. Justice
33.1		Avoid, minimize, and/or mitigate disproportionately high and adverse human health or environmental effects, including social and economic impacts, on traditionally disadvantaged communities, especially racial minority and low-income communities.	Environ. Justice
33.2		Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.	Environ. Justice
33.3		Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.	Environ. Justice

- Item 4.3 Please see comment RTP-MR-3
- Item 8 Please see comment RTP-MR-2F, -3B, & -3C
- Item 8.13 Duplicative of policies 8.5 & 8.11
- Item 20.2/33.1 Please see comment RTP-MR-2F, -3B, & -3C, Note that the RTP EIR contains mitigation measures that are to be used with local projects that qualify for CEQA streamlining or are tiering off the programmatic level RTP EIR.
- Item 29 Please see comment 13-11 above.
- Item 29.1 Please see comment 13-11 above.
- Item 29.2 Please see comment 13-11 above.
- Item 29.5 Please see comment 13-11 above.
- Item 29.12 Please see comment RTP-MR-3E
- Item 30.8 Please see comment RTP-MR-3E
- Item 33.4 Please see comment RTP-MR-2F, -3B, & -3C
- Item 33.5 Please see comment RTP-MR-2F, -3B, & -3C
- Item 33.6 Please see comment RTP-MR-4
- Item 33.7 Please see comment RTP-MR-2E
- Item 33.8 Please see comment RTP-MR-2E

13-13 Relevant portions of the Health Impact Assessment are discussed and responded to in detail in letters 11 thru 13.

Letter 14: Home Builders Association of Kern County, Matt Towery, President, May 5, 2014

This letter contains comments on the EIR; see EIR Responses to Comments K-1 through K-3.

This letter contains comments on the EIR; see EIR Responses to Comments K-1 through K-3.

14-1 Comment noted. See RTP-MR-1

14-2 See RTP-MR-5

Letter 15: Sierra Club Kern Kaweah Chapter, Craig Breon, April 28, 2014

15-1 See RTP-MR-1. This comment was forwarded to CARB.

15-2 See RTP-MR-1.

15-3 See RTP-MR-1.

15-4 See RTP-MR-1. Table 4-7 Footnote 1 states: “*Note that SB 375 related CO2 emission reductions from strategies and assumptions are not additive. When run separately some strategies result in a larger change in emission because they compete with each other for trips when combined in a single model run...*” The only way to provide an understanding of the impact of each strategy and modeling assumption is to run the model separately without that strategy, one at a time. The separate runs cannot be added up and expected to total the combined model run for the Plan Alternative because they are separate sensitivity test runs.

Footnote 1 also mentions other strategies that are in the base year that could not be easily broken out. “*...Many strategies are included in the model based on model inputs from household travel surveys (lower multi-family trip generation rates, high vehicle occupancy rates), traffic data, etc. that are difficult to analyze because they exist in the base year condition...*” This footnote mentions that changes observed in the model data input from traffic counts, and household travel surveys between 2005 and 2008 can also affect the CO2 emissions per capita. In addition, changes in trip distribution and mode choice between sensitivity runs do not remain the same between sensitivity runs and the combined run making it impossible to add the cumulative totals of the sensitivity runs and expect them to add up to the combined model run.

The following are responses to questions asked in this section of the comment letter:

- *Why use a base year for pricing of 2013 rather than 2005?* The base year for the model is 2008. The base year for most other analysis is the most recent year observed data was available (2013).
- *What dollar values were assumed?* The base year for pricing used year 2000 dollars as illustrated in Table MR-1B. *2005 or 2013 dollar values would reduce over time due to inflation, likely reducing the impact of gas price increases on VMT.* See RTP-MR-1D.
- *Were forecasted changes in wages over time factored into this equation?* Yes, the inclusion of CPI controls for changes in wages over time.
- *Were the impacts of increased fuel efficiency on perceptions of gas price*

increases included? Yes, See RTP-MR-1D.

15-5 See RTP-MR-1.

15-6 See RTP-MR-1E.

15-7 See RTP-MR-1. Kern COG would agree that honesty is always the best policy which is why it has fully disclosed the effects of its modeling assumptions and strategies for the SCS, which were developed in close consultation with CARB and independent peer review experts.

15-8 Kern COG contacted CARB and learned that a meeting between CARB and the commenters was held. It is our understanding the commenters were informed by CARB staff that increased future fuel and auto operating cost assumptions are common best practice by all MPOs in their SB 375 modeling.

Letter 16: Sierra Club Kern Kaweah Chapter, Craig Breon, May 6, 2014

This letter contains comments on the EIR; see EIR Responses to Comments L-1 through L-22.

16-1 See RTP-MR-1.

16-2 See RTP-MR-1.

16-3 See RTP-MR-1.

16-4 See RTP-MR-1. V

16-5 See RTP-MR-1. The following are responses to questions asked in this section of the comment letter:

- *Why use a base year for pricing of 2013 rather than 2005 (the base year for measuring GHGs under SB 375)?* The base year for the model is 2008. The base year for most other analysis is the most recent year observed data was available (2010). *How would using 2005 change the result?* The price of fuel in 2005 according to the data provided by MTC was \$2.52 per gallon rather than \$3.65 per gallon, or served 30% lower.

- *What dollar values were assumed?* The base year for pricing used year 2000 dollars as illustrated in Table MR-1B. *2005 or 2013 dollar values would reduce over time due to inflation, likely reducing the impact of gas price increases on VMT. What rate of inflation was assumed over time?* See RTP-MR-1D.

- *Were forecasted changes in wages over time factored into this equation?* Yes, the inclusion of CPI controls for changes in wages over time.

- *Were the impacts of increased fuel efficiency on the response of drivers to gas price increases included?* Yes, See RTP-MR-1D.

16-6 The following are responses to questions asked in this section of the comment letter:

- *Assuming gas price increases lead to reduced car trips, does that then lead to greater use of transit or biking and walking and, if so, has that been factored into Kern COG's modeling? Yes. If so, what were the Implications for the RTP?* The Plan Alternative shows additional emissions reduction that cannot be attributed to the individual strategies and assumptions modeled in the

individual sensitivity tests. Evidence suggests that the alternative transportation modes may receive a boost in emissions reduction in the combined run than when isolated in the sensitivity test run. More research is suggested to analyze this apparent effect.

• *Are there equity Impacts to the rise in gas prices that could be mitigated through the RTP/SCS or EIR process?* See RTP MR-3C.

16-7 See MR-1G.

16-8a Thank you for your comments. Based on the revenue projections provided in Table 6-1, Out of the estimated \$11 Billion of expected revenue over the life of the Plan, it is estimated that Kern COG has control over approximately 14% or \$1.6 Billion – over the life of the Plan. Of the \$1.6 Billion, \$1.1 Billion is estimated from the STIP program. Kern COG’s entitlement and control of this revenue source is still dictated by the state guidelines. Approximately \$500 million remains over the life of the Plan – these revenue sources include “CMAQ”, “RSTP” and “ATP”. We expect a larger percentage of these dollars to be directed to projects that advance SB 375 policies and goals through the updated Kern COG Project Delivery Policies and Procedures. The above estimate does not include revenue from the projected “Other” categories because the revenue source is unknown at this time.

16-8b See MR-3G.

16-9 In 2040, Kern COG is anticipated to have a challenge meeting the mandatory National Ambient Air Quality Standards (NAAQS) for 8-hr. Ozone NOx precursor emissions. Called conformity, failure to demonstrate attainment of this standard would result in the region’s regionally significant projects not being allowed to advance to the next phase, bringing construction of road widening projects to a halt. In 2040 Kern COG is estimated to be within 6/100ths of a ton of the federal conformity budget for NOx. Fortunately, many of the strategies used to reduce emissions under SB 375 also assist NOx emission reductions. New projects are required to mitigate federal criteria pollutants to zero. Unfortunately, trucking, the largest transportation source of NOx emissions is not subject to SB 375; however, it is subject to AB 32. The Kern region has a court tested methodology to quantify and mitigate emissions by a new development.

Letter 17: American Lung Association, Heather Dumais, San Joaquin Valley Advocacy Coordinator, May 6, 2014

17-1 See RTP MR-1

17-2 See RTP MR-2

17-3 See RTP MR-3

Letter 18: Southern Sierra Partnership, Adam Livingston, Coordinator, May 5, 2014

This letter contains comments on the EIR; see EIR Responses to Comments M-1 through M-2.

18-1 See RTP MR-2

18-2 See RTP MR-2, MR-3 and MR-6.

- 18-3 See RTP MR-2 & MR-3. On April 17, 2014 at the RTP public hearing in Bakersfield, of the 30 people that spoke, approximately 7 people spoke in favor of the 33% alternative and 2 spoke against the 33% alternative. On April 15, 2014 at Cal City public hearing of the 5 people who spoke no-one mentioned the 33% alternative. On May 15, 2014, after the close of the public review period, at the Kern COG Board meeting approximately 15 people spoke on an informational item about the adoption schedule for the 2014 RTP. At that meeting the majority spoke in opposition to the 33% alternative and no-one spoke in favor.
- 18-4 See RTP MR-2 and response to 18-2 above.
- 18-5 See RTP MR-6.
- 18-6 Kern COG's continued use of Uplan GIS based land use model, allows innovative consideration of discouragement overlay layers in the development the RTP growth forecast. The potential to take the conservation framework data from the County General Plan update and use it in the next update to the RTP is consistent with the approach in the Eco-Logical report. Kern COG has a long history of supporting efforts that reduce project cost, and we look forward to partnering with SSP in these efforts.
- 18-7 See RTP MR-2.
- 18-8 See RTP MR-3.
- 18-9 See RTP MR-3.
- 18-10 This comment is being forwarded to Caltrans, the lead on the Route 58 Connector project. Initially Caltrans requested a 300 ft. right of way for the project and that footprint has since been reduced to 210 ft., and a parallel bike corridor including a canal bridge has been requested to be incorporated into the project and connect to the Kern River Bike path.
- 18-11 See RTP MR-2 & MR-3. It is important to note that that the plan proposes adding over 1000 miles of bike lanes with the bulk of those miles connecting to rural, disadvantaged communities.
- 18-12 See RTP MR-2 & MR-3.
- 18-13 See RTP MR-1.
- 18-14 See RTP MR-1.
- 18-15 See RTP MR-1.

Letter 19: Development Consulting Services, Donna L. Carpenter, Principal, May 6, 2014

This letter contains a comment on the EIR; see EIR Response to Comment N-1.

- 19-1 See RTP MR-4 and MR-5
- 19-2 See RTP MR-4 and MR-5

Letter 20: Western Properties, Tom Dee, Vice President, May 5, 2014

This letter contains a comment on the EIR; see EIR Response to Comment O-1.

20-1 See RTP MR-4 and MR-5

20-2 See RTP MR-5 and MR-5

Letter 21: Towery Homes, Matt Towery, President, May 5, 2014

This letter contains a comment on the EIR; see EIR Response to Comment P-1.

21-1 See RTP MR-4 and MR-5

21-2 See RTP MR-4 and MR-5

Letter 22: Tejon Ranch Company, Derek C. Abbott, Vice President, May 5, 2014

This letter contains comments on the EIR; see EIR Responses to Comments Q-1 through Q-8.

22-1 See RTP MR-4 and MR-5

22-2 See RTP MR-4 and MR-5

Letter 23: Ted James, AICP, May 6, 2014

This letter contains comments on the EIR; see EIR Responses to Comments R-1 through R-8.

23-1 See RTP MR-4 and MR-5

23-2 See RTP MR-4 and MR-5

Letter 24: Lenox Homes, David Cates, President, May 5, 2014

This letter contains a comment on the EIR; see EIR Response to Comment S-1.

24-1 See RTP MR-4 and MR-5

24-2 See RTP MR-5 and MR-5

Letter 25: Lennar Central Valley, Mike Miller, Division President, May 5, 2014

This letter contains a comment on the EIR; see EIR Response to Comment T-1.

25-1 See RTP MR-4 and MR-5

25-2 See RTP MR-5 and MR-5

Letter 26: Landscape Development, Scott Heilman, May 5, 2014

This letter contains a comment on the EIR; see EIR Response to Comment U-1.

26-1 See RTP MR-4 and MR-5

26-2 See RTP MR-4 and MR-5

Letter 27: GeoPlan Economics, Vince Zaragoza, AICP, May 3, 2014

27-1 Comment noted. The following text will be added to the end of the paragraph with the heading “Farmland Needs for Local Food” on Page 4-21 “The recently enacted SB 551 will likely accelerate the proliferation of community gardens and markets in urban settings.”

27-2 See RTP MR-4 and MR-5

Letter 28: Cornerstone Engineering, Derrill G. Whitten, Jr., PE, PLS, President, May 5, 2014

This letter contains a comment on the EIR; see EIR Response to Comment V-1.

28-1 See RTP MR-4 and MR-5

28-2 See RTP MR-5 and MR-5

Letter 29: Bob Smith, April 25, 2014

29-1 Thank you for your comments. The list of new projects has been added to the Capital Improvement Program. The dollar amounts remain the same.

Letter 30: David J. Dmohowski, May 5, 2014

30-1 See RTP MR-4 and MR-5

30-2 See RTP MR-5 and MR-5

Letter 31: Frank Hawker, April 24, 2014

31-1 The street referenced in this request is under the jurisdiction of the County of Kern. The request was forwarded to the County of Kern Roads Department for their evaluation on May 12, 2014.

Letter 32: Charlotte Reeves, April 25, 2014

32-1 Thank you for your comment. Kern COG has no land use authority to require local jurisdictions to provide an increased mix of housing. As required by Senate Bill (SB) 375, the SCS is based on local General Plans and likely housing mix/infill assumptions using the best available data.

Letter 33: Bernadetta Rickard, May 9, 2014

This letter contains a comment on the EIR; see EIR Response to Comment Y-1.

33-1 See RTP MR-4 and MR-5

33-2 See RTP MR-4 and MR-5

Public Hearings 34: California City, April 15; and Kern COG, April 17, 2014.

Comments were made at the public hearings regarding the EIR; see EIR Response to Comments CC-1 and CC- 2.

34-1 Comment noted. The information will be forwarded to the appropriate member of the Kern County Board of Supervisors.

34-2 Comment noted. The information will be forwarded to Kern Regional Transit.

34-3 Comment noted. Kern COG has initiated discussions with Southern California Association of Governments concerning extension of the Metrolink.

34-4 Comment noted. The project in question was funded prior to the plan. A traffic study was performed by an applicant for a shopping center at that location several years prior.

34-5 Comment noted. These comments will be shared with local elected officials.

34-6 Comments noted. See RTP MR-1. Assumption of increased fuel costs is consistent the methodology approved by CARB for other regions and with past trends, and as noted in the footnote to Table 4-7 uses the same cost assumptions used by the San Francisco Bay Area Metropolitan Transportation Commission. This is also demonstrated in RTP MR-1A.

34-7 Comments noted. See RTP-MR-1 regarding the 33% Housing Mix growth pattern.

34-8 Comments noted. See RTP-MR-2 regarding the SB 375 consistency analysis.

34-9 Comments noted. Comments will be forwarded to the City of Bakersfield Planning Department and elected officials.

34-10 Comments noted. Comments will be forwarded to Golden Empire Transit.

34-11 Comments noted. As stated in Chapter 5 of the RTP, Kern COG does not have land use authority, nor authority to require General Plan amendments. All alternatives analyzed were consistent with the adopted SB375 Framework in Chapter 5 stipulating that local General Plans be used. The Metropolitan Bakersfield infill in all alternatives is consistent and uses the current land use designations of adopted General Plans, however, they assume the infill occurs at average densities in addition to the existing land use. This is not an issue if the site is vacant, however, in some locations it is possible that the increased infill could exceed the General Plan land use maximum allowed density, if the current land use on the ground is more than ½ the maximum allowed density. A cursory review of land use in infill areas show that even with the 100% infill alternative most locations would not require a General Plan amendment to double the number of jobs or households at those infill locations, illustrating a built-in flexibility with existing General Plans should the market demand greater infill. Another issue with infill is that most

infrastructure (water, sewer, roads, public safety, etc.) was designed to accommodate average General Plan build out densities or for a total population that was much smaller than today let alone by 2040. The greater the amount of infill, the greater the stress on infrastructure in existing areas. If the market demands greater infill, a funding mechanism will be needed to retrofit existing infrastructure. This is not the case for the Plan Alternative.

The commenter is correct in noting that Kern has a large rural resource economy in areas outside major metropolitan areas, described in the Rural/Urban Connectivity Strategy in Chapter 5. The infill option can increase work commute trips, however travel to shopping and other activities is decreased resulting in a net decrease in the overall amount of travel. Unfortunately, the overall effectiveness of infill is diminished because of the increased commute distances to outlying resource areas. One strategy to combat this is to provide additional housing to disadvantaged communities in outlying areas to better balance rural jobs while providing the population necessary to support amenities and shopping in outlying communities.

- 34-12 Comment noted. The 2014 RTP projects to spend 36.7% of its funding on Transit, HOV, Aviation, etc. and 6.5% on Pedestrian and Bicycle. This is an increase over the 2011 RTP of 837% for bike and pedestrian funding, and a 329% increase in Transit funding by 2040.

In the 2014/15 Overall Work Program, Kern COG budgeted funding in Work Element 902.1 for technical assistance to member agencies such as feasibility studies, pavement management plans, Valley Floor Habitat Conservation Plans and traffic studies.

No funding is currently planned in the 2014 RTP for services to “new towns.”

- 34-13 Comments noted. The 2014 RTP provides a reduction of more than 10% in water usage by providing a full range of housing options.
- 34-14 Comments noted.
- 34-15 Comment noted. See RTP-MR-2 regarding the SB 375 consistency analysis.
- 34-16 Comment noted.
- 34-17 Comment noted. See RTP-MR-2 regarding the SB 375 consistency analysis.
- 34-18 See RTP MR-2, specifically Tables MR-2 A through E
- 34-19 See RTP Appendix C “Directions to 2050 Summary of Community Participation Executive Summary”.
- 34-20 Comment noted. See RTP-MR-1 regarding the 33% Housing Mix growth pattern.
- 34-21 Comment noted.
- 34-22 Comment noted. The 2014 RTP improves air quality and public health by reducing all criteria pollutants, emissions and their precursors. Because of the improved air quality, there is a 5% or more reduction in health expenditures under the Plan.

- 34-23 Comments noted. Kern COG prepared an Environmental Justice analysis consistent with Federal Title VI of the 1964 Civil Rights Act and Executive Order 12898, please refer to Appendix D. Considering the analyses as a whole, the transportation model indicates that Kern COG has and will continue to divide its resources equitably, with no single population group suffering disproportionate and adverse effects from agency activity.
- 34-23 Comment noted See RTP-MR-1 regarding the 33% Housing Mix growth pattern.
- 34-24 Comment noted.
- 34-25 Comments noted. See RTP-MR-2 regarding the SB 375 consistency analysis.
- 34-26 Comments noted. See RTP-MR-1 regarding the 33% Housing Mix growth pattern.
- 34-27 Comments noted. See RTP-MR-1 regarding the 33% Housing Mix growth pattern and RTP-MR-2 regarding the SB 375 consistency analysis.
- 34-28 Comment noted. See EIR MR 2 regarding mitigation measures.
- 34-29 Comment noted. The 2014 RTP reduces farmland consumption by as much as 40% as compared to the 1988 to 2010 time period when an average of 1.8 square miles of farmland was converted to urban use per year. See RTP-MR-1 regarding the 33% Housing Mix growth pattern.
- 34-30 Comment noted.
- 34-31 Comments noted. See RTP-MR-1 regarding the 33% Housing Mix growth pattern.
- 34-32 Comment noted. These concerns will be forwarded to the Kern County Sanitation and Code Enforcement Departments and to the Kern County Roads Department.
- 34-33 Comments noted.
- 34-34 Comments noted.
- 34-35 Comment noted. Information and requests for increased transit will be forwarded to Kern Regional Transit.
- 34-36 Comment noted.
- 34-37 Comments noted. Information regarding transit inadequacy will be forwarded to Kern Regional Transit. The Regional Housing Needs Allocation (Appendix H) breaks out housing allocation by income category between 2013 and 2023. For the Delano community a total of 1,462 housing units are needed between 2013 and 2023. Of those, 304 are for extremely low-income levels, 257 are for very low-income levels, 326 are for low-income levels, 255 are for moderate-income levels and 320 are for above moderate-income levels. It should be noted that these are preliminary numbers.

Email: Calthorpe Associates, Garlynn Woodsong, Project Manager, April 10, 2014

- 35-1 The 72 square miles is land consumed from 2010 to 2035. The 91 square miles is land consumed from 2010 to 2040. The EIR uses 2010-2040. Table 4-4 lists both numbers.

Letter: California High Speed Rail Authority, Dianna Gomez, Central Valley Regional Director, May 2, 2014

- 36-1 A. The Kern COG RTP must be financially constrained. Currently the HSR authority lacks full funding for completions of the Merced to San Fernando Valley segment by 2022. However, for SB 375 model year includes a very low assumption of ridership in a way that would not result in double counting. Table 4-7 reports the results of assumed improvements to intercity passenger rail that is based on the “very low” scenario for High Speed Rail used in the Plan Alternative by 2040. The 2013 State Rail Plan and the San Joaquin JPA Draft 2014 Business Plan both include significant improvements for intercity passenger rail between Northern and Southern California with or without High Speed Rail. The California High Speed Rail Authority (CHSRA) consultant Cambridge Systematics, provided The San Joaquin Valley MIP Travel Model consultant Fehr & Peers with 12 forecast scenarios for intercity rail travel forecasts between Northern and Southern California based on the CHSRA 2012 Business Plan. Fehr & Peers developed a post processor model script for the MIP travel model that analyzed the impact of the potential mode shifts to intercity passenger rail. Kern COG used two of the 12 CHSRA scenarios titled Initial Operating Segment (IOS) Low Source of Ridership, and Blended Very High Source of Ridership. The Low Scenario was used with the Plan Alternative. This alternative assumes 1,200 boardings daily at the Bakersfield Amtrak/HSR station. This very conservative number is only a little more than double the current 520 boardings for the Amtrak San Joaquins which have been experiencing record ridership each year for the past 3 years. The Low ridership was assumed by Kern COG to also reflect planned intercity passenger rail improvements to the Amtrak San Joaquins if the CHSRA is delayed beyond 2040. So the Plan Alternative could represent either a Low HSR ridership scenario or planned Improvements to Amtrak service resolving the apparent contradiction. For the alternatives with frontloaded transit (Intensified, 33% Mix, and 100% Infill) the IOS Low HSR ridership scenario was used by 2035 and the Blended Very High HSR ridership scenario (4,100 boardings per day at Bakersfield) was used for 2040.

B. Table 5-1 assumes \$1.5 billion of the \$6 billion in initial funding identified for the first construction segment will be used on the portion of the route within Kern. The HMF will remain in the RTP as a contingency should one of the 3 sites in Kern be chosen for the facility.

C. Table 5-2 identifies \$20 billion in unfunded need for the CHSRA project portions in Kern. This is proportional to the length of track in Kern compared to the Merced to San Fernando Valley. The CHSRA has not provided a more detailed cost estimate of the portion the project within Kern.

D. The Final EIR/EIS for the Fresno to Bakersfield was not certified until after the close of the public review period. However the document is referenced here and available online:

http://www.hsra.ca.gov/Programs/Environmental_Planning/final_fresno_bakersfield.html

E. As discussed above, Kern COG includes HSR as a project/strategy and takes credit for resulting GHG reductions as suggested. See also EIR Response EE-1.

Telephone Call: Carol Bender, March 17, 2014

- 37-1 p. 7-4 third paragraph: changed “2-hour, 27-minute” to “2-hour, 37-minute” based on the 2014 Business Plan p. A-2 “Bay-to-Basin – 2027”
- 37-2 p. 7-4 last paragraph, deleted the second sentence: “The CHSRA is anticipated to release a revised business plan that meets the requirements in spring 2014.” The business plan has been released and there will likely be future changes in the financial information from the CHSRA.
- 37-3 p. 7-4 last paragraph added the following sentence at the end to provide information on recent lawsuits based on comment received: “Since the release of the draft 2014 RTP, the CHSRA finalized the Fresno to Bakersfield EIR/EIS, several local government jurisdictions in Kings and Kern Counties have filed or plan to file CEQA lawsuits in response, in an effort to resolve local issues related to the project.”
- 37-4 p. 7-6 sixth paragraph added sentence on alternative station location based on comment received: "In the past several years, a potential station location north-west of Bakersfield has been discussed as an alternative to the downtown location, however the CAHSRA has not authorized a formal study for that alternative.
- 37-5 p. 7-6 seventh paragraph: deleted the first sentence based on comment received: “Connections to other modal uses would be effortless.”

Kern Council of Governments



Appendix J RTP Resolution

June 19, 2014



Kern Council
of Governments

www.kerncog.org

BEFORE THE KERN COUNCIL OF GOVERNMENTS
STATE OF CALIFORNIA, COUNTY OF KERN

RESOLUTION NO. 14-17

In the matter of:

FINAL ENVIRONMENTAL IMPACT REPORT FOR THE 2014 REGIONAL TRANSPORTATION PLAN:
(1) CERTIFICATION OF ENVIRONMENTAL IMPACT REPORT; (2) ADOPTION OF CEQA FINDINGS
OF FACT; (3) ADOPTION OF STATEMENT OF OVERRIDING CONSIDERATIONS; AND (4)
ADOPTION OF MITIGATION MONITORING PROGRAM.

WHEREAS, pursuant to the California Environmental Quality Act (CEQA) (Cal. Pub. Res. Code § 21000 et seq.) and the State CEQA Guidelines (Cal. Code Regs., Tit. 14, § 15000 et seq.), Kern Council of Governments (Kern COG) is the Lead Agency responsible for preparing the Final Program Environmental Impact Report for the 2014 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS);

WHEREAS, an Environmental Impact Report (EIR) is a public document used by governmental agencies to analyze the significant environmental impacts of a project. CEQA Guidelines §15168 specifies that a Program EIR can be prepared on a series of actions that can be characterized as one large project related either geographically, as logical parts in the chain of contemplated actions, in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or as individual activities carried out under the same authorizing statutory regulatory authority and having generally similar environmental effects which can be mitigated in similar ways;

WHEREAS, the Program EIR for the 2014 RTP/SCS (PEIR) is a programmatic document that provides a region-wide assessment of the potential significant environmental effects of implementing the projects, programs and policies included in the 2014 RTP/SCS (including the new SCS portion of the Plan);

WHEREAS, Kern COG has determined that the PEIR is appropriate to assess the environmental impacts of the 2014 RTP/SCS;

WHEREAS, the PEIR undertakes quantitative modeling of projects in the 2014 RTP financially constrained plan, and does not model strategic plan projects because funding for these projects is speculative and implementation of these projects is not yet reasonably foreseeable;

WHEREAS, the PEIR identifies feasible mitigation measures necessary to avoid or substantially lessen significant impacts of the 2014 RTP and a reasonable range of alternatives capable of eliminating or reducing these effects in accordance with CEQA Guidelines Sections 15126.4 and 15126.6;

WHEREAS, the PEIR is a program level document which analyzes environmental impacts of the 2014 RTP constrained plan on a regional/programmatic level, and does not analyze project-specific impacts. These impacts should be analyzed in detail by project proponents at the local jurisdiction level;

WHEREAS, Kern COG issued a Notice of Preparation (NOP) of the Draft PEIR on January 30, 2013, and circulated the NOP for a period of 30 days pursuant to CEQA Guidelines §§15082(a), 15103 and 15375;

WHEREAS, pursuant to CEQA Guidelines Section 15082 and Government Code Section 65080(b) et seq., on February 13, 2013, Kern COG publicly noticed and held one scoping meeting for the

purpose of inviting comments from responsible and trustee agencies, regulatory agencies, interested persons, and others on the scope and content of the environmental information to be addressed in the PEIR;

WHEREAS, once the Draft PEIR was completed on March 12, 2014, Kern COG filed a Notice of Completion with the State Office of Planning and Research (OPR) in the manner prescribed by CEQA Guidelines Section 15085;

WHEREAS, on March 12, 2014, Kern COG initiated the 55-day public review and comment period by issuing a Notice of Availability of the Draft PEIR to responsible and trustee agencies, organizations and individuals who requested such notice, and others; and on the same date, published the Notice of Availability in eight newspapers of general circulation throughout the region. In addition, Kern COG placed paper copies of the Draft PEIR in its offices and at the main public library in Kern County, and posted an electronic copy of the Draft PEIR on the Kern COG website;

WHEREAS, during the public review period for the Draft PEIR, Kern COG requested comments from and consulted with responsible and trustee agencies, regulatory agencies, and others, pursuant to CEQA Guidelines Section 15086;

WHEREAS, the 55-day public review and comment period ended on May 6, 2014, in compliance with CEQA Guidelines Section 15105;

WHEREAS, approximately 33 written comments on the Draft PEIR were received by Kern COG during the comment period;

WHEREAS, pursuant to CEQA Guidelines §15088(a), Kern COG evaluated comments on environmental issues received from persons who reviewed the Draft PEIR and provided a written response to each comment, which are included in the Final PEIR, Chapter 3.0;

WHEREAS, the "Final PEIR" consists of: (1) the Draft PEIR; (2) all appendices to the Draft PEIR (Appendices 1.0 and 4.7); (3) Chapter 1, "Introduction"; (4) Chapter 2, "Corrections and Additions"; (5) Chapter 3, "Response to Comments"; (6) Chapter 4, "Mitigation Monitoring and Reporting Program";

WHEREAS, Chapters 2 and 3 of the Final PEIR specifically include Kern COG's written, master responses to comments; a list of persons, organizations, and public agencies commenting on the Draft PEIR; Kern COG's written responses to specific comments on significant environmental points raised in the review and consultation process; and copies of comments, as required by CEQA Guidelines Section 15132;

WHEREAS, the changes to the Draft PEIR in response to comments received and the corrections and additions included in the Final 2014 RTP and Final PEIR, have not produced significant new information requiring recirculation or additional environmental review under CEQA Guidelines Section 15088.5;

WHEREAS, Kern COG has no authority to impose mitigation measures on individual projects for which it is not the lead agency. As such, all project-level mitigation measures in the Final PEIR are subject to a city or county's independent discretion as to whether measures are applicable to projects in their respective jurisdictions. Lead agencies may use, amend, or not use measures identified in the Final PEIR as appropriate to address project-specific conditions. The determination of significance and identification of appropriate mitigation is solely the responsibility of the lead agency;

WHEREAS, mitigation measures in the PEIR that include the language, "Kern COG through its Environmental Review Program/Intergovernmental Review process will facilitate and encourage implementing and local agencies to ..." are intended to be used by projects seeking to use this Program EIR for CEQA streamlining (under SB 375 and SB 226 – CEQA Streamlining for Infill Projects) and tiering pursuant to CEQA Guidelines Section 15152;

WHEREAS, Kern COG has prepared CEQA Findings of Fact (Findings), attached hereto and incorporated herein as "Attachment 1," for every significant environmental impact of the 2014 RTP identified in the PEIR and for each alternative evaluated in the PEIR, including an explanation of the rationale for each finding, in compliance with Public Resources Code §§21081 and 21081.5 and CEQA Guidelines § 15091.

WHEREAS, implementation of the 2014 RTP will result in significant environmental impacts that cannot be fully mitigated to less than significant, and Kern COG has issued a Statement of Overriding Considerations, attached hereto and incorporated herein as "Attachment 2," setting forth specific economic, legal, social, technological, and other benefits of the 2014 RTP that outweigh the significant and unavoidable environmental impacts identified in the PEIR, pursuant to CEQA Guidelines Section 15093(b); and

WHEREAS, when making the Findings, the agency must also adopt a mitigation monitoring program to ensure compliance with the mitigation measures identified in the PEIR which avoid or substantially lessen significant effects, and which are fully enforceable through permit conditions, agreements, or other measures, as required by CEQA Guidelines Section 15091(d);

WHEREAS, Kern COG has adopted a Mitigation Monitoring and Reporting Program in compliance with CEQA Guidelines Section 15091(d), which is incorporated into the Final EIR as Chapter 4;

WHEREAS, Kern COG made the proposed Final PEIR, publicly available on its website on June 9, 2014;

WHEREAS, pursuant to Public Resources Code Section 21092.5 and CEQA Guidelines Section 15088, Kern COG provided proposed written responses to all persons who submitted comments on the Draft PEIR at least 10 days prior to certification of the PEIR;

WHEREAS, pursuant to CEQA Guidelines §15089(a), Kern COG, as the Lead Agency, must prepare and certify a Final PEIR before approving the Final 2014 RTP/SCS; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred;

NOW THEREFORE, BE IT RESOLVED the Final PEIR prepared for the 2014 RTP/SCS was completed in compliance with CEQA; and

BE IT FURTHER RESOLVED that the PEIR for the 2014 Regional Transportation Plan has been presented to the Kern COG Policy Board as the decision-making body of the Lead Agency prior to approving the 2014 RTP/SCS, and that Kern COG has independently reviewed and evaluated the information contained in both the Draft and Final EIR and written and oral testimony; and

BE IT FURTHER RESOLVED that Kern COG, as the decision-making body for the Lead Agency, hereby certifies that the EIR for the 2014 Regional Transportation Plan has been completed in compliance with CEQA and CEQA Guidelines; and

BE IT FURTHER RESOLVED that Kern COG finds that certain changes or mitigation measures will substantially lessen or avoid potentially significant environmental effects identified in the Final EIR and will be incorporated into the Regional Transportation Plan as conditions of future entitlements, permits, and agreements that are under the authority of Kern COG; and

BE IT FURTHER RESOLVED that Kern COG finds that certain changes or mitigation measures that will substantially lessen or avoid potentially significant effects of individual projects are not under the jurisdiction of Kern COG and that such measures would be imposed as appropriate, and at the discretion of, individual local agencies on projects seeking to tier from the PEIR; and

BE IT FURTHER RESOLVED that certain unavoidable significant environmental effects, resulting from Plan implementation even with mitigation measures to reduce these effects, have been identified in the EIR, but it is infeasible to avoid or substantially lessen these effects because of specific economic, social or other considerations; and

BE IT FURTHER RESOLVED that as required by CEQA, Kern COG has balanced the benefits of the Plan against unavoidable significant environmental effects in determining whether to approve the Plan, and Kern COG has independently determined that the benefits of the Plan outweigh the unavoidable significant environmental effects for the reasons stated in the Statement of Overriding Considerations; and

BE IT FURTHER RESOLVED that Kern COG adopts the CEQA Findings of Fact (Attachment 1); Statement of Overriding Considerations (Attachment 2); and the Mitigation Monitoring and Reporting Program (Chapter 4 of the Final PEIR).

AUTHORIZED AND SIGNED THIS 19th DAY OF JUNE, 2014.

AYES: Flores, Hanson, Wood, Pascual, Wilke, McFarland, Holloway, Johnston,
Smith, Wegman, Couch, Scrivner, Miller, Silver

NOES: None

ABSTAIN: None


ABSENT: Linder



Harold Hanson, Chairman
Kern Council of Governments

ATTEST:

I hereby certify that the foregoing is a true copy of a resolution of the Kern Council of Governments duly adopted at a regular meeting thereof held on the 19th day of June 2014.



Ahron Hakimi, Executive Director
Kern Council of Governments

JUN 24 2014

Date:

BEFORE THE KERN COUNCIL OF GOVERNMENTS
STATE OF CALIFORNIA, COUNTY OF KERN

RESOLUTION NO. 14-19

In the matter of:

2015 FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM, 2014 REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY, REGIONAL HOUSING NEEDS ALLOCATION PLAN, AND CONFORMITY ANALYSIS FOR THE 2015 FTIP AND 2014 RTP/SCS.

WHEREAS, the Kern Council of Governments (Kern COG) is the designated Regional Transportation Planning Agency (RTPA) pursuant to state law and the designated Metropolitan Planning Organization (MPO) pursuant to federal law for Kern County;

WHEREAS, Kern COG is the MPO responsible for maintaining a continuing, cooperative, and comprehensive transportation planning process which involves preparation and update every four years of a Regional Transportation Plan (RTP) pursuant to Title 23, United States Code Section 134 *et seq.*, Title 49, United States Code Section 5303 *et seq.*, and Title 23, Code of Federal Regulations Section 450 *et seq.*;

WHEREAS, Kern COG is the RTPA responsible for preparing, adopting and updating every four years the RTP and Sustainable Communities Strategy (SCS) pursuant to Government Code Section 65080 *et seq.*;

WHEREAS, the 2014 RTP/SCS sets forth the long-range regional plans and strategies for transportation improvements and regional growth throughout Kern County through 2040;

WHEREAS, Senate Bill (SB) 375 (Steinberg, 2008) requires that Kern COG prepare a SCS as part of the 2014 RTP that demonstrates how the region will reduce the greenhouse gas emissions (GHG) from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction target approved by the California Air Resources Board (CARB);

WHEREAS, pursuant to SB 375, CARB set the per capita GHG emission reduction targets for the San Joaquin Valley region at 5% below 2005 per capita emissions levels by 2020 and 10% below 2005 per capita emissions levels by 2035;

WHEREAS, lead agencies (including local jurisdictions) maintain the discretion and will be solely responsible for determining consistency of any future project with the SCS;

WHEREAS, under state housing law (Government Code Section 65580 *et seq.*), Kern COG is responsible for preparing and adopting a regional housing needs allocation plan (RHNA Plan) that allocates its share of regional housing need (as determined by the Department of Housing and Community Development) to each city, county, or city and county.

WHEREAS, SB 375 requires consistency between the RHNA Plan and the development pattern included in the 2014 RTP/SCS;

WHEREAS, the 2014 RTP/SCS has been prepared in accordance with state and federal guidelines adopted by the California Transportation Commission;

WHEREAS, the 2014 RTP/SCS reconfirms the use of the socio-economic data forecast used in the 2011 RTP which was found to be within 1/10th of one percent of the observed decennial census data for total population;

WHEREAS, the 2014 RTP/SCS includes the Congestion Management Program which is consistent with the final rules for the Federal Management and Monitoring Systems effective Congestion Management Process;

WHEREAS, federal planning regulations require that Kern COG prepare and adopt a Federal Transportation Improvement Program (FTIP) for their region;

WHEREAS, the 2015 FTIP has been prepared to comply with Federal and State requirements for local projects and through a cooperative process between the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the State Department of Transportation (Caltrans), principal elected officials of general purpose local governments and their staffs, and public owner operators of mass transportation services acting through the Kern Council of Governments forum and general public involvement;

WHEREAS, projects submitted in the 2015 FTIP must be financially constrained and the financial plan affirms that funding is available;

WHEREAS, the 2015 FTIP program listing is consistent with: 1) the 2014 RTP/SCS; 2) the 2014 State Transportation Improvement Program; and 3) the corresponding Conformity Analysis;

WHEREAS, the 2015 FTIP contains Kern COG's certification of the transportation planning process, assuring that all federal requirements have been fulfilled;

WHEREAS, the 2015 FTIP meets all applicable transportation planning requirements per 23 CFR Part 450;

WHEREAS, the 2015 FTIP and 2014 RTP/SCS include a Conformity Analysis which demonstrates conformity pursuant to Clean Air Act Section 176(c) and 40 CFR Part 93;

WHEREAS, the 2015 FTIP and 2014 RTP/SCS conforms to the applicable SIPs;

WHEREAS, the 2015 FTIP and 2014 RTP do not interfere with the timely implementation of the Transportation Control Measures;

WHEREAS, a Program Environmental Impact Report was prepared to assess the environmental effects of the proposed 2014 RTP/SCS and is certified concurrently herewith;

WHEREAS, the documents have been widely circulated and reviewed by Kern COG advisory committees representing the technical and management staffs of the member agencies; representatives of other governmental agencies, including State and Federal; representatives of special interest groups; representatives of the private business sector; and residents of Kern County consistent with the public participation process adopted by Kern COG;

WHEREAS, the Draft 2014 RTP will be amended pursuant to the revisions outlined in the Responses to Comments attached as Exhibit "A" and amended Table 4-9 attached as Exhibit "B";

WHEREAS, a public hearing was conducted on April 15, 2014 and April 17, 2014 to hear and consider comments on the 2015 FTIP and 2014 RTP/SCS and EIR and corresponding Conformity Analysis;

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred;

NOW, THEREFORE, BE IT RESOLVED, that Kern COG finds that the 2015 FTIP and 2014 RTP/SCS are in conformity with the requirements of the Federal Clean Air Act Amendments and applicable State Implementation Plans for air quality; and

BE IT FURTHER RESOLVED, that Kern COG also finds that the 2014 RTP/SCS meets the SB 375 GHG reduction targets of 5% below 2005 per capita emissions levels by 2020 and 10% below 2005 per capita emissions levels by 2035; and

BE IT FURTHER RESOLVED, that Kern COG finds that the RHNA Plan is consistent with the development pattern included in the 2014 RTP/SCS; and

BE IT FURTHER RESOLVED, that Kern COG adopts the 2015 FTIP, the 2014 RTP/SCS with Exhibits "A" and "B", the RHNA Plan, and the Conformity Analysis for the 2015 FTIP and 2014 RTP/SCS.

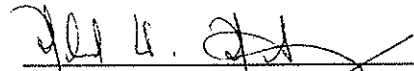
AUTHORIZED AND SIGNED THIS 19TH DAY OF JUNE 2014.

AYES: Flores, Hanson, Wood, Pascual, Wilke, McFarland, Holloway, Johnston,
Smith, Wegman, Couch, Scrivner, Miller, Silvera

NOES: None

ABSTAIN: None


ABSENT: Linder



Harold W. Hanson, Chairman
Kern Council of Governments

ATTEST:

I hereby certify that the foregoing is a true copy of a resolution of the Kern Council of Governments duly adopted at a regular meeting thereof held on the 19th day of June 2014.



Ahron Hakimi, Executive Director
Kern Council of Governments

JUN 24 2014

Date:

EXHIBIT “A”

DRAFT RTP Responses to Comments

RTP MASTER RESPONSES

RTP-MR-1: SB 375 Consistency Analysis – Methodology and Assumptions

- A. **Open/Transparent Modeling** – Kern COG maintains an open modeling policy. In an effort to be fully transparent with the modeling for SB 375, Table 4-7 provides full disclosure of the assumptions used in the modeling. Throughout the SCS process Kern COG provided an unprecedented level of access to the preliminary modeling results and administrative drafts of the SCS. Preliminary chapters of the RTP including the SCS chapter were made available online for over 1 year prior to the 55-day public comment period. Over a dozen documents fully disclosing the modeling assumptions and methodologies are available online.¹ Kern COG makes its modeling files and the model available to the public, outside entities and Kern COG’s member agencies upon request. Forecast and modeling assumptions are included in Appendix G to the RTP.
- B. **Model Assumptions vs. Strategies** - It is important to make a distinction between modeling assumptions and strategies. RTP Table 4-7 includes modeling assumptions and strategies as indicated in the table’s header row and to improve the readability of Chapter 4 the highly technical table and discussion has been move to Appendix I.
- C. **Table 4-7 Revisions** – The original draft text “*Policies and Programs to Reduce Major Sources of Emissions*” on p. 4-47 describing Table 4-7 has been revised as follows and has been moved to Appendix I based on feedback during the public outreach process:

“In response to questions and concerns raised during the public outreach process, Kern COG provides the following clarification regarding Table 4-7 “*How the plan reduces per capita greenhouse gas emissions in 2040*”. In the interest of transparency in the planning process, the table was included in the SCS to provide an indication of how the model responds to various assumptions and strategies. In developing this table, we changed one single model input variable (e.g., fuel price, economic activity, land use changes) at a time to see if and to what extent the model output changes. This type of analysis provides some sense of the model sensitivity to the SCS strategies. However, the draft text is misleading as it appears to attribute GHG reductions to individual assumptions and strategies in the SCS. Numerous strategies are reflected in this SCS, not all of which could be modeled at this time. For a complete listing of proposed strategies see Table 4-8.

To better understand and assess the impact of the strategies, we are planning to do additional sensitivity analyses as indicated in the “*Description of Methodology for ARB Staff Review of Greenhouse Gas Reductions from Sustainable Communities Strategies (SCS) Pursuant to SB 375*” document, in consultation with ARB staff. Kern COG is committed to improving its model sensitivity and accuracy related to measuring GHG emissions for purposes of SB375.

¹ <http://www.kerncog.org/transportation-modeling>

The following highlighted revisions to Table 4-7 include the addition of a footnote to clarify the differences between strategies and assumptions, and to correct typos to local transit and commuter rail values. Also, further explanations regarding the pricing assumption, economic activity decrease assumption and road project strategies have been added due to questions raised by commenters regarding the same.”

RTP Table 4-7. How the Plan Affects Travel and Per Capita Greenhouse Gas Emissions in 2040

Model Assumptions/Strategies (2005-2040)	Net Change in 2040 CO₂ Per Capita Emissions (lbs.)	Percentage Point Change in 2040 CO₂ Per Capita Emissions (compare to a 16.7% plan reduction below 2005)¹	Model Sensitivity Testing/Estimation Method
Pricing Assumption (2/3rds increase in fuel costs, 23% increase in Auto Operating Cost)	- 1.3216	- 7.91%	2040 plan with/without fuel cost change between 2010-2040 ⁶
Economic Activity Decrease Assumption (recession from 2007-2011)	- 0.6488	- 3.88%	2040 plan with/without jobs/housing ratio change from 1.1 to 1.3 ⁷
Land Use Strategies (jobs/housing mix closer/re-balanced)	- 0.4228	- 2.53%	2040 plan network with/without on old plan land use
Road Project Strategies (reduce out of direction travel)	- 0.0363	- 0.22%	2040 plan with/without 2015 network ⁸
Transit Improvement Strategies			
Local transit system	- 0.0061	- 0.06%	removed new BRT/rapid/express/fixed routes
Commuter rail system	- 0.0014	- 0.01%	removed new Amtrak/Metrolink stops
Enhanced intercity passenger rail	- 0.0039	- 0.02%	removed enhanced Amtrak/HSR in 2040
Transportation Demand Management Strategies			
Complete streets/bike/ped. improvements	- 0.0031	- 0.02%	removed bike and ped enhancements in model
Employer based trip reduction (E-Trips)	< - 0.004	< - 0.02%	est. based on 2013 E-Trip VMT of 76,000 emps. (60% of emps at 100+ employers) ³
Transportation System Management Strategies			
Traffic signalization/synchronization	< - 0.024	< - 0.15%	est. based on smoother traffic flow speeds resulting in a 10% CO ₂ emissions reduction ⁴
HOV/ramp metering	< - 0.002	< - 0.01%	est. based on 16 lane miles of HOV facilities ⁵

¹ Note that SB 375 related CO₂ emission reductions from strategies and assumptions are not additive. When run separately some strategies result in a larger or smaller change in emission because they interact to enhance or compete with each other for trips when combined in a single model run. Many strategies are included in the model based on model inputs from household travel surveys (lower multi-family trip generation rates, high vehicle occupancy rates), traffic data, etc., that are difficult to analyze because they exist in the base year condition. Very small changes in CO₂ may exceed EMFAC model tolerances.

² An 8 percentage point reduction in the SB 375 related CO₂ per capita of 16.7% for the 2040 plan alternative means the plan would only result in an 8.7% reduction in CO₂ per capita compared to 2005.

³ E-Trips is a San Joaquin Valley Air District program requiring large employers of 100 or more employees to promote ridesharing and other modes to reduce travel and emissions. The estimate assumes that the equivalent of 60% of Kern’s 2013 large employers carpooled with one other person, reducing VMT from 76,000 employees by 50%, resulting in a corresponding reduction in emissions.

⁴ Barth/Boriboonsomsin, 2008 (<http://www.uctc.net/papers/846.pdf>), suggest that up to a 20% reduction in CO₂ emissions on congested streets in Southern California can occur if traffic smoothing techniques are employed. The estimate above assumes conservatively 10% emissions savings for new traffic on arterial streets which are estimated to be 1/10th as congested overall as Southern California arterials.

⁵ Assumes additional 16 HOV lane miles and approximately 60 metered HOV bypass ramps by 2040 will have only a minor effect on the 2040 HOV mode share of 50%.

⁶ The Pricing and Economic Activity Decrease are assumptions in the model, not strategies. The pricing assumption uses the Bay Area MTC 2009 model assumptions as provided by Fehr & Peers and assumes both increased fuel cost to \$6.06/gal. in yr. 2000 dollars (a 66% increase) and increased fuel economy to 32 MPG (a 59% increase). These two factors cancel out each

other's affect, providing a relatively flat vehicle operating cost of increase of 1 cent per mile between 2010 and 2040 compared to the 7 cents per mile increase between 2005 and 2010. In the sensitivity test, when the fuel cost is held constant at 2010 levels (\$3.65/gal.) the increased fuel economy lowers vehicle operating cost 40% back to near 2005 levels, resulting in a significant increase in travel in the model.

⁷ The bulk of the increase in both the Pricing (auto operating cost) and Economic Activity Decrease assumptions in the Plan Alternative happened between 2005 and 2013. Low jobs housing balance are consistent with historic rates, aging population/increased retirement households, high unemployment, and limited educational opportunities. If all the other strategies and assumptions remain the same, and jobs increase from 1.1 to 1.3 jobs per household, the CO2 targets would still be achieved.

⁸ Kern is relatively uncongested in 2013. Eliminating future congestion relief projects in this test run causes a dramatic rise congested travel with higher CO2 emission rates per mile of travel. SB 375 related VMT (minus external thru travel) in the test is 206,000 miles lower than the Plan Alternative with all strategies combined. However, external thru travel (25% of total countywide VMT) increases by 605,000 miles of travel, nearly three times the SB 375 VMT savings from this test run. The longer out of direction detours taken by thru trips to get through severely congested corridors is the likely cause of this 6% increase in thru travel which is not accounted in the per capita emissions reduction under SB 375 rules.

- D. **Pricing/Fuel Cost Increase Assumption** - On p. 4-40 of the Draft RTP/SCS Kern COG identifies four broad components of a sustainable transportation system which include both strategies and assumptions. On p. 4-46, first paragraph under Pricing Measures, pricing is referred to as a strategy which is used interchangeably with the term model assumption. To provide better consistency the word will be changed to "assumptions."

As depicted in the Table MR-1A below, fuel cost increase assumptions between 2000-2035 were used in the Bay Area Metropolitan Transportation Commission (MTC) 2009 RTP assumptions provided by Fehr & Peers consulting. These default assumptions were used in modeling by all 8 San Joaquin Valley MPO models. Data available from ARB's website shows similar assumptions for fuel and vehicle operating cost for the San Joaquin Valley. Table 4-7 is intended to fully disclose both the effects of modeling assumptions and strategies as indicated by the header row titled "Model Assumption/Strategies." RTP Table 6-1 refers to other funding anticipated from several sources that will likely increase vehicle operating costs including: cap and trade revenue, freight fees, odometer based-user fees, local sales tax, and state/federal excise taxes on fuel. The modeling extrapolates the MTC assumption out to the year 2040. The rate is slightly higher than that used by other San Joaquin MPOs beyond 2035 in anticipation of these other strategies that affect fuel costs. Kern is the largest county in California without a local sales tax for transportation. Total funding from other sources accounts for about 11% of the overall RTP budget and is slated mostly to cover maintenance.

Table MR-1A. Comparison of MPO Modeling Vehicle Operating Cost Inputs for First Round of SCSs - 5/16/2014

Metropolitan Planning Organization (MPO)	2008	2020	2035	Change 2008-2035
8-San Joaquin Valley COGs (including Kern COG)*				
Vehicle operating costs (2000\$ per mile)	0.15	0.18	0.19	23%
Gasoline price (2000\$ per gallon)	3.11	4.46	6.06	95%
Bay Area (MTC)				
Vehicle operating costs (2009\$ per mile)	0.23	0.28	0.28	22%
Gasoline price (2009\$ per gallon)	3.25	4.74	5.24	61%
Sacramento (SACOG)				
Vehicle operating costs (2009\$ per mile)	0.21	0.27	0.29	38%
Gasoline price (2009\$ per gallon)	2.67	4.74	5.24	96%
Southern California (SCAG)				
Vehicle operating costs (1999\$ per mile)	0.21	0.23	0.24	15%
Gasoline price (2009\$ per gallon)	3.60	4.74	5.24	46%
San Diego (SANDAG)				
Vehicle operating costs (1999\$ per mile)	0.18	0.21	0.20	11%
Gasoline price (1999\$ per gallon)	2.70	3.70	4.07	51%
<p>* Transportation models commonly use vehicle or auto operating cost per mile assumptions. The 8 Valley COGs used MTC's 2009 RTP vehicle operating costs only reflecting the gasoline cost increase and a 60% increase in average fleet fuel efficiency to 32 MPG by 2035. Variation in vehicle operating costs between regions is a result of differences in methodology and regional costs.</p> <p>Source for big 4 MPOs pricing and cost data: ARB Staff Technical Evaluation Reports for each MPO http://www.arb.ca.gov/cc/sb375/sb375.htm</p>				

Unlike SCS strategies, predicting modeling assumptions long range are subject to factors outside the control of an MPO. Trend bifurcation and other unseen events make assumptions and forecasts beyond 5 years imprecise. Factors such as cost of living, interregional travel, and overall uncertainty of the future are problematic and could be described as uncertainty error. Robert Bain (international expert on forecast uncertainty) has researched uncertainty from multiple perspectives and sources and determined that the uncertainty for a 2035 regional forecast can be up to +/- 25%². To control for this it is important to revisit long range forecasts and assumptions on a regular basis. Using the best available information, the Kern COG RTP and associated model inputs/assumptions are revised every 4 years as required by law for areas in non-attainment of federal air quality standards.

Table MR-1B below demonstrates that even-though fuel costs are anticipated to increase 2/3rds between 2010 and 2035 (95% between 2008 and 2035 as shown in table MR-1A above), average fleet fuel efficiency increases by 60%, resulting in a relatively flat vehicle operating cost increase totaling less than 1 cent per mile (<5%) over the 25 year period. This conservative forecasted auto operating cost increase is significantly less than the 90% increase in the previous decade. However, assuming a larger increase at historic rates could have a disproportionate effect on low income households and communities and would be

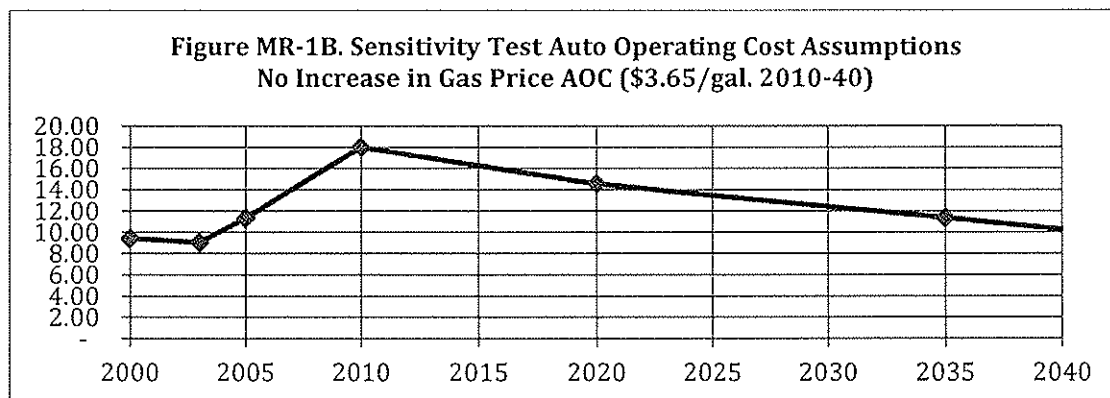
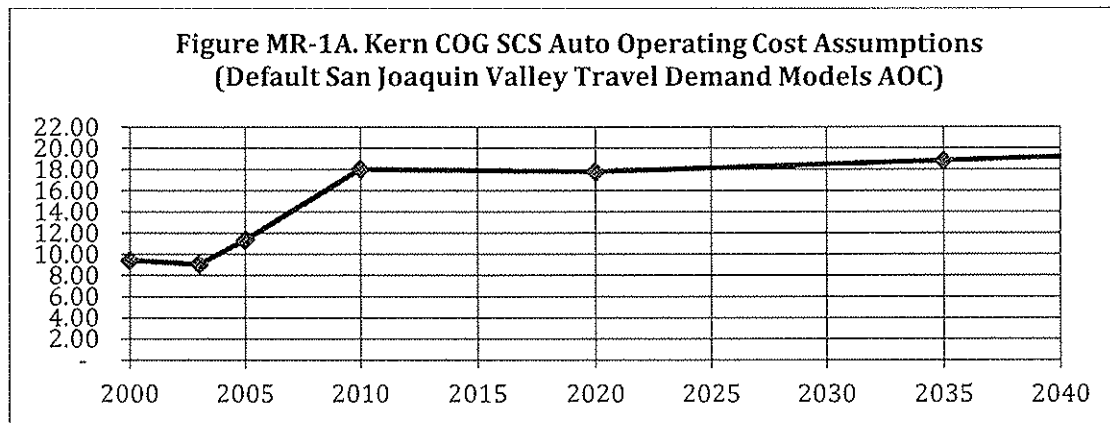
² <http://robbain.com/articlesandpapers.htm>

contrary to Kern COG's equity goal in Chapter 2. As stated previously Kern COG has little control over vehicle operating costs.

Table MR-1B. Default Auto Operating Cost Assumptions – San Joaquin Valley Travel Demand Models

Year	CPI	Gas Price (with inflation)	Gas Price (Yr. 2000 \$)	Avg Fleet MPG	Gas Cost Cents/Mile	Auto Op Cost
2000	180.2	\$1.83	\$1.83	19.40	9.43	9.43
2005	202.7	\$2.52	\$2.24	19.76	11.34	11.34
2010	235.3	\$4.77	\$3.65	20.27	18.01	18.01
2020	313.2	\$7.76	\$4.46	25.08	17.78	17.78
2035	480.9	\$16.17	\$6.06	32.15	18.85	18.85

Source: MTC 2009 RTP Analysis adapted for use in 8-Valley models by Fehr & Peers



Some commenters pointed out that assuming increased gas price has a disproportionate effect on low income housing, however, when taken in context with increased fuel efficiency of the overall vehicle fleet, including older used cars, the affect is moderated and overall operating costs used in the modeling between 2010 and 2040 remain relatively flat as seen in Figure MR-1A, which is conservative when compared to the prior decade. The 23% increase in Table MR-1A occurs mostly between 2008 and 2010. The sensitivity test for Pricing reported in Table 4-7 used the Auto Operating Cost in Figure MR-1B. The chart shows what happens when the gas cost remains unchanged at \$3.65 per gallon and fuel economy

increases to 32 MPG. The result is an overall reduction in auto-operating cost. This sensitivity model run was ran in EMFAC 2011 to get CO₂ emissions per capita for comparison with the RTP Plan Alternative run. The difference between the two was reported in Table 4-7.

- E. **California Transportation Agency Encourages Pricing** - The State Transportation Agency Secretary has identified pricing as a long range cross-cutting recommendation in the February 5, 2014, California Transportation Infrastructure Priorities: Vision and Interim Recommendations report, indicating that Kern COG's modest pricing assumptions are consistent with state policy.
- F. **Federal Law Requires Regional Modeling to Be Sensitive to Travel Costs Factors** - Federal Title 40 CFR Part 93.122 (b)(1)(vi) states: "*Network-based travel models must be reasonably sensitive to changes in the time(s), cost(s), and other factors affecting travel choices.*"
- G. **Economic Activity Decrease Assumption** - Kern COG does not include an assumption for a "future" recession as many commenters suggest, but rather, Kern COG included data from the last recession. Kern COG also performed a sensitivity test to measure what would happen if the recent economic recession from 2007-2012 did NOT occur. A foot note has been added to table 4-7 clarifying this test. The Kern COG model assumes the growth rate originally adopted by the Kern COG Board in 2005 based on the jobs housing balance at that time. In 2005, housing was growing at a rate much faster than jobs, resulting in a relatively low jobs housing balance. The Kern COG Board re-adopted the forecast in the Fall of 2009. With the release of the 2010 Census the forecast was found to be within 1/10th of 1 percent of the actual census count for the region. The 2005 and 2009, Kern COG forecasts successfully anticipated the economic downturn and Kern COG continues the use of this proven forecast for the 2014 RTP. By using the same forecast, the new model update (funded by a grant from the California Strategic Growth Council) more closely compares to the prior model and isolates changes in model results to the model improvements and controls for changes to the input forecast totals. The distribution of the forecast was refined using the 2010 census distribution on households as well as the 2008 Census employment data from the Longitudinal Employer-Household Dynamics (LEHD) data set for Kern. It is important to note, that if a major upswing in Kern's economy were to occur, based on the sensitivity test, Kern COG would still meet the SB 375 targets assuming all other assumptions and strategies remained unchanged.

Kern COG is preparing to retain a consultant to update the population and employment forecasts.

- H. **CARB and Expert Consulting Peer Review of Modeling** – Kern COG modeling and assumptions have been rigorously vetted with the California Air Resources Board (CARB) for the past 4 years, including CARB staff's regular participation in the monthly Kern COG Regional Planning Advisory Committee (RPAC) responsible for oversight of the development of the SCS, the Kern Regional Transportation Modeling Committee (TMC) and regular conference calls between CARB and Kern COG staff. In addition, the California Strategic Growth Council funded the San Joaquin Valley Model Improvement Program

(MIP) which included a diverse team of expert consultants including Fehr & Peers, Dowling Associates, RSG Inc., Cambridge Systematics, Bowman-Bradley, McCoy-Roth, Cari Anderson Consulting and Citilabs. The improved model for Kern was delivered in 2012. As an added layer of independent peer review Kern COG retained DKS Consulting to review and refine the validation/calibration for the MIP model which was delivered in 2013. The results and model documentation from the DKS improvements were prepared under the supervision of a registered civil engineer.³ The 2013 DKS revised MIP model improvements were re-examined independently by Fehr & Peers who performed the same model sensitivity test on the 2012 MIP model. The Fehr & Peers re-test found that *"the model responds equal to or better than the February 2012 version due to the updated inputs and processes that occurred since the original tests were conducted."*⁴ Kern COG, in coordination with the 7 other San Joaquin Valley COGs, has submitted the proposed technical methodology model documentation, surveys, and files to CARB as required by SB 375, and has received a letter acknowledging receipt of the SB375 Methodology.⁵

In addition, Kern COG's scenario performance measure results have been provided to Garlynn Woodsong of Calthorpe Associates, who has provided several iterations of voluntary peer review feedback on the performance measures, and adjustments have been made. Mr. Woodsong also provided comments during the public review process which are discussed under comment number 35-1.

- I. **Big Change in Investment in Alternative Transportation Strategies Show Small Change to CO₂ Per Capita Reduction** – Kern COG is making significant investment in alternative transportation strategies such as transit, bike and pedestrian facilities yet they account for less than .2 percentage points reduction in the per capita CO₂. The 2014 Plan includes a 1668% increase in capital funding for transit/HOV facilities of which 93% is funded from existing sources such as HSR/Recovery Act (\$1.5B), LTF (\$301M), STIP (\$140M), CMAQ (\$125M), STA (\$100M), CalVans (\$48M), local impact fees (\$37M), FTA 5307/10/11 (\$30M), other existing sources (\$35.1M) and 7% is from other future sources. Even without high speed rail, transit/HOV capital expenditures increase over 500%. The 2014 Plan also represents a 1000% increase in capital bike and pedestrian funding over the 2011 RTP of which 65% of the funds are redirected to bike and pedestrian projects from local impact fees (\$134.7M), CMAQ (\$72.5M), ATP (\$37.5M), Federal Demonstration (\$30M) and 35% is from future other sources (see RTP Table 6.1 for details).

Some commenters have asked why these significant changes in the expenditure plan don't have a greater impact on the per capita CO₂ reduction from 2005. The explanation is as follows:

1. **Regional Modeling of Interregional Trips and Commuter Sheds** - Unlike other regions that may be showing greater effectiveness of alternative transportation (transit/bike/pedestrian) investment and land use strategies, Kern's model is a more accurate depiction of the entire commuter shed for the region. The model covers over

³ http://www.kerncog.org/images/docs/transmodel/MIP_Documentation_revisions_20130701.pdf

⁴ http://www.kerncog.org/images/docs/transmodel/Kern_DynamicValidation_20130828.pdf p. 1

⁵ http://www.kerncog.org/images/docs/transmodel/ARB_tech_method_201402.pdf

8,000 square miles (1/3rd the area of the 8-San Joaquin Valley counties), with only 5% of commuters traveling across county boundaries to/from their place of work. This gives a more realistic picture of the effects of land use strategy changes in a region dominated by rural resource employment areas. The CARB RTAC methodology developed for SB375 recommends regions to account for half of the interregional trips.⁶ Unfortunately, a common method for accounting for travel outside each region, such as the use of the state-wide travel model, was not available. To compensate, Kern and the San Joaquin Valley MPOs are conservatively taking into account 100% of passenger vehicle trips within Kern County borders to/from other counties as part of its SB 375 related travel, even though RTAC recommends only half of these trips to be counted. This method is consistent with the methodology used to set SB 375 targets statewide. In Kern, this travel to/from other counties accounts for approximately 1/5th of the total VMT because trips to the edge of the county from the major urban area can be more than 40 miles.

The result is a disparity in modeling results when comparing regions that incorporate the bulk of their commute shed in their modeling with those that have a significant portion of commute outside and through their region. Table MR1-C contains a comparison of preliminary CO₂ emission results and the corresponding out-of-county commute for MPOs in California. Kern COG has similar percent per capita reductions and percent out-of-county commute patterns as the big 4 MPOs however, Kern COG's emissions of 14.7 lbs. per capita appear to be 30% less than the big 4 MPOs.

⁶ <http://www.arb.ca.gov/cc/sb375/rtac/report/092909/finalreport.pdf> p. 26

Table MR1-C. Comparison of CO2e Emissions Per Capita and Out-of-County Commute

3/4/2014

2006-10 U.S. Census ACS Commute Patterns

	SCS	CO2e 2035	CO2e 2035									Workers	Workers
	Status as of 2/13/14	Percent Reductions Per Capita	Pounds Per Capita SB375	Out-Commute	%	In-Commute	%	In+Out Commute	%	by Place of Work	by Place of Residence		
CALIFORNIA MPO	Average:	-15.4%	20.0	62,425	3.0%	84,211	3.9%	146,636	3.4%	3,333,244	3,369,284		
Big 4 MPOs	adopted	-16.0% (1)	20.5 (6)	101,929	1.3%	74,958	1.0%	176,887	1.1%	7,763,584	7,765,719		
SCAG	adopted	-16.4% (8)	17.1 (7)	44,464	1.4%	146,448	4.4%	190,912	2.9%	3,182,385	3,309,530		
ABAG	adopted	-16.0% (1)	19.7 (6)	60,365	6.1%	48,074	5.7%	108,439	5.6%	948,145	987,447		
SACOG	adopted	-13.0% (1)	22.6 (6)	42,940	3.0%	67,365	4.7%	110,305	3.9%	1,438,863	1,414,438		
SANDAG	adopted	-15.0%	13.2	26,191	17.7%	20,203	14.5%	46,393	16.1%	175,524	182,765		
8-San Joaquin Valley MPOs	Average:	-15.0%	13.2	26,191	17.7%	20,203	14.5%	46,393	16.1%	175,524	182,765		
SJCOG	pre draft	-30.1% (2)	12.6 (2)	67,134	25.7%	38,348	16.5%	105,482	21.4%	232,066	260,852		
STANISLAUS	pre draft	-17.7% (2)	13.2 (2)	43,034	21.5%	24,963	13.7%	67,997	17.8%	182,042	200,113		
TULARE	pre draft	-17.0% (7)	15.6 (2)	20,634	12.8%	14,366	9.3%	35,000	11.1%	154,866	161,148		
KERNCOG	pre draft	-16.6% (7)	14.7 (6)	10,496	6.8%	20,123	6.7%	30,619	5.1%	302,424	302,797		
FRESNOCOG	pre draft	-11.1% (7)	13.2 (2)	25,735	7.3%	29,944	8.4%	55,679	7.9%	354,726	350,511		
MADERA	pre draft	-10.3% (2)	13.9 (2)	15,328	33.2%	12,462	28.8%	27,790	31.1%	43,256	46,122		
KINGS	pre draft	-10.2% (2)	9.6 (2)	4,678	9.4%	11,287	20.1%	15,965	15.1%	56,211	49,622		
MERCED	pre draft	-6.7% (7)	12.4 (2)	22,486	24.7%	10,128	12.9%	32,614	19.2%	78,597	90,951		
Coastal/N. California MPOs	Average:	-7.4%	18.4	15,586	9.0%	14,613	9.7%	30,200	9.3%	135,290	156,480		
SANTA BARBARA	adopted	-15.4% (5)	20.7 (5)	12,098	6.4%	24,086	12.0%	36,184	9.3%	200,623	188,635		
TAHOE	adopted	-7.2% (3)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
AMBAG	draft	-5.8% (4)	14.5 (4)	41,271	12.8%	28,267	13.6%	69,538	13.1%	207,660	321,660		
BUTTE	adopted	-1.0% (3)	16.2 (6)	8,161	9.5%	5,415	6.5%	13,576	8.0%	83,569	86,315		
SAN LUIS OBISPO	pre draft	n/a	n/a	12,900	11.0%	10,346	9.0%	23,246	10.0%	115,395	118,039		
SHASTA	pre draft	n/a	22.4 (6)	3,502	5.2%	4,953	7.2%	8,455	6.2%	69,201	67,750		

Notes:

(1) ARB SCS Fact Sheets.

(2) ARB Staff Report Update on SB 375 Implementation in SJV 01/15/13.

(3) ARB Technical Evaluation for GHG Reductions April 2013.

(4) AMBAG Draft 2035 MTP/SCS February 2014

(5) SBCAG 2040 RTP/SCS/EIR adopted 08/15/13.

(6) RTP/SCS/EIR

(7) ABAG Draft EIR Table 2.5-7

- Kern's Ex-urban Commute Pattern** - Kern is a rural resource based economy with an ex-urban commute pattern. Two Thirds of Kern's residents live in the center of the county, Metropolitan Bakersfield, which covers only 1/20th of the region's total area. Approximately half of the jobs in Kern are in the outlying areas (wind/solar, oil/gas/mining, agriculture, logistics, prisons, recreation, etc.) creating a reverse commute that is less conducive for transit, bike and pedestrian solutions and more appropriate for ride share and vanpool options. Greater infill alternatives reduce home-based shopping and other trips, but often increase the commute trip length. This moderates the impact infill and increased alternative transportation investment has on travel reduction.
- Strategy Feasibility Studies** - In anticipation of the development of the SCS, Kern COG commissioned several studies to identify the scope and feasibility of strategies to include in the SCS. These studies drove the identification of alternative transportation strategies that have been included into the plan. This plan fully funds the feasible portions of these strategies including increased investment in: bus rapid transit, express bus, fixed routes, inter-city rail, commuter rail, vanpooling, ride share, transit/HOV facilities, bike and pedestrian facilities and planning for these facilities. The results of these studies were work-shopped throughout the extensive public outreach process of the 2014 RTP and are discussed in detail in RTP Chapter 5.

- J. The SB 375 requirement for the SCS to be “Actions Oriented and Pragmatic” – RTP Table 2-1 Regional Transportation Plan Goals, Policies and Actions contains a list of 145 Actions, implementing the goals and policies of the RTP. These actions are developed in detail in Chapter 5, the Strategic Investments Chapter, demonstrating that the RTP/SCS is action oriented and pragmatic.

RTP-MR-2: 33% Housing Mix Growth Pattern

- A. **33% Alternative Not Rejected** - Many commenters requested that the 33% Housing Mix Alternative be selected as the preferred alternative. Many others requested that it be rejected along with the Intensified and 100% Infill Alternatives. The 33% Housing Mix Alternative differs from the Plan Alternative in that it accelerates or frontloads funding for alternative transportation modes at a faster rate than the Plan Alternative, and it includes a mix of housing growth that is equally 33% for multi-family, small lot/townhome, and large lot single family housing in Metro Bakersfield compared to the Plan Alternative which is 23.3%, 32.3% and 44.4% respectively. Countywide the 33% Mix alternative is 24%, 25%, and 51% and the Plan is 18%, 24%, and 58%.

In developing the Plan, Kern COG has satisfied its obligation under SB 375 to identify a policy and growth pattern that meets desired GHG reduction goals. Imposing additional land use guidelines that would further exceed identified GHG targets would result in greater impacts on local communities (primarily the City of Bakersfield). While these communities (i.e., the City of Bakersfield) may be able to accommodate such growth, without detailed evaluation of infrastructure carrying capacity, the potential increased impacts to these communities likely would offset the decreased GHG emissions and decreased consumption of open space that could be achieved by the more aggressive alternatives. Nonetheless, local jurisdictions, in exercising their land use authority, could choose to interpret the regional SCS policies in terms of the growth pattern identified in the 33 Percent Housing Mix or 100 Percent Infill Alternatives.

The Plan provides general guidance on location of development. The 2014 RTP does not impose specific land use controls. It will be up to each jurisdiction to interpret the 2014 RTP land use policy as it applies to them and through ongoing monitoring of key performance measures (in cooperation with Kern COG), monitor GHG reductions to ensure consistency with the 2014 RTP. Through ongoing monitoring Kern COG will adjust regional policy as needed (in the next RTP or in interim Amendments if needed) to ensure that the region complies with applicable State law including AB 32 and SB 375.

Kern COG is not rejecting the 33 Percent Housing Mix or any alternative with increased density and/or greater percentage of high-density housing as a possible land use scenario for 2040. Rather, Kern COG is rejecting the inclusion of policies in the 2014 RTP that would impose extensive land use intervention (to mandate specific land use densities and/or specific locations) with local jurisdictions because 1) such intervention is not necessary to achieve SB 375 targets and 2) Kern COG has no land use authority and no mechanism exists to impose detailed land use control. In the future, should monitoring indicate that such detailed land use intervention appear necessary, Kern COG will work with local jurisdictions and state officials to determine the best mechanism(s) to implement such controls.

B. **Assumptions for 33% Alternative Don't Match the Observed Data** - The 33% housing mix alternative includes the following assumptions Kern COG considers less likely to occur than the Plan Alternative.

1. **Consistency with recent studies** - The Kern region has a wealth of recent housing preference data available to base assumptions on for future housing density. The Plan Alternative housing mix assumptions reflect 5 out of 6 of the major studies/surveys including public input during RTP public workshops. Tables MR-2 (A-F) provide a comparison of the data collected on housing preference in Kern. This data is difficult to compare due to differing methodologies. The common header format for each table helps to normalize the results for easier comparability. Table G summarizes historic trends in housing built in Kern going back to 1980. Table H provides the densities used in the Plan in a comparable format. The tables show that the range of preferences are closer to 60% large lot, 40% higher densities countywide (45% large lot, 55% higher density in Metropolitan Bakersfield).

Table MR2-A

Planning Center - Forecast - March 2012					
Part of the SJV Demographic Forecast					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo	Total
2010-2020	69%		31%		100%
2020-2035	67%		33%		100%
	68%		32%		100%

http://www.valleyblueprint.org/files/San%20Joaquin%20Valley%20Demographic%20Forecasts%20-%20Final%2027%20Mar%202012_0.pdf

This study was prepared for the 8-San Joaquin Valley Counties to better account for the economic downturn in the region's forecasts. Kern COG used the methodology to validate the 2009 adopted Kern COG forecast that successfully predicted the downturn. This study predicts a need for 68% single family detached (SFD) 2035, the Plan Alternative assumes 58% single family detached by 2040 countywide. The 33% alternative assumes 51% countywide.

Table MR2-B

The Concord Group - Forecast - June 2012					
Part of the SJV Housing Market Demand Forecast - Market Demand Analysis for Higher Density Housing					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo	Total
2010-2020	59%		17%	23%	100%
2020-2035	58%		18%	24%	100%
	59%		18%	23%	100%

<http://www.valleyblueprint.org/files/11245.00%20FCOG-SJV%20Demand%20Final%20Draft%206.22.12.pdf>

This study was also prepared on behalf of the 8-San Joaquin Valley Counties to provide a better understanding of housing need, and predicts 59% SFD needed by 2035 compared to the Plan Alternative assumption of 58%.

Table MR2-C

Godbe Annual Kern Community Survey - Spring 2012					
Kern COG 1,200 person statistically valid phone survey (respondents could select more than one category resulting in totals >100%) Note that the low end range for detached is the number that would refuse 2-4 plex housing, low end range for attached refuse SFD					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo	Total
Would consider in the next 10 yrs	47% - 84%	47% - 78%	15% - 52%	15% - 25%	
Would NOT consider in the next 10 yrs	15%	21%	47%	65%	

http://www.kerncog.org/images/docs/community_survey/community_survey_2012.pdf

This survey is performed annually for Kern COG by a research consultant and includes a housing question that allows for multiple preferences of housing type. The range for SFD on large lots is 47-84%. The middle of the range is 65%, closer to the Plan alternative of 58%. This survey was used by the next study.

Table MR2-D

Council of Infill Builders - Jan. 2013					
A Home for Everyone: San Joaquin Valley Housing Preferences and Opportunities by 2050 by Dr. Arthur C. Nelson					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo	Total
2010-2020	15%		85%		100%
2020-2035	52%		48%		
2035-2050	69%		31%		
2010-2050	50%		50%		

<http://www.councilofinfillbuilders.org/resources/PDFs/ValleyHousing.pdf>

This study was prepared by a professor from the University of Utah and used the 2012 Godbe Research Community Survey as well as the data from the Concord Group shown in Table MR2-B. The study concludes that the existing housing stock in Kern is oversaturated with large lot SFD. However, the study only used the high end in the range of data provided by the Godbe Survey. In addition, the study frontloads the need for higher density housing, showing growth in SFD need going from 15% of new housing by 2020 to 50% by 2050. This number is at the low end of the range (47%-84% SFD) in the 2012 Godbe Survey and is a rapid departure from current trends and ignores the more than 30,000 lots of SFD tract maps already entitled in the Metropolitan Bakersfield area. The Plan Alternative does assume a reduction of SFD on lots greater than 6000 sq. ft. in Metro Bakersfield shrinking to 45% by 2040, where market changes for higher densities are most likely to occur.

Table MR2-E

Godbe Annual Kern Community Survey - Spring 2013					
Kern COG 1,200 person statistically valid phone survey (respondents could select more than one category resulting in totals >100%) Note that the low end range for detached is the number that would refuse 2-4 plex housing, low end range for attached refuse SFD					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo	Total
Currently living in	43%	38%	5%	13%	100%
Would consider in the next 10 yrs	61% - 82%	61% - 70%	17% - 39%	17% - 27%	
Would NOT consider in the next 10 yrs	17%	30%	61%	72%	

http://www.kerncog.org/images/docs/community_survey/community_survey_2013.pdf

The 2013 annual survey performed by Kern COG shows the range of SFD housing types shifting from a range of 47-84% to 61-82% as the economy recovers. The middle of the range has moved up from 65% to 71% driven primarily by an increase in the number of people who would not consider multi-family. Interest in small lots also appears to be waning as well, possibly indicating that current density assumptions for the Plan Alternative may be on the ambitious side.

Table MR2-F

Kern COG Metro Bakersfield Public Workshops - August 2013					
Kern COG workshops held that analyzed scenarios using an anonymous survey method					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo	Total
Avg Scenario 2010-35	60%	40%			100%

In August 2013 as part of the extensive public outreach effort Kern COG performed two additional workshops in Metro Bakersfield to consider a more detailed range of scenarios for future growth. The workshops compared four alternatives, each one progressively more ambitious. The participant feedback ranged widely from no change to major change alternatives. The weighted average results came in about half way between scenario three and four resulting in a preference for 60% SFD housing, very close the Preferred Alternative of 58% SFD by 2040.

Table MR2-G

California Dept. of Finance Estimates by Housing Type (1980-2013)					
Note that these estimates are adjusted to observed census data, 1980 data SFD includes mobile homes					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo 5+	Total
1980 Census	80%		8%	12%	100%
1980-2006	86%		9%	5%	100%
2006-2013	70%		29%	1%	100%
1980-2013	83%		13%	4%	100%

Table G shows that in 1980 SFD consisted of 80% of the housing stock. In the past 33 years 83% of the housing built has been SFD. However, in the past 7 years beginning in 2006, that trend began to turn with only 70% of new housing being built as SFD.

Table MR2-H

Kern COG 2014 Preliminary RTP Assumptions (Consistent with Range of Studies)					
Note that these values do not exceed the capacity of existing local General Plans and latest planning assumptions					
Category	Single Family Detached		Multi-Family Attached		
Land Use	Low/Very Low	Medium ⁽¹⁾		High ⁽²⁾	
Type	SFD - Large Lot	SFD - Small Lot	2-4plex apt/condo/twn	Apt./condo	Total
2010-2020	66%	18%		15%	100%
2020-2035	56%	26%		19%	100%
2035-2040	49%	31%		20%	100%
2010-2035	60%	23%		17%	100%
2010-2040	58%	24%		18%	100%

Notes: (1) Land use categories are based on assumptions developed by the Regional Planning Advisory Committee. Medium land use and Single Family Detached (SFD) - Small lot are 6000 sq. ft. or smaller. (2) 2-4plex includes apartments, condominiums and townhomes with 2-4 attached units and Apt./condo includes higher density housing such as bi- and tri-level apartment buildings.

The Plan Alternative provides a logical extrapolation of this trend as can be seen in Table H, showing SFD decreasing from the 70% to 66% over the next 10 years to 56% by 2035 and 49% by 2040. This logical progression fits both the historic trends and the recent housing preference surveys.

Recently, the average square footage of new SFD construction in the City of Bakersfield has begun to creep back up from a low in 2010 of 1,956 to 2,244. It appears that as the economy begins to rebound so too is the demand for larger homes. The housing market is still sluggish, building only about one-half of what is typical.

In addition, the City of Bakersfield has proposed creation of a small-lot zone that would allow a 4,500 square-foot lot by right, providing an option in the near future to allow creation of this type of product without having to use a planned unit development (PUD) zone.

2. **Highly Flexible Local General Plans** - Consistent with the adopted Kern COG SB 375 Framework, Kern COG modeling uses housing mix assumptions reflecting local General Plans. These plans have proven flexibility to allow for significant infill without the need for a General Plan amendment. In addition many of the local General Plans provide incentives such as lower traffic impact fees, reduced parking requirements and flexible mixed use/and form based zoning allowing for an increased housing mix.
3. **Financial Constraint Issue** – The 33% Alternative includes advancement of transit, bike and pedestrian projects that are less likely to be financially constrained without a revenue source that can be bonded against. Some of the projected new funding sources cannot be bonded against. However, if a new funding source is developed that can be bonded against, the Plan Alternative does not preclude frontloading of the alternative transportation projects. SB 375 requires that new local sales tax transportation measures

be consistent with the RTP/SCS. In addition, Kern COG has policies that promote early delivery as funding is available. Kern COG also updated the Project Delivery Policy to provide over half of all points to projects that promote livability and sustainability as part of the effort to implement SB375. This insures that if new funding is available, alternative transportation (transit, bike and pedestrian) projects will receive priority funding.

- C. **Land Use Authority is Local Not Regional** - Kern COG does not have land use authority to require local jurisdictions to provide an increased mix of housing. The SCS must be based on local General Plans and likely housing mix/infill assumptions using the best available data.
- D. **Denser Alternatives Increase Exposure To Localized Emissions** - The alternatives like the 33% housing mix alternative that increase infill and density over the Plan Alternative, increase population exposure to diesel emissions along urban transportation routes.
- E. **Increased Potential for Displacement of Low Income Households** - Alternatives like the 33% housing mix alternative that increase infill and density over the Plan Alternative, have the potential to increase displacement of disadvantaged residents in existing urban areas. Kern COG does not have land use authority to require local jurisdictions to avoid displacement. Note that California Government Code Section 65583.1 imposes local government housing element requirements for preventing displacement caused by rehabilitation.
- F. **Growth is Important in Disadvantage/Outlying Communities as Well** – Over emphasis on higher infill and densities in Metropolitan Bakersfield risks siphoning off more growth from outlying communities. Unemployment rates are higher in outlying communities. Some commenters pointed out an apparent decrease in the jobs housing balance of the communities of Arvin, Greenfield, Lamont and Weedpatch. Kern COG reviewed that data and found an unintended shortfall in the employment in these communities of Arvin, Lamont and Weedpatch consistent with the forecasted household growth for these communities. Kern COG performed a sensitivity test adding employment for these communities and found a minor improvement in overall VMT emissions. Kern COG will incorporate these changes into all future model runs. Since the Plan Alternative as modeled has higher emissions, it can be considered a worse-case scenario should the intended jobs housing balance in these communities not take place.
- G. **Farmland Saved is Limited** – The difference in farmland consumed between the Plan Alternative and the 33% Alternative outside the urban spheres as required by SB 375 is zero. With the 33% Alternative, farmland consumed inside the spheres is slowed, however these properties are already designated in the General Plan for urban use, and are adjacent to existing urban areas, limiting their farming viability. The total consumption of farmland slows from 1.8 square mile per year to less than 1, a 44% reduction in land consumed with the Plan Alternative compared to the Old Plan. It is important to note however, that of the 240 square miles (14% of 1988 Kern farmland) lost over the past 22 years, only 40 square miles (2.4% of 1988 Kern

farmland) was lost to urbanization. The remaining 200 square miles were lost due to lack of water, conversion to habitat, and other reasons. Over the next 26 years it is anticipated that only 26 additional square miles of farmland will be lost to urbanization (1.6% of 2010 Kern farmland).

In addition, RTP Table 4-2 had an errant formula requiring the correction of several data cells.

RTP Table 4-4. Kern County Important Farmland Conversion 1988 to 2040

Year	Historic Trend				Forecast						Annual Average		
	1988	2010	1988-2010	% Change	2035	2010-2035	% Change	2040	2010-2040	% Change	1988-2010	2010-2035 ¹	2010-2040 ¹
Kern County Population	511,200	841,200	330,000	64.6%	1,321,000	479,800	57.0%	1,444,100	602,900	71.7%	15,000	19,192	20,097
Land Including City Spheres of Influence² (square miles)													
Urban/Built-Up	132	222	90	68.2%	294	72	32.4%	313	91	41.0%	4.1	2.9	3.0
Total Important Farmland ³	1668	1428	-240	-14.4%	1404	-24	-1.7%	1402	-26	-1.8%	-10.9	-1.1	-1.0
Farmland to urban/built-up	1668	1428	-40	-2.4%	1404	-24	-1.5%	1402	-26	-1.6%	-1.8	-1.1	-1.0
Farmland to other ⁴	1668	1428	-200	-12.0%	1404	0	0.0%	1402	0	0.0%	-9.1	0.0	0.0
SB 375 Defined Land Outside City Spheres of Influence (square miles)													
Urban/Built-Up	39	77	38	97.4%	83	5.8	7.5%	84	7.2	8.7%	1.7	0.2	0.2
Total Important Farmland ³	1407	1226	-181	-12.9%	1226	-1.1	-0.1%	1227	-1.4	-0.1%	-8.2	-0.1	-0.1
Farmland to urban/built-up	1407	1226	-8	-0.6%	1226	-1.1	-0.1%	1227	-1.4	-0.1%	-0.4	-0.1	-0.1
Farmland to other ⁴	1407	1226	-173	-12.3%	1226	0.0	0.0%	1227	0.0	0.0%	-7.9	0.0	0.0

Source: California Department of Conservation FMMP (1988-2010), Kern COG Land Use Model (2013-2040); ¹FMMP data was unavailable from 2010-13; ²analysis used 2013 city sphere boundaries; ³identification of important farmland in 2035/40 includes areas designated for agriculture by the local General Plans; ⁴conversion of farmland to other uses include fallow/no water available, groundwater recharge, habitat and other uses not analyzed with the Kern COG land use model. This land use forecast is limited to land lost from future urbanization. Figures may not add due to independent rounding.

RTP-MR-3: Funding for Alternative Transportation Modes (Transit/Bike/Pedestrian)

A. Frontload Funding for Transit/Bike/Pedestrian – Many commenters requested that alternative transportation funding be made a priority over highway investment and that the funding be frontloaded in early years. The 2014 RTP represents a significant departure from prior RTPs with a significant shift in investment away from highway and road widening and investment. The following facts illustrate this shift:

1. **Transit** - 1600% increase in capital transit/HOV funding over 2011 RTP (\$112.8M 2011 RTP, \$2,410M 2014 RTP) including up to \$1.5 Billion in HSR First Construction Segment using Federal Recovery Act (ARRA) funding.

2. **Transit** - 700% increase in capital transit/HOV funding 2011 RTP excluding HSR (\$112.8M 2011 RTP, \$910M 2014 RTP).
 3. **Transit** - 90% of non-HSR capital transit/HOV funding from existing identified sources (\$816.1M 2014 RTP existing sources, \$910M 2014 RTP all sources)
 4. **Bike/Pedestrian** - 1000% increase in active transportation funding over 2011 RTP (\$37.5M 2011 RTP, \$424.7M 2014 RTP)
 5. **Bike/Pedestrian** - 65% of active transportation funding is from existing identified sources (\$275M 2014 RTP existing sources, \$424M 2014 RTP all sources)
 6. **Where is the Existing Funding Coming From in the RTP?** - New funding for transit, bike and pedestrian projects is being created by changing requirements for funding sources (i.e. TE and SRTS are now ATP), more accurate accounting of bike and pedestrian projects in impact fee and federal demonstration projects, and the delay of two beltway projects that are not needed as soon due to slowing VMT growth created in-part by TSM/TDM and other strategies that Kern has been implementing since 1990 to clean up the air which has improved by over 80% even though population has grown 60%.
- B. **Nationally Recognized Best Practice for EJ Analysis** - Kern is recognized both by California and nationally as a best practice for analyzing impacts of the RTP expenditure plan to EJ communities and its outreach program.
- C. **EJ Analysis Demonstrates Proactive Funding For Disadvantaged Communities** - Disadvantaged communities receive a higher share of transportation funding than the passenger miles traveled by their communities. EJ communities receive 36% of highway investment and 60% of transit investment but only account for 18% and 48% of passenger miles traveled respectively. For example, of the more than 1000 miles of planned new, safer bike facilities, over half directly benefit outlying communities yet they only represent about one-third of the total population.
- D. **Full Funding For All Feasible Alternative Transportation Modes** - In the 4 years leading up to this RTP Kern extensively studied bike/pedestrian, complete streets, transit, commuter rail and other strategies in preparation of the 2014 RTP/SCS and identified what was feasible. This plan fully funds identified feasible projects in the bike, pedestrian, complete streets and transit plans. Even if more funding was identified for alternative transportation projects, currently there are no feasible projects un-funded that need to be funded. For example the transit feasibility study titled: Golden Empire Transit (GET) Long Range Transit Plan, identified a \$4B light rail project for Metropolitan Bakersfield, however, the study found that it was not feasible before 2040 and recommended investment in a BRT system instead. Funding the light rail system would create investment in a system that might not carry the ridership needed to operate the system.
- E. **Additional Funding For Planning Active Transportation Projects** - Kern is partnering with the City of Bakersfield, County of Kern and CSUB on ATP planning/study grant applications to refine funding needs for active transportation projects. In addition, Since 2008 Kern COG has programmed over \$400,000 in technical assistance grants to its member agencies to assist with alternative transportation planning. In January 2014, the Kern COG Board approved a program to provide funding for technical planning assistance and voluntary feedback to its member agencies on progress in reducing overall vehicle travel. In May 2014

Kern COG approved \$565,700 in FY 2014/15 in technical assistance funding and staff time for projects like the Boron Visioning and the Valley Floor Habitat Conservation Plan.

- F. **Complete Streets Required By Congestion Management Plan (CMP)** - Kern COG's CMP includes requirements for complete street strategies to address heavily congested corridors, rather than simply requiring increased roadway capacity for single occupancy vehicles. These strategies include transit/HOV lanes/facilities and bike and pedestrian facilities to mitigate congestion. The program is described on RTP p. 5-59 to 5-66.
- G. **New Project Delivery Policy and Procedures Implement SB 375 Goals** – In 2013, Kern COG adopted updated Project Delivery Policy and Procedures to give over half the points to projects that promote SB375 goals of livability and sustainability. The policy facilitates SB 375 goals by ranking and prioritizing projects for funding that score the highest in livability and sustainability. The program is described in the RTP/SCS Chapter on p. 4-54 to 4-56.

RTP-MR-4: Support for Plan Alternative

Many commenters supported the Plan Alternative and noted that growth focused in existing communities, funding specific transportation corridors, and funding alternative transportation is correct.

RTP-MR-5: Rejection of Alternatives

Many commenters requested rejection of all other Alternatives except the Plan Alternative. Rejection of the other Alternatives is not necessary with the adoption of the Plan Alternative; however, the other Alternatives are either unrealistic or do not meet key requirements. For example, the Plan Alternative meets the Federal Clean Air Act and SB 375 requirements as do the other more ambitious alternatives. The Old Plan and No Build Alternatives do not meet the Clean Air Act requirements and are therefore not viable. The 100% Infill Alternative housing assumptions have significant problems related to unreasonable housing assumptions, consistency with General Plans and a potential financial constraint issue for alternative transportation projects, among other issues. The 33% Housing Mix and Intensified Alternatives have a similar problem with financial constraint and, to a lesser degree, problems with housing market assumptions. However, these two Alternatives are within the realm of possibility should market assumptions and funding begin to trend in that direction. These two Alternatives provide some benefits over the Plan Alternative, and some drawbacks as well. Should the assumed funding and housing market assumptions materialize consistent with the activity and future local General Plan updates, these two Alternatives could become more viable in future cycles of the RTP. However, the Plan Alternative clearly provides the best fit to the information as well as the fewest number of impacts. See also RTP MR-1 and RTP MR-2.

RTP-MR-6: Protecting and Conserving Farmland and Open Space

The commenter mentions that 91 square miles of farmland, grazing land and open space are lost with the preferred Alternative, significantly overstating the actual predicted loss of farmland. The 91 miles in Table 4-4 (see RTP MR-G above) is the estimate of total new urban in greenfield areas (farmland, grazing land, open space) as well as revitalized existing urban areas between 2010 and 2040, resulting in about 3 square miles per year to

accommodate 20,000 people per year (most born in Kern). This is a 25% reduction compared to the previous 22 years going back to 1988, which saw urbanization (not counting revitalized areas) grow at 4.1 square miles per year with only 15,000 people per year average growth. However, 21% of the growth in households is anticipated to be in existing revitalized/infill urban areas, 31% of Metro Bakersfield households are forecasted to be built in these infill areas. At the same time, farmland consumption will drop 44% from 1.8 square miles per year over the last 22 years, to less than 1 square mile per year for a total of 26 square miles of farmland lost to urbanization. This is almost half the rate of farmland loss that was being predicted in the Kern Regional Blueprint 6 years ago. In addition, the farmland loss is limited almost entirely to existing spheres of influence with a total loss of 1.4 square miles of the new 26 square miles of urbanization outside of existing spheres of influence. All urbanization in the analysis is on areas already designated by the General Plan for urban use, even though it may currently be farmland.

Some commenters expressed concern about the economic impact created by the loss of farmland. It is important to point out that the projected 26 square miles of farmland loss is less than 2% of all 2010 farmland in Kern, and will likely result in a corresponding 2% loss in agriculture production and economic benefit to the region. However, approximately one-half of the converted farmland is anticipated to be new industrial and commercial developments, which have a much higher property tax return and job creation rate than agriculture land, mitigating the potential economic loss. In addition, it is possible that the agricultural water rights could be transferred for use on other farmland currently not irrigated, further reducing farmland lost to urbanization.

Every indication is that farmland is more threatened by the loss of water in the Valley than urbanization. Since 1988 Kern has lost 240 square miles or 14% of irrigated farmland, however, only 40 square miles of that was lost to urbanization. The rest were driven out of production primarily by the lack of available water, conversion of agricultural land to habitat easements, water banks and other activities. Still Kern has not rejected the 33% Alternative and the more compact development alternatives should local agencies and the market develop an even more compact urban form consistent with the highly flexible local General Plans. As with the Plan Alternative, which uses 10% less water for urban use than the Old Plan, the less water used per household, leaves more water available for farming.

The SCS Chapter 4 includes a rural-urban connectivity strategy that looks at the amount of land needed for market gardening to support the local population. The analysis in Figure 4-3 shows that 80 square miles are needed to meet the needs of the local market network by 2035. Kern will have 1,400 square miles of farmland in 2035, enough land to feed over half of the state's population, assuming the water is available and agricultural exports are curtailed.

Some commenters recommended Kern COG develop a conservation framework. Kern COG does not have land use authority and is not the appropriate entity in this one-county region to implement a Conservation Framework. However, Kern COG has approved hundreds of thousands of dollars in its annual work program in funding to the County for conservation planning including another \$175,000 in the 2014/15 work program to support the Valley Floor HCP/NCCP development effort. This planned funding complements the commitment of \$77M in RTP Table 5-1 for mitigating transportation related habitat impacts in the region. The County has land use authority in the resource

areas of Kern and is the appropriate lead agency for Conservation Framework efforts. Page 4-39 of the RTP states, *"The County of Kern is scheduled to begin the next major General Plan update in 2014. The update will address land use conservation issues such as habitat and farmland. Appropriate changes to the County's update will be reflected in future RTPs/SCSs"*. Recent conversations with County Planning staff have reconfirmed their commitment to take on this effort in their General Plan update. Kern COG will work with stakeholders including the Southern Sierra Partnership (SSP) to leverage expertise and resources in this effort.

RTP SPECIFIC COMMENT RESPONSES

Letter 1: State of California Department of Transportation (Caltrans), Alec Kimmel, Transportation Planner, Planning South Branch

- 1-1 Thank you for your comment.
- 1-2 Thank you for your comment. The following bullet found on Page 5-49, which reads as follows: "Promote development of revitalized, walkable/bikeable neighborhoods with easy access to transit; Paving/controlling dust from streets and shoulders..." will be revised to read as follows: "Promote development of revitalized, walkable/bikeable neighborhoods with easy access to transit; Paving/controlling dust from streets and shoulders; and improve street intersections that facilitate bicycle travel"
- 1-3 This sentence is in the EIR. The last portion of the sentence was changed to read "but heavy rail lines can also be found in urbanized core areas in the region."
- 1-4 Please see the 2014 RTP Final EIR, Chapter 2, Corrections and Additions, regarding changes made to Page 4.9-4.
- 1-5 Thank you for your comments. The RTP Checklist is signed, references item locations in the RTP and provides page numbers where feasible. Further clarification is provided in responses 1-6 and 1-9.
- 1-6 Thank you for your comments.

General,

Item 3: Refers to Government Code Section 65080. References to Government Code Section are on pages 1-1, 2-1, 4-1, 4-19, and 4-35.

Item 4: (Please note there are two Item 4s on this Checklist under General). The second Item 4, refers to the Project Intent i.e. Plan Level Purpose and Need Statements. The Project Intent is outlined in Chapter 1 Introduction, on Pages 1-1 through 1-6. Chapter 5 Strategic Investments, outlines system needs for freight movement, public transportation, active transportation, transportation air emissions reduction, intelligent transportation systems, congestion management program, regional streets and highways, aviation, safety/security and land use.

- 1-7 Thank you for your comment. The mailing list for the Notice of Preparation of the Environment Document for the 2014 RTP included the following federal agencies:

USDA Natural Resources Conservation Service
U.S. Air Force Western Region
U.S. Army
U.S. Army Corp of Engineers
U.S. Army Director of Public Works Division
U.S. Bureau of Land Management
U.S. Bureau of Reclamation
U.S. Department of Agriculture/NRCS
U.S. Environmental Protection Agency
U.S. Fish & Wildlife Service
U.S. Forest Service Los Padres
U.S. Marine Corp
U.S. Navy

Kern COG also provided opportunities for federal agency participation through the Regional Planning Advisory Committee and our Environmental and Social Equity and Business and Industry Roundtable Meetings.

- 1-8 Thank you for your comment. The Regional Planning Advisory Committee was formed by the Kern COG Board to provide a forum to review and develop recommendations on key activities associated with regional transportation plans and other planning issues, including SB 375 implementation. Members of the RPAC are planning directors or community development director from each Kern COG member jurisdiction. Additional voting members include the public transit agency and Caltrans District 6. Community at-large voting members represent varied economic, social and geographic sectors and are appointed by the Kern COG Board. Non-voting members consist of the executive officer of the LAFCO and the President/CEO of the Kern Economic Development Corporation. Representatives from the regional air districts also participate in most meetings. (See Chapter 4, Pages 4-14 and 4-15 for more clarification.)

The mailing list for the Notice of Preparation of the Environment Document for the 2014 RTP included the following state and local agencies:

Kern Audubon Society	Kern County Administrator's Office
Kern County Airports Dept.	Kern County Assessor
Kern County Board of Supervisors	Kern County Clerk
Kern County District Attorney	Kern County Eng. Surv. & Permits
Kern County Env. Health Serv. Dept.	Kern County Farm Bureau, Inc.
Kern County Hispanic Chamber	Kern County Parks & Recreation
Kern County Recorder	Kern County Roads
Kern County Sheriff's Dept.	Kern County super. Of Schools
Kern County Transit Coordinator	Kern county Water Agency
Kern Delta Water District	Kern High School District
Kern Kaweah Sierra Club	Kern Mosquito Abatement Dist.
Kern Native American Heritage	Kern Planning & Comm. Dev. Dept.
Kern River Parkway Foundation	Kern River Watermaster
Kern Tulare Water District	Kern Indian Council
Kern Valley RC District	State Air Resources Board

State Clearinghouse OPR
State Dept. of Conservation
State Dept. of Parks & Rec.

State Dept. of Con. Div. of Oil & Gas
State Dept. of Fish & Wildlife
State Office of Historical Preservation

- 1-9 Thank you for your comments. General Heading, Item 4 a: Refers to residential densities and building intensities within the region. Information on growth forecasts and modeling assumptions can be found on pages 3-1, 4-23, 4-32, 4-47, 4-48, 5-1 and 5-64 as well as in Appendix G.
- Item 4 f: Refers to state housing goals. Information can be found on pages 4-10 and 4-32 through 4-34 as well as in Appendix H.
- Item 4 h: Refers to forecasted development patterns. Information on growth forecasts and modeling assumptions can be found on pages 3-1, 4-23, 4-32, 4-47, 4-48, 5-1 and 5-64 as well as in Appendix G.
- Item 4 i: Refers to consistency between the development pattern and allocation of housing units. Information on growth forecasts and modeling assumptions can be found on pages 3-1, 4-23, 4-32, 4-47, 4-48, 5-1 and 5-64 as well as in Appendix G.
- Consultation/Cooperation Heading, Item 1: Refers to the public involvement program. Information on Community Engagement can be found on pages 4-10 through 4-16 as well as in Appendix B.
- 1-10 All SHS projects are consistent with local adopted general plans. The RTP does not contain projects not included in local General Plan Circulation Elements.
- 1-11 Thank you for your comment. The following language has been added to Chapter 6, Page 6-1:
- For additional information please refer to Chapter 1, Pages 1-2 and 1-3.
- 1-12 Thank you for your comment. Public participation was extensive and a combination of methods to stimulate public involvement were used.
- 1-13 Thank you for your comments. Figure 1-1 is a map of "Non Metro Bakersfield" projects either under construction, completed or existing. Figure 1-2 is a map showing the same information for Metro Bakersfield. The box on Figure 1-1 is to point the reader to Figure 1-2 for Metro Bakersfield projects.
- 1-14 Thank you for your comment
- 1-15 Page numbers have been added as appropriate
- 1-16 Thank you for your comment
- 1-17 Thank you for your comment
- 1-18 The last 4 bullets on p. 5-50 are the long range measures. The heading "Long Term 2021-2040" will be inserted in front of these bullets.

- 1-19 Thank you for your comments. Table 6-1, titled “Revenue Forecast 2014-2040 (\$ x 1,000)” identifies a series of revenue sources classified as “Other Sources”. The additional \$1.3 Billion associated with the collective grouping of these possible revenue sources do not have a regional history and therefore were not estimated individually. The collective funding assumption of \$1.3 billion is a very modest percentage (10%) of a proportionate population ratio assumption used by the federally-approved Southern California Association of Governments 2012 Regional Transportation Plan based on the life of their Plan. With regards to the request for additional information regarding odometer-based user fees, the Kern region does not have specific history with this concept and so we consider the current description to be appropriate.
- 1-20 Thank you for your comment. We know that a user-based fee is a concept under serious consideration by Federal DOT and under trial testing by several states. This idea may be worthy of future detailed analysis by this region or by the State of California.
- 1-21 Comprehensive Transportation Plan was changed to “California Transportation Plan” on Page 9-3.
- 1-22 The following text was added to Page 1-1 to discuss Senate Bill 391, the State’s role and responsibility, and a reference to the California Transportation Plan:

The California Transportation Plan (CTP) vision states the following:

California’s transportation system is safe, sustainable, and globally competitive. It provides reliable and efficient mobility and accessibility for people, goods, and services while meeting our greenhouse gas emission reduction goals and preserving community character. This integrated, connected, and resilient multimodal system supports a prosperous economy, human and environmental health, and social equity.

Senate Bill 391 states the following:

Senate Bill 391 (SB 391, 2009), the California Transportation Plan, requires the California Department of Transportation to prepare the California Transportation Plan (CTP), the long-range transportation plan, by December 2015, to reduce GHG emissions.

This system must reduce GHG emissions to 1990 levels from current levels by 2020, and 80 percent below the 1990 levels by 2050 as described by AB 32 and Executive Order S-03-05. The upcoming CTP 2040 will demonstrate how major metropolitan areas, rural areas, and state agencies can coordinate planning efforts to achieve critical statewide goals.

Letter 2: County of Kern, Planning and Development Department, Lorelei Oviatt, AICP, Director, May 6, 2014

This letter contains comments on the EIR; see EIR Responses to Comments C-1 through C-5.

- 2-1 Thank you for your comment. Kern COG provided the Metro Bakersfield example to demonstrate how Kern COG’s member agencies can bring transportation planning and land use planning together in their General Plans. Kern COG staff has added the following sentence to Chapter 3 to address how other agencies in Kern are encouraging development and land use patterns that reduce vehicle trips: “*Many of Kern COG’s*

member agencies' land use elements have incorporated policies and programs that support development and land use patterns which maximize the efficient use of land and promote reduced vehicle trips by encouraging: balanced jobs and housing, walkable spaces, infill development, mixed use development, and/or development along transit routes."

- 2-2 The following text will be added to page 4-35. A Notice of Conservation Easement can be placed on land to retain land predominantly in its natural, scenic, historical, agricultural, forested, or open-space condition. A conservation easement is a voluntary agreement between a landowner and a land trust or government agency that permanently limits the uses of the land to protect its conservation or agricultural value. The landowner retains ownership of the land, but certain restrictions are agreed on through the easement, and recorded on the deed. Eleven land trusts currently operate in Kern County, covering thousands of acres of land.
- 2-3 Comment noted. We will include the Kern Community Revitalization Program in the success stories in the final RTP/SCS.
- 2-4 See RTP MR-2

Letter 3: Rosamond Municipal Advisory Council, Olaf Landsgaard, Secretary, RMAC, April 14, 2014

- 3-1 Thank you for your comments. The community of Rosamond is part of the political body of the Kern Council of Governments as represented by two County Supervisors. As such, the concerns of the community of Rosamond are of concern to Kern Council of Governments. With specific regards to the request that "Kern Council of Governments include in its plans, in the next four years to: Pave the middle third of the three mile frontage road on the west side of Freeway 14 - and include wider shoulders for a bike lane", we commend this request to the County of Kern Roads Department for their consideration and prioritization. Should there be regional funding opportunities to finance this project, the County of Kern would be informed of such opportunities. Rosamond residents were afforded an opportunity to participate in the development of the Regional Transportation Plan (RTP). A public workshop was held on May 3, 2012, at the Hummel Community Building. The priorities selected by the participants were reducing household expenses and reducing government regulations. Participants also supported maintaining local streets and roads and adding highway capacity, primarily for trucks. Additionally, on December 20, 2012, Kern COG gave a presentation on the development of the 2014 RTP. Two notices were placed in the Rosamond News in May and two notices in December 2012.
- 3-2 Thank you for forwarding the Rosamond Municipal Advisory Council's (RMAC) Resolution 13-05. Resolution 13-05 resolves the need for a bike lane at Avenue "A" (Kern County-Los Angeles County line) to 30th West Street, a distance of .6 miles. The Kern Council of Governments (Kern COG) produced the Kern County Bike Plan and Complete Streets Recommendations in 2011 and 2012. The study was adopted by the Council in October 2012. In the study a suggested route on Sierra Highway from Rosamond Boulevard to the Los Angeles County line was proposed to be constructed as a Class II bicycle facility (striped bike lane with signage designating a bike lane). Additionally, a 9.3 mile section of Sierra Way from Rosamond Blvd to Silver Queen Road was proposed a Class III bicycle facility (route indicated by signs). The study did

not identify the section of Avenue "A" as a proposed bicycle project. Please forward your resolution to the Kern County Roads Department to include as a bicycle transportation facilities project utilizing the Transportation Development Act Article 3 program, or as a Congestion Mitigation Air Quality program. Rosamond residents were afforded an opportunity to participate in the development of the Regional Transportation Plan (RTP). A public workshop was held on May 3, 2012, at the Hummel Community Building. The priorities selected by the participants were reducing household expenses and reducing government regulations. Participants also supported maintaining local streets and roads and adding highway capacity, primarily for trucks. Additionally, on December 20, 2012, Kern COG gave a presentation on the development of the 2014 RTP. Two notices were placed in the Rosamond News in May and two notices in December 2012.

- 3-3 Thank you for your comments. The community of Rosamond is part of the political body of the Kern Council of Governments as represented by two County Supervisors. As such, the concerns of the community of Rosamond are of concern to the Kern Council of Governments. With specific regards to the request that "Kern Council of Governments include in its plans, in the next four years to: Pave the .6 miles on Dawn Road between the 14 Freeway exit and Sierra Highway", we commend this request to the County of Kern Roads Department for their consideration and prioritization. Should there be regional funding opportunities to finance this project, the County of Kern would be informed of such opportunities. Rosamond residents were afforded an opportunity to participate in the development of the Regional Transportation Plan (RTP). A public workshop was held on May 3, 2012, at the Hummel Community Building. The priorities selected by the participants were reducing household expenses and reducing government regulations. Participants also supported maintaining local streets and roads and adding highway capacity, primarily for trucks. Additionally, on December 20, 2012, Kern COG gave a presentation on the development of the 2014 RTP. Two notices were placed in the Rosamond News in May and two notices in December 2012.
- 3-4 Rosamond Airport (L00) is not currently registered with the Federal Aviation Administration's (FAA) National Plan of Integrated Airport Systems (NPIAS). Once the Rosamond Airport owners/sponsors sign covenants with the FAA, they may become listed on the NPIAS and eligible to receive federal and state airport funds for planning and capital projects. When airport owners or sponsors accept funds from the FAA, they must agree to certain obligation (or assurances). The FAA's Western-Pacific Region Office in Los Angeles may be contacted for further airport funding information. Rosamond residents were afforded an opportunity to participate in the development of the Regional Transportation Plan (RTP). A public workshop was held on May 3, 2012, at the Hummel Community Building. The priorities selected by the participants were reducing household expenses and reducing government regulations. Participants also supported maintaining local streets and roads and adding highway capacity, primarily for trucks. Additionally, on December 20, 2012, Kern COG gave a presentation on the development of the 2014 RTP. Two notices were placed in the Rosamond News in May and two notices in December 2012.
- 3-5 Kern COG's *Commuter Rail Feasibility Study 2012* addresses the extension of Metrolink service from Lancaster to Rosamond. According to the study, the extension from Lancaster to Rosamond would require approximately \$45 million for track improvements and required facilities. Since no state or federal funding exists to meet the estimated costs of implementing the service, the Study recommended that Kern COG and Metrolink staff

monitor the corridor until funds become available. Additionally, the host railroad is not willing to share its rights-of-way with passenger rail service for the foreseeable future. Rosamond residents were afforded an opportunity to participate in the development of the Regional Transportation Plan (RTP). A public workshop was held on May 3, 2012, at the Hummel Community Building. The priorities selected by the participants were reducing household expenses and reducing government regulations. Participants also supported maintaining local streets and roads and adding highway capacity, primarily for trucks. Additionally, on December 20, 2012, Kern COG gave a presentation on the development of the 2014 RTP. Two notices were placed in the Rosamond News in May and two notices in December 2012.

- 3-6 The Federal Aviation Administration (FAA) is the administrative authority for visual and instrument airways. Currently, Mojave Airport has three departure methods for instrument metrological conditions using the published JERID FOUR DEPARTURE (RNAV). Once airborne via the JERID FOUR published departure, airmen may depart the area using the V197 airway to intercept other airways via a filed FAA instrument flight plan or via FAA navigation instructions. Rosamond residents were afforded an opportunity to participate in the development of the Regional Transportation Plan (RTP). A public workshop was held on May 3, 2012, at the Hummel Community Building. The priorities selected by the participants were reducing household expenses and reducing government regulations. Participants also supported maintaining local streets and roads and adding highway capacity, primarily for trucks. Additionally, on December 20, 2012, Kern COG gave a presentation on the development of the 2014 RTP. Two notices were placed in the Rosamond News in May and two notices in December 2012.
- 3-7 Thank you for your comments. The community of Rosamond is part of the political body of the Kern Council of Governments as represented by two County Supervisors. As such, the concerns of the community of Rosamond are of concern to the Kern Council of Governments. With specific regards to the request that "Kern Council of Governments include in its plans, in the next four years to: Lengthen the on-ramp for southbound Highway 14 from Rosamond Blvd., for 1/2 mile", we commend this request to the County of Kern Roads Department and the California Department of Transportation (Caltrans) for their consideration and prioritization. Should there be regional funding opportunities to finance this project, the County of Kern and Caltrans would be informed of such opportunities. Rosamond residents were afforded an opportunity to participate in the development of the Regional Transportation Plan (RTP). A public workshop was held on May 3, 2012, at the Hummel Community Building. The priorities selected by the participants were reducing household expenses and reducing government regulations. Participants also supported maintaining local streets and roads and adding highway capacity, primarily for trucks. Additionally, on December 20, 2012, Kern COG gave a presentation on the development of the 2014 RTP. Two notices were placed in the Rosamond News in May and two notices in December 2012.

Letter 4: Bakersfield Public Works, Nicolas Fidler, Acting Director of Public Works, April 11, 2014

- 4-1 Revisions were incorporated into the final 2015 Federal Transportation Improvement Program document.

Letter 5: City of Shafter, Scott Hurlbert, City Manager, May 6, 2014

This letter contains comments on the EIR; see EIR Responses to Comments D-1 through D-2.

5-1 Comment noted.

5-2 The delay of the South and West Beltway projects were done in consultation with the Transportation Technical Advisory Committee and the Transportation Planning Policy Committee which approved the delay of these projects in November 2012. The strategy in Table 4-8 is taking credit for this action.

Table 4-10 is a reprint of the table in the Kern COG Policy and Procedure Manual which was reviewed and approved by the Transportation Technical Advisory Committee and the Transportation Planning Policy Committee in November 2013. The three strategies in Table 4-10 are consistent with the following SB 375 Framework Core Action strategies on p. 4-8.

"2) Identify and model transportation measures with the purpose of reducing vehicle trips and vehicle miles travelled for Kern County's existing and planned transportation and circulation network to determine anticipated effectiveness. "

"4) Use the adopted land uses that may be amended from time to time, of Kern County and its eleven (11) incorporated cities as the forecasted development patterns."

"5) Base all models utilized by Kern COG on locally adopted General Plans and identified regional economic centers. Any request to change the baseline model will require approval of the local city and/or county whichever has the appropriate authority."

"6) Consistent with adopted General Plans, model strategic locations for new retail and employment uses to determine whether they reduce vehicle trips and vehicle miles traveled."

"7) Allow for the flexibility to amend the adopted land use elements of Kern County and its eleven (11) incorporated cities based on market demands and market responses."

"12) Develop two types of strategies within the plan: (1) strategies that reduce emissions county-wide; and (2) strategies that reduce emissions sub-regionally."

The three strategies in Table 4-10 – 1) modifying the distribution of households, population and jobs to reduce travel; 2) rebalancing the mix of land uses; and 3) increasing the level of density – are consistent with the above adopted SB 375 Framework core actions because the alternatives analysis did NOT deviate from locally adopted General Plans and the latest local planning assumptions. All alternatives analyzed used adopted General Plan land uses as the key input for the forecasted development patterns.

5-3 Thank you for your comment. The term "land use pattern" and "land use policies" has been changed on Draft RTP pages 1-9, 3-8, 4-33 and 4-39 to "forecasted development pattern".

- 5-4 Thank you for your comment. The language on Page 1-2 has been changed to read as follows: "State transportation planning laws (Cal. Gov't Code § 65080 *et seq.*) also specify that actions by transportation agencies, such as Caltrans and Golden Empire Transit District, must be consistent with the RTP. Land use decisions should consider and accommodate transportation facilities and programs specified in the RTP whenever possible but are not required to be consistent with the RTP. The facilities listed in the RTP should be incorporated into city and county General Plans. Local transportation projects must be consistent with the RTP in order to obtain state or federal funding."
- 5-5 Thank you for your update on the Paramount Logistics Park. The paragraph in the RTP has been updated with the information provided by the commenter.
- 5-6 Thank you for your comment. We will revise the following description in Table 5-1 as follows: change "Rosedale Hwy to 7th Standard Rd - construct new facility" to "Rosedale Hwy to ½ mile north of 7th Standard Rd - construct new facility".

Letter 6: City of Shafter, Suzanne Forrest, Senior Planner, April 25, 2014

- 6-1 Thank you for your comment. The bike lane projects being referenced are found on Page 5-11. The listed improvements for Riverside Street will be revised as follows: revise from "Riverside Street from Central Valley Hwy to Driver Road - 2.6 miles" to "Riverside Street from Central Valley Hwy to Driver Road – 3.0 miles". Revise from "Riverside Street from Poplar Avenue to Cherry Avenue - 2.5 miles" to "Riverside Street from Poplar Avenue to Central Valley Hwy - 2.4 miles." With regards to the series of improvements along Palm Avenue, the location of "Shafter" is sufficient since it identifies the general location of the proposed improvements. The location for "Central Avenue from Filburn Avenue to Kimberlina Road" will be revised from "Shafter" to "Wasco". The location for "S. H Street from Taft Highway to Shafter Road" will be revised from "Shafter" to "Bakersfield County Area". The location for "Weedpatch Hwy. from Di Giorgio Road to E. Bear Mountain Blvd." will be revised from "Taft" to "County."
- 6-2 The Kern County Bicycle Master Plan and Complete Streets Recommendations was tasked with identifying bicycle travel facilities within the unincorporated portions of Kern County. Funding for bicycle facilities would be available projects in Shafter as identified in the Circulation Element of the city's General Plan.
- 6-3 Removed references to the residences and campground south of the Shafter airport.

Letter 7: City of Tehachapi, David James, Community Development Director, May 6, 2014

This letter contains a comment on the EIR; see EIR Response to Comment E-1.

- 7-1 Thank you for your comments. The Kern Council of Governments Board of Directors approved a significant update to its project delivery policy which included significant revisions to prioritization of those projects which include elements that support complete streets, smart growth and specific SB 375 compliance goals adopted by Kern COG. The Kern COG Project Selection Policy and Procedures document may be found at: http://www.kerncog.org/images/docs/policies/Project_Selection_Process_2013.pdf.

Letter 8: American Farmland Trust, Daniel O'Connell, San Joaquin Valley Program Manager, May 6, 2014

This letter contains a comment on the EIR; see EIR Response to Comment F-1.

- 8-1 See RTP-MR-2, RTP-MR-6 (8-1 and 8-2 are in reverse order in the letter)
- 8-2 See RTP-MR-6
- 8-3 See RTP-MR-6 [Wendy – Should this be addressed in the EIR CO2 Inventory?]

Letter 9: Greater Bakersfield Chamber of Commerce, April 28 2014

This letter contains comments on the EIR; see EIR Responses to Comments H-1 through H-2.

- 9-1 Comment noted. See RTP-MR-4.
- 9-2 Comment noted. See RTP-MR-4.

Letter 10: Greater Bakersfield Chamber of Commerce, Cynthia D. Pollard, May 6, 2014

- 10-1 Comment noted. See RTP-MR-4.

Letter 11: California Rural Legal Assistance, Inc.; Marisa Christensen Lundin, Registered Leal Services Attorney, May 6, 2014

- 11-1 See RTP-MR-1.
- 11-2 See RTP-MR-1, MR-2.
- 11-3 See **RTP-MR-1** and **RTP-MR-3C**. Regarding the job/housing balance portion of this comment -- the Regional Travel Demand Model is a regional tool and is not intended to be used to model local conditions. It is the goal of the SCS to create balanced growth in each community, and the travel modeling generally reflects that goal. RTP SCS Ch. 4 Figures 4-8 and 4-9 Contain Maps that depict Transit Priority/Strategic Employment Place Types. These maps were derived based on input received during workshops in the communities of Arvin, Lamont and South Bakersfield/Greenfield. Based on the feedback of those communities and local jurisdictions, the maps show the placement of transit oriented villages, towns, community place types (see definitions, p. 4-24) as well as education and strategic employment centers throughout these communities that would become employment and retail centers. The map also shows how these places would connect via transit service corridors.

Kern COG staff reviewed the socio-economic input data used in the modeling and found that potential job increases may not be fully reflected in the modeling. The socio-economic modeling partially reflects and continues recent trends in job losses as a result of the Great Recession, rather than employment opportunities anticipated to occur in each community as a result of land use planning and emerging land use trends. Based on community input, plans and emerging trends, Kern COG has shifted 1200 jobs from Bakersfield to the communities identified above to more fully reflect potential job increases and to improve the jobs-housing balance in these communities. A sensitivity test of the transportation

modeling was undertaken to determine how this shift in jobs affects the model outputs. The sensitivity test showed that the change did not have a significant effect on vehicle miles traveled at the regional level (if anything it shows a slight decrease in VMT and criteria pollutant and GHG emissions).

- 11-4 See RTP-MR-3. In addition, this RTP fully funds maintenance of roadways in existing communities.
- 11-5 See RTP-MR-3.
- 11-6 See RTP-MR-1.
- 11-7 The ten statutory factors were considered during the development of the RHNA methodology; and the Final RHNA Plan will address the factors listed in Government Code 65584, et seq. The RHNA methodology was presented and discussed to the TPPC, RPAC, Environment and Social Equity Committee, and a public hearing and 60-day comment period were held to receive public comments. The RHNA methodology and RHNA plan was developed to be consistent with all of the objectives listed in Government Code 65584. In addition, it is consistent and coordinated with the 2014 RTP and SCS goals and requirements.

The link in the Local Government Data Survey was redirected from the Directions to 2050 website to the Kern COG website when a contract with a consultant who was updating the housing information tab on the Directions to 2050 website ended in June 2013. The information was directly transferred to <http://www.kerncog.org/regional-housing>. The Kern Regional Housing Data Report has been updated to include comments received from the Survey, California Department of Housing and Community Development (HCD), and other agencies. Version 2 of the Data Report is currently on the Kern COG housing webpage and the final version of the Data Report will be included as an attachment to the Final RHNA Plan. In addition, HCD reviewed the initial draft of the Data Report and suggested additional housing data to be included in the Data Report that is also needed for the housing element updates of local jurisdictions. The results of the survey starts are included in Appendix D of the Draft RHNA Plan (pages H-36 - H-43). The cities of Arvin, Bakersfield, Delano and Wasco responded to the survey.

- 11-8 The RHNA methodology is consistent with the 2014 RTP and SCS goals because Kern COG's RTP forecast serves as the basis of the RHNA methodology and allocation share. In addition, HCD used Kern COG's RTP forecast in determining for the regional housing needs for the projection period (2013-2023). The RTP forecast complies with all applicable statutes and regulations in relation to the RTP, SCS, and RHNA from SB 375. Local general plans, specific plans and other community plans, growth trends, and jobs/housing balance were just some of the factors that were considered in the development of RTP forecast. Consultation with local jurisdiction staff, Regional Planning Advisory Committee, and Transportation Modeling Committee was integrated in the development of the RTP forecast.
- 11-9 Based on HCD's RHNA Determination for the Kern Region during the projection period (2013-2023), 40.5% of all units are affordable (i.e., very low- and low-income). These affordable units are the minimum required that need to be addressed in the RHNA Plan and the RHNA Plan meets this minimum. In addition, the income categories of the RHNA are relative to the median income of the Kern region. The RHNA represents the

minimum amount of residential development capacity all jurisdictions must plan to accommodate through zoning and appropriate planning strategies. The RHNA is not to be used within local general plans as a maximum amount or cap of residential development to plan or approve.

- 11-10 Based on local agencies that responded to the Local Government Data Survey, there are no risks in the loss of units contained in assisted housing developments. State law requires housing elements to address the loss of assisted housing development for lower-income households. Multiple programs and funding streams make it difficult for jurisdictions to compute accurate lists of assisted properties in each jurisdiction, especially larger jurisdictions; therefore Kern COG determined the data available is insufficient and cannot be incorporated in the RHNA methodology in a consistent and rationale manner. However, Kern COG requested data of at-risk assisted housing from the California Housing Partnership Corporation and the data will be included in the final version of the Data Report.
- 11-11 The RTP forecast serves as the basis of the RHNA methodology and allocation share. The RTP forecast takes into account all residents and allocation of future growth in the Kern region, and complies with all applicable statutes and regulations in relation to the RTP, SCS, and RHNA from SB 375. Local general plans, specific plans and other community plans, growth trends, and jobs/housing balance were just some of the factors that were considered in the development of RTP forecast. Farmworker housing and related data is included in the Data Report, and the housing need of farmworkers is required to be addressed by local jurisdictions in the preparation of their housing elements.
- 11-12 Comment noted. Kern COG will be consistent and address the requirements under Government Code 65584 (d) in the Final RHNA Plan.
- 11-13 Comment noted. Kern COG will carefully consider to abide laws related to state fair housing in the Final RHNA Plan.
- 11-14 Comment noted. The ten statutory factors were considered during the development of the RHNA methodology, the Final RHNA Plan will address the factors listed in Government Code 65584, et seq.

Letter 12: Leadership Counsel for Justice & Accountability/Center on Race, Poverty & the Environment, Caroline Farrell, Executive Director/Veronica Garibay Co-Director, April 17, 2014

This letter contains a comment on the EIR; see EIR Response to Comment J-1.

- 12-1 See RTP-MR-1, RTP-MR-3
- 12-2 See RTP-MR-1, RTP-MR-2
- 12-3 See RTP-MR-2, RTP SCS Ch. 4 Figures 4-8 and 4-9 Contain Maps that depict Transit Priority/Strategic Employment Place Types. These maps were work-shopped in the communities of Arvin, Lamont and South Bakersfield/Greenfield as well as countywide. Based on the feedback of those communities and local jurisdictions, the maps show the

placement of transit oriented villages, towns, community place types (see definitions, p. 4-24) as well as education and strategic employment centers throughout these communities that would become employment and retail centers. The place types definitions do not match the SB 375 definitions for transit priority areas but are inclusive of areas that could potentially meet that more restrictive definition. These transit priority place types better align with the definition proposed in your comment for transit ready areas. The jurisdictions for areas would be eligible to receive planning and financial assistance from the Kern COG technical assistance program for designing more compact, transit/bike/pedestrian friendly communities. The map also shows how these places would connect via transit service corridors. The Plan Alternative includes rebalancing of housing and jobs in outlying communities to provide a better balance and more amenities in these communities and depicted in Figures 4-8 and 4-9

12-4 See RTP-MR-3

12-5 See RTP-MR-2E.

12-6 See RTP-MR-6

12-7 See RTP-MR-3

12-8 See RTP-MR-3

12-9 See RTP-MR-2, RTP-MR-3

Letter 13: Leadership Counsel for Justice & Accountability/Center on Race, Poverty & the Environment, Roots of Resistance, California Walks, May 6, 2014

13-1 See RTP-MR-1

13-2 See RTP-MR-3

13-3 See RTP-MR-1. RTP-MR-3C. In response to the job/housing balance portion of this comment, it is important to remember that the Regional Travel Demand Model is a regional tool and issues can arise when attempting to use a regional model for local analysis. Still it is the intent of the travel modeling to rebalance growth to create a better jobs housing balance. RTP SCS Ch. 4 Figures 4-8 and 4-9 Contain Maps that depict Transit Priority/Strategic Employment Place types. These maps were work-shopped in the communities of Arvin, Lamont and South Bakersfield/Greenfield as well as countywide. Based on the feedback of those communities and local jurisdictions, the maps show the placement of transit oriented villages, towns, community place types (see definitions, p. 4-24) as well as education and strategic employment centers throughout these communities that would become employment and retail centers. The map also shows how these places would connect via transit service corridors. The Plan Alternative includes rebalancing of housing and jobs in outlying communities to provide a better balance and more amenities in these communities and depicted in Figures 4-8 and 4-9.

Kern COG staff reviewed the socio-economic input data used in the modeling and found that while some of the communities showed increased housing, jobs were remaining just above current levels. Kern COG has since added 1200 jobs to the communities in the region to improve the balance. A sensitivity test showed that that the change did not have

a significant effect on vehicle miles traveled at the regional level. We believe the issue may be due in part to the use of U.S. Census LEHD data which shows the Greater Arvin Regional Statistical Area (RSA) over the last 10 years has experienced a net job loss. Kern COG will show the increased jobs in these communities in all future modeling.

The reference to the Metropolitan Bakersfield General Plan was intended to give credit to where the place type concept came from. The Place Type maps in the RTP have been updated with input from all the local communities during the outreach process.

- 13-4 The RHNA allocation is required to be provided by jurisdiction, and not by sub areas of a jurisdiction. The distribution of the RHNA allocation in unincorporated areas should be addressed in the Kern County Housing Element.
- 13-5 The 67,575 housing units is for the projection period from 2013-2023 and was determined by the California Department of Housing and Community Development (HCD). This is the minimum housing needed to be included in the RHNA Plan. HCD is required to determine Kern COG's existing and projected housing need pursuant to State housing law. HCD worked with the Department of Finance and Kern COG during their process for the housing determination for Kern COG. There is a difference between the housing units projected in the 2014 RTP forecast and the HCD RHNA determination because the two projections have different purposes, but still integrate and are consistent with each other in the RHNA process. The 2014 RTP forecast is oriented toward actual housing production, whereas the RHNA determination is focused on planning to meet anticipated housing demand. The RTP forecast reflects the number of housing units that are likely to be built in the region based on market considerations and other policy factors. Upon completing the RHNA determination, HCD applied methodology and assumptions regarding factors from Government Code Section 65584.01(c)(1), see the Draft RHNA Plan for a copy HCD's Determination Letter to Kern COG. In addition, Kern COG worked closely with HCD during the process and provided data, assumptions, and draft RTP forecasts of population, employment and housing. Therefore the RTP and RHNA Plan are consistent because HCD uses Kern COG's RTP forecast data in determining the region's housing need for the projection period. The RHNA represents the minimum amount of residential development capacity all jurisdictions must plan to accommodate through zoning and appropriate planning strategies. The RHNA is not to be used within local General Plans as a maximum amount or cap of residential development to plan or approve.
- 13-6 Comment noted. The RHNA methodology uses an income balance parity with the Kern County state median income, so the draft allocation share for low-income housing may be lower while the above-moderate share may be higher for Bakersfield because the median income for Bakersfield is higher than the countywide average. Kern COG will analyze the low-income housing allocation in Bakersfield and will consider reallocation as appropriate.
- 13-7 In HCD's regional housing need determination to Kern COG, the income category percentages reflect the minimum percentage to apply against the total RHNA by Kern COG. Each income category is defined by Health and Safety Code (Section 50093, et seq.) and the percentages are derived from the 2007-2011 American Community Survey's number of households by income, over 12 month periods.

The Quality of Life Community Survey that is referenced on P. 5-108 – 5-109 of the Draft RTP does contain questions regarding housing options and affordability in the housing preference section of the survey. The Quality of Life Community Survey is commissioned by Kern COG, and is a statistically valid telephone survey of Kern County residents 18 and over. Survey results from 2007-2013 are available on Kern COG's website.

- 13-8 Appendix D of the RTP provides the required Federal Title VI analysis for transit and highway projects and clearly demonstrates that transit investment and performance measure improvements are benefitting environmental justice (EJ) communities better than the countywide averages. Roadway maintenance funding sources such as RSTP are primarily formula driven and it is up to the local jurisdiction to ensure equitable distribution of those resources within each community.
- 13-9 See RTP-MR-3
- 13-10 See RTP-MR-3
- 13-11 1. Transit Priority Place Types are not SB 375 Transit Priority Areas, and were designed to focus transit investment on these communities.
 2. See RTP-MR-3E.
 3. See RTP-MR-2E.
 4. See RTP-MR-3
 5. See RTP-MR-3E.
 6. See RTP-MR-3
- 13-12 Table 2-1 was updated as follows:

Policy - Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
1	Mobility, Accessibility	Enhance connectivity to Meadows Field and Inyokern Airport to accommodate future regional growth	Aviation
1.1		Work with Meadows Field and Inyokern Airport to obtain funding from the state and federal governments for their respective development programs.	Aviation
1.2		Work with local and regional transit providers to increase alternative mode ground access options at Meadows Field.	Aviation
1.3		Assist Meadows Field with planning related to high-speed rail connections.	Aviation
2	Mobility, Accessibility	Assist Kern County airports in expanding facilities to meet growing general aviation demands.	Aviation
2.1		Participate in master plan updates for various Kern County airports.	Aviation
2.2		Implement the Action Plan of the Central California Aviation System.	Aviation
2.3		Work with public airports to increase their access to federal and state funding.	Aviation
3	Mobility, Accessibility	Work with privately owned airports and local jurisdictions to support their operations and to maintain compatible uses within the airport area of influence.	Aviation
3.1		Work with the JLUS committee to implement planning activities listed in the JLUS for R-2508 airspace (China Lake Naval Air Weapons Station and Edwards Air Force Base).	Aviation
3.2		Implement planning actions and strategies listed in the JLUS for R-2508.	

Policy - Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
4	Mobility, Accessibility, Sustainability	Enhance and connect existing and future bikeways and pedestrian walkways in the Kern region.	Active Transport (AT), Air Emission
4.1		Seek and assist member agencies to apply for funding for bicycle and pedestrian projects from local, state, and federal sources.	AT
4.2		Seek and assist member agencies to apply for funding to maintain existing bikeways and pedestrian walkways.	AT
5	Mobility, Accessibility	Encourage and assist Kern COG member jurisdictions to implement their adopted local bicycle plans and to incorporate bicycle facilities into local transportation projects.	AT, Air Emissions
5.1		Fund updated bicycle plans for incorporated cities and unincorporated communities.	AT
5.2		Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, create and fund pedestrian/bicycle facilities.	AT
6	Mobility, Accessibility	Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, update and fund regional and local plans that promote bicycle and pedestrian travel.	AT, Air Emissions
6.1		Fund a Pedestrian facilities Plan for the County of Kern as well as incorporated cities.	AT
6.2		Periodically update the Kern Regional Bicycle Plan.	AT
7	Livability	Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, promote and fund sustainable community design that supports transit use and increases active transportation (AT) while still meeting the mobility needs of residents and employees.	AT, Public Transit, Air Emissions
7.1		Purchase and construct bicycle racks and lockers for Kern County multimodal stations.	AT
7.2		Purchase and construct bike tie-downs and racks on commuter trains and buses.	AT
7.3		Implement Rapid bus Improvements when financially feasible throughout the County.	Transit
7.4		Introduce Express bus service along SR 178/24th Street/Rosedale Highway and SR 99.	Transit
7.5		Consider Bus Rapid Transit in exclusive lanes with traffic signal priority.	Transit
7.6		Consider funding a feasibility study to explore additional Express bus service throughout the county.	Transit
7.7		Consider ramp metering.	Transit
7.8		Consider peak period only HOV lanes.	Transit
7.9		Consider converting BRT corridors to light rail transit.	Transit
7.10		Consider additional peak period HOV lanes.	Transit
7.11		Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, create and fund pedestrian/bicycle facilities	AT
8	Mobility, Accessibility	Identify additions and alternatives that would improve the overall quality of transit service in Kern County.	Transit, Air Emissions
8.1		Assist KRT in refining KRT scheduling practices.	Transit
8.2		Encourage KRT to consider route reconfiguration within Downtown Bakersfield.	Transit
8.3		Assist KRT in analyzing stop placements.	Transit
8.4		Consider a new GET Transit Center at CSU Bakersfield.	Transit
8.5		Increase GET services to CSU Bakersfield and Bakersfield College.	Transit
8.6		Consider introducing "full" GET Bus Rapid Transit.	Transit
8.7		Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, create and fund pedestrian/bicycle facilities.	Air Emissions

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
8.8		Implement traffic flow improvements/railroad grade separations.	Air Emissions
8.9		Promote park and ride lots.	Air Emissions
8.10		Consider High Occupancy Vehicle (HOV) lane additions: Centennial Corridor provides room to accommodate HOV.	Air Emissions
8.11		Encourage transit providers to consider lower transit fares or transit subsidies.	Air Emissions
8.12		Implement flextime program.	Air Emissions
9	Mobility, Accessibility	Identify and fund as appropriate alternatives to traditional transit that address Kern County's regional transit (KRT) rural mobility needs.	Transit, Air Emissions
9.1		Assist KRT in refining KRT scheduling practices.	Transit
9.2		Consider KRT route reconfiguration within Downtown Bakersfield.	Transit
9.3		Assist KRT in analyzing stop placements.	Transit
9.4		Initiate discussions with the Southern California Regional Rail Authority regarding the extension of Metrolink from Lancaster to Rosamond.	Transit
9.5		Continue pursuing extension of Metrolink from Lancaster to Rosamond. (Transit)	Transit
9.6		Initiate discussions with the State regarding adding stops to Amtrak San Joaquin service between Bakersfield and Wasco.	Transit
9.7		Create and promote ridesharing and voluntary employer-based incentives.	Air Emissions
10	Mobility, Accessibility	Develop coordination alternatives that would realize improvements over current Golden Empire Transit (GET) and other transit operations.	Transit, Air Emissions
10.1		GET may consider decreasing emphasis on timed connections at transit centers.	Transit
10.2		GET may consider faster crosstown trips: <ul style="list-style-type: none"> • New Express routes • New "Rapid" routes • More direct routes 	Transit
10.3		GET may consider faster crosstown service connecting one side of Bakersfield to the other.	Transit
10.4		GET may consider circular services within neighborhoods or around outlying areas of Bakersfield.	Transit
10.5		Continuation of GET express routes.	Transit
11	Mobility, Accessibility	Review, identify, and discuss alternative administrative and oversight models for transit services in Kern County.	Transit, Air Emissions
12	Mobility, Accessibility	Create strategies to increase the visibility and importance of transit in Kern County.	Transit, Air Emissions
12.1		Monitor advancement of the California High-Speed Rail (HSR) project.	Transit
12.2		Introduce GET hybrid Circulator/Express service.	Transit
12.3		Develop special presentations, workshops and studies for member agencies on transportation-related control measure strategies for air pollution emissions as new standard, technology, and funding opportunities evolve.	Transit
13	Mobility, Accessibility	Create partnerships between transit and social services agencies in addressing Kern County's transit needs.	Transit, Air Emissions

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
14	Mobility, Accessibility	Improve intercity connections and provide new services to expand the transportation alternatives in the Eastern Sierra region.	Transit, Air Emissions
14.1		Initiate discussions with the Southern California Regional Rail Authority regarding the extension of Metrolink from Lancaster to Rosamond.	Transit
14.2		Initiate discussions with the State regarding adding stops to Amtrak San Joaquin service between Bakersfield and Wasco.	Transit
14.3		Create ridesharing and voluntary employer-based incentives.	Air Emissions
14.4		Reassess feasibility of commuter rail in various corridors.	Transit
14.5		As HSR proceeds to construction: <ul style="list-style-type: none"> Identify preferred corridor to connect Bakersfield and Delano with commuter rail/HSR feeder service Identify potential funding for commuter rail operations Work with local transit providers to connect riders to commuter rail/HSR 	Transit
15	Mobility, Sustainability	Investigate new federal, state, and local funding opportunities to maintain the current transportation system and promote future transportation development.	Highways
15.1		Pursue ground access improvements for Meadows Field.	Highways
15.2		Upgrade the present highway maintenance system whenever feasible.	Highways
15.3		Maintain and enhance existing roadway infrastructure and provide for its efficient use.	Highways
16	Mobility, Accessibility, Sustainability	Work with Caltrans, COG member agencies, and other interested parties to prepare environmental studies and design engineering plans.	Highways
16.1		Widen State Route 119 near Taft	Highways
16.2		Widen State Route 14 near Freeman Gulch/Inyokern.	Highways
17	Mobility, Accessibility, Sustainability	Provide input to neighboring counties conducting Corridor Studies for routes significant to the Kern region.	Highways
17.1		Participate in San Bernardino County's study for the US Highway 395 corridor.	Highways
17.2		Review and analyze available rest areas, layover lots, and truck stops to determine needs for additional parking related to long-distance travel.	Highways
17.3		Implement the recommendations from completed transportation planning studies when appropriate and feasible.	Highways
18	Mobility, Accessibility, Efficiency	Review countywide transportation impact fees and encourage member agencies to invest in active transportation, public transit and maintenance of local streets and roads.	Highways
18.1		Encourage local governments to consider pursuing alternative funding sources such as regional TIFs where justified as a necessary means to address transportation needs.	Highways
19	Livability	Delay the need for future increases in highway capacity and congestion through the implementation of measures that reduce transportation related air emissions.	Highways, Air Emissions
19.1		Pursuant to Transportation Development Act Statutes, encourage member agencies to improve public transit in all communities.	Air Emissions
19.2		Create ridesharing and voluntary employer-based incentives.	Air Emissions
19.3		Facilitate traffic flow improvements/railroad grade separation.	Air Emissions

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
19.4		Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, create pedestrian/bicycle facilities.	Air Emissions
19.5		Consider High Occupancy Vehicle (HOV) lane additions: Centennial Corridor provides room to accommodate HOV.	Air Emissions
19.6		Consider implementing flextime program.	Air Emissions
20	Mobility, Accessibility	Prepare a systems-level planning analysis of various transportation system alternatives using multimodal performance measures.	Highways, Air Emissions
20.1		Maintain Regional Traffic Models to aid in traffic and air quality analyses. Air emissions	Air Emissions
21	Mobility, Accessibility, Efficiency, Livability	Coordinate planning efforts to ensure efficient, economical, and environmentally sound movement of goods.	Highways, Freight
21.1		Pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013, prioritize and program the capital improvements for highways, regional roads, and interchanges for the RTP planning period, consistent with adopted goals and policies as feasible.	Highways
21.2		Support higher safety level requirement for hazardous material transport on interstates, state highways, and local roads.	Highways
21.3		Encourage coordination and consultation between the public and private sectors to explore innovative and efficient goods movement strategies.	Freight
21.4		Identify opportunities for truck-to-rail and truck-to-intermodal mode shifts, and evaluate the contributions of truck traffic on regional air quality.	Freight
21.5		Encourage the use of rail and air for goods movement to reduce impacts to state and inter county routes and lessen air quality impacts.	Freight
21.6		Oppose higher axle load limits for the trucking industry on general purpose roadways.	Freight
22	Mobility, Accessibility, Efficiency	Advocate programs and projects for the intermodal linkage of all freight transportation.	Highways, Freight
22.1		Consider constructing truck climbing lanes on eastbound SR 58 from General Beale Road to the Bena Road overcrossing. (Freight)	Freight, Highways
22.2		Program Infrastructure improvements such as widening of Seventh Standard Road in response to proposed freight movements activities in the area. (Freight)	Freight
22.3		Widen State Route 184 to four lanes to respond to increasing agriculture trucking activity. (Freight)	Highways, Freight
22.4		Widen Wheeler Ridge Road to four lanes as a gap-closure measure to tie I-5 to SR 58 via SR184.	Highways, Freight
23	Mobility, Efficiency	Develop an annual freight movement stakeholders group for coordination and expansion efforts.	Freight
23.1		Encourage communication between short-line rail operators, shippers, and economic development agencies.	Freight
23.2		Explore options for potential uses of the southern portion of Arvin Subdivision as identifies in the Kern County Rail Study Phase 2.	Freight
24	Mobility, Reliability, Efficiency	Explore rail intermodal, transfer facility, and alternative transfer options for the region.	Freight
24.1		Continue development of the Paramount Logistics Park for intermodal freight transfer activities.	Freight

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
24.2		Continue development of the Delano RailEx Facility for intermodal freight shipping to the east coast.	Freight
24.3		Expand rail service to existing distribution centers throughout Kern County when feasible.	Freight
25	Mobility, Accessibility, Equity	Maintain liaison with Southern California Association of Governments and all San Joaquin Valley Councils of Government for efficient coordination of freight movement between regions and counties.	Freight
25.1		Work with other agencies to create an effective Central Valley-wide truck model to track regional commodity flows and to identify critical economic trends that will drive truck flows on regionally significant truck routes.	Freight
26	Mobility, Reliability, Accessibility, Equity	Provide heavy truck access planning guidance, including a review of the current surface transportation act route system, review of geometric issues, and signaling for all routes identified as major local access routes, as well as the development of performance standards.	Freight, Air Emissions
26.1		Add "missing links" (streets) to roadway network that reduce out of direction travel: Centennial Connector will provide a major free flow traffic connector that will improve air quality by reducing stop and go truck travel on local arterials. Hageman Flyover Project will provide another east/west connection over SR 99 to downtown Bakersfield central business district; Mohawk Street Extension provides an extension from Rosedale Highway south that connects to Truxtun Avenue accessing downtown Bakersfield.	Freight, Air Emissions
27	Accessibility, Reliability, Livability, Sustainability	Provide, as feasible, technical and planning assistance to local jurisdictions for land use, air quality and transportation planning.	Land Use, Air Emissions
27.1		Facilitate the Shafter Intermodal Rail Facility by programming infrastructure to service rail and truck traffic that may be generated by the facility.	Land Use, Air Emissions
27.2		Use the California Environmental Quality Act (CEQA) review process to inform stakeholders and decision makers on the impacts of sensitive land use developments near vital transportation infrastructure necessary to handle increasing air traffic and international cargo, as well as increasing inland port activity.	Land Use, Air Emissions
27.3		Work with the Kern County Department of Airports and local planning departments to preserve existing airports from encroachment by sensitive land uses to strategic global gateways.	Land Use
27.4		Use the CEQA review process to inform stakeholders and decision makers on the impacts of sensitive land use developments near vital transportation infrastructure necessary to handle increasing local, intercity, and interregional transit use.	Land Use, Air Emissions
27.5		Implement the long-range 2014 RTP in partnership with member agencies to preserve near- and long-term transportation infrastructure, thus promoting the gradual intensification of transit use when market demand for compact land uses increases.	Land Use, Air Emissions
27.6		Allow reduced parking requirements near transit centers that have alternative modes of access such as walking and bike paths, circulator buses, etc.	Land Use, Air Emissions
27.7		Monitor progress and allocate funding toward implementing principles developed by the Directions to 2050 outreach process pursuant to the Project Delivery Policies and Procedures adopted November 21, 2013.	Land Use, Air Emissions
27.8		Encourage cities and the county to provide parking requirements (and parking provision) compatible with compact, pedestrian, and transit-supportive design and development. Requirements should account for mixed uses, transit access, and the linking of trips that reduce reliance on automobiles and total parking demand.	Land Use, Air Emissions
27.9		Promote land use along freight corridors that are compatible with goods movement traffic.	Land Use

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
28	Accessibility, Efficiency, Livability, Sustainability	Encourage land use planning by Kern COG local government member agencies that recognizes Kern's large area, dispersed centers and unique geographic features of the region.	Land Use, Air Emissions
28.1		Implement the Directions to 2050 Growth principles vision for economic vitality by planning and programming infrastructure to provide connectivity to air traffic and international cargo facilities.	Land Use
28.2		Monitor progress and allocate funding toward implementing regional principles developed by the Directions to 2050 visioning process consistent with local general plans pursuant to the project Delivery Policies and Procedures adopted November 21, 2013	Land Use
29	Accessibility, Efficiency, Livability, Sustainability	Promote land use patterns that support current and future investments in public transit and that might support future commuter- and high-speed rail alternatives.	Land Use, Air Emissions
29.1		Encourage the adoption of general plan circulation elements that address transit, bike, and pedestrian modes. Consider specific plan lines and form-based codes where appropriate to implement transit improvements along designated transit corridors that connect transit-priority place types and centers.	Land Use, Air Emissions
29.2		Work with Golden Empire Transit, Kern Regional Transit, other local transit providers, and local land use planners to preserve existing and future transit opportunities from the encroachment of low-density land uses within transit-priority place types and centers.	Land Use, Air Emissions
29.3		Encourage the expansion of transportation choices and transit usage by providing housing choices that include more compact and mixed land uses within walking distance to transit priority place types and centers.	Land Use, Air Emissions
29.4		Identify and space transit oriented village, town, and suburban/community centers a minimum of 1 to 4 miles apart.	Land Use, Air Emissions
29.5		Provide convenient and safe walking and bike paths to a fixed transit hub at each transit priority place type.	Land Use, Air Emissions
29.6		Promote more compact and mixed-use centers along transit corridors, where appropriate, to support more intense transit options such as Bus Rapid Transit, light rail and active transportation as areas become revitalized.	Land Use, Air Emissions
29.7		Land uses should be mixed both horizontally and vertically where appropriate. Vertical mixed use, with ground-floor retail in developed areas and activity centers as identified through local land use plans, can increase the vitality of the street and provide people with the choice of walking to desired services. More important for Bakersfield, mixing uses horizontally can prevent desolate, single-use areas and encourage increased pedestrian activity; scale of use and distance between uses are important to successful horizontal mixed-use development.	Land Use, Air Emissions
29.8		Support and enhance transit priority and strategic employment place types. These areas have a strong impact on transportation patterns as the major destinations. To make these places more transit-supportive, they should be enhanced by land use decisions that locate new housing and appropriately scaled retail and employment uses to diversify the mix, creating an environment that maximizes transportation choice.	Land Use, Air Emissions

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
29.9		Encourage cities and the county to provide land use intensities where appropriate at levels that will promote use of transit and support pedestrian and bicycle activity. A general threshold for transit-supportive residential uses is 10 to 15 units per acre within ½ mile of a high-frequency transit stop (15 min. headways or less). This density can be lower, however, if the urban environment supports easy pedestrian/bike access to transit. Nonresidential uses with a floor area ratio (FAR) of 0.5 provide a baseline that can support viable transit ridership levels. Local land use plans should provide flexibility to maximize the intensity of development in transit priority place types to be more responsive to changing market conditions.	Land Use, Air Emissions
29.10		Encourage the adoption of general plan circulation elements with specific plan lines as appropriate to preserve goods movement corridors and high frequency transit corridors.	Land Use, Air Emissions
29.11		The transportation and circulation framework should define compact districts and corridors that are characterized by high connectivity of streets to not overly concentrate traffic on major streets and to provide more direct routes for pedestrians, good access to transit, and streets that are designed for pedestrians and bicycles, as well as for vehicles.	Land Use, Air Emissions
29.12		New residential developments should include streets that provide connectivity. Cul-de-sacs and walls around communities are especially challenging for providing effective pedestrian and bike access to public transit.	Land Use, Air Emissions
29.13		Streets should be designed to support use by multiple modes, including transit, bicycles, and pedestrians, through proper scaling and provision of lighting, landscaping, and amenities. Amenities must be designed to provide comfortable walking environments.	Land Use, Air Emissions
29.14		Buildings should be human scaled, with a positive relationship to the street (e.g. entries and windows facing onto public streets, and appropriate articulation and signage). (Land Use – Highway/Road)	Air Emissions
29.15		The impact of parking on the public realm should be minimized by siting parking lots behind buildings or screening elements (walls or landscaping). Buildings should be close to the road so parking can be located on the side or in the rear.	Land Use, Air Emissions
30	Accessibility, Efficiency, Livability, Sustainability	Promote increased communication with neighboring jurisdictions on interregional land use issues, including the coordination of land use decisions and transportation systems.	Land Use, Air Emissions
30.1		Coordinate with the County of Kern, City of Bakersfield, and City of Shafter on the proposed expansion of Meadows Field in the County of Kern Airport Master Plan.	Land Use
30.2		Coordinate with the Southern California Association of Governments, the Metropolitan Transportation Commission, and the ports to minimize impacts of port activity through Kern County.	Land Use, Air Emissions
30.3		Coordinate with the Kern County Department of Airports, municipalities and airport districts to establish intermodal connectivity for rail, trucking, transit, and passenger vehicles.	Land Use, Air Emissions
30.4		Coordinate with Golden Empire Transit, Kern Regional Transit, and the Kern County Department of Airports to improve intermodal connectivity between transit systems and Meadows Field.	Land Use, Air Emissions
30.5		Continue to use the CEQA review process to inform stakeholders and decision-makers on the impacts of sensitive land use developments near vital transportation infrastructure.	Land Use, Air Emissions
30.6		Work with member agencies to preserve existing and future road and highway rights-of-way from the encroachment of sensitive land uses. (Land Use – Highway/Road)	Land Use, Air Emissions
30.7		Implement the long-range 2014 RTP in partnership with member agencies to preserve near- and long-term transportation infrastructure that promote the preservation of goods movement routes and facilities. (Land Use – Highway/Road)	Land Use, Air Emissions

Policy – Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
30.8		Transit improvement projects should be targeted at areas with transit-supportive land uses (existing and planned) in and around key destinations and projects that can increase pedestrian activity. (Land Use – Highway/Road)	Land Use, Air Emissions
30.9		Relax roadway level of service (LOS) standards in high-priority transit corridors. In high-demand, high-capacity transit corridors.	Land Use, Air Emissions
30.10		Special presentations and workshops for member agencies on transportation-related emission reduction strategies for air pollution emissions as new standards, technology, and funding opportunities evolve.	Air Emissions
31	Mobility, Efficiency	Support more efficient use of the transportation system through the implementation of Intelligent Transportation Systems technology	Land Use, Air Emissions
31.1		Build upon the momentum and stakeholder coalition generated through the San Joaquin Valley Goods Movement Study to pursue Intelligent Transportation Systems, ITS commercial vehicle projects.	ITS
31.2		Investigate how ITS can support efforts to improve east/ west travel between the inland areas and coastal communities.	ITS
31.3		Use momentum from the valley-wide ITS planning effort in conjunction with federal rules (ITS architecture and standards conformity and statewide and metropolitan planning) to expand ITS actions.	ITS
31.4		Build upon the existing Caltrans District 6 Traffic Management Systems to fill gaps and complete coverage on major facilities, including expansion of their highway closures and restrictions database, to include other agencies.	ITS, Air Emissions
31.5		Capitalize on the extensive ITS technology testing and standards development conducted by Caltrans by using, where appropriate, Caltrans approaches for local traffic management systems.	ITS, Air Emissions
31.6		Build upon lessons learned from past and current transit ITS deployment experience in the San Joaquin Valley (Fresno Area Express, Golden Empire Transit, and San Joaquin Regional Transit).	ITS, Air Emissions
31.7		Build upon Caltrans District 6 experience with sharing facilities, equipment, and information between traffic management and California Highway Patrol staff.	ITS, Air Emissions
31.8		Provide traveler information for commercial vehicle operators at truck rest stops.	ITS, Air Emissions
31.9		Improve visibility and access to existing Caltrans' valley-wide alternate route plans.	ITS, Air Emissions
31.10		Coordinate the Bakersfield area Transportation Management Center with Caltrans' District 6 Transportation Management Center via satellite.	ITS, Air Emissions
31.11		Integrate the ITS capabilities being implemented at Golden Empire Transit (GET) with Bakersfield's traffic management system, including sharing information between the two centers during emergencies.	ITS, Air Emissions
31.12		Facilitate the transfer of lessons learned from GET ITS deployment to other area transit operators, and look for opportunities for those agencies to better coordinate with GET using its capabilities.	ITS, Air Emissions
31.13		Expand the accident reduction campaigns on Kern's rural highways.	ITS, Air Emissions
32	Livability	Achieve national and state air quality standards for healthy air by the mandated deadlines.	Air Emissions

Policy - Action No.	Goal(s)	Policy/Action	Strategic Action Element (Ch. 5)
32.1		Maintain air quality coordination MOU with the San Joaquin Valley Metropolitan Planning Organizations, San Joaquin Valley and East Kern Air Pollution Control District, and Caltrans Districts 6 and 10.	Air Emissions
32.2		Identification of all Reasonably Available Control Measures (RACM) for ozone and all Best Available Control Measures (BACM) for PM10 by Kern COG's member agencies.	Air Emissions
32.3		Coordinate with all necessary responsible agencies to implement feasible transportation control measures that limit harmful air emissions.	Air Emissions
32.4		Support special presentations and workshops for member agencies on transportation-related emission reduction strategies for air pollution emissions as new standards, technology, and funding opportunities evolve.	Air Emissions
32.5		Seek funding options for Congestion Mitigation Air Quality Program (CMAQ), AB 2766 Motor Vehicle Emissions Reductions Program, and other sources that allow allocations for air emission reduction strategies.	Air Emissions
33	Equity	Take a proactive in implementing Federal Title VI Environmental Justice requirements to ensure non-discrimination.	Environ. Justice
33.1		Avoid, minimize, and/or mitigate disproportionately high and adverse human health or environmental effects, including social and economic impacts, on traditionally disadvantaged communities, especially racial minority and low-income communities.	Environ. Justice
33.2		Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.	Environ. Justice
33.3		Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.	Environ. Justice

- Item 4.3 Please see comment RTP-MR-3
- Item 8 Please see comment RTP-MR-2F, -3B, & -3C
- Item 8.13 Duplicative of policies 8.5 & 8.11
- Item 20.2/33.1 Please see comment RTP-MR-2F, -3B, & -3C, Note that the RTP EIR contains mitigation measures that are to be used with local projects that qualify for CEQA streamlining or are tiering off the programmatic level RTP EIR.
- Item 29 Please see comment 13-11 above.
- Item 29.1 Please see comment 13-11 above.
- Item 29.2 Please see comment 13-11 above.
- Item 29.5 Please see comment 13-11 above.
- Item 29.12 Please see comment RTP-MR-3E
- Item 30.8 Please see comment RTP-MR-3E
- Item 33.4 Please see comment RTP-MR-2F, -3B, & -3C
- Item 33.5 Please see comment RTP-MR-2F, -3B, & -3C
- Item 33.6 Please see comment RTP-MR-4
- Item 33.7 Please see comment RTP-MR-2E
- Item 33.8 Please see comment RTP-MR-2E

13-13 Relevant portions of the Health Impact Assessment are discussed and responded to in detail in letters 11 thru 13.

Letter 14: Home Builders Association of Kern County, Matt Towery, President, May 5, 2014

This letter contains comments on the EIR; see EIR Responses to Comments K-1 through K-3.

This letter contains comments on the EIR; see EIR Responses to Comments K-1 through K-3.

14-1 Comment noted. See RTP-MR-1

14-2 See RTP-MR-5

Letter 15: Sierra Club Kern Kaweah Chapter, Craig Breon, April 28, 2014

15-1 See RTP-MR-1. This comment was forwarded to CARB.

15-2 See RTP-MR-1.

15-3 See RTP-MR-1.

15-4 See RTP-MR-1. Table 4-7 Footnote 1 states: "*Note that SB 375 related CO2 emission reductions from strategies and assumptions are not additive. When run separately some strategies result in a larger change in emission because they compete with each other for trips when combined in a single model run...*" The only way to provide an understanding of the impact of each strategy and modeling assumption is to run the model separately without that strategy, one at a time. The separate runs cannot be added up and expected to total the combined model run for the Plan Alternative because they are separate sensitivity test runs.

Footnote 1 also mentions other strategies that are in the base year that could not be easily broken out. "*...Many strategies are included in the model based on model inputs from household travel surveys (lower multi-family trip generation rates, high vehicle occupancy rates), traffic data, etc. that are difficult to analyze because they exist in the base year condition...*" This footnote mentions that changes observed in the model data input from traffic counts, and household travel surveys between 2005 and 2008 can also affect the CO2 emissions per capita. In addition, changes in trip distribution and mode choice between sensitivity runs do not remain the same between sensitivity runs and the combined run making it impossible to add the cumulative totals of the sensitivity runs and expect them to add up to the combined model run.

The following are responses to questions asked in this section of the comment letter:

- *Why use a base year for pricing of 2013 rather than 2005?* The base year for the model is 2008. The base year for most other analysis is the most recent year observed data was available (2013).
- *What dollar values were assumed?* The base year for pricing used year 2000 dollars as illustrated in Table MR-1B. 2005 or 2013 dollar values would reduce over time due to inflation, likely reducing the impact of gas price increases on VMT. See RTP-MR-1D.
- *Were forecasted changes in wages over time factored into this equation?* Yes, the inclusion of CPI controls for changes in wages over time.
- *Were the impacts of increased fuel efficiency on perceptions of gas price*

increases included? Yes, See RTP-MR-1D.

15-5 See RTP-MR-1.

15-6 See RTP-MR-1E.

15-7 See RTP-MR-1. Kern COG would agree that honesty is always the best policy which is why it has fully disclosed the effects of its modeling assumptions and strategies for the SCS, which were developed in close consultation with CARB and independent peer review experts.

15-8 Kern COG contacted CARB and learned that a meeting between CARB and the commenters was held. It is our understanding the commenters were informed by CARB staff that increased future fuel and auto operating cost assumptions are common best practice by all MPOs in their SB 375 modeling.

Letter 16: Sierra Club Kern Kaweah Chapter, Craig Breon, May 6, 2014

This letter contains comments on the EIR; see EIR Responses to Comments L-1 through L-22.

16-1 See RTP-MR-1.

16-2 See RTP-MR-1.

16-3 See RTP-MR-1.

16-4 See RTP-MR-1. V

16-5 See RTP-MR-1. The following are responses to questions asked in this section of the comment letter:

- *Why use a base year for pricing of 2013 rather than 2005 (the base year for measuring GHGs under SB 375)?* The base year for the model is 2008. The base year for most other analysis is the most recent year observed data was available (2010). *How would using 2005 change the result?* The price of fuel in 2005 according to the data provided by MTC was \$2.52 per gallon rather than \$3.65 per gallon, or served 30% lower.
- *What dollar values were assumed?* The base year for pricing used year 2000 dollars as illustrated in Table MR-1B. *2005 or 2013 dollar values would reduce over time due to inflation, likely reducing the impact of gas price increases on VMT. What rate of inflation was assumed over time?* See RTP-MR-1D.
- *Were forecasted changes in wages over time factored into this equation?* Yes, the inclusion of CPI controls for changes in wages over time.
- *Were the impacts of increased fuel efficiency on the response of drivers to gas price increases included?* Yes, See RTP-MR-1D.

16-6 The following are responses to questions asked in this section of the comment letter:

- *Assuming gas price increases lead to reduced car trips, does that then lead to greater use of transit or biking and walking and, if so, has that been factored into Kern COG's modeling?* Yes. *If so, what were the Implications for the RTP?* The Plan Alternative shows additional emissions reduction that cannot be attributed to the individual strategies and assumptions modeled in the

individual sensitivity tests. Evidence suggests that the alternative transportation modes may receive a boost in emissions reduction in the combined run than when isolated in the sensitivity test run. More research is suggested to analyze this apparent effect.

• *Are there equity impacts to the rise in gas prices that could be mitigated through the RTP/SCS or EIR process?* See RTP MR-3C.

16-7 See MR-1G.

16-8a Thank you for your comments. Based on the revenue projections provided in Table 6-1, Out of the estimated \$11 Billion of expected revenue over the life of the Plan, it is estimated that Kern COG has control over approximately 14% or \$1.6 Billion – over the life of the Plan. Of the \$1.6 Billion, \$1.1 Billion is estimated from the STIP program. Kern COG's entitlement and control of this revenue source is still dictated by the state guidelines. Approximately \$500 million remains over the life of the Plan – these revenue sources include "CMAQ", "RSTP" and "ATP". We expect a larger percentage of these dollars to be directed to projects that advance SB 375 policies and goals through the updated Kern COG Project Delivery Policies and Procedures. The above estimate does not include revenue from the projected "Other" categories because the revenue source is unknown at this time.

16-8b See MR-3G.

16-9 In 2040, Kern COG is anticipated to have a challenge meeting the mandatory National Ambient Air Quality Standards (NAAQS) for 8-hr. Ozone NOx precursor emissions. Called conformity, failure to demonstrate attainment of this standard would result in the region's regionally significant projects not being allowed to advance to the next phase, bringing construction of road widening projects to a halt. In 2040 Kern COG is estimated to be within 6/100ths of a ton of the federal conformity budget for NOx. Fortunately, many of the strategies used to reduce emissions under SB 375 also assist NOx emission reductions. New projects are required to mitigate federal criteria pollutants to zero. Unfortunately, trucking, the largest transportation source of NOx emissions is not subject to SB 375; however, it is subject to AB 32. The Kern region has a court tested methodology to quantify and mitigate emissions by a new development.

Letter 17: American Lung Association, Heather Dumais, San Joaquin Valley Advocacy Coordinator, May 6, 2014

17-1 See RTP MR-1

17-2 See RTP MR-2

17-3 See RTP MR-3

Letter 18: Southern Sierra Partnership, Adam Livingston, Coordinator, May 5, 2014

This letter contains comments on the EIR; see EIR Responses to Comments M-1 through M-2.

18-1 See RTP MR-2

18-2 See RTP MR-2, MR-3 and MR-6.

- 18-3 See RTP MR-2 & MR-3. On April 17, 2014 at the RTP public hearing in Bakersfield, of the 30 people that spoke, approximately 7 people spoke in favor of the 33% alternative and 2 spoke against the 33% alternative. On April 15, 2014 at Cal City public hearing of the 5 people who spoke no-one mentioned the 33% alternative. On May 15, 2014, after the close of the public review period, at the Kern COG Board meeting approximately 15 people spoke on an informational item about the adoption schedule for the 2014 RTP. At that meeting the majority spoke in opposition to the 33% alternative and no-one spoke in favor.
- 18-4 See RTP MR-2 and response to 18-2 above.
- 18-5 See RTP MR-6.
- 18-6 Kern COG's continued use of Uplan GIS based land use model, allows innovative consideration of discouragement overlay layers in the development the RTP growth forecast. The potential to take the conservation framework data from the County General Plan update and use it in the next update to the RTP is consistent with the approach in the Eco-Logical report. Kern COG has a long history of supporting efforts that reduce project cost, and we look forward to partnering with SSP in these efforts.
- 18-7 See RTP MR-2.
- 18-8 See RTP MR-3.
- 18-9 See RTP MR-3.
- 18-10 This comment is being forwarded to Caltrans, the lead on the Route 58 Connector project. Initially Caltrans requested a 300 ft. right of way for the project and that footprint has since been reduced to 210 ft., and a parallel bike corridor including a canal bridge has been requested to be incorporated into the project and connect to the Kern River Bike path.
- 18-11 See RTP MR-2 & MR-3. It is important to note that that the plan proposes adding over 1000 miles of bike lanes with the bulk of those miles connecting to rural, disadvantaged communities.
- 18-12 See RTP MR-2 & MR-3.
- 18-13 See RTP MR-1.
- 18-14 See RTP MR-1.
- 18-15 See RTP MR-1.

Letter 19: Development Consulting Services, Donna L. Carpenter, Principal, May 6, 2014

This letter contains a comment on the EIR; see EIR Response to Comment N-1.

- 19-1 See RTP MR-4 and MR-5
- 19-2 See RTP MR-4 and MR-5

Letter 20: Western Properties, Tom Dee, Vice President, May 5, 2014

This letter contains a comment on the EIR; see EIR Response to Comment O-1.

20-1 See RTP MR-4 and MR-5

20-2 See RTP MR-5 and MR-5

Letter 21: Towery Homes, Matt Towery, President, May 5, 2014

This letter contains a comment on the EIR; see EIR Response to Comment P-1.

21-1 See RTP MR-4 and MR-5

21-2 See RTP MR-4 and MR-5

Letter 22: Tejon Ranch Company, Derek C. Abbott, Vice President, May 5, 2014

This letter contains comments on the EIR; see EIR Responses to Comments Q-1 through Q-8.

22-1 See RTP MR-4 and MR-5

22-2 See RTP MR-4 and MR-5

Letter 23: Ted James, AICP, May 6, 2014

This letter contains comments on the EIR; see EIR Responses to Comments R-1 through R-8.

23-1 See RTP MR-4 and MR-5

23-2 See RTP MR-4 and MR-5

Letter 24: Lenox Homes, David Cates, President, May 5, 2014

This letter contains a comment on the EIR; see EIR Response to Comment S-1.

24-1 See RTP MR-4 and MR-5

24-2 See RTP MR-5 and MR-5

Letter 25: Lennar Central Valley, Mike Miller, Division President, May 5, 2014

This letter contains a comment on the EIR; see EIR Response to Comment T-1.

25-1 See RTP MR-4 and MR-5

25-2 See RTP MR-5 and MR-5

Letter 26: Landscape Development, Scott Heilman, May 5, 2014

This letter contains a comment on the EIR; see EIR Response to Comment U-1.

26-1 See RTP MR-4 and MR-5

26-2 See RTP MR-4 and MR-5

Letter 27: GeoPlan Economics, Vince Zaragoza, AICP, May 3, 2014

27-1 Comment noted. The following text will be added to the end of the paragraph with the heading "Farmland Needs for Local Food" on Page 4-21 "The recently enacted SB 551 will likely accelerate the proliferation of community gardens and markets in urban settings."

27-2 See RTP MR-4 and MR-5

Letter 28: Cornerstone Engineering, Derrill G. Whitten, Jr., PE, PLS, President, May 5, 2014

This letter contains a comment on the EIR; see EIR Response to Comment V-1.

28-1 See RTP MR-4 and MR-5

28-2 See RTP MR-5 and MR-5

Letter 29: Bob Smith, April 25, 2014

29-1 Thank you for your comments. The list of new projects has been added to the Capital Improvement Program. The dollar amounts remain the same.

Letter 30: David J. Dmohowski, May 5, 2014

30-1 See RTP MR-4 and MR-5

30-2 See RTP MR-5 and MR-5

Letter 31: Frank Hawker, April 24, 2014

31-1 The street referenced in this request is under the jurisdiction of the County of Kern. The request was forwarded to the County of Kern Roads Department for their evaluation on May 12, 2014.

Letter 32: Charlotte Reeves, April 25, 2014

32-1 Thank you for your comment. Kern COG has no land use authority to require local jurisdictions to provide an increased mix of housing. As required by Senate Bill (SB) 375, the SCS is based on local General Plans and likely housing mix/infill assumptions using the best available data.

Letter 33: Bernadetta Rickard, May 9, 2014

This letter contains a comment on the EIR; see EIR Response to Comment Y-1.

33-1 See RTP MR-4 and MR-5

33-2 See RTP MR-4 and MR-5

Public Hearings 34: California City, April 15; and Kern COG, April 17, 2014.

Comments were made at the public hearings regarding the EIR; see EIR Response to Comments CC-1 and CC- 2.

34-1 Comment noted. The information will be forwarded to the appropriate member of the Kern County Board of Supervisors.

34-2 Comment noted. The information will be forwarded to Kern Regional Transit.

34-3 Comment noted. Kern COG has initiated discussions with Southern California Association of Governments concerning extension of the Metrolink.

34-4 Comment noted. The project in question was funded prior to the plan. A traffic study was performed by an applicant for a shopping center at that location several years prior.

34-5 Comment noted. These comments will be shared with local elected officials.

34-6 Comments noted. See RTP MR-1. Assumption of increased fuel costs is consistent the methodology approved by CARB for other regions and with past trends, and as noted in the footnote to Table 4-7 uses the same cost assumptions used by the San Francisco Bay Area Metropolitan Transportation Commission. This is also demonstrated in RTP MR-1A.

34-7 Comments noted. See RTP-MR-1 regarding the 33% Housing Mix growth pattern.

34-8 Comments noted. See RTP-MR-2 regarding the SB 375 consistency analysis.

34-9 Comments noted. Comments will be forwarded to the City of Bakersfield Planning Department and elected officials.

34-10 Comments noted. Comments will be forwarded to Golden Empire Transit.

34-11 Comments noted. As stated in Chapter 5 of the RTP, Kern COG does not have land use authority, nor authority to require General Plan amendments. All alternatives analyzed were consistent with the adopted SB375 Framework in Chapter 5 stipulating that local General Plans be used. The Metropolitan Bakersfield infill in all alternatives is consistent and uses the current land use designations of adopted General Plans, however, they assume the infill occurs at average densities in addition to the existing land use. This is not an issue if the site is vacant, however, in some locations it is possible that the increased infill could exceed the General Plan land use maximum allowed density, if the current land use on the ground is more than ½ the maximum allowed density. A cursory review of land use in infill areas show that even with the 100% infill alternative most locations would not require a General Plan amendment to double the number of jobs or households at those infill locations, illustrating a built-in flexibility with existing General Plans should the market demand greater infill. Another issue with infill is that most

infrastructure (water, sewer, roads, public safety, etc.) was designed to accommodate average General Plan build out densities or for a total population that was much smaller than today let alone by 2040. The greater the amount of infill, the greater the stress on infrastructure in existing areas. If the market demands greater infill, a funding mechanism will be needed to retrofit existing infrastructure. This is not the case for the Plan Alternative.

The commenter is correct in noting that Kern has a large rural resource economy in areas outside major metropolitan areas, described in the Rural/Urban Connectivity Strategy in Chapter 5. The infill option can increase work commute trips, however travel to shopping and other activities is decreased resulting in a net decrease in the overall amount of travel. Unfortunately, the overall effectiveness of infill is diminished because of the increased commute distances to outlying resource areas. One strategy to combat this is to provide additional housing to disadvantaged communities in outlying areas to better balance rural jobs while providing the population necessary to support amenities and shopping in outlying communities.

- 34-12 Comment noted. The 2014 RTP projects to spend 36.7% of its funding on Transit, HOV, Aviation, etc. and 6.5% on Pedestrian and Bicycle. This is an increase over the 2011 RTP of 837% for bike and pedestrian funding, and a 329% increase in Transit funding by 2040.

In the 2014/15 Overall Work Program, Kern COG budgeted funding in Work Element 902.1 for technical assistance to member agencies such as feasibility studies, pavement management plans, Valley Floor Habitat Conservation Plans and traffic studies.

No funding is currently planned in the 2014 RTP for services to “new towns.”

- 34-13 Comments noted. The 2014 RTP provides a reduction of more than 10% in water usage by providing a full range of housing options.
- 34-14 Comments noted.
- 34-15 Comment noted. See RTP-MR-2 regarding the SB 375 consistency analysis.
- 34-16 Comment noted.
- 34-17 Comment noted. See RTP-MR-2 regarding the SB 375 consistency analysis.
- 34-18 See RTP MR-2, specifically Tables MR-2 A through E
- 34-19 See RTP Appendix C “Directions to 2050 Summary of Community Participation Executive Summary”.
- 34-20 Comment noted. See RTP-MR-1 regarding the 33% Housing Mix growth pattern.
- 34-21 Comment noted.
- 34-22 Comment noted. The 2014 RTP improves air quality and public health by reducing all criteria pollutants, emissions and their precursors. Because of the improved air quality, there is a 5% or more reduction in health expenditures under the Plan.

- 34-23 Comments noted. Kern COG prepared an Environmental Justice analysis consistent with Federal Title VI of the 1964 Civil Rights Act and Executive Order 12898, please refer to Appendix D. Considering the analyses as a whole, the transportation model indicates that Kern COG has and will continue to divide its resources equitably, with no single population group suffering disproportionate and adverse effects from agency activity.
- 34-23 Comment noted See RTP-MR-1 regarding the 33% Housing Mix growth pattern.
- 34-24 Comment noted.
- 34-25 Comments noted. See RTP-MR-2 regarding the SB 375 consistency analysis.
- 34-26 Comments noted. See RTP-MR-1 regarding the 33% Housing Mix growth pattern.
- 34-27 Comments noted. See RTP-MR-1 regarding the 33% Housing Mix growth pattern and RTP-MR-2 regarding the SB 375 consistency analysis.
- 34-28 Comment noted. See EIR MR 2 regarding mitigation measures.
- 34-29 Comment noted. The 2014 RTP reduces farmland consumption by as much as 40% as compared to the 1988 to 2010 time period when an average of 1.8 square miles of farmland was converted to urban use per year. See RTP-MR-1 regarding the 33% Housing Mix growth pattern.
- 34-30 Comment noted.
- 34-31 Comments noted. See RTP-MR-1 regarding the 33% Housing Mix growth pattern.
- 34-32 Comment noted. These concerns will be forwarded to the Kern County Sanitation and Code Enforcement Departments and to the Kern County Roads Department.
- 34-33 Comments noted.
- 34-34 Comments noted.
- 34-35 Comment noted. Information and requests for increased transit will be forwarded to Kern Regional Transit.
- 34-36 Comment noted.
- 34-37 Comments noted. Information regarding transit inadequacy will be forwarded to Kern Regional Transit. The Regional Housing Needs Allocation (Appendix H) breaks out housing allocation by income category between 2013 and 2023. For the Delano community a total of 1,462 housing units are needed between 2013 and 2023. Of those, 304 are for extremely low-income levels, 257 are for very low-income levels, 326 are for low-income levels, 255 are for moderate-income levels and 320 are for above moderate-income levels. It should be noted that these are preliminary numbers.

Email: Calthorpe Associates, Garlynn Woodsong, Project Manager, April 10, 2014

- 35-1 The 72 square miles is land consumed from 2010 to 2035. The 91 square miles is land consumed from 2010 to 2040. The EIR uses 2010-2040. Table 4-4 lists both numbers.

Letter: California High Speed Rail Authority, Dianna Gomez, Central Valley Regional Director, May 2, 2014

- 36-1 A. The Kern COG RTP must be financially constrained. Currently the HSR authority lacks full funding for completions of the Merced to San Fernando Valley segment by 2022. However, for SB 375 model year includes a very low assumption of ridership in a way that would not result in double counting. Table 4-7 reports the results of assumed improvements to intercity passenger rail that is based on the "very low" scenario for High Speed Rail used in the Plan Alternative by 2040. The 2013 State Rail Plan and the San Joaquin JPA Draft 2014 Business Plan both include significant improvements for intercity passenger rail between Northern and Southern California with or without High Speed Rail. The California High Speed Rail Authority (CHSRA) consultant Cambridge Systematics, provided The San Joaquin Valley MIP Travel Model consultant Fehr & Peers with 12 forecast scenarios for intercity rail travel forecasts between Northern and Southern California based on the CHSRA 2012 Business Plan. Fehr & Peers developed a post processor model script for the MIP travel model that analyzed the impact of the potential mode shifts to intercity passenger rail. Kern COG used two of the 12 CHSRA scenarios titled Initial Operating Segment (IOS) Low Source of Ridership, and Blended Very High Source of Ridership. The Low Scenario was used with the Plan Alternative. This alternative assumes 1,200 boardings daily at the Bakersfield Amtrak/HSR station. This very conservative number is only a little more than double the current 520 boardings for the Amtrak San Joaquins which have been experiencing record ridership each year for the past 3 years. The Low ridership was assumed by Kern COG to also reflect planned intercity passenger rail improvements to the Amtrak San Joaquins if the CHSRA is delayed beyond 2040. So the Plan Alternative could represent either a Low HSR ridership scenario or planned Improvements to Amtrak service resolving the apparent contradiction. For the alternatives with frontloaded transit (Intensified, 33% Mix, and 100% Infill) the IOS Low HSR ridership scenario was used by 2035 and the Blended Very High HSR ridership scenario (4,100 boardings per day at Bakersfield) was used for 2040.

B. Table 5-1 assumes \$1.5 billion of the \$6 billion in initial funding identified for the first construction segment will be used on the portion of the route within Kern. The HMF will remain in the RTP as a contingency should one of the 3 sites in Kern be chosen for the facility.

C. Table 5-2 identifies \$20 billion in unfunded need for the CHSRA project portions in Kern. This is proportional to the length of track in Kern compared to the Merced to San Fernando Valley. The CHSRA has not provided a more detailed cost estimate of the portion the project within Kern.

D. The Final EIR/EIS for the Fresno to Bakersfield was not certified until after the close of the public review period. However the document is referenced here and available online:

http://www.hsra.ca.gov/Programs/Environmental_Planning/final_fresno_bakersfield.html

E. As discussed above, Kern COG includes HSR as a project/strategy and takes credit for resulting GHG reductions as suggested. See also EIR Response EE-1.

Telephone Call: Carol Bender, March 17, 2014

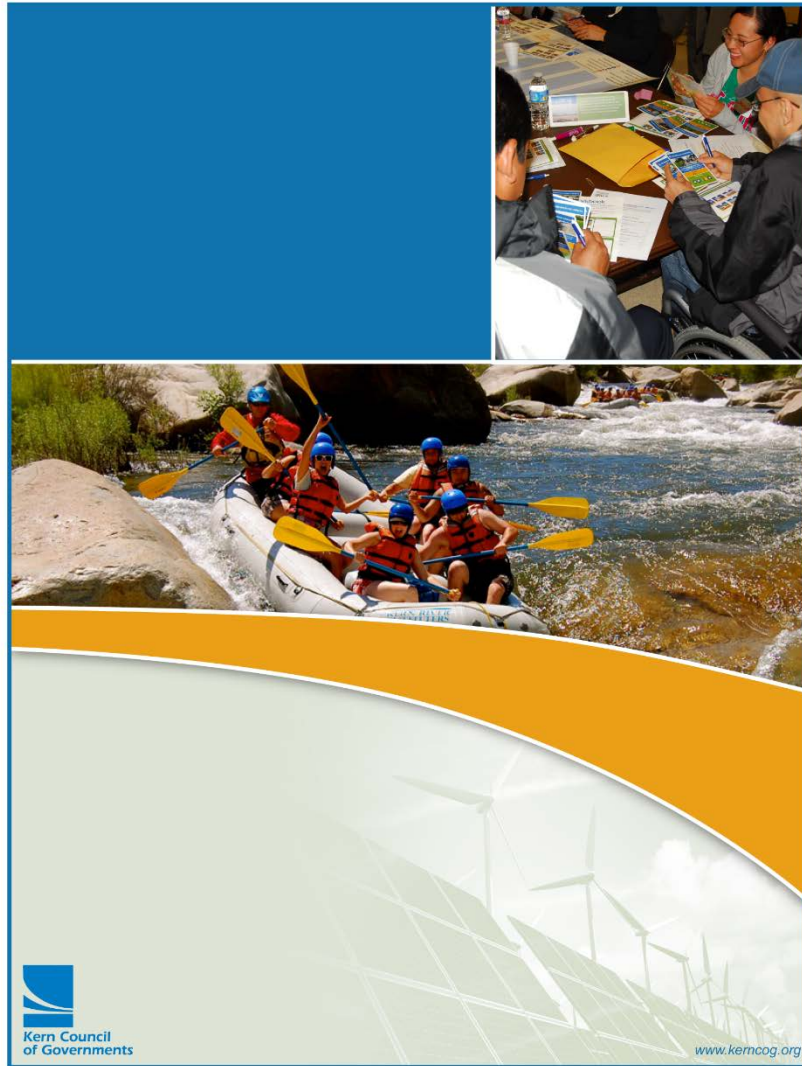
- 37-1 p. 7-4 third paragraph: changed “2-hour, 27-minute” to “2-hour, 37-minute” based on the 2014 Business Plan p. A-2 “Bay-to-Basin – 2027”
- 37-2 p. 7-4 last paragraph, deleted the second sentence: “The CHSRA is anticipated to release a revised business plan that meets the requirements in spring 2014.” The business plan has been released and there will likely be future changes in the financial information from the CHSRA.
- 37-3 p. 7-4 last paragraph added the following sentence at the end to provide information on recent lawsuits based on comment received: “Since the release of the draft 2014 RTP, the CHSRA finalized the Fresno to Bakersfield EIR/EIS, several local government jurisdictions in Kings and Kern Counties have filed or plan to file CEQA lawsuits in response, in an effort to resolve local issues related to the project.”
- 37-4 p. 7-6 sixth paragraph added sentence on alternative station location based on comment received: “In the past several years, a potential station location north-west of Bakersfield has been discussed as an alternative to the downtown location, however the CAHSRA has not authorized a formal study for that alternative.
- 37-5 p. 7-6 seventh paragraph: deleted the first sentence based on comment received: “Connections to other modal uses would be effortless.”

EXHIBIT "B"

TABLE 4-9: CONSISTENCY OF SCS FRAMEWORK STRATEGIES WITH FUNDING PROGRAM OUTCOMES
(THIS CHART IS AN ILLUSTRATION FROM THE KERN COG PROJECT DELIVERY POLICIES AND PROCEDURES)

Outcomes from KCOG Transportation Funding Programs		KCOG SCS Framework Strategies																	
		Modify Distribution of households, population, and jobs	Rebalance the mix of land uses	Increase the level of density	Improve the pedestrian environment	Road			Transit				Pricing				TDM		
VMT Reduction				✓	Add HOV lanes	Implement ITS / Traffic management	Add general purpose roadway lanes	Construct new transit lines	Increase transit service	Upgrade transit service	Improve accessibility	Develop tolls and toll roads	Implement HOT lanes	Increase the cost of parking	Change in transit fares	Change in auto operation cost	Promote car/vanpooling, telecommuting/teleconferencing	Promote walking and biking	Implement employer-based trip reduction strategies
Emissions Reduction				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Livability				✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓
Congestion Relief				✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
Cost-Effectiveness				✓	✓	✓	✓	✓	✓	✓	✓		✓				✓	✓	✓
Safety				✓	✓	✓	✓						✓					✓	✓
State of Good Repair				✓	✓	✓	✓			✓								✓	✓
Economic Well-Being					✓	✓	✓	✓	✓		✓	✓	✓						

2014 REGIONAL TRANSPORTATION PLAN - AMENDMENT NO. 1



2014 REGIONAL TRANSPORTATION PLAN AMENDMENT NO. 1 KERN COUNCIL OF GOVERNMENTS KERN COUNTY, CALIFORNIA

FINAL – December 16, 2016

**Contact: Joseph Stramaglia, Regional Planner
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2014 REGIONAL TRANSPORTATION PLAN - AMENDMENT NO. 1

KERN COUNCIL OF GOVERNMENTS KERN COUNTY, CALIFORNIA September 15, 2016

The 2014 Regional Transportation Plan (2014 RTP), originally adopted on June 19, 2014 and federally approved on December 12, 2014, is Kern Council of Government's (Kern COG) major policy document, representing the region's transportation system's vision through 2040. The scope of the proposed 2014 RTP Amendment No. 1 will be targeted at incorporating project updates for the Metropolitan Bakersfield area and countywide locations.

Proposed Revisions for 2014 RTP Amendment No. 1

The 2014 RTP Amendment No. 1 proposes the following revisions to the start dates for the project information provided in the current 2014 RTP as originally adopted.

- SR 14 – Freeman Gulch Phase 1 - revise start date from “2016” to “2019” (KER08RTP006);
- SR 46 – Widening Segment 4A – revise start date from “2016” to “2017” (KER14RTP001);
- SR 178 – 24th Street Widening – revise start date from “2015” to “2016” (KER08RTP014); and
- Hageman Road Extension – revise start date from “2016” to “2018” (KER08RTP013).

This amendment is being provided to ensure consistency between the 2014 RTP Table 5.1 as amended with the upcoming 2017 Federal Transportation Improvement Program (2017 FTIP). These revisions are due to delays in state funding and delays in completing pre-construction.

As a result of this amendment, there are no changes to the net funding during the period from 2014 to 2040 in the 2014 RTP Amendment No. 1. The total number of projects does not change from those previously approved. The proposed changes do not impact the analysis years for the Sustainable Community Strategy, the Environmental Justice evaluation, or the Air Quality Conformity.

Proposed Schedule

Kern COG is opening a public comment period on the proposed 2014 RTP Amendment No. 1 on July 6, 2016. At that time, Kern COG will commence its review of the draft air quality conformity determination analysis and the 2017 Federal Transportation Improvement Program. Public comment will close August 4, 2016.

Legal notice of the proposed air quality conformity determination will also be provided by July 6, 2016. On September 15, 2016, the Kern COG Board of Directors will formally consider the 2014 RTP Amendment No. 1 and the 2017 FTIP and the air quality conformity determination.

For purposes of this amendment, only the affected project category, “Major Highway Improvements” which is found in Table 5.1, will be provided in this amendment report. The revised project start dates indicated will be highlighted in yellow for the benefit of the reader.

2014 REGIONAL TRANSPORTATION PLAN - AMENDMENT NO. 1

2014 through 2020 - Major Highway Improvements

Project	Location		YOE Cost	Project ID	Start
Route 14	Inyokern	Redrock / Inyokern Rd to Rt 178 - widen to four lanes (Phase1)	42,000,000	KER08RTP006	2019
Route 46	Lost Hills	Brown Material Rd to I-5 - interchange upgrade at I-5 - Phase 4A	27,000,000	KER14RTP001	2017
Route 58	Metro Bkfd	Rosedale Hwy - Calloway Dr to Rt 99 - widen existing highway	29,000,000	KER08RTP007	2014
Route 99	Metro Bkfd	Hosking Ave - construct interchange	31,000,000	KER08RTP009	2014
Route 99	Bakersfield	Olive Drive - construct interchange upgrades	6,100,000	KER08RTP091	2016
Route 178	Bakersfield	Vineland Rd to east of Miramonte Dr - widen existing highway	54,000,000	KER08RTP011	2014
Hageman Flyover	Bakersfield	Hageman Rd - Knudsen Dr to Rt 204 - construct extension	68,900,000	KER08RTP013	2018
7th Standard Rd	Shafter/Bkfd	Rt 43 to Santa Fe Way - widen existing roadway	14,000,000	KER08RTP113	2018
24th St Improvements	Bakersfield	Rt 178 (24th/23rd St) from SR-99 to M Street - widen existing highway	55,000,000	KER08RTP014	2016
Centennial Corridor	Bakersfield	I-5 to Rt-58/Cottonwood Rd - element of the Bakersfield Beltway System - construct new freeway and/or operational improvements	698,000,000	KER08RTP020	2016
Sub-total			\$1,025,000,000		

2014 REGIONAL TRANSPORTATION PLAN - AMENDMENT NO. 1

2021 through 2025 - Major Highway Improvements

Project	Location	Scope	YOE Cost	Project ID	Start
Route 14	Inyokern	Redrock / Inyokern Rd to Rt 178 - widen to four lanes (Phase 2)	42,000,000	KER08RTP017	2021
Route 58	Bakersfield	Rosedale Hwy - Rt 43 to Allen Rd - widen existing highway	59,000,000	KER08RTP092	2025
Route 58	Metro Bkfd	Rosedale Hwy @ Minkler Spur / Landco - construct grade separation	27,000,000	KER08RTP118	2025
Route 58	Bakersfield	Union Ave to Fairfax Rd - widen to eight lanes	47,400,000	KER08RTP093	2025
Route 65	Bakersfield	James Rd to Merle Haggard Dr - widen to four lanes	3,000,000	KER08RTP094	2021
Route 119	Taft	Cherry Ave to Elk Hills Rd (Phase 1, bypass) - widen to four lanes	115,000,000	KER08RTP022	2022
Route 178	Bakersfield	At Rt 204 - construct interchange	25,700,000	KER08RTP095	2025
Route 184	Bakersfield	At Union Pacific Railroad - construct grade separation	26,400,000	KER08RTP108	2025
7th Standard Rd	Shafter/Bkfd	Rt 43 to Santa Fe Way - widen existing roadway	14,000,000	KER08RTP113	2025
West Beltway	Metro Bkfd	Rosedale Hwy to 1/2 mile north of 7th Standard Rd - construct new facility	115,793,000	KER08RTP102	2025
West Beltway	Metro Bkfd	Rosedale Hwy to Westside Parkway - construct new facility	93,500,000	KER08RTP016	2025
Sub-total			\$568,793,000		

2014 REGIONAL TRANSPORTATION PLAN - AMENDMENT NO. 1

2026 through 2030 - Major Highway Improvements

Project	Location	Scope	YOE Cost	Project ID	Start
Route 14	Inyokern	Redrock / Inyokern Rd to Rt 178 - widen to four lanes (Phase 3)	32,000,000	KER08RTP024	2026
Route 119	Bakersfield	I-5 to Buena Vista - widen to four lanes	31,300,000	KER08RTP099	2026
Route 178	Metro Bkfd	Near Oswell St to Vineland Rd - widen existing freeway	17,000,000	KER08RTP111	2028
Route 178	Bakersfield	Existing west terminus to Oswell St - widen to eight lanes (HOV)	140,500,000	KER08RTP026	2026
Route 184	Bakersfield	Panama Rd to Rt 58 - widen to four lanes	10,500,000	KER08RTP100	2029
Route 184	Bakersfield	Morning Dr to Rt 178 - widen to four lanes	5,000,000	KER08RTP101	2026
Route 184	Lamont	Rt 58 to Rt 178 - widen to four lanes	90,000,000	KER08RTP045	2028
Route 204	Bakersfield	Airport Drive to Rt 178 - widen existing highway	55,000,000	KER08RTP083	2030
Route 204	Bakersfield	F St - construct interchange	36,000,000	KER08RTP081	2030
US 395	Ridgecrest	Between Rt 178 and China Lake Blvd - construct passing lanes	20,000,000	KER08RTP089	2026
Sub-total			\$437,300,000		

2014 REGIONAL TRANSPORTATION PLAN - AMENDMENT NO. 1

2031 through 2035 - Major Highway Improvements

Project	Location	Scope	YOE Cost	Project ID	Start
Route 46	Lost Hills	Brown Material Rd to I-5 - interchange upgrade at I-5 - Phase 4B	70,000,000	KER08RTP018	2035
Route 58	Bakersfield	At various locations - ramp improvements (HOV - ramp metering)	32,600,000	KER08RTP103	2033
Route 99	Bakersfield	Beardsley Canal to 7th Standard Rd - widen to eight lanes	90,800,000	KER08RTP138	2033
Route 99	Bakersfield	At Olive Drive - reconstruct interchange	108,000,000	KER08RTP021	2033
Route 99	Bakersfield	At Snow Rd - construct new interchange	138,200,000	KER08RTP115	2033
Route 99	Bakersfield	At various locations - ramp improvements (HOV - ramp metering)	37,000,000	KER08RTP105	2033
Route 178	Metro Bkfd	Vineland to Miramonte - new interchange; widen existing freeway	119,000,000	KER08RTP025	2033
Route 178	Bakersfield	Miramonte to Rancheria - widen existing highway	19,800,000	KER08RTP084	2033
Route 178	Bakersfield	At Rt 204 and 178 - reconstruct freeway ramps (HOV - ramp metering)	50,000,000	KER08RTP085	2033
Route 178	Bakersfield	At various locations - ramp improvements (HOV - ramp metering)	37,000,000	KER08RTP106	2033
West Beltway	Metro Bkfd	Pacheco Rd to Westside Parkway - construct new facility	115,793,000	KER08RTP139	2033
West Beltway	Metro Bkfd	Taft Hwy to Pacheco Rd - construct new facility	90,000,000	KER08RTP097	2033
Sub-total			\$908,193,000		

2036 through 2040 - Major Highway Improvements

Project	Location	Scope	YOE Cost	Project ID	Start
Route 119	Taft	Elk Hills - County Rd to Tupman Ave - widen to four lanes (Phase 2)	48,000,000	KER08RTP086	2036
Sub-total			\$48,000,000		
Total Major Highway Improvements			\$2,690,186,000		



U.S. Department
of Transportation
**Federal Highway
Administration**

California Division

November 27, 2017

650 Capitol Mall, Suite 4-100
Sacramento, CA 95814
(916) 498-5001
(916) 498-5008 (Fax)

In Reply, Refer To:
HDA-CA

Mr. Ahron Hakimi
Executive Director
Kern Council of Governments
1401 19th Street, Suite 300
Bakersfield, CA 93301

SUBJECT: Conformity Determination for the Kern Council of Governments 2017 Federal Transportation Improvement Program (Amendment # 9) and 2014 RTP/SCS (Amendment # 2)

Dear Mr. Hakimi:

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have completed our review of the air quality conformity determination for the Kern Council of Governments (KCOG) 2017 Federal Transportation Improvement Program (2017 FTIP) including Amendment # 5 and the 2014 Regional Transportation Plan/Sustainable Communities Strategy (2014 RTP/SCS) including Amendment # 2. This conformity determination is required for the 2017 FTIP and 2014 RTP pursuant to the Environmental Protection Agency's (EPA's) *Transportation Conformity Rule*, 40 CFR Parts 51 and 93, and the United States Department of Transportation's *Final Rule on Statewide and Metropolitan Planning*, 23 CFR 450.

On October 19, 2017, the Kern Council of Governments adopted Amendment # 9 to the 2017 FTIP and Amendment # 2 to the 2014 RTP/SCOS and made the corresponding conformity determination via Resolution 17-44. The *Conformity Analysis for the 2017 Transportation Improvement Program Amendment # 9 and 2014 Regional Transportation Plan Amendment No. 2* that was transmitted by KCOG's letter dated October 20, 2017, indicates that all air quality conformity requirements have been met.

Based on our review, and after consultation with the U.S. Environmental Protection Agency (U.S. EPA) Region 9 office, we find that the 2017 FTIP conforms to the applicable State Implementation Plan in accordance with the provisions of 40 CFR Parts 51 and 93. In accordance with the July 31, 2014, *Memorandum of Understanding (MOU) between the Federal Highway Administration, California Division, and the Federal transit Administration, Region IX*, the FTA has concurred with this conformity determination.

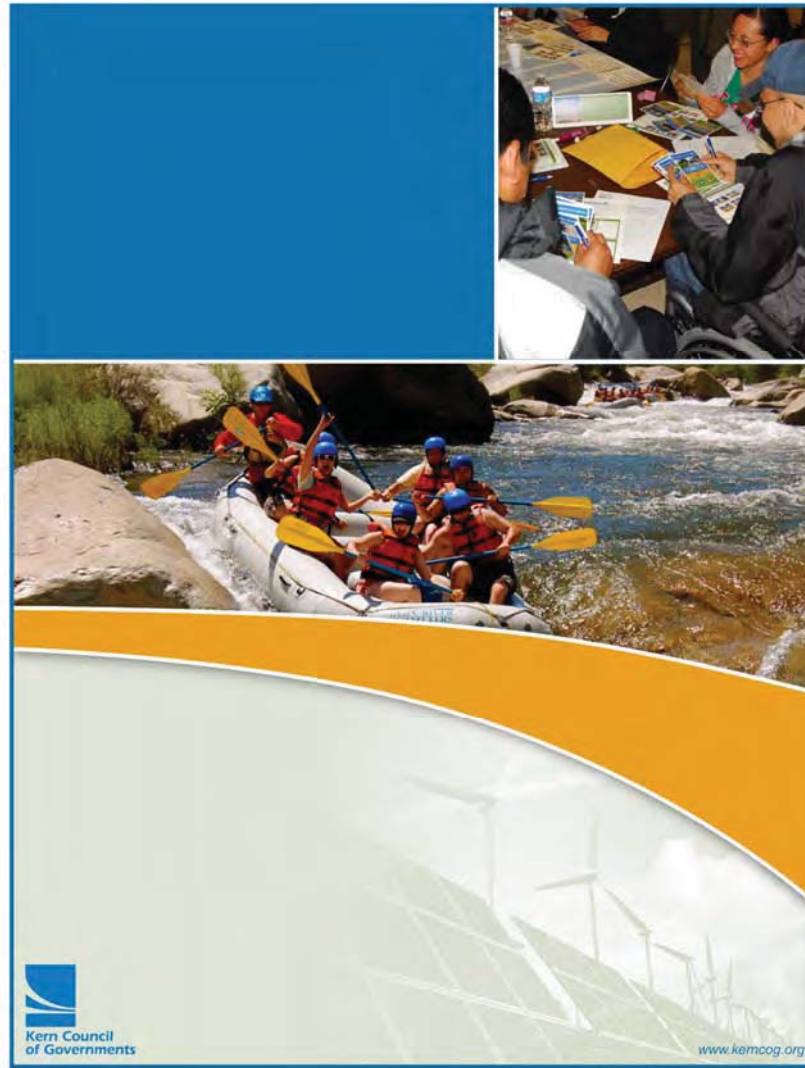
In accordance with the MOU cited above, the FHWA's single signature constitutes the joint FHWA and FTA air quality conformity determination for the KCOG 2017 FTIP Amendment # 9 and 2014 RTP/SCS Amendment # 2. If you have questions or need additional information concerning this conformity finding, please contact Scott Carson by phone at (916) 498-5029, or by email at scott.carson@dot.gov.

Sincerely,

A handwritten signature in black ink, reading "Tushia J. Clemen". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

For: Vincent P. Mammano
Division Administrator

2014 REGIONAL TRANSPORTATION PLAN - AMENDMENT NO. 2



2014 REGIONAL TRANSPORTATION PLAN AMENDMENT NO. 2 KERN COUNCIL OF GOVERNMENTS KERN COUNTY, CALIFORNIA

FINAL – October 17, 2017

**Contact: Joseph Stramaglia, Regional Planner
KERN COUNCIL OF GOVERNMENTS
1401 19TH Street, Suite 300
Bakersfield, CA 93301
Phone: 661/635-2914
E-mail: jstramaglia@kerncog.org**

2014 REGIONAL TRANSPORTATION PLAN - AMENDMENT NO. 2

KERN COUNCIL OF GOVERNMENTS KERN COUNTY, CALIFORNIA October 19, 2017

The 2014 Regional Transportation Plan (2014 RTP), originally adopted on June 19, 2014 and federally approved on December 12, 2014, is Kern Council of Government's (Kern COG) major policy document, representing the region's transportation system's vision through 2040. The scope of the proposed 2014 RTP Amendment No. 2 will be targeted at incorporating project update for one countywide location.

Proposed Revisions for 2014 RTP Amendment No. 2

The 2014 RTP Amendment No. 2 proposes the following revision to the start date for the project information provided in the current 2014 RTP as originally adopted.

- SR 46 – Widening Segment 4B – revise start date from “2035” to “2022” (KER08RTP018);

This amendment is being provided to ensure consistency between the 2014 RTP Table 5.1 as amended with the upcoming 2017 Federal Transportation Improvement Program Amendment No. 9 (2017 FTIP). This revision is due to the advancement of state funding.

As a result of this amendment, there are no changes to the net funding during the period from 2014 to 2040 in the 2014 RTP Amendment No. 2. The total number of projects does not change from those previously approved. The proposed changes do not impact the analysis years for the Sustainable Community Strategy, the Environmental Justice evaluation, or the Air Quality Conformity.

Proposed Schedule

Kern COG is opening a public comment period on the proposed 2014 RTP Amendment No. 2 on September 1, 2017. At that time, Kern COG will commence its review of the draft air quality conformity determination analysis and the 2017 Federal Transportation Improvement Program Amendment No. 9. Public comment will close October 2, 2017.

Legal notice of the proposed air quality conformity determination will also be provided by September 1, 2017. On September 21, 2017, the Kern COG Board of Directors will formally consider the 2014 RTP Amendment No. 2 and the 2017 FTIP Amendment No. 9 and the air quality conformity determination.

For purposes of this amendment, only the affected project category, “Major Highway Improvements” which is found in Table 5.1, will be provided in this amendment report. The revised project start dates indicated will be highlighted in yellow for the benefit of the reader.

2014 REGIONAL TRANSPORTATION PLAN - AMENDMENT NO. 2

2014 through 2020 - Major Highway Improvements

Project	Location		YOE Cost	Project ID	Start
Route 14	Inyokern	Redrock / Inyokern Rd to Rt 178 - widen to four lanes (Phase1)	42,000,000	KER08RTP006	2019
Route 46	Lost Hills	Brown Material Rd to I-5 - interchange upgrade at I-5 - Phase 4A	27,000,000	KER14RTP001	2017
Route 58	Metro Bkfd	Rosedale Hwy - Calloway Dr to Rt 99 - widen existing highway	29,000,000	KER08RTP007	2014
Route 99	Metro Bkfd	Hosking Ave - construct interchange	31,000,000	KER08RTP009	2014
Route 99	Bakersfield	Olive Drive - construct interchange upgrades	6,100,000	KER08RTP091	2016
Route 178	Bakersfield	Vineland Rd to east of Miramonte Dr - widen existing highway	54,000,000	KER08RTP011	2014
Hageman Flyover	Bakersfield	Knudsen Dr to Rt 204 - construct extension	68,900,000	KER08RTP013	2018
7th Standard Rd	Shafter/Bkfd	Rt 43 to Santa Fe Way - widen existing roadway	14,000,000	KER08RTP113	2018
24th St Improvements	Bakersfield	Rt 178 (24th/23rd St) from SR-99 to M Street - widen existing highway	55,000,000	KER08RTP014	2016
Centennial Corridor	Bakersfield	I-5 to Rt-58/Cottonwood Rd - element of the Bakersfield Beltway System - construct new freeway and/or operational improvements	698,000,000	KER08RTP020	2016
Sub-total			\$1,025,000,000		

2021 through 2025 - Major Highway Improvements

Project	Location	Scope	YOE Cost	Project ID	Start
Route 14	Inyokern	Redrock / Inyokern Rd to Rt 178 - widen to four lanes (Phase 2)	42,000,000	KER08RTP017	2021
Route 46	Lost Hills	Brown Material Rd to I-5 - interchange upgrade at I-5 - Phase 4B	\$70,000,000	KER08RTP018	2022
Route 58	Bakersfield	Rosedale Hwy - Rt 43 to Allen Rd - widen existing highway	59,000,000	KER08RTP092	2025
Route 58	Metro Bkfd	Rosedale Hwy @ Minkler Spur / Landco - construct grade separation	27,000,000	KER08RTP118	2025
Route 58	Bakersfield	Union Ave to Fairfax Rd - widen to eight lanes	47,400,000	KER08RTP093	2025
Route 65	Bakersfield	James Rd to Merle Haggard Dr - widen to four lanes	3,000,000	KER08RTP094	2021
Route 119	Taft	Cherry Ave to Elk Hills Rd (Phase 1, bypass) - widen to four lanes	115,000,000	KER08RTP022	2022
Route 178	Bakersfield	At Rt 204 - construct interchange	25,700,000	KER08RTP095	2025
Route 184	Bakersfield	At Union Pacific Railroad - construct grade separation	26,400,000	KER08RTP108	2025
7th Standard Rd	Shafter/Bkfd	Rt 43 to Santa Fe Way - widen existing roadway	14,000,000	KER08RTP113	2025
West Beltway	Metro Bkfd	Rosedale Hwy to 1/2 mile north of 7th Standard Rd - construct new facility	115,793,000	KER08RTP102	2025
West Beltway	Metro Bkfd	Rosedale Hwy to Westside Parkway - construct new facility	93,500,000	KER08RTP016	2025
Sub-total			\$638,793,000		

2014 REGIONAL TRANSPORTATION PLAN - AMENDMENT NO. 2

2026 through 2030 - Major Highway Improvements

Project	Location	Scope	YOE Cost	Project ID	Start
Route 14	Inyokern	Redrock / Inyokern Rd to Rt 178 - widen to four lanes (Phase 3)	\$32,000,000	KER08RTP024	2026
Route 119	Bakersfield	I-5 to Buena Vista - widen to four lanes	31,300,000	KER08RTP099	2026
Route 178	Metro Bkfd	Near Oswell St to Vineland Rd - widen existing freeway	17,000,000	KER08RTP111	2028
Route 178	Bakersfield	Existing west terminus to Oswell St - widen to eight lanes (HOV)	140,500,000	KER08RTP026	2026
Route 184	Bakersfield	Panama Rd to Rt 58 - widen to four lanes	10,500,000	KER08RTP100	2029
Route 184	Bakersfield	Morning Dr to Rt 178 - widen to four lanes	5,000,000	KER08RTP101	2026
Route 184	Lamont	Rt 58 to Rt 178 - widen to four lanes	90,000,000	KER08RTP045	2028
Route 204	Bakersfield	Airport Drive to Rt 178 - widen existing highway	55,000,000	KER08RTP083	2030
Route 204	Bakersfield	F St - construct interchange	36,000,000	KER08RTP081	2030
US 395	Ridgecrest	Between Rt 178 and China Lake Blvd - construct passing lanes	20,000,000	KER08RTP089	2026
Sub-total			\$437,300,000		

2031 through 2035 - Major Highway Improvements

Project	Location	Scope	YOE Cost	Project ID	Start
Route 58	Bakersfield	At various locations - ramp improvements (HOV - ramp metering)	\$32,600,000	KER08RTP103	2033
Route 99	Bakersfield	Beardsley Canal to 7th Standard Rd - widen to eight lanes	90,800,000	KER08RTP138	2033
Route 99	Bakersfield	At Olive Drive - reconstruct interchange	108,000,000	KER08RTP021	2033
Route 99	Bakersfield	At Snow Rd - construct new interchange	138,200,000	KER08RTP115	2033
Route 99	Bakersfield	At various locations - ramp improvements (HOV - ramp metering)	37,000,000	KER08RTP105	2033
Route 178	Metro Bkfd	Vineland to Miramonte - new interchange; widen existing freeway	119,000,000	KER08RTP025	2033
Route 178	Bakersfield	Miramonte to Rancheria - widen existing highway	19,800,000	KER08RTP084	2033
Route 178	Bakersfield	At Rt 204 and 178 - reconstruct freeway ramps (HOV - ramp metering)	50,000,000	KER08RTP085	2033
Route 178	Bakersfield	At various locations - ramp improvements (HOV - ramp metering)	37,000,000	KER08RTP106	2033
West Beltway	Metro Bkfd	Pacheco Rd to Westside Parkway - construct new facility	115,793,000	KER08RTP139	2033
West Beltway	Metro Bkfd	Taft Hwy to Pacheco Rd - construct new facility	90,000,000	KER08RTP097	2033
Sub-total			\$2,948,379,000		

2014 REGIONAL TRANSPORTATION PLAN - AMENDMENT NO. 2

2036 through 2040 - Major Highway Improvements

Project	Location	Scope	YOE Cost	Project ID	Start
Route 119	Taft	Elk Hills - County Rd to Tupman Ave - widen to four lanes (Phase 2)	48,000,000	KER08RTP086	2036
Sub-total			\$48,000,000		
Total Major Highway Improvements			\$4,800,372,000		