KINGS COUNTY

2014

REGIONAL TRANSPORTATION PLAN

Prepared by the
Kings County Association of Governments

Adopted
July 30, 2014

The preparation of this report has been financed in part by the State of California Department of Transportation, the Federal Highway Administration, Federal Transit Administration, and the member agencies of the Kings County Association of Governments.
WHEREAS, the Kings County Association of Governments (KCAG) is a Regional Transportation Planning Agency and a Metropolitan Planning Organization, pursuant to State and Federal designation; and

WHEREAS, federal planning regulations require Metropolitan Planning Organizations to prepare and adopt a long range Regional Transportation Plan (RTP) for their region; and

WHEREAS, federal planning regulations require that Metropolitan Planning Organizations prepare and adopt a Federal Transportation Improvement Program (FTIP) for their region; and

WHEREAS, Section 65080 of the California Government Code requires each regional transportation planning agency to prepare a regional transportation plan and update it for submission to the governing Policy Board for adoption; and

WHEREAS, Senate Bill (SB) 375 (Steinberg, 2008) requires that Metropolitan Planning Organizations prepare a Sustainable Communities Strategy (SCS) as part of the 2014 Regional Transportation Plan 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 targets approved by the California Air Resources Board (ARB); and

WHEREAS, pursuant to SB 375, ARB 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; and

WHEREAS, a 2014 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) has been prepared in full compliance with federal guidance; and

WHEREAS, a 2014 (RTP/SCS) has been prepared in accordance with state guidelines adopted by the California Transportation Commission; and

WHEREAS, federal planning regulations require that Metropolitan Planning Organizations prepare and adopt a short range Federal Transportation Improvement Program (FTIP) for their region; and
WHEREAS, the 2015 Federal Transportation Improvement Program (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 KCAG forum and general public involvement; and

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; and

WHEREAS, the 2015 FTIP contains the MPO’s certification of the transportation planning process assuring that all federal requirements have been fulfilled; and

WHEREAS, the 2015 FTIP meets all applicable transportation planning requirements per 23 CFR Part 450; and

WHEREAS, projects submitted in the 2015 FTIP must be financially constrained and the financial plan affirms that funding is available; and

WHEREAS, the 2014 RTP/SCS and 2015 FTIP includes a new Conformity Analysis; and

WHEREAS, the MPO must demonstrate conformity per 40 CFR Part 93 for the RTP/SCS and FTIP; and

WHEREAS, the 2014 RTP/SCS and 2015 FTIP do not interfere with the timely implementation of the Transportation Control Measures; and

WHEREAS, the 2014 RTP/SCS and 2015 FTIP conforms to the applicable State Implementation Plans for air quality; and

WHEREAS, the documents have been widely circulated and reviewed by KCAG 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 Kings County consistent with public participation process adopted by KCAG; and

WHEREAS, a public hearings were conducted on May 28, 2014 for the 2014 RTP/SCS and June 25, 2014 to hear and consider comments on the 2014 RTP/SCS, 2015 FTIP, and Corresponding Conformity Analysis.

NOW, THEREFORE, BE IT RESOLVED, that the KCAG Transportation Policy Committee adopts the 2014 RTP/SCS, 2015 FTIP, and Corresponding Conformity Analysis; and
BE IT FURTHER RESOLVED, that the KCAG Transportation Policy Committee finds that the 2014 RTP/SCS and 2015 FTIP 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 the KCAG Transportation Policy Committee 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.

The foregoing Resolution was adopted on a motion by Commissioner _Casida_, seconded by Commissioner _Verboon_, at a special meeting held on the 30th day of July, 2014 by the following vote:

AYES: Casida, Verboon, Neves, Cartwright, Curry, Wynne
NOES:
ABSENT: Navarro
ABSTAIN:

KINGS COUNTY ASSOCIATION OF GOVERNMENTS
TRANSPORTATION POLICY COMMITTEE

Chair

WITNESS, my hand this 30th day of July, 2014.

Terri King, Executive Director
KINGS COUNTY ASSOCIATION OF GOVERNMENTS

Transportation Policy Committee

<table>
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<th>Area</th>
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<tr>
<td>Joe Neves, Chair</td>
<td>Kings County</td>
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<tr>
<td>Russ Curry, Vice Chair</td>
<td>City of Hanford</td>
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<tr>
<td>Mark Cartwright,</td>
<td>City of Corcoran</td>
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<tr>
<td>Harlan Casida</td>
<td>City of Avenal</td>
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<tr>
<td>Lois Wynne</td>
<td>City of Lemoore</td>
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<tr>
<td>Doug Verboon</td>
<td>Kings County</td>
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<tr>
<td>Sharri Bender-Ehlert</td>
<td>Caltrans District 6</td>
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Agency Staff

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<tr>
<th>Executive Director</th>
<th>Regional Planner</th>
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<tr>
<td>Terri King</td>
<td>Bruce Abanathie</td>
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<td>Christina Lehn</td>
<td>Teresa Nickell</td>
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<tr>
<th>Name</th>
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<tr>
<td>Amanda Eaken</td>
<td>Environmental</td>
<td>Natural Resources. Defense Council</td>
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<tr>
<td>Angie Dow</td>
<td>Transit</td>
<td>Kings Co. Area Public Transit Agency</td>
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<td>Bruce Mackey</td>
<td>Bicycle Advoc.</td>
<td>Kings Bicyclists</td>
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<td>Dan O'Connell</td>
<td>Ag - Advocate</td>
<td>American Farmland Trust</td>
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<tr>
<td>Diane Friend</td>
<td>Ag - Bureau</td>
<td>Kings Co. Farm Bureau</td>
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<tr>
<td>Frank Oliveira</td>
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<tr>
<td>Jay Salyer</td>
<td>Econ Dev</td>
<td>Kings Co. Economic Dev. Corp.</td>
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<tr>
<td>Francesca Dove</td>
<td>State Elected</td>
<td>CA Senator Vidak</td>
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<tr>
<td>Roman Benitez</td>
<td>Federal Govt</td>
<td>Naval Air Station - Lemoore</td>
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<tr>
<td>Shana Brum</td>
<td>Tribal</td>
<td>Tachi-Yokut Tribe</td>
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<tr>
<td>William Munoz</td>
<td>State Elected</td>
<td>Assemblyman Rudy Salas</td>
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<td>Robert Keenan</td>
<td>Builders</td>
<td>B I A - Tulare-Kings</td>
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<td>Stephen Shacklelton</td>
<td>Enviro/Education</td>
<td>UC Merced</td>
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<td>Carole Combs</td>
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<td>Tulare Basin Wildlife Partners</td>
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<td>Rey Leon</td>
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<td>William Barrett</td>
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<td>Heather Dumais</td>
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<tr>
<td>Lee Johnson</td>
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<td>David Beeman</td>
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<td>Susan Atkins</td>
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<tr>
<td>Connie Wlaschin</td>
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<tr>
<td>Kristen Torres</td>
<td>State - Environmental</td>
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<td>Jennifer Gray</td>
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<td>Calif. Air Resources Board</td>
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<td>Mark Ulibarri</td>
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<td>Sarah Campe</td>
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<td>Tulare Basin Wildlife Partners</td>
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<tr>
<td>Justin Mendes</td>
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<td>Sebastian Silveira</td>
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<td>Congressman Valadao</td>
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<td>Joe Neves</td>
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<td>Darrin Monteiro</td>
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<td>Russ Curry</td>
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<td>City Council of Hanford, KCAG Vice Chair</td>
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<tr>
<td>Kendall Flint</td>
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<tr>
<td>Gabrielle DeSilva</td>
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<tr>
<td>Ross Browning</td>
<td>Citizen</td>
<td>Calif. High Speed Rail Accountability</td>
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As mandated by California Government Code Chapter 2.5, Section 65080 (d): “Except as otherwise provided in this subdivision, each transportation planning agency shall adopt and submit, every four years, an updated regional transportation plan to the California Transportation Commission and the Department of Transportation…”. The Kings County Association of Governments (KCAG) is a state-designated Regional Transportation Planning Agency (RTPA) and a federally designated Metropolitan Planning Organization (MPO). KCAG has developed the 2014 Regional Transportation Plan (RTP) in coordination with each city in Kings County, the County of Kings, Caltrans, Federal Highways Administration, Federal Transit Administration, the San Joaquin Valley Air Pollution Control District, Kings County Area Public Transit Agency, Tachi-Yokut Tribe, and citizens’ groups.

The 2014 RTP, covering the 26-year period from 2014 to 2040, is a continuation of Kings County's transportation planning process which began in 1975 with the adoption of its first RTP. The RTP is intended to serve many purposes:

- Provide the foundation for transportation decisions by local, regional, and state officials.
- Document the region’s mobility needs and issues.
- Identify and attempt to resolve regional issues and provide policy direction for local transportation plans.
- Document the region’s goals, policies, and objectives for meeting current and future transportation mobility needs.
- Set forth an action plan to address transportation issues and needs consistent with Regional and state policies.
- Identify transportation improvements in sufficient detail to aid in the development of the State Transportation Improvement Program (STIP) and to be useful in making decisions related to the development and growth of the region.
- Identify those agencies responsible for implementing the action plans.
- Document the region's financial resources needed to meet mobility needs.

To fully explore these directives, and to address the requirements of state legislation, specifically Senate Bill 375, each RTP must contain four basic elements. The 2014 RTP considers plans, projects, and the integration of land use and transportation in the following elements:

1. Policy Element
   - To identify regional transportation goals, policies, and objectives.
   - To present significant regional transportation issues.
   - To consider the natural environment, social, and economic factors.
   - To show implications, impacts, and opportunities that will result from the implementation of the plan.

2. Action Element
   - To set forth an action plan to address issues and needs identified in the policy element.
• To show regional transportation improvements in order to aid in the development of a statewide improvement program. The actions are broken down into five, ten, and twenty year time periods to assist in development of the Regional Transportation Improvement Program.
• To provide guidance in making decisions related to regional growth and development.
• To identify responsibilities for project implementation.

3. Financial Element
• To provide cost and revenue assumptions needed to implement the plan.
• To identify revenue sources.
• To analyze the development of new revenue sources.
• To compare costs with anticipated revenues.

4. Sustainable Communities Strategy
• Document the Greenhouse Gas emission reductions from passenger vehicles and light duty trucks.
• Integrate local agency land use decisions with the transportation system.
• Conduct comprehensive and inclusive public outreach.

The 2014 RTP is divided into twelve chapters and five appendices dealing with Kings County exclusively, and one appendix pertaining to the San Joaquin Valley for information purposes only. Please note that the appendices are for information only and are not binding on the RTP, KCAG or any of our member agencies.

Five of the chapters concentrate on specific modal areas of transportation. For information purposes only, Appendix I is an inventory of regional routes that includes general information such as best available road conditions and traffic factors.

Chapter 1: Introduction. This chapter describes KCAG's organization; the organization, background, and purpose of the plan; the regional setting; the plan's relationship to other local and state plans; and the Public Participation Process.

Chapter 2: Overview of Transportation Planning and Programming. This chapter offers an understanding of how KCAG will approach transportation problems and come to decisions and recommendations. It sets forth the basic socioeconomic facts of Kings County; spells out important transportation planning and programming issues which KCAG must consider; and establishes a central goal to guide KCAG's planning.

Chapter 3: Policy Element. This chapter identifies and defines objectives and policies needed to carry out the goals and to respond to the issues of the Regional Transportation Plan concerning each mode.

Chapter 4: The Regional Highway System. This chapter focuses on the most used, and therefore the most significant, component of Kings County's transportation system: the highway system. The 2014 RTP does not study all roads in Kings County. Instead, it identifies the most-used routes which serve regional, rather than merely local, transportation demands. The purpose of this chapter is to document needs and recommend improvements for these regional routes. The issue of how a potential local county sales tax measure, or funding mechanisms will affect the programming of State Transportation Improvement Program (STIP) projects for Kings County will be considered. This chapter also provides a list of State Highway projects contained in the STIP and projects proposed for future "Regional Transportation Improvement Programs" (RTIP).
Chapter 5: Goods Movement. This chapter examines ways to ensure that freight and commodities are efficiently transported through Kings County and the region. The majority of this chapter considers the two significant modes used for goods movement: railroads and freight trucks. Special attention is given to the needs of the agricultural industry in moving its products and the transportation of hazardous materials through Kings County.

Chapter 6: Public Transportation. This chapter provides an inventory of the various public transportation (transit) providers in Kings County. It gives special emphasis to issues surrounding Amtrak and transit services provided by local providers, and discusses ways to meet identified unmet transportation needs. It includes a summary of the findings and policies of KCAG's “2008 Transit Development Plan”.

Chapter 7: Aviation. This chapter provides an inventory of public, private, and military air facilities in Kings County. Special attention is given to the role of public airports, the RTP relationship to the local and regional aviation plans, and to the impact of the F/A-18 aircraft now deployed at the Lemoore Air Station.

Chapter 8: Non-Motorized Facilities. This chapter describes opportunities to foster bicycle commuting in Kings County. It is a summary of the findings and policies of KCAG's "2011 Regional Bicycle Plan".

Chapter 9: Transportation System Management. This chapter summarizes the main themes of Transportation System Management (TSM) programs. The TSM program provides a way for decision-makers to evaluate lower-cost measures against more expensive options when transportation improvements are being considered.

Chapter 10: Air Quality. This chapter summarizes the Transportation Control Measures (TCMs) included in the San Joaquin Valley Air Quality Attainment Plan developed as a requirement of the California Clean Air Act.

Chapter 11: Financial Element. This chapter provides a summary of estimated revenues considered to be reasonably available to fund the implementation of the RTP.

Chapter 12: Sustainable Communities Strategy. This chapter answers the intent of CA Senate Bill 375 (SB 375), passed in 2008, to show how the integration of land use and transportation planning can lead to lower emissions of greenhouse gases from passenger vehicles and light duty trucks. The 2014 RTP hosts the inaugural presentation of this chapter.

Appendix I: Inventory of Countywide Regional Routes. This appendix describes the physical condition, traffic volumes, service levels, and scheduled improvements for selected regional routes. This section is merely for informational purposes and is not to be considered for programming purposes.

Appendix II: Unconstrained Projects List. This appendix lists the Tier II local roads improvement projects, or those for which the funding is not reasonably expected to be available at this time (unconstrained). The project costs for these projects are in FY 2013-14 dollar values.

Appendix III: Documentation in Support of the Sustainable Communities Strategy. This appendix includes documents that identify the methodologies, communication, public outreach, agency collaboration, technical data, and project lists that form the background for the development of the Sustainable Communities Strategy (SCS).

Appendix IV Environmental Documentation. This section summarizes the characteristics of the proposed project, as well as the project's environmental impacts and recommended mitigation measures. The environmental document for the 2014 RTP is a Program Environmental Impact Report (EIR), which is included in the 2014 RTP by reference.
Appendix V: San Joaquin Valley. This section provides an inter-regional perspective to transportation planning within the San Joaquin Valley, which consists of the counties of San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and Kern.

Appendix VI: Review and Comment. This section provides the proof of publication of the public hearing notice, the notice of public hearing to hear comments on the 2014 RTP, and the responses to comments that were received of the 2014 RTP.
CHAPTER 1
INTRODUCTION

I. PURPOSE

The chief purpose of this Regional Transportation Plan (RTP) is to show ways that transportation can complement regional goals and objectives. Transportation not only influences, but it is also affected by, local public policy planning for land use, infrastructure, housing, and economic development. Because the need exists to coordinate all facets of community structure, this plan takes into account a broad range of policy matters affecting transportation.

This plan is designed to comply with the 2010 California Regional Transportation Plan Guidelines adopted by the California Transportation Commission (CTC) in April 2010. It is expected to be used as a guide by state and local officials as they strive to upgrade the overall transportation system in Kings County. In addition, this plan is a data source and information document for the general public. As such, it will be of value as a decision-making tool to anyone having the desire to improve and benefit from an upgraded regional transportation system in Kings County.

II. REGIONAL SETTING

The study area includes all of Kings County's 1,396 square miles. Located in the south-central San Joaquin Valley, Kings County is bounded by Fresno, Tulare, Kern, Monterey, and San Luis Obispo counties. Elevations range from 175 feet in the Tulare Lake Basin to 3,473 feet at Table Mountain in the extreme southwestern portion of the county. Two-thirds (613,373 acres) of the county's land area is level, irrigated farmland.

III. BACKGROUND TO THIS PLAN

A. Participating Agencies

This 2014 RTP update was prepared by the staff of the Kings County Association of Governments (KCAG) with the assistance from each of its member agencies: the cities of Avenal, Corcoran, Hanford, and Lemoore and the County of Kings. The Santa Rosa Tachi-Yokut tribe was also consulted during the development of the RTP. Caltrans District 6 and the San Joaquin Valley Air Pollution Control District staff provided an invaluable service by furnishing helpful information, comments, and general support.

B. KCAG Organization

As a council of governments, KCAG addresses inter-jurisdictional public policy matters. Transportation is a major area of concentration. KCAG is a state-designated Regional Transportation Planning Agency (RTPA) recognized by the state's Transportation Agency (CalSTA) and a federally recognized Metropolitan Planning Organization (MPO). As an MPO/RTPA, KCAG prepares and maintains the Regional Transportation Plan, prepares the Regional Transportation Improvement Program (RTIP), and the Federal Transportation Improvement Program (FTIP). KCAG also reviews the State Transportation Improvement Program (STIP) and other state transportation programs, monitors local public transit operations, and oversees federal transportation grant proposals. KCAG is also charged with administering the Local Transportation Fund (LTF) and State Transit Assistance (STA) fund.
FIGURE 1-1
Location Map
All RTPA activities are governed by the Transportation Policy Committee (TPC) composed of local elected officials from each of the member agencies and the Director of Caltrans.

The TPC is advised by two committees: 1) A Technical Advisory Committee (TAC) whose members include: KCAG staff, county and city public works and planning directors, city managers, county administrative officer, Caltrans District 6 staff, a Kings County Area Public Transit Agency (KCAPTA) representative, a Lemoore Naval Air Station (LNAS) representative, a San Joaquin Valley Air Pollution Control District representative, and a Santa Rosa Rancheria Tachi Yokut Tribe representative; and 2) A Social Service Transportation Advisory Council (SSTAC) whose members include appointed representatives of social service providers and transit users. The SSTAC provides input to the RTPA on the transit needs of transit dependent and transit disadvantaged persons, including elderly, disabled, and low income persons. Other citizen committees are formed on an ad hoc basis by the TPC.

FIGURE 1-2
KCAG ORGANIZATION

[Diagram showing the structure of KCAG organization with the following nodes:
- County of Kings
- City of Avenal
- City of Corcoran
- City of Hanford
- City of Lemoore
- Two Members
- One Member Each
- Kings County Association of Governments Commission
- Caltrans Transportation Policy Committee
- Kings County Abandoned Vehicle Abatement Service Authority
- Technical Advisory Committee
- Social Service Transportation Advisory Council
- KCAG Staff]
IV. ORGANIZATION OF THIS PLAN

It is the intent of KCAG to produce an informative, readable, and persuasive document that provides a clear exposition of transportation needs and demands in Kings County. To do so, the following format is generally followed:

A. Relevant socio-economic and transportation assumptions are stated. These are supported by inventories and forecasts.

B. Emerging and recurring transportation issues are identified and evaluated.

C. In response to the assumptions and issues, relevant objectives and policies are stated. These are the guidelines for decision making.

D. To carry out the objectives and policies in light of the issues and assumptions, an implementation strategy for improvements is identified.

E. Financial resources needed to cover the costs of recommended projects and programs are discussed.

V. RELATIONSHIP TO OTHER PLANS

This plan is a continuation of the transportation planning process that began in Kings County in 1975 with the adoption of the first Kings County Regional Transportation Plan. In general, that plan has provided a foundation for each of KCAG’s subsequent RTP updates. Since today’s political and economic climate bears little resemblance to that of 1975, this update examines the need for improved facilities and services, while acknowledging current budget constraints. Most importantly, this plan sheds new light on the need for specific major improvements to the regional highway system.

A number of other state and local plans were examined for consistency with this plan. For the most part, there were no areas where these plans conflicted with this document. There were several minor differences among other Regional Transportation Plans in the San Joaquin Valley, but no major policy conflicts. The plans reviewed include:

2. California Department of Corrections, 1994, EIR, Emergency Bed Project, California State Prison at Avenal
3. City of Corcoran, 2007, General Plan Update and EIR
4. County of Kings and City of Corcoran, 1997, Corcoran Area Plan
5. California Department of Corrections, 1994, EIR, Emergency Bed Project, California Substance Abuse Treatment Facility and State Prison at Corcoran
6. California Department of Corrections, 1995, EIR, California Substance Abuse Treatment Facility and State Prison at Corcoran
7. City of Hanford, 2002, City of Hanford General Plan
8. City of Lemoore, 2008, Lemoore General Plan and 2008 EIR
9. City of Lemoore, 1997, EIR, College Park at West Hills Development
10. County of Kings, 2010, Kings County General Plan and 2010 EIR
12. KCAG, 2011, *Kings County Regional Transportation Plan Update*
13. KCAG, 2013, *Kings County Federal Transportation Improvement Program*
14. KCAG, 2014, *Kings County Regional Transportation Improvement Program*
15. KCAG, 2011, *Kings County Regional Bicycle Plan*
16. City of Lemoore, 2001, *City of Lemoore Bikeway Plan*
17. KCAG, 2009, *Kings County Transit Development Plan*
18. KCAG, 2001 *Social Service Transportation Provider Inventory*
19. KCAG, 2008 *Human Services Transportation Coordination Plan*
21. KCAG, 1988, *Urban Service Areas Policy Plan*
22. KCAG, 1979, *Airport Systems Study*
23. City of Hanford, 2010, *Hanford Municipal Airport Master Plan*
24. City of Hanford, 2010, *EIR, Airport Master Plan Improvements*
33. California High Speed Rail Authority, 2005, *Final Program EIR/EIS for the Proposed California High-Speed Train System*
VI. MOVING AHEAD FOR PROGRESS IN THE 21st CENTURY (MAP-21) COMPLIANCE

A. Introduction

The Moving Ahead for Progress in the 21st Century (MAP-21) two-year surface transportation authorization bill, was signed into law on July 6, 2012. MAP-21 made major changes in the programmatic structure for both highways and public transportation and included initiatives intended to increase program efficiency through performance-based planning and the streamlining of project development. It is the most significant reformation of the surface transportation program since the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991.

This section discusses the development of the 2014 Regional Transportation Plan (RTP) and provides an overview of how KCAG and the San Joaquin Valley as a whole coordinated the development of the 2014 RTP.
B. **Chronology**

In preparation for the 2011 RTP, the eight San Joaquin Valley (SJV) Metropolitan Planning Organizations coordinated with the Federal Highways Administration (FHWA), and the California Department of Transportation (Caltrans) on the technical aspects and the federal requirements related to the RTP. The Valley MPOs also began the coordination with the California Air Resources Board (ARB) to prepare for the state requirements established by Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006, and Senate Bill 375 (SB 375), the California Sustainable Communities and Climate Protection Act of 2008, and how they would affect the 2011 and subsequent RTPs.

The coordination of the MPOs continued through the preparation of the 2011 RTP and into a valley-wide model improvement program for each of the MPOs. The program is divided into four phases. In the first phase, the less than 200,000 population MPOs received minor upgrades to the models and the larger MPOs received additional sensitivity and options to recognize a broader spectrum of land use and transportation changes.

C. **AB 32 and SB 375**

Although AB 32 did not have a direct effect on the transportation plans, SB 375 is a supplement to AB 32 that directly impacts the plans. SB 375 requires that each metropolitan planning organization prepare a Sustainable Communities Strategy (SCS) as an integrated element of the Regional Transportation Plan (RTP) that is updated every four years. The SCS is intended to show how integrated land use and transportation planning can lead to lower greenhouse gas (GHG) emissions from passenger vehicles and light duty trucks. See Chapter 4 for the SCS.

D. **Continuing Partnership**

In 2010, the Valley was awarded a $1 million grant from the Strategic Growth Council for valleywide model improvements to meet the requirements of AB 32 and SB 375. The Strategic Growth Council is charged with, among other things, making Proposition 84 funds available for data gathering and model development necessary to comply with SB 375.

The eight SJV MPOs have also continued to work cooperatively in the development of their planning and programming documents. KCAG and the other MPOs routinely participate in an Interagency Consultation (IAC) process that includes the MPOs, FHWA, the Federal Transit Administration (FTA), Caltrans, the Air District, and the Environmental Protection Agency (EPA), and have held workshops to coordinate the development of the 2014 RTPs and 2015 FTIPs.

VII. **PUBLIC PARTICIPATION PROGRAM**

In June 2013, KCAG adopted a Supplemental Public Participation Plan to the comprehensive KCAG Public Participation Plan adopted on December 7, 2011, to meet the requirements of SB 375. The Supplemental Public Participation Plan carried out the following public participation process:

- Consultation with various public and local agency representatives who are representatives of the KCAG Technical Advisory Committee (TAC) was undertaken. The Committee’s responsibilities were to provide information about their general plans and land use decisions to help develop a foundation for the 2014 RTP. The agencies were also asked to identify their priorities for RTP improvement projects and review and comment on various RTP elements. Meetings were also requested with each of the four cities and the county planning departments to gather the above information.
At each meeting of the KCAG Technical Advisory Committee, since January 2011, there was a discussion of the current influences to the RTP effort (climate change, greenhouse gases, AB 32, and SB 375). The TAC members were informed about the process, the approach to the project, and the timeline of the development of the 2014 RTP.

KCAG acquired a Public Outreach Consultant through standard procurement procedures to assist in the public participation process. The consultant and KCAG staff hosted public meetings and met with the city councils and Board of Supervisors for each of the member jurisdictions and provided a presentation on the entirety of the 2014 RTP and answered questions from the councils, board, and the public.

KCAG staff formulated a focus group, the RTP Stakeholder Working Group, to gather, review, analyze, and formulate the information from the local agency general plans and the desires expressed by the local residents at the outreach workshops into inputs for the Sustainable Communities Strategy Scenarios.

KCAG staff then requested meetings with the four cities and the county planning departments to provide them with the information from the Stakeholder Working Group and to ask them to review the inputs and compare them with their general plans and land use policies for consistency.

After the Stakeholder Inputs were evaluated, the travel demand forecasting model was utilized to develop the conformity and greenhouse gas reductions data associated with the scenarios.

When the model data was received the draft Sustainable Communities Strategy (SCS) scenarios were made public. KCAG sent out a news release to all area news media announcing the availability of the draft RTP and SCS scenarios for review and comment and provided copies at all branch libraries within Kings County. The draft 2014 RTP documents were also placed on the KCAG website to provide widespread review and to allow comments from many agencies, groups, and individuals.

KCAG held noticed public workshops to explain the scenarios and to provide an opportunity for the public to comment on the scenarios. KCAG staff attended city council meetings for the four cities and the Board of Supervisors meeting to provide the same information as was provided to the public.

Public hearings were noticed and held before the KCAG Transportation Policy Committee regarding review of the 2014 RTP. The general public is invited to attend the KCAG Transportation Policy Committee meetings and meeting announcements are posted at the KCAG office, local newspapers, and the KCAG website. Copies of all notices, persons/agency comments, and the KCAG responses are on file at the KCAG office.

The KCAG outreach efforts for the development of the documents resulted in comments received from member agencies, several divisions of Caltrans, the Environmental Protection Agency, the California Department of Energy, and the Federal Highways Administration.
CHAPTER 2
OVERVIEW OF TRANSPORTATION PLANNING AND PROGRAMMING

I. OVERVIEW

This chapter seeks to integrate a wide range of social and economic matters that figure into KCAG’s transportation planning process. It offers an understanding of how KCAG will approach transportation problems, make decisions, and develop recommendations. Its aims are to set forth the basic socio-economic facts of this region and to spell out important transportation planning and programming issues that KCAG must consider.

II. ASSUMPTIONS AND INVENTORIES

A. POPULATION ASSUMPTIONS

1. Kings County is, and will remain for many years, a predominantly rural, sparsely settled, agricultural county.

2. Kings County is the home of the Lemoore Naval Air Station (LNAS), one of the Navy master jet bases in the United States. The air station will continue to strongly influence the population and cultural characteristics of Kings County by bringing new people into the area. The future role of the U.S. Navy and the closures of military bases around the country may affect LNAS. The Kings County General Plan assumes a constant base population of 7,500 through the year 2030.

3. Kings County will have a large percentage of young adults (due in part to the presence of LNAS), a high birth rate (due in part to the high number of young adults), and a growing elderly population.

4. The surrounding agricultural land preserves, the capacities of sewer and water facilities, and land use policies of the county and cities will restrict growth in the rural communities of Armona, Kettleman City, and Stratford.

5. The community of Armona will continue to grow as a residential community with the possibility of incorporation in the future.

6. The Santa Rosa Rancheria of the Tachi-Yokut Tribe is located 4 miles south of Lemoore on 370-acres of trust land. The Rancheria now includes 370 acres of trust land and 1,500 acres of fee land for roughly 2,300 acres. The Rancheria, first established in 1934 with land purchased by the federal government, is developed as a residential community with 233 homes. Site plans have been prepared for an additional 100+ housing units scheduled for completion within five years. Population of the Rancheria according to the 5-year estimate of the American Community Survey is 997.

The Palace Indian Gaming Center, a Tribal Enterprise, is the main source of livelihood and income for tribal members on the Rancheria, and employs more than 1,400 people. Other sources of employment income include the tribal government, farming, and ranching. In addition, a tribal headquarters building, Head Start facility, park, and playground are located on the Rancheria. The Palace Indian Gaming Center is located at the northern edge of the site. This facility includes a casino, a hotel, and warehouse space. The hotel includes restaurants, a conference center, and an amphitheatre. With the activities at the Palace Indian Gaming Center, it is expected that there will be
an increase of population residing on the Rancheria, an increase in available jobs, and traffic on local and regional roads leading to the Rancheria.

7. Kettleman City will continue as an agricultural employee housing community for the western portion of the County and as a highway service center for statewide travelers on Interstate 5 and State Highway 41.

8. Stratford will continue to function as an agricultural service center and agricultural employee housing community.

9. The California State Prison in Avenal is located about two miles southwest of downtown and occupies about 640 acres. As of June 2013, it employed over 1,400 prison service workers. Over 300 employees live in Kings County, but only less than 20 percent of those employees live in Avenal. The California Department of Corrections is proposing to add emergency housing facilities at the existing prison site that would accommodate almost 2,000 more prison inmates. It would also create an additional 500 jobs at the prison. Based on employment and housing data resulting from the opening of the prison in 1987, it is assumed that 75% of the new employees would come from outside the local area. About 60% of the relocated employees are expected to reside in the communities of Avenal, Hanford, and Lemoore. As a result of these prison facilities, the population of Avenal as well as other cities in Kings County will continue to expand over the next few years. The Kings County General Plan assumes a constant population of 7,200 through the year 2035. As of March 2014, the estimated inmate population of the Avenal State Prison is 3,923.

10. The California State Prison in Corcoran was opened in 1988 and held 11,150 inmates as of January 1, 1999 and employs about 2,300 workers. It is estimated that 15% of the employees live in Corcoran, 35% in Hanford, and the remaining 50% outside Kings County. As of March 2014, the estimated inmate population of the Corcoran State Prison is 4,292.

In addition to CSP-Corcoran, a second state prison and a Substance Abuse Treatment Facility was constructed in 1997 located immediately south of the existing prison. It has the capacity to house 5,130 inmates at the prison and 1,900 inmates at the treatment facility. Employment at these two facilities range from 1,350 to 1,900 persons, depending on the occupancy rate of the facilities. The California Department of Corrections added emergency housing facilities within both prisons. As of March 2014, the estimated inmate population of this facility is 5,561.

11. The average annual population growth rate in Kings County will continue to be about 2%.

12. Between 2000 and 2010, the total Kings County population increased 18.2%. According to the 2010 Census, there were 41,233 households (31,939 family and 9,294 non-family); with an average household size of 3.19 living in Kings County. About 71.8% of households did not include any person aged 60 or above, whereas 28.2% of households did have one or more persons 60 or above. About 7.7% of households have three or more generations living together. Most households included only two people, making up 26.0% of the total. The next closest groups were three people at 17.6%, one person at 17.5%, and four people at 17.3%. Of the total 43,867 housing units, 94% (41,233) were owner-occupied with a 6% (2,634) vacancy rate.
FIGURE 2-1

POPULATION GROWTH TRENDS IN KINGS COUNTY JURISDICTIONS
1940-2010

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<td>Annual Growth Rate</td>
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Source: 2010 U.S. Census; *Includes State Prison inmate population.

FIGURE 2-2

KINGS COUNTY POPULATION
Past, Present and Future
1940 - 2050

Source: U.S. Census, KCAG (The Planning Center forecast)
FIGURE 2-3

**KINGS COUNTY POPULATION: 2010 - 2012**  
By Age and Sex

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>60+</td>
<td>9,176</td>
<td>8,755</td>
</tr>
<tr>
<td>50-59</td>
<td>7,272</td>
<td>9,712</td>
</tr>
<tr>
<td>40-49</td>
<td>7,581</td>
<td>12,344</td>
</tr>
<tr>
<td>35-39</td>
<td>4,656</td>
<td>7,432</td>
</tr>
<tr>
<td>30-34</td>
<td>4,806</td>
<td>7,288</td>
</tr>
<tr>
<td>22-29</td>
<td>8,377</td>
<td>12,331</td>
</tr>
<tr>
<td>15-21</td>
<td>7,340</td>
<td>9,270</td>
</tr>
<tr>
<td>0-14</td>
<td>17,635</td>
<td>17,894</td>
</tr>
</tbody>
</table>

Source: 2010-2012 American Community Survey (3-year estimates)

FIGURE 2-4

**ETHNIC GROUPS**  
Kings County vs State

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Kings County</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native Amer.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: 2010-2012 American Community Survey (3-year estimates)
B. ECONOMIC ASSUMPTIONS

1. Agriculture and related industries will remain the dominant sector of this region’s economy. That sector, together with LNAS and the California State Prisons in Avenal and Corcoran, will help buffer Kings County from sharp economic fluctuations.

2. Kings County is a low-income county. It will continue having a larger percentage of low-income persons and a smaller percentage of upper-income persons, than does the state overall, due to the large farm worker population and lack of large industries. The annual average unemployment rate for Kings County in 2012 was 15.1%, while the statewide rate was 10.4%.

3. Through the year 2020, most of the non-agriculture jobs created in Kings County are expected to be in retail trade, services, and manufacturing. Even though government is one of the largest employment industries, the retail trade industry will lead in employment gains. Most of the projected growth in agriculture will occur in agriculture services, while moderate growth is expected in agriculture production.

FIGURE 2-5

KINGS COUNTY EMPLOYMENT BY INDUSTRY
2010 - 2012

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th>NUMBER</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Forestry, Mining, Fishing and Hunting</td>
<td>8,268</td>
<td>16.2%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>4,106</td>
<td>8.1%</td>
</tr>
<tr>
<td>Public Administration</td>
<td>6,804</td>
<td>13.4%</td>
</tr>
<tr>
<td>Educational, Health and Social Services</td>
<td>10,811</td>
<td>21.2%</td>
</tr>
<tr>
<td>Construction</td>
<td>1,930</td>
<td>3.8%</td>
</tr>
<tr>
<td>Professional, Scientific, Management,</td>
<td>3,378</td>
<td>6.6%</td>
</tr>
<tr>
<td>Administrative, and Waste Management Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation and Warehousing, and Utilities</td>
<td>1,405</td>
<td>2.8%</td>
</tr>
<tr>
<td>Finance, Insurance, Real Estate, and Rental</td>
<td>1,211</td>
<td>2.4%</td>
</tr>
<tr>
<td>and Leasing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Services</td>
<td>1,857</td>
<td>3.6%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>4,363</td>
<td>8.6%</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>1,717</td>
<td>3.4%</td>
</tr>
<tr>
<td>Information</td>
<td>408</td>
<td>0.8%</td>
</tr>
<tr>
<td>Arts, Entertainment, Recreation, Accommodation</td>
<td>4,624</td>
<td>9.1%</td>
</tr>
<tr>
<td>and Food Services</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL 50,882 100%

Source: 2010-2012 American Community Survey (3-year estimates)
FIGURE 2-6
REPORTED POVERTY STATUS IN KINGS COUNTY

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12,092</td>
<td>10,386</td>
<td>16,218</td>
<td>21,307</td>
<td>27,819</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>19.20%</td>
<td>14.57%</td>
<td>18.18%</td>
<td>19.50%</td>
<td>21.20%</td>
<td></td>
</tr>
</tbody>
</table>

Source: U.S. Census

FIGURE 2-7
KINGS COUNTY
CIVILIAN LABOR FORCE
Annual Averages: 1990 - 2012

Source: California Economic Development Department
FIGURE 2-8

CIVILIAN UNEMPLOYMENT RATE
Kings County vs. State
Annual Averages: 1983 - 2009

Source: California Economic Development Department

FIGURE 2-9

KINGS COUNTY vs STATE HOUSEHOLD INCOME
Household Income in $000: 2012

Source: 2010-2012 American Community Survey, Selected Economic Characteristics
FIGURE 2-10

Kings County Residence Workplace Location

1-50 Employees
51-100 Employees
101-500 Employees
501-1000 Employees
1001-5000 Employees
> 5000 Employees
FIGURE 2-11

Other County Residence
Kings County Workplace

- 1-50 Employees
- 51-100 Employees
- 101-500 Employees
- 501-1000 Employees
- 1001-5000 Employees
- > 5000 Employees
C. PRINCIPAL LAND USE POLICIES AND ASSUMPTIONS

1. Adopted city and county general plans will continue to direct growth in the region. The following are significant long-term land use policies of city and county general plans. All are based on the premise that development must be contained in those areas where urban services are most readily available. The idea is to lessen public service costs, while slowing the conversion of prime farmland to urban uses. As a whole, these policies will help Kings County maintain its present pattern of development long into the future as a vast expanse of prime farmland with several articulated urban concentrations along state routes.

a. Avenal General Plan

Maintain a growing community that will focus on urban infill and upgrading of its existing urbanized lands. Increase overall residential densities in the city so as to require less urbanization of surrounding agricultural lands.

b. Corcoran Area General Plan

An urban form should be maintained that is compatible with an agricultural setting by accommodating new development within the corporate city limits and encouraging infilling of vacant areas.

c. Hanford General Plan

Guide urban development toward vacant or under-used land within the urbanized area and direct new growth toward contiguous lands to protect agricultural lands and other open spaces used for the managed production of resources from premature urban development.

d. Lemoore General Plan

Promote compact urban growth by providing and maintaining a quantitative balance between various types of land uses. Encourage development of vacant sites by assigning land uses for them based on their locational potential.

Preserve prime farmland while allowing optimum community expansion by encouraging compact urban growth and only selectively allow large lot developments on prime farmlands.

Encourage residential infill on vacant land within developed areas and where adequate infrastructure already exists.

e. Kings County General Plan

The County shall promote the orderly growth of housing along public utility lines and encouraging the infilling of vacant bypassed land within the urban areas in preference to outward expansion.

Require new development in city fringe areas to annex to the city or community services district that provides services. Encourage existing fringe area development to annex to the city or community services district that is providing service.

Require urban growth to be contiguous to existing urban development and to annex to a city or community services district.
f. **Urban Service Areas Policy Plan**

Promote the orderly growth of Kings County's urban areas by directing new development into incorporated cities where services are provided.

Ensure that growth in unincorporated communities is coordinated with general plan and special district's improvement programs and capabilities.

Prevent haphazard, sprawling, or "leapfrog" growth by infilling vacant or under-utilized lots within the community fringes.

2. As the general plans will guide urban growth into compact, land-sparing configurations, the proportion of persons living in urban and incorporated areas will continue to increase.

**FIGURE 2-12**

KINGS COUNTY URBAN POPULATION CHANGE
1960 - 1980 – 1990 - 2010

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>POP.</td>
<td>%</td>
<td>POP.</td>
<td>%</td>
<td>POP.</td>
</tr>
<tr>
<td>Rural Farm</td>
<td>2,666</td>
<td>5.3%</td>
<td>4,659</td>
<td>6.3%</td>
<td>2,679</td>
</tr>
<tr>
<td>Rural Non-Farm</td>
<td>26,471</td>
<td>53.0%</td>
<td>20,084</td>
<td>27.2%</td>
<td>28,241</td>
</tr>
<tr>
<td>Urban</td>
<td>20,817</td>
<td>41.7%</td>
<td>48,995</td>
<td>66.4%</td>
<td>70,549</td>
</tr>
<tr>
<td>TOTAL</td>
<td>49,954</td>
<td>100%</td>
<td>73,738</td>
<td>100%</td>
<td>101,469</td>
</tr>
</tbody>
</table>

Source: 2000 U.S. Census

Notes:
Rural Non-Farm = Unincorporated areas near cities, and rural towns of less than 2,500 persons.
Urban = A community of 2,500 or more persons.
2010 Census did not define Rural as with previous years.

III. **SUMMARY OF TRANSPORTATION PLANNING AND PROGRAMMING ISSUES**

A. The chief interest of KCAG is to ensure that transportation decisions, whether they are made at the local, state, or federal level, reflect Kings County area public interests. In terms of state-level decisions, KCAG is aware that rural RTPAs are often overlooked when state officials decide where transportation dollars will be spent. Most of the money goes to northern and southern population centers where the greatest demand exists because of large populations and high densities. Kings and other rural counties are unable to demonstrate as high a degree of urgency (congestion) or political momentum for transportation improvements. Nevertheless, through this document, KCAG intends to make a strong argument for its fair share of the state transportation budget. An overriding goal in Kings County is to see that state revenues are more equitably distributed among the counties.

B. In seeking to represent itself, KCAG follows all procedural and administrative responsibilities and duties required of RTPAs. KCAG conducts monthly public meetings through its Transportation Policy Committee and Technical Advisory Committee; holds citizen advisory meetings; works with Caltrans District 6 staff on all types of transportation planning projects and the San Joaquin Valley Air Pollution Control District (SJVAPCD) on air quality and transportation issues; and prepares and maintains the Regional Transportation Plan, the
Regional Transportation Improvement Program (RTIP) and the Federal Transportation Improvement Program (FTIP). KCAG must consider a number of factors when it prepares RTPs. The following is a summary of these factors and KCAG's responses:

- **Public Involvement.** KCAG must provide citizens and interested parties a reasonable opportunity to participate in the development of, and comment on, the RTP prior to its adoption. The public and interested parties were informed about the development of the 2014 RTP through notices in local newspapers and public hearings before the KCAG Transportation Policy Committee. The RTP was also reviewed by the KCAG Social Services Transportation Advisory Council. Copies of the 2014 RTP were also distributed and advertised in local newspapers as available at all branches of the Kings County Library for review and comment.

- **Coordination.** KCAG must coordinate its transportation planning with transportation providers, air districts, local planning agencies, Caltrans, and adjoining RTPAs. KCAG, in conjunction with seven other RTPAs, two Caltrans Districts, and the San Joaquin Valley Air Pollution Control District has entered into a memorandum of understanding to ensure maximum compatibility in air quality, transportation planning, and project implementation. These agencies meet quarterly to discuss transportation and air quality issues affecting the Valley and work cooperatively on projects of Valleywide significance. Transit providers are involved in the transportation planning process through participation in Social Services Transportation Advisory Council meetings and the development of transit plans prepared by KCAG. The air quality conformity assessment of the 2014 RTP with the State Implementation Plan for Air Quality was conducted by KCAG, Federal Highway Administration, Federal Transit Administration, Environmental Protection Agency, San Joaquin Valley Air Pollution Control District, and Regional Transportation Planning Agencies within the San Joaquin Valley. The Santa Rosa Rancheria Tachi Tribe is a member of the KCAG Technical Advisory Committee that reviews plans and programs and provides comments.

- **Planning Assumptions and Forecasts.** RTPAs are encouraged to use projections of future population, housing, employment, and land use based upon available data and accepted forecasting methodologies. The population forecasts used by KCAG in developing the 2014 RTP were prepared for the San Joaquin Valley Metropolitan Planning Organizations by The Planning Center. Future housing, land use, and employment projections are based on information provided by the Employment Development Department and the general plans of the cities and the county. Revenue and expenditure projections are based either on current levels or based on a trend analysis of previous year levels. Transportation growth forecasts are based on information provided by Caltrans and Census information.

- **Planning Analysis.** RTPAs are encouraged to develop and evaluate transportation improvements on a corridor, subregional, or regional basis, considering alternative modes and combinations of modes and to integrate social, economic and environmental considerations in the planning analysis. KCAG has reviewed numerous relevant plans during the development of the 2014 RTP (Itemized in Chapter 1). Transportation Systems Management strategies have been evaluated within the RTP to develop transportation improvements on each corridor. Transportation improvements to meet air quality conformity requirements are included within the RTP and will be highlighted in the conformity assessment documentation.

C. Because revenues needed to build and maintain Kings County's streets and roads fall short of the costs, this Regional Transportation Plan looks at ways to garner more dollars for road improvements.
I. OVERALL GOAL; PLANNING AND PROGRAMMING OBJECTIVES AND POLICIES

This chapter seeks to establish a central goal to guide the Regional Transportation Plan and to define objectives and policies needed to meet the goal and to respond to the issues that KCAG must consider. State guidelines require RTPAs and MPOs to develop realistic goals, policies, and objectives to guide state and local planning efforts. The following definitions are prescribed:

A goal is the end toward which effort is directed; it is general and timeless.

A policy is a direction statement that guides present and future decisions on specific actions.

An objective is a result to be achieved by a stated point in time. It is capable of being quantified and realistically attained considering probable funding and political constraints. Objectives are successive levels of achievement in the movement toward a goal, and should be tied to a time-specific period for implementation.

In compliance with these guidelines and the MAP-21 Planning Factors as outlined in 23 U.S.C. §134(h), an overall goal is presented to cover all aspects of KCAG's transportation planning endeavors. The goals, objectives, and policies found in this plan were developed from a number of sources: various state documents, the prior editions and supplements to the Kings County Regional Transportation Plan, general plans of the cities and county, and the comments of the KCAG Transportation Policy Committee, Technical Advisory Committee and the Social Services Transportation Advisory Council.

A. OVERALL GOAL

To develop a transportation system that encourages and promotes the safe and efficient development, management, and operation of surface transportation systems to serve the mobility needs of people and freight (including meeting the Americans with Disabilities Act requirements, accessible pedestrian walkways, and bicycle transportation facilities) and foster economic growth and development, while minimizing transportation-related fuel consumption and air pollution.

B. PROGRAM POLICY AND OBJECTIVES

Policy

Continue making full use of KCAG's decision-making forums, including their regular meetings, to examine alternative solutions to transportation needs and problems.

Objectives

1. Transportation decisions shall be made on the basis of the broadest range of Kings County area public interests.

2. KCAG shall provide clear and firm guidance to the California Transportation Commission, Caltrans, and local agencies on all transportation matters affecting Kings County.
3. Transportation decisions shall include Transportation Systems Management (TSM) evaluations.

4. Public safety, retention and maintenance of the existing system, and system efficiency shall be used as criteria in evaluating projects.

5. Total route or system development shall be considered when selecting projects.

6. Funding sources for all transportation modes shall be identified, evaluated and developed. With these, a complete system that is accessible, safe, and efficient shall be built.

7. Public and private transportation facilities shall be planned and developed consistent with overall growth and development policies contained in city and county general plans.

C. ENVIRONMENTAL POLICY AND OBJECTIVES

Policy

The environmental consequences of transportation projects shall be taken into account. Of particular importance are impacts relating to air quality, energy use, noise, and changes in land use.

Objectives

1. Using Transportation System Management (TSM) evaluations, consider those alternative solutions that lessen environmental problems, yet serve transportation needs.

2. Seek to mitigate unavoidable adverse impacts associated with selected alternatives.

3. Use environmental documents such as Initial Studies and EIRs as decision-making tools.

4. Coordinate transportation control measures with the San Joaquin Valley Air Pollution Control District and the latest air quality attainment plan for the San Joaquin Valley.

5. Consult with lead agencies on projects having environmental effects, of statewide, regional, or areawide significance on transportation facilities.

6. Maintain modeling capability that will respond to state and federal reporting requirements and the need for accurately projecting travel demand in future years.

D. PUBLIC PARTICIPATION POLICY AND OBJECTIVES

Policy

Transportation facilities and services should meet the needs of all segments of the population. KCAG employs an environmental justice approach to its public participation policy and procedures and welcomes community comment and guidance in its transportation planning and decision making process.
Objectives

1. Continue building an active citizen participation forum.

2. Seek representation from the entire community, including the elderly, low income, persons with disabilities, and the census-identified environmental justice areas of Kings County.

3. Hold citizen meetings at convenient times and places.

4. Seek citizen comments early in the planning process, preferably in the problem-identification stage of project preparation.

5. Work to create an atmosphere that encourages the expression of all viewpoints, allowing both obvious and latent issues to be brought into the open.

6. Explore alternative methods of obtaining the public’s views. Use surveys, make presentations to special interest groups, etc.

7. Keep local media informed of transportation issues and encourage their attendance at public meetings held by KCAG.

II. REGIONAL HIGHWAY SYSTEM GOALS, POLICIES AND OBJECTIVES

A. HIGHWAY SYSTEM GOAL, POLICY AND OBJECTIVES

Goal
Maintain, upgrade and complete a regional system of roadways which is convenient, safe, and efficient, and which serves the needs of all users.

Policy
Maintenance shall be continuous to keep the regional highway system from falling further into disrepair. The system shall be upgraded and completed as revenues allow.

Objectives

1. Maintain and rehabilitate the regional system; reconstruct deteriorated road sections.

2. Provide safety improvements to reduce the number, severity, and probability of accidents.

3. Undertake new construction projects to upgrade and complete the regional system, and to close gaps in local and state highway systems.

4. Implement operational improvements (such as road widening, relief of parking congestion, traffic signals, passing lanes, and turn lanes) to maximize service and efficiency.

5. Carry out landscaping and maintenance projects to help make highways compatible with their surroundings.

6. Enforce local ordinances regulating oversize truck terminal access.
7. Work with Caltrans and local agencies to obtain right-of-way dedications at designated future interchanges and along mainline portions of state highways within the regional transportation system.

8. Petition the California State Legislature and the California Transportation Commission to adopt equitable laws and policies for apportioning fuel taxes and funding highway projects. Ensure that Kings County receives its fair share of available transportation dollars.

9. Work more closely with other Regional Transportation Planning Agencies in the area to foster coordinated highway facilities planning.

B. HIGHWAY SAFETY POLICY AND OBJECTIVES

Policy

Improve routes of regional significance to promote the safe operation of vehicular traffic, especially during high accident probability times such as times of heavy winter fog, night, etc.

Objectives

1. Assist night and especially fog driving by providing and maintaining highly reflective "fog" or edge striping, and center divider lines on routes of regional significance.

2. Provide adequate shoulder areas on all state highways and rural regional routes.

3. Install traffic control measures on roads and at intersections when such measures are deemed necessary in accordance with the California Uniform Traffic Control Device Manual.

4. Improve and maintain regional route road surfaces and drainage.

5. Widen or rehabilitate bridges where needed.

6. Provide adequate railroad grade protection devices.

7. Encourage the enforcement of posted speed limits.

III. GOODS MOVEMENT POLICY AND OBJECTIVES

A. Policy

Support the efforts of the trucking and rail industries to transport commodities safely and efficiently.

Objectives

1. Designate and maintain regional and local truck routes to prevent major pavement deterioration on local streets and roads that are not designed for heavy truck traffic.

2. Where needed, widen regional highways to accommodate them to heavy truck traffic.

3. Support enforcement of local truck route ordinances.
4. Develop plans to mitigate congestion on local streets and at intersections where heavy truck traffic occurs.

5. Support efforts to require all trucks carrying hazardous materials to have a manifest, including identification and instructions for handling materials in case of spills. Also support efforts to improve hazardous waste containers so that spillage or leakage does not occur.

6. Support truck weight fees that equitably provide for the highway maintenance costs resulting from heavy trucking.

7. Encourage the improvement of railways with the end purpose of increasing the efficiency of goods movements.

8. Support the installation of automatic grade protection devices at all grade crossings.

9. Improve rail grade crossings as needed to improve traffic flows.

10. Encourage the efficient movement of goods through California ports.

11. In concert with Caltrans, the California Highway Patrol, and local jurisdictions, restrict roads available for hazardous waste trucking to mitigate potential adverse affects associated with transportation.

IV. PUBLIC TRANSPORTATION POLICIES AND OBJECTIVES

A. Public Transit Policy

Provide public transit services for those needs defined as "Unmet Transit Needs" which are "Reasonable to Meet".

Objectives

1. Continue operating the Kings Area Rural Transit and Corcoran Area Transit Dial-a-Ride systems to provide dependable services for those living in Kings County's urbanized areas who have "unmet transit needs" which can be met at a cost KCAG determines to be reasonable.

2. Provide assistance to social service agencies to improve the efficiency and effectiveness of coordinated transportation services for their clients.

3. Encourage transit operators to minimize transit system operating costs by increasing ridership through the following examples.
   a. Implement route and schedule modifications.
   b. Implement equipment and maintenance improvements.
   c. Implement an aggressive marketing program to improve the image of public transit.
   d. Follow up on comments of the Social Service Transportation Advisory Council.
4. Follow recommendations included in the KCAG Kings County Transit Development Plan.

5. Assist eligible claimants, both public and private, in applying for federal transportation grants.

6. Encourage the practice of ridesharing/vanpooling as an alternative to single occupant vehicle commuting.

7. Utilize the Social Services Transportation Advisory Council to identify unmet transit needs of the transit dependent.

8. Promote the coordination of transit with other transportation modes.

9. Encourage and support the enhancement of transit services as a transportation control measure to improve air quality.

10. Support the coordination and consolidation of transit services where appropriate through the development and implementation of the Human Services Transportation Coordination Plan.

B. Intercity Rail and Bus Policy

Preserve an effective and convenient intercity public transportation system of regularly scheduled bus and rail services.

Objectives

1. Monitor and respond to all legislation that could impact bus or rail services in Kings County. Continue the use of KCAG as the forum through which public discussion on bus and rail matters is formalized into public policy recommendations.

2. Work with adjacent RTPA's and Caltrans to unify regional support for keeping and upgrading intercity bus and rail services through membership in the San Joaquin Joint Powers Authority.

3. Continue Federal and State support of the Amtrak San Joaquins trains.

4. Support aggressive marketing programs for Amtrak trains and intercity buses.

5. Seek to coordinate local transit service schedules with those of intercity modes.

6. Support the programming of grade crossing improvements to increase the speed and safety of intercity rail services.

V. AVIATION GOAL, POLICIES AND OBJECTIVES

Goal

A fully functional and integrated air transportation and airport system that is complementary to the regional transportation system.
A. Policy

Work with local agencies to ensure compatible land uses around existing airports to reduce noise and structure conflicts.

Objectives

1. Support the Kings County’s Airport Land Use Compatibility Plan and the local airports in their efforts to ensure compatible land uses around airports.

2. Support the local airports in their attempts to acquire the land surrounding the airports.

3. Support noise abatement procedures around the local airports.

B. Policy

Maintain alternative modes of transportation to and from the Hanford Municipal Airport and the Corcoran Airport.

Objective

1. Support local transit service to and from the Hanford Municipal Airport and the Corcoran Airport.

C. Policy

Promote the development and maximum utilization of public and private airports to provide for county and regional general air transportation needs.

Objectives

1. See that the existing countywide airport system is maintained and upgraded. Where warranted, use federal, state, local, or private funds to carry out improvements.

2. Ensure that public expenditures for airport development are consistent with demonstrated public demand.

3. Support the retention of scheduled passenger air service at Fresno and Visalia to provide convenient and dependable links to major commercial airports.

4. Airport improvements, in particular at the Lemoore Naval Air Station, shall be protected by coordinated city or county land-use regulations in aviation easements. Such easements should be used to minimize the nuisance effect of airports on their surroundings, and to prevent the encroachment of uses that are incompatible with air operations.

5. Follow the recommendations of the Kings County Airport Land Use Compatibility Plan and the Hanford Municipal Airport Master Plan.

6. Recognize and allow airstrips necessary for servicing agricultural needs.

7. Explore the feasibility of establishing public airports in Avenal and Corcoran.
8. Support increases in aviation capital improvement funds and sources for rural general aviation public use airports.

VI. NON-MOTORIZED POLICY AND OBJECTIVES

A. Policy

Improve the existing transportation system to better accommodate bicycles and pedestrians as well as automobiles and trucks; improve public awareness of and competence in bicycle use; and improve public and private sector responsiveness to bicycle and pedestrian transportation.

Objectives

1. Provide a well-developed, safe and convenient, intermodally-connected system of bikeways complete with support facilities.

2. Ensure that future development supports and facilitates the expansion, improvement, and maintenance of the bikeway system.

3. Provide on-going bicycle safety education and information programs.

4. Implement bikeways that will connect major employers, educational facilities and recreational areas.

5. Encourage partnerships between private, non-profit, governmental and citizens groups to implement bicycle and pedestrian improvements.

6. Fund road maintenance that will also provide better roads for bicycles.

7. Correct roadway surface and hazards on bikeways.

8. Provide theft-resistant parking facilities at high-use destinations.

9. Eliminate physical barriers to bicycle travel.

10. Encourage enforcement of bicycle traffic laws.

11. Keep the freeway sections of State Route 198 closed to bicycles to prevent children from playing on the freeway.

12. Start public awareness programs to increase acceptance of the bicycle.

13. Integrate bicycle and pedestrian considerations into local planning agendas.

14. Encourage local jurisdictions to implement complete streets and other multi-modal concepts as outlined by the California Complete Streets Act of 2008 (AB 1358), as well as Caltrans Deputy Directive 64-R1 (DD-64-R1).

15. Encourage the use of bicycle and pedestrian modes of transportation to enhance air quality and improve human health.

16. Implement the projects identified in the current "Kings County Regional Bicycle Plan".
17. Utilize the Bicycle Advisory Committee in the prioritization and programming of bicycle improvements.

VII. TRANSPORTATION SYSTEMS MANAGEMENT POLICIES AND OBJECTIVES

State planning guidelines suggest that TSM objectives be time-specific and quantified. This is to allow year-by-year analysis of progress toward TSM targets. These requirements apply to Transportation Management Agencies (TMA). Kings County (KCAG) is not a TMA and is not required to participate in the Congestion Management Program (CMP). Because of this distinction, the objectives in KCAG's program are not themselves quantified or time-specific. Staff acknowledges that Kings County, although considered a small urbanized area based on population, is very rural and its transportation improvements are small in scale compared to those of larger urbanized areas. While Kings County's size does not preclude TSM planning, it does make it hard to set realistic or meaningful target figures. The attainment of TSM objectives can be documented by periodic studies of the effectiveness of TSM measures in future RTPs.

A. Policy

Maintain and improve the quality of the existing transportation system.

Objectives

1. Shorten the travel time required to move people and goods on the existing system.
2. Lower travel costs required to move people and goods on the existing system.
3. Increase the safety of the existing system.
4. Improve the personal security of persons using the existing system.
5. Improve the comfort and convenience of the existing system.
6. Enhance the reliability of the existing system.

B. Policy

Increase the efficiency of the existing transportation system.

Objectives

1. Seek to reduce dependency upon the automobile for single occupant vehicle commuting by encouraging carpooling.
2. Encourage use of Kings County's transit system.
3. Facilitate pedestrian and bicycle travel.

C. Policy

Minimize the costs to improve the quality and efficiency of the existing transportation system.
Objectives

1. Find cost-effective ways to upgrade the existing system.
2. Minimize the operating costs of the existing system.

D. Policy

Minimize the undesirable environmental impacts of existing transportation facilities and services.

Objectives

1. Reduce noise and vibration caused by the existing system.
2. Reduce air quality impacts caused by the existing system.
3. Reduce the amount of energy consumed by users of the existing system.

E. Policy

Promote desirable and minimize undesirable social and economic impacts of the existing transportation system.

Objectives

1. Provide adequate transportation services to the disadvantaged and transit dependent at a reasonable cost.
2. Provide reasonably priced public transit.
3. Minimize neighborhood impacts caused by transportation improvements.
4. Complement the long-range land-use policies of local general plans.
CHAPTER 4
THE REGIONAL HIGHWAY SYSTEM

I. OVERVIEW

This chapter focuses on the most used, and therefore, the most critical component of Kings County’s transportation system: the highway system. There are about 1,490 miles of surfaced roads in Kings County. This total is maintained by the State, the County of Kings, and by the four cities. Virtually all travel depends upon these roads, their bridges, overcrossings, interchanges, and traffic control devices. Because highway facilities are so vital to the social and economic well-being of this region, this chapter is presented as the focal point for this Regional Transportation Plan.

The purpose of this chapter is to recommend and justify improvements for the regional highway system based upon the following:

- Outlining assumptions guiding KCAG’s highway planning efforts;
- Defining those roads which are of regional significance;
- Itemizing those issues affecting highway planning;
- Presenting projects needed to maintain and upgrade the regional system;
- Delegating responsibilities for project implementation; and
- Estimating project costs and assigning priorities.

FIGURE 4-1
MAINTAINED ROAD MILEAGE IN KINGS COUNTY
2010

<table>
<thead>
<tr>
<th>JURISDICTION</th>
<th>MAINTAINED MILEAGE</th>
<th>PERCENTAGE OF COUNTYWIDE TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate</td>
<td>26.7</td>
<td>1.7%</td>
</tr>
<tr>
<td>State System</td>
<td>130.0</td>
<td>8.7%</td>
</tr>
<tr>
<td>Kings County*</td>
<td>944.09</td>
<td>63.4%</td>
</tr>
<tr>
<td>Avenal*</td>
<td>32.6</td>
<td>2.2%</td>
</tr>
<tr>
<td>Corcoran*</td>
<td>51.4</td>
<td>3.4%</td>
</tr>
<tr>
<td>Hanford*</td>
<td>215.81</td>
<td>14.5%</td>
</tr>
<tr>
<td>Lemoore*</td>
<td>86.05</td>
<td>5.8%</td>
</tr>
<tr>
<td>U.S.BIA</td>
<td>2.5</td>
<td>.17%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,489.15</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

* Does not include state or interstate highway mileage.

This plan does not study all roads in Kings County. Instead, it identifies and examines the most-used routes which serve regional, rather than merely local, transportation demands. Local planning for circulation and parking belongs in city and county general plans and must be undertaken by local agencies. To provide the reader with a broad perspective on the highway system, this section is divided into two areas of study: the Countywide Regional System that includes the most heavily used county and state rural roads; and the Regionally Significant Roads in Urban Areas, which include busy roads that transect urban areas, yet are important because they also serve regional traffic.
A. FUNCTIONAL CLASSIFICATION SYSTEM

Caltrans and local agencies have practiced a method of classifying roads by their function for many years. The idea is to sort streets and highways by their expected level of service. This method furnishes an important link between transportation and land-use planning. A rational land development program cannot be realized if road designs and capacities are not related to the intensity of use they will serve. Every road has a unique role to play, and each must be calculated in its relationship with the larger network of roads.

There are three street and highway classes where through traffic predominates: Major Arterials, Minor Arterials, and Collectors. Major Arterials serve the high-volume corridors that connect the major traffic generators. Minor Arterials serve less concentrated traffic-generating areas, acting as boundaries to neighborhoods and collect traffic from Collector streets. Although the prime function of Minor Arterial streets is the movement of through traffic, they also provide direct access to residential areas and neighborhoods, collecting traffic from local access streets and distributing it to the arterial system. Minor Collector streets would serve less traffic than Major Collectors.

The map shown in Figure 4-2 is based on the functional classifications approved for the county by the Federal Highway Administration. The maps shown in Figures 4-3 through 4-6 are based on the general plans of each city.

B. THE COUNTYWIDE REGIONAL SYSTEM

The roads that make up the countywide regional network are known collectively as Routes of Regional Significance (see Figure 4-2). They comprise a system whose roles are to:

- serve inter-county and intra-county travel;
- link important population centers;
- join with other regional routes to form a comprehensive network; and
- provide access between agricultural areas and processing facilities and markets.

Included in this system are 156.7 miles of state-maintained regional routes (including Interstate 5). These are among the most important roads in this area because they serve most of the travel between Kings and surrounding counties, and they carry a very significant portion of intra-county traffic. Regionally significant, county maintained roads satisfies the majority of the remaining inter-county demand.

The following are considered in their role as "Routes of Regional Significance." (See Figure 4-2 for rural functional classification.)

**Interstate and Other Principal Arterials**

- Interstate 5 (Kern Co. to Fresno Co.)
- State Route 41 (Kern Co. to Fresno Co.)
- State Route 43 (Excelsior Ave. to Houston Ave.)
- State Route 137 (SR 43 to Tulare Co.)
- State Route 198 (Fresno Co. to Tulare Co.)

**Minor Arterials**

- 6th Avenue (Ottawa Ave. to Kern Co.)
- 10th/10 ½ Avenue (SR 43 to Whitley Ave.)
11th Avenue (Idaho Ave. to City limits)
12th Avenue (Excelsior Ave. to City limits and Houston Ave. to City limits)
Avenal Cutoff Road (SR 198 to SR 33)
Excelsior Avenue (6th Ave. to 22nd Ave.)
Grangeville Blvd. (LNAS gate to City limits and 6th Ave to City Limits)
Houston Avenue (City limits to 10th Ave.)
Idaho Avenue (10th Ave. to 11th Ave.)
Kansas Avenue (SR 43 to SR 41)
Whitley Avenue (SR 43 to Sweets Canal)
State Route 33 (Kern Co. to Fresno Co.)
State Route 43 (Excelsior Ave. to Fresno Co. and Houston Ave. to Tulare Co.)

Major Collectors
5 ½ Avenue (Benicia Ave. to Boston Ave.)
6th Avenue (Houston Ave. to Fresno Co.)
10th Avenue (Whitley Ave. to Utica Ave.)
11th Avenue (Jackson Ave. to Idaho Ave.)
12 ¾ Avenue (Excelsior Ave. to Fresno Co.)
14th Avenue (Excelsior Ave. to Kansas Ave.)
16th Avenue (Excelsior Ave. to Hanford Armona Rd.)
18th Avenue (Flint to City limits and Laurel Ave. to City limits)
19th Avenue (Laurel Ave. to Pueblo Ave.)
22nd Avenue (Grangeville Blvd. to Excelsior Ave.)
25th Avenue (I-5 to Kern Co.)
30th Avenue (Plymouth Ave. to Quail Ave.)
Benecia Avenue (5 ½ Ave. to 6th Ave.)
Boston Avenue (5 ½ Ave. to Fresno Co.)
Cairo Avenue (SR 43 to Fresno Co.)
Flint Avenue (6th Ave. to 22nd Ave.)
Grangeville Bypass (Grangeville Blvd. to Fresno Co.)
Grangeville Blvd. (6th Ave. to Tulare Co.)
Hanford Armona Road (City limits to SR 43 and City limits to City limits)
Houston Avenue (10th Ave. to Tulare Co.)
Iona Avenue (10th Ave. to 11th Ave.)
Jackson Avenue (SR 43 to SR 198)
Kansas Avenue (SR 43 to Tulare Co.)
Lacey Blvd. (City limits to SR 41)
Laurel Avenue (18th Ave. to Avenal Cutoff)
Nevada Avenue (SR 43 to Tulare Co. and SR 41 to Avenal Cutoff)
Pueblo Avenue (10 ½ Ave. to 19th Ave.)
Plymouth Avenue (30th Ave. to Avenal Cutoff)
Quail Avenue (30th Ave. to SR 41)
Utica Avenue (6th Ave. to I-5 and SR 41 to SR 33)
Virginia Avenue (Tulare Co. line to 6th Ave.)
Waukena (SR 137 to SR 43)
Whitley Avenue (City limits to 10 ½ Ave.)
FIGURE 4-2

KINGS COUNTY

Circulation Designations

Interstate
Principal Arterial
Minor Arterial
Major Collector

Source: Kings County General Plan
1. Santa Rosa Rancheria

General. Established in 1934 on a 40-acre desolate farmland parcel of land, the Santa Rosa Rancheria is the Native American community of the Tachi Yokut Tribe. The Rancheria now includes 370 acres of trust land and 1,500 acres of fee land for roughly 2,300 acres. There are currently 233 housing units with an estimated total population of 993. The main source of revenue is the Palace Indian Gaming Center, which employs about 1,400 persons.

Growth Trends. An additional 100+ housing units are planned for construction within the next five years, which will double the Rancherias' population. Recent expansion plans of the Palace Indian Gaming Center included a 1,200 all-suite hotel with a, conference center, ballroom, and spa facilities. A gas station/convenience store, fire station, and theater are also being studied.

A transportation planning study was conducted to identify the impacts of these developments on the Rancheria’s road system, as well as the adjacent local road system, and to provide a list of improvements to meet the current and projected transportation needs.

Inventory of Routes. Indian Reservation Roads (IRR) include public roads that are located within or provide access to an Indian reservation, Indian trust land, or restricted Indian land that is not subject to fee title alienation without the approval of the federal government, or Indian communities in which Indian natives reside. Bureau of Indian Affairs (BIA) Roads System is included in the IRR system and includes those existing and proposed roads for which the BIA has or plans to obtain legal rights-of-way. This includes only roads for which the BIA has the primary responsibility to construct, improve, and maintain. Any additions or deletions to this system must be supported by resolution from the Tribes. Tribal Roads System includes those roads whose rights-of-way are under the jurisdiction of a Tribe.

There are 5.1 miles of public roads inventoried on the Santa Rosa Rancheria lands. These roads include 3.3 miles of Bureau of Indian Affairs (BIA) system roads and 1.8 miles of county roads. The transportation study has recommended changes to the BIA’s Santa Rosa Rancheria road system. This study recommends adding 11.2 miles to the BIA/IRR system. The following is an inventory of existing and proposed BIA roads on the Santa Rosa Rancheria road system.

Alkali Road
Alkali Drive
Atwell Court
Baga Lane
Baga Court
Coyote Court / Monic Lane (Proposed)
Davis Circle (Proposed)
Jeff Road
Jersey Avenue (Proposed future) (15th Ave. to 18th Ave.)
Kansas Avenue (Proposed future) (16th Ave. to 18th Ave.)
Kent Avenue (Proposed future) (15th Ave. to 18th Ave.)
Kooty Court
Saltgrass Road
Saltgrass Court (Proposed)
Santa Rosa Court
Sisco Court
Slough Drive  
Slough Court  
Tachi Court (Proposed)  
Thomas Road  
Yokut Court (Proposed)  
15th Avenue (Proposed future) (Jersey Ave. to Kent Ave.)  
16th Avenue (Jersey Ave. to Proposed extension to Kansas Ave.)  
17th Avenue (Jersey Ave. to Proposed extension to Kansas Ave.)

D. REGIONALLY SIGNIFICANT ROADS IN URBAN AREAS

1. Avenal

General. Incorporated in 1979, Avenal is a community with a Department of Finance estimated population of 14,225 located in extreme southwestern Kings County. With 19.5 square miles, Avenal has the largest land area of any city in the county, although only 2.5 square miles is urbanized. Historically, its economy had been based on the petroleum industry. In the 1970’s, the California Aqueduct and Interstate 5 were completed which brought water and access and a shift from an oil-based economy to one based on agriculture.

Growth Trends. A state prison facility was constructed near Avenal in 1987. As of January 2013, the prison inmate population was 4,973, or roughly 35% of the total Avenal population. Nearly 1,200 jobs have been created to serve the prison population. Only about 8 percent of the prison employees live in Avenal, with many of the employees commuting from Coalinga, Lemoore, and Hanford. As a result, state and local roads serving Avenal have experienced higher levels of local and commuter traffic than that of the past.

Inventory of Regional Routes: See Figure 4-3 for rural functional classification and the Appendix for general information such as current road conditions and traffic factors.

Interstate and Other Principal Arterials

Interstate 5 (Within City Limits)

Arterials

State Route 33 (Fresno Co. to 36th Ave.)  
State Route 269 (I-5 to SR 33)  
Avenal Cutoff Road (SR 269 to Avenal City Limits)

Collectors

Corcoran Avenue (Hydrl Rd. to Future Street)  
E Avenue (San Joaquin St. to Future Street)  
Hydrl Road (SR 269 to 36th Ave.)  
Kings Street (SR 33 to Skyline Blvd.)  
Plymouth Avenue (Avenal Cutoff to Avenal City Limits)  
San Joaquin Street (Skyline Blvd. to SR 33)
First Avenue (SR 33 to Future Street)
Third Avenue (Skyline Blvd. to Future Street)
Fifth Avenue (Skyline Blvd. to Future Street)
Seventh Avenue (San Joaquin St. to SR 33)
36th Avenue (Hydrl Rd. to Future Street)
Future Street (E Ave. to Skyline Blvd.)
Future Street (Seventh Ave. to 36th Ave.)
Future Street (E Ave. to Fifth Ave.)
2. Corcoran

General. Corcoran is located in southeastern Kings County, about 18 miles south of Hanford on SR 43. Corcoran considers itself as the “Farming Capital of the World”. It is the home of several major agricultural corporations that farm the Tulare Lake Basin. Cotton ginning, grain milling, and plant oil extraction dominate the city's industries. The estimated total population of the area for 2013 was approximately 23,154 persons.

Growth Trends. Because modern farming is highly mechanized, there exists only a limited demand for farm labor in Corcoran. Unless new job-producing industries can be attracted there, the area's population is expected to continue growing at its slow, yet sustained, rate. Such growth can be easily contained within the urban limits set by the city's general plan.

A state prison facility was constructed near Corcoran and opened in early 1988. The California Department of Corrections also constructed a substance abuse treatment center adjacent to the existing prison facility. It is estimated that employment of these facilities provides roughly 3,800 jobs, (depending on the occupancy rate of the facilities). During 2012-2013, the inmate population of both facilities combined was 10,182, which is approximately 44% of the city's total population. It has been estimated that about 15% of the approximately 1,600 prison employees live in Corcoran, 23% in Hanford, 6% in Lemoore and the remaining 51% outside Kings County.

Traffic volumes on regional routes can expect to increase due to additional commuters. The State Department of Corrections and the City of Corcoran have upgraded some intersections and streets in Corcoran leading to the prison to mitigate the traffic impacts. With the new facility, some adverse impacts on the circulation would be mitigated by the placement of traffic signals.

Inventory of Regional Routes: See Figure 4-4 for urban functional classification and the Appendix for general information such as current road conditions and traffic factors.

Interstate and Other Freeways or Expressways

State Route 43 (Niles Ave. to Sweets Canal)

Other Principal Arterials

None

Arterials

State Route 137
Dairy (6th) Avenue (Pueblo Ave. to Orange Ave.)
Flory Avenue (Whitley Ave. to King Ave.)
King Avenue (Bainum Ave. to Paris Ave.)
Orange Avenue (Dairy Ave. to Otis Ave.)
Otis Avenue (Orange Ave. to Whitley Ave.)
Paris Avenue (Dairy Ave. to 4th Ave.)
Pickerell (5th) Ave.  (Orange Ave. to Sherman Ave.)
Waukena Avenue   (SR 137 to Orange Ave.)
Whitley Avenue    (City limits to SR 43)
New Entryway      (SR 43 to Orange Ave.)
4th Avenue        (Paris Ave. to Santa Fe Ave.)

Collectors

6 ½ Avenue       (Sherman Ave. to Niles Ave.)
Bainum Avenue    (6 ½ Ave. to Flory Ave.)
Chittenden Avenue (Otis Ave. to Whitley Ave.)
Dairy Avenue     (Niles Ave. to Orange Ave.)
Letts Avenue     (Orange Ave. to Sherman Ave.)
North Avenue      (Otis Ave. to 6 ½ Ave.)
Orange Avenue     (Dairy Ave. to 7th Ave.)
Ottawa Avenue    (King Ave. to 7th Ave.)
Patterson Avenue  (Otis Ave. to 6 ½ Ave.)
Pueblo Avenue     (Dairy Ave. to King Ave.)
Sherman Avenue   (Flory Ave. to 6 ½ Ave.)
Van Dorsten Avenue (Ottawa Ave. to Sherman Ave.)
FIGURE 4-4

CORCORAN

Circulation Designations

Source: City of Corcoran
3. **Hanford**

**General.** Hanford is the county seat of Kings County, as well as its largest city, with approximately 55,479 residents. The city itself is compacted into an area of about 6 square miles. Several rural residential concentrations are scattered throughout the territory surrounding the city. The community of Armona lies three miles to the west, adding to the total area 4,156 residents.

**Growth Trends.** Like most communities in the San Joaquin Valley, Hanford’s economic livelihood is squarely based on farm-service enterprises. In recent years, other sectors of the city’s economic community have flourished such as retail sales and professional service enterprises. Added with the many military residents, these factors have created more jobs and helped Hanford enjoy significant growth since 1970. In spite of the estimated local jobs, almost half of the employed persons residing in Hanford commute elsewhere for employment such as LNAS, Visalia and Fresno.

Generally, new residential growth is occurring north of Grangeville Boulevard, and in pockets east of 10th Avenue and west of 11th Avenue. Additional residential growth is planned to occur in the southwest corner of the city as well. Many retail establishments are compacted in the downtown core, although three major shopping centers, including a regional mall, are located in the area of 12th Ave. and Lacey Blvd. Industrial uses are located south of Houston Avenue, between 10th and 11th Avenues. City planners indicate that only modest extensions of the city’s urban area will be needed to handle Hanford’s growth needs for several years. The annual percent of population growth is anticipated to be 2.04%.

**Inventory of Regional Routes:** See Figure 4-5 for urban functional classification and the Appendix for general information such as current road conditions and traffic factors.

State Route 198 (SR 43 to ½ mile west of 12th Ave.)

**Other Principal Arterials**

None

**Arterials**

State Route 43 (10th Ave. to Houston Ave.)
Future 9th Avenue (Houston Ave. to Fargo Ave.)
10th Avenue (Jackson Ave. to SR 43)
11th Avenue (Jackson Ave. to Flint Ave.)
12th Avenue (Idaho Ave. to Flint Ave.)
13th Avenue (Houston Ave. to Fargo Ave.)
Fargo Avenue (13th Ave. to SR 43)
Flint Avenue (12th Ave. to SR 43)
Grangeville Blvd. (13th Ave. to SR 43)
Hanford-Armona Rd. (13th Ave. to 10th Ave., 9th Ave. to SR 43)
Houston Avenue (13th Ave. to SR 43)
Idaho Avenue (10th Ave. to 12th Ave.)
Iona Avenue (10th Ave. to 12th Ave.)
Jackson Avenue (10th Ave. to 11th Ave.)
Lacey Blvd. (SR 43 to 10th Ave. and 13th Ave. to Irwin St.)
Third Street (10th Ave. to 11th Ave.)
<table>
<thead>
<tr>
<th>Street Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourth Street</td>
<td>(10th Ave. to 11th Ave.)</td>
</tr>
<tr>
<td>Sixth Street</td>
<td>(10th Ave. to 11th Ave.)</td>
</tr>
<tr>
<td>Seventh Street</td>
<td>(10th Ave. to Mall Dr.)</td>
</tr>
</tbody>
</table>

**Collectors**

<table>
<thead>
<tr>
<th>Street Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus/University Collector</td>
<td>(Grangeville Blvd. to Sixth St.)</td>
</tr>
<tr>
<td>Centennial Drive Collector</td>
<td>(Lacey Blvd. to Grangeville Blvd.)</td>
</tr>
<tr>
<td>Cortner Street Collector</td>
<td>(Kensington Way to 11th Ave.)</td>
</tr>
<tr>
<td>Douty Street Collector</td>
<td>(Flint Ave. to Hanford-Armona Rd.)</td>
</tr>
<tr>
<td>Fitzgerald Lane Collector</td>
<td>(Grangeville Blvd. to ½ mile n/o Fargo Ave.)</td>
</tr>
<tr>
<td>Florinda Avenue Collector</td>
<td>(11th Ave. to 9th Ave.)</td>
</tr>
<tr>
<td>Garner Street Collector</td>
<td>(11th Ave. to Lacey Blvd.)</td>
</tr>
<tr>
<td>Greenfield Avenue Collector</td>
<td>(Lacey Blvd. to 13th)</td>
</tr>
<tr>
<td>Harris Street Collector</td>
<td>(Grangeville Blvd. to 6th St.)</td>
</tr>
<tr>
<td>Hume Avenue Collector</td>
<td>(11th Ave. to 13th Ave.)</td>
</tr>
<tr>
<td>Irwin Street Collector</td>
<td>(4th St. to Grangeville Blvd.)</td>
</tr>
<tr>
<td>Ivy Street Collector</td>
<td>(10th Ave. to 11th Ave.)</td>
</tr>
<tr>
<td>Kensington Way Collector</td>
<td>(Fargo Ave. to Grangeville Blvd.)</td>
</tr>
<tr>
<td>Leland Way Collector</td>
<td>(9th Ave. to Douty St.)</td>
</tr>
<tr>
<td>McCreary Avenue Collector</td>
<td>(Douty St. to 11th Ave.)</td>
</tr>
<tr>
<td>E. Malone Collector</td>
<td>(10th Ave. to Douty St.)</td>
</tr>
<tr>
<td>Mall Drive Collector</td>
<td>(Ring Road around Lacey Blvd. to 12th Ave.)</td>
</tr>
<tr>
<td>9 ¼ Avenue Collector</td>
<td>(Grangeville Blvd. to Lacey Blvd.)</td>
</tr>
<tr>
<td>Redington Street Collector</td>
<td>(Grangeville Blvd. to 4th St.)</td>
</tr>
<tr>
<td>Rogers Road Collector</td>
<td>(11th Ave. to Mulberry Ave.)</td>
</tr>
<tr>
<td>Terrace Drive Collector</td>
<td>(10th Ave. to Douty St.)</td>
</tr>
<tr>
<td>Third Street Collector</td>
<td>(10th Ave. to 9th Ave.)</td>
</tr>
</tbody>
</table>

**Future Streets in South Hanford including:**

<table>
<thead>
<tr>
<th>Street Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 ½ Avenue Collector</td>
<td>(Houston Ave. to n/o Hume Ave.)</td>
</tr>
<tr>
<td>12 ½ Avenue Collector</td>
<td>(Hanford-Armona Rd. to Houston Ave.)</td>
</tr>
</tbody>
</table>

**Future Streets in North Hanford including:**

<table>
<thead>
<tr>
<th>Street Name</th>
<th>Description</th>
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<tr>
<td>12 ½ Avenue Collector</td>
<td>(Greenfield Ave. to Fargo Ave.)</td>
</tr>
<tr>
<td>Florinda Street Collector</td>
<td>(9 ¼ Ave. to Fargo Ave.)</td>
</tr>
<tr>
<td>Leland Way Collector</td>
<td>(9 ¼ Ave. to 9th Ave.)</td>
</tr>
<tr>
<td>W. Seventh Street Collector</td>
<td>(Mall Dr. to 13th Ave.)</td>
</tr>
</tbody>
</table>
FIGURE 4-5

HANFORD

Circulation Designations

Source: City of Hanford
4. **Lemoore**

**General.** Lemoore is a city of approximately 25,262 persons situated in north-central Kings County, near the intersection of SR 41 and SR 198. Unlike most cities in this region, Lemoore's economy is not principally based upon agricultural services. Instead, it is the home of many military and civilian persons employed at the nearby Lemoore Naval Air Station. Accordingly, Lemoore is populated by many young single adults and new families.

**Growth Trends.** Lemoore's population has increased at a much faster pace than the rest of the county the past several years. Most of this is attributed to the increasing dominance of LNAS as a military training center. While Lemoore generally provides housing and services for LNAS personnel, employment opportunities do exist at a large dairy processing facility. Some of the Avenal and Corcoran Prison employees have made Lemoore their home.

NAS Lemoore is the mandated Base Realignment and Closure (BRAC) site for the relocation of Navy aircraft, personnel, and equipment from other NAS sites. It was projected that 5,000 people, military personnel and their dependents, would be moving to the NAS Lemoore region in 1999. Approximately a quarter of the incoming persons were expected to reside off-station in Lemoore.

As of its 2008 general plan, the City of Lemoore has been growing at a rate of 4% since 1992. In terms of traffic demands, the Lemoore area can expect elevated and sustained traffic loads on all regional and local roads serving their area.

**Inventory of Regional Routes:** See Figure 4-6 for urban functional classification and the Appendix for general information such as current road conditions and traffic factors.

**Interstate and Other Freeways or Expressways**

State Route 198 (18th Ave. to City limits and 19th Ave. to w/o SR 41)

**Other Principal Arterials**

State Route 41 (Hanford Armona Rd. to SR 198)

**Arterials**

Hanford Armona Rd. (Lemoore Canal to SR 41)
D Street (17th Ave. to W. Bush St.)
Bush Street (East D St. to SR 41)
Idaho Avenue (19th Ave. to SR 41)
18th Avenue (Lacey Blvd. to Indiana Ave.)
19th Avenue (Hanford Armona Rd. to Idaho Ave.)

**Collectors**

Belle Haven Drive (Bush St. to Hanford Armona Rd.)
Cedar Lane (18th Ave. to 19 ½ Ave.)
Cinnamon Drive (Hanford Armona Rd. to 18th Ave. and 18th Ave. to 19 ½ Ave.)
College Avenue (Bush St. to Pedersen Dr.)
Follett Street (Cinnamon Dr. to Bush St.)
Fox Street (Bush St. to Hanford Armona Rd.)
Liberty Drive (Lacey Blvd. To Cinnamon Dr.)
Iona Avenue (18th Ave. to 19th Ave.)
Silverado Drive (19th Ave. to 19 ½ Ave.)
Vine Street (Bush St. to Cedar Lane)
19 ½ Avenue (Cinnamon Dr. to Silverado Dr.)
FIGURE 4-6

Source: City of Lemoore
II. ASSUMPTIONS AND INVENTORIES

A. HIGHWAY TRAVEL ASSUMPTIONS

1. Automobiles and pickups will remain this county's preferred means of personal transportation. (See Figure 4-7)

2. The number of Kings County residents operating motor vehicles will continue to increase. (See Figure 4-8)

3. Existing mobile source emissions will be reduced through Transportation Control Measures to help meet air quality standards, resulting in these actions:
   a. Ridesharing will increase.
   b. More people will walk and commute by bicycle.
   c. More people will use the Kings Area Rural Transit (KART) system, Amtrak trains, Orange Belt buses, CalVans, and other local transit services.

4. With continuing growth in the Fresno and Visalia metropolitan areas, and local growth attributed to LNAS, the Corcoran Prison and the Avenal Prison, traffic along the state highways and local regional routes will increase, and public demands will be made to upgrade these highways. (See Figure 4-9)

5. Because Kings County's population centers are widely dispersed, many county residents will commute long distances to work. (See Figures 4-10 through 4-13)

FIGURE 4-7

TRIP TO WORK MODES
2010

Source: 2008-2012 American Community Survey, 5-year estimate
FIGURE 4-8

LICENSED DRIVERS VS REGISTERED VEHICLES IN KINGS COUNTY
1988 - 2008

Source: CHP http://www.chp.ca.gov/switrs/

FIGURE 4-9

STATE SYSTEM TRAVEL IN KINGS COUNTY
Estimated: 1990 - 2030

FIGURE 4-10
INTRA-COUNTY TRAVEL ON STATE ROUTES IN KINGS COUNTY
2000-2008-2035

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>LOCATION</th>
<th>AVERAGE ANNUAL DAILY TRAVEL</th>
<th>PERCENT CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-5</td>
<td>Kern County Line to SR 41</td>
<td>27,500</td>
<td>32,500</td>
</tr>
<tr>
<td></td>
<td>SR 41 to Fresno Co. Line</td>
<td>28,500</td>
<td>30,000</td>
</tr>
<tr>
<td>SR 33</td>
<td>Kern County Line to Avenal</td>
<td>1,950</td>
<td>1,350</td>
</tr>
<tr>
<td></td>
<td>North of Avenal to I-5</td>
<td>2,000</td>
<td>2,300</td>
</tr>
<tr>
<td>SR 41</td>
<td>Kern Co. Line to Excelsior</td>
<td>6,400</td>
<td>6,400</td>
</tr>
<tr>
<td></td>
<td>Excelsior to Fresno Co. Line</td>
<td>9,000</td>
<td>16,000</td>
</tr>
<tr>
<td>SR 43</td>
<td>Tulare Co. Line</td>
<td>4,000</td>
<td>4,100</td>
</tr>
<tr>
<td></td>
<td>Fresno Co. Line</td>
<td>8,900</td>
<td>10,300</td>
</tr>
<tr>
<td>SR 137</td>
<td>Jct. SR 43 N. of Jct Waukena</td>
<td>2,150</td>
<td>2,600</td>
</tr>
<tr>
<td></td>
<td>Tulare Co. Line</td>
<td>2,750</td>
<td>3,200</td>
</tr>
<tr>
<td>SR 198</td>
<td>Fresno Co. Line to the LNAS Main Gate</td>
<td>7,000</td>
<td>7,000</td>
</tr>
<tr>
<td></td>
<td>7th Ave. to Tulare Co. Line</td>
<td>13,600</td>
<td>19,000</td>
</tr>
<tr>
<td>SR 269</td>
<td>Jct. SR 33</td>
<td>4,200</td>
<td>2,500</td>
</tr>
<tr>
<td></td>
<td>Fresno Co. Line</td>
<td>4,050</td>
<td>5,200</td>
</tr>
</tbody>
</table>

Source: http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2008all.htm

FIGURE 4-11
WORK LOCATIONS FOR ALL OF KINGS COUNTY
2010

<table>
<thead>
<tr>
<th>WORK LOCATION</th>
<th>NO.</th>
<th>PERCENT OF WORKFORCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Kings County</td>
<td>43,298</td>
<td>79.5%</td>
</tr>
<tr>
<td>Outside Kings County</td>
<td>10,947</td>
<td>20.4%</td>
</tr>
<tr>
<td>Outside of California</td>
<td>217</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>54,462</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Source: 2008-2012 American Community Survey, 5-year estimate
FIGURE 4-12
WORK LOCATIONS FOR KINGS COUNTY CITIES
2000

<table>
<thead>
<tr>
<th>WORK LOCATION</th>
<th>AVENAL</th>
<th></th>
<th>CORCORAN</th>
<th></th>
<th>HANFORD</th>
<th></th>
<th>LEMOORE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Same City</td>
<td>1,196</td>
<td>23.4%</td>
<td>1,644</td>
<td>41.8%</td>
<td>9,174</td>
<td>45.5%</td>
<td>3,223</td>
<td>30.4%</td>
</tr>
<tr>
<td>Elsewhere in Kings County</td>
<td>3,913</td>
<td>76.6%</td>
<td>2,288</td>
<td>58.2%</td>
<td>10,989</td>
<td>54.4%</td>
<td>7,380</td>
<td>69.6%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>5,109</td>
<td>100.0%</td>
<td>3,932</td>
<td>100.0%</td>
<td>20,163</td>
<td>100.0%</td>
<td>10,603</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: American Community Survey (5-year estimates)

FIGURE 4-13
TRIP TO WORK TRAVEL TIMES FOR ALL OF KINGS COUNTY
2012

<table>
<thead>
<tr>
<th>TRAVEL TIME IN MINUTES</th>
<th>PERCENT OF WORKFORCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9</td>
<td>18.8%</td>
</tr>
<tr>
<td>10-19</td>
<td>36.2%</td>
</tr>
<tr>
<td>20-44</td>
<td>34.0%</td>
</tr>
<tr>
<td>45+</td>
<td>11.0%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: 2008-2012 American Community Survey, 5-year estimate
FIGURE 4-14

TRIP TO WORK TRAVEL TIMES FOR KINGS COUNTY CITIES AND LNAs
2009-2010

<table>
<thead>
<tr>
<th>TRAVEL TIME IN MINUTES</th>
<th>AVENAL</th>
<th>CORCORAN</th>
<th>HANFORD</th>
<th>LEMOORE</th>
<th>LNAs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
</tr>
<tr>
<td>0-9</td>
<td>16.4%</td>
<td>30.1%</td>
<td>20.5%</td>
<td>14.8%</td>
<td>16.8%</td>
</tr>
<tr>
<td>10-19</td>
<td>18.8%</td>
<td>20.4%</td>
<td>34.6%</td>
<td>39.4%</td>
<td>62.7%</td>
</tr>
<tr>
<td>20-44</td>
<td>43.5%</td>
<td>39.0%</td>
<td>33.3%</td>
<td>34.8%</td>
<td>19.1%</td>
</tr>
<tr>
<td>45&gt;</td>
<td>21.4%</td>
<td>10.5%</td>
<td>11.6%</td>
<td>11.1%</td>
<td>1.3%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: American Community Survey (5-year estimates)

B. HIGHWAY SAFETY ASSUMPTIONS

1. Dense "Tule Fog" will continue to impose severe transportation difficulties and safety problems in Fall and Winter. (See Figures 4-15 and 4-16)

2. Collisions involving other vehicles and fixed objects will remain the largest cause of vehicular fatalities and injuries in Kings County; many will be caused by unsafe or improper driving. In addition to strict enforcement of motor vehicle laws, more operational and safety improvements, including new facilities, are needed to help lower the probability of regional system accidents. (See Figures 4-16 through 4-17).

FIGURE 4-15

OCCURRENCE OF FOG AT HANFORD MUNI AIRPORT
2011

<table>
<thead>
<tr>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>12</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>17</td>
<td>16</td>
</tr>
</tbody>
</table>

Source: National Weather Service
FIGURE 4-16
ACCIDENTS IN FOG vs. ALL ACCIDENTS IN KINGS COUNTY
2011

<table>
<thead>
<tr>
<th>MONTH</th>
<th>ACCIDENTS IN FOG</th>
<th>TOTAL ACCIDENTS</th>
<th>PERCENT OF ACCIDENTS IN FOG</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>18</td>
<td>36</td>
<td>50%</td>
</tr>
<tr>
<td>February</td>
<td>2</td>
<td>31</td>
<td>6%</td>
</tr>
<tr>
<td>March</td>
<td>2</td>
<td>35</td>
<td>6%</td>
</tr>
<tr>
<td>April</td>
<td>1</td>
<td>39</td>
<td>3%</td>
</tr>
<tr>
<td>May</td>
<td>0</td>
<td>42</td>
<td>0%</td>
</tr>
<tr>
<td>June</td>
<td>0</td>
<td>48</td>
<td>0%</td>
</tr>
<tr>
<td>July</td>
<td>0</td>
<td>40</td>
<td>0%</td>
</tr>
<tr>
<td>August</td>
<td>0</td>
<td>44</td>
<td>0%</td>
</tr>
<tr>
<td>September</td>
<td>0</td>
<td>49</td>
<td>0%</td>
</tr>
<tr>
<td>October</td>
<td>0</td>
<td>56</td>
<td>0%</td>
</tr>
<tr>
<td>November</td>
<td>14</td>
<td>43</td>
<td>33%</td>
</tr>
<tr>
<td>December</td>
<td>3</td>
<td>51</td>
<td>6%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>40</td>
<td>514</td>
<td>8%</td>
</tr>
</tbody>
</table>

Source: California Highway Patrol (SWITRS)

FIGURE 4-17
MOTOR VEHICLE COLLISION TYPES IN KINGS COUNTY
2011

<table>
<thead>
<tr>
<th>Motor Vehicle Involved With:</th>
<th>No.</th>
<th>% of All Accidents</th>
<th>Number Killed</th>
<th>% of Killed</th>
<th>Number Injured</th>
<th>% of Injured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Involved</td>
<td>142</td>
<td>14.1%</td>
<td>8</td>
<td>30.8%</td>
<td>130</td>
<td>16.2%</td>
</tr>
<tr>
<td>Bicycle</td>
<td>53</td>
<td>5.3%</td>
<td>0</td>
<td>0.0%</td>
<td>50</td>
<td>6.2%</td>
</tr>
<tr>
<td>Pedestrian</td>
<td>71</td>
<td>7.1%</td>
<td>2</td>
<td>7.7%</td>
<td>69</td>
<td>8.6%</td>
</tr>
<tr>
<td>Motorcycle</td>
<td>57</td>
<td>5.7%</td>
<td>5</td>
<td>19.2%</td>
<td>52</td>
<td>6.5%</td>
</tr>
<tr>
<td>Not Stated</td>
<td>683</td>
<td>67.9%</td>
<td>11</td>
<td>42.3%</td>
<td>503</td>
<td>62.6%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,006</td>
<td>100%</td>
<td>26</td>
<td>100%</td>
<td>804</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: California Highway Patrol
III. SUMMARY OF HIGHWAY ISSUES

A. LOCAL RESPONSES TO FAILING ROADS

As with any structure, roads require a long-term commitment of money to keep them in service. Theoretically, a well-constructed road can last about 15 years before needing extensive renovation. Preventive maintenance applied during this period will extend the life of the road and delay the need for reconstruction. Even with preventive maintenance, however, roads will eventually wear out.

Many factors cause roads to deteriorate:

1. Changing air temperature, low humidity, and ultra-violet radiation oxidize oils and make the pavement shrink and become brittle.

2. Winter rains and nuisance water washes sand out of road mixes, causing surface raveling.

3. More weight is being placed on trucks. In terms of road wear, one heavily loaded truck can be equated to 3,000 to 6,000 automobiles.

4. Because Kings County is a major cotton producer, cotton module movers must access local roads. In just a few seasons, these vehicles can cause extensive road damage.

5. As the natural ponding basin for the Kings, Kaweah, and Tule Rivers, Kings County occasionally experiences flooding. Extensive road damage has been caused by past flooding.

The level of funding for local roads has not kept pace with the number of lane miles of roads needing rehabilitation or reconstruction. In response to road needs and limited revenues, major changes were made to local road programs:

1. There was a change in emphasis from road reconstruction to maintenance with an increase in the use of asphalt concrete overlays for road improvements.

2. On badly deteriorated sections, heavier, longer-lasting seals have been used.

3. Reconstruction of major roads has been delayed as long as possible.

The effects of these cost-saving strategies have fully impacted all areas of Kings County. The surface of many roads has deteriorated so severely that total reconstruction is the only remaining option. Even though funding shortfalls continue, local governments are now beginning to shift their road programs to these courses of action:

1. Putting more money into reconstruction of deteriorated major arterials.

2. Continuing maintenance on high-use roads.

3. Reducing maintenance for minor streets and roads.

4. Convert low volume roads to gravel.

5. Seeking new sources of funding for local roads.
B. HIGHWAY IMPROVEMENTS

The vast majority of all travel in Kings County occurs on its streets and highways as compared to air, rail, bicycle, and walking modes. No change in this pattern is expected. The existing regional highway system represents a very large investment of public funds and agencies with jurisdiction over these roadways endeavor to maintain and upgrade them as much as is economically feasible to prepare the roadways to more efficiently and safely accommodate automobile as well as heavy truck traffic. Areas of concern are outlined below.

1. Maintenance of Regional Routes

Locally, pavement failures are found on many regionally significant roads. Portions of these roads will require total reconstruction. All regional routes should be maintained to prevent future costly repairs.

2. Safety Improvements

In order to avoid conditions that affect safety such as 1) heavy winter fogs that reduce visibility and make driving very dangerous; 2) "blind" or obstructed intersections from vegetation; and 3) at-grade intersections along state highways. Local and state agencies seek funding to regularly improve the roadway systems to lessen the possibility of accidents resulting from these conditions. The most important aspect to safe roadways are alert and conscientious drivers – as no roadway is built with standards that would make it inherently unsafe.

3. Operational Improvements

To maximize the service and efficiency of the existing regional system, wider roads and bridges, turn lanes, and interchanges are needed in places along state routes 41, 43, and 198. Severe parking congestion exists along Seventh Street in downtown Hanford. These deficiencies are discussed at length in the Appendix I.

4. New Projects

Due to increasing numbers of vehicle miles traveled, growth in Kings County's urban areas, steadily increasing numbers of registered automobiles and drivers, regional population growth resulting in greater inter-county travel, continuing expansion of LNAS, the presence of oversize trucks on SR 198 and the state prisons in Avenal and Corcoran, new projects are needed to complete the regional system in Kings County. These include new interchanges, road widening, pavement reconstruction, new roads, overpasses, and grade separations.

Three state routes serving Kings County should be improved to either four-lane freeway or two or four-lane expressway status to close service gaps in the state system. Currently, these are two-lane highways that carry a large percentage of inter-county travel: 1) SR 41 between I-5 and SR 198; 2) SR 198 between I-5 and LNAS; and 3) SR 43 between Fresno County and Kern County.

C. RIGHT-OF-WAY PROTECTION FOR FUTURE HIGHWAY IMPROVEMENTS

Local officials want to make sure that adequate right-of-way is protected from encroachment at areas this plan shows for improvements. There is a need to coordinate local general plans with Caltrans' right-of-way dedication policy at key points along SR 198, SR 41, and SR 43. The need for this protection was graphically
shown in Tulare County west of Visalia on SR 198, where closely-abutted urban development existed at important intersections. Needed improvements could not have been realistically considered there without very expensive right-of-way acquisition. KCAG wants to avoid such right of way and planning conflicts in Kings County.

D. LOCAL PERCEPTION OF STATE’S INATTENTION TO RURAL AND SMALL URBAN NEEDS

Local officials and area residents believe that state transportation officials are insensitive to the transportation needs of the rural and small urban areas. This belief is reinforced annually by the State Transportation Improvement Program’s (STIP) distribution of interregional improvement program funds. The method of establishing project priority by Caltrans/CTC favors large urban counties where past growth is now causing serious congestion. While it is recognized that the state has limited revenues which are not sufficient to take care of every county’s needs, more consideration for programming in rural and small urban counties should be shown.

As mentioned above, KCAG has identified the need for several costly new construction and operational improvements. KCAG realizes that from the state’s perspective, such projects may not seem as cost-effective or important as some in more urbanized areas or that they appear to serve local needs. KCAG contends that this perspective is skewed; such programming policies are generally created by, and biased in favor of, metropolitan areas. The state decision makers need to impart smaller MPO and rural areas the same consideration for available funding as other areas because like the urbanized areas, the projects and recommendations of this plan are intended to improve the safety, mobility, and economy of this region, and the state system.

E. HIGHWAY SPHERES OF INFLUENCE

An examination of previous Regional Transportation Plans of Valley agencies revealed that no RTPA viewed transportation from a truly regional perspective on transportation issues. The respective RTPAs confined their studies to their own county areas, as if their interest in a road suddenly stops at the county boundary.

The result was a patchwork of partially coordinated transportation plans. Not only did this situation hinder cooperative planning for county maintained road improvements, but also it seemed to furnish a reason for the state to continue to overlook this area’s requests for projects. District 6 counties (Kings, Tulare, Kern, Fresno, and Madera) will probably enjoy much better success in obtaining state funding for state system projects if we agree on what we want, and speak with one voice. Kings and Tulare Counties have coordinated efforts in past Regional Transportation Improvement Programs by programming regional dollars for the widening of SR 198.

A “Highway Sphere of Influence” is shown in Figure 4-18. This is simply an expanded planning area. It extends into neighboring counties and identifies segments of county and state maintained regional roads that serve both jurisdictions. As a practical matter, the sphere shows an area that should be monitored for changes in land use and circulation patterns that will affect Kings County.

As part of the 2014 Regional Transportation Plan update, an appendix is included which is devoted strictly to the San Joaquin Valley which emphasizes the coordinated planning efforts among the Valley RTPAs. In addition to this, Caltrans prepares and updates Transportation Concept Reports for each of the state highways traversing the Kings County Region that identify the improvements necessary for each corridor. As a condition of receiving Proposition 1B Corridor Mobility Improvement Account (CMIA) funds, Caltrans prepared a Corridor System Management Plan (CSMP) for the SR 198 corridor between SR 99 and Interstate 5.
See the Transportation Concept Reports at:

See the Corridor System Management Plans at:
http://www.dot.ca.gov/dist6/planning/csmp/

KCAG, in partnership with the Fresno and Tulare Regional Agencies and with Caltrans, have secured a state planning grant to fund a project that will study and recommend cost effective improvements for SR 198 from I-5 to NAS Lemoore and to collect further data for the remainder of the corridor to SR 99. This interregional partnership will provide the kind of information necessary for this corridor to be considered more favorably for future funding opportunities and is an example of the recommendation above.
F. FUNDING CONSTRAINTS

Every agency that deals with planning, building, or maintaining roads shares the problem of preserving its facilities with the available funding. Finding money for new facilities is an even bigger problem. Road projects are primarily paid for by gas taxes that are collected on a per-gallon basis.

Because of more efficient and alternative fueled vehicles, the amount of gas purchased has declined, while the number of miles driven has increased. Thus, fewer gas tax dollars are available for road improvements. In spite of the recent state excise tax (2010 – 2014) and federal gas tax (1993) increases, there is still not enough available money to repair and maintain all the regional routes, or to build new facilities. It is a constant theme in the past three transportation authorizations that the need exists to evaluate new ways to find more dollars for road improvements.

1. Regional and Interregional Shares

The California Transportation Commission (CTC) is required to distribute state highway funds to each county according to "regional shares." Of the funds available in the STIP, 75 percent are committed to the Regional Improvement Program and 25 percent to the Interregional Improvement Program. Each county’s share of its respective north or south county group expenditures is based on 75 percent population and 25 percent state highway miles (Streets and Highway Code, Sec. 188.8).

While KCAG, in partnership with our member agencies, decides on eligible projects for the regional improvement funds, not all routes are eligible for Interregional Improvement Program funds. Many of Kings County’s highest priority projects are not eligible for the Interregional Improvement Program funds because they are considered to be local projects, or are on routes that are not part of the designated Interregional system. SR 43 is not an eligible Interregional route and interchanges on eligible routes are considered to be “local” projects. Kings County’s regional share is not enough to fund all priority projects.

The CTC also gives higher priority to funding Interregional Improvement projects that are partially funded with Regional Improvement Program funds or local sales tax measure funds. Caltrans indicates that it would like to have locals pay a considerable portion of the costs for other state system projects that also serve local needs.

2. Local Option Fuel Tax and Vehicle Registration Fees

Counties have been authorized to implement a local, per-gallon, excise tax and/or an additional vehicle registration fee if approved by the voters. So far, voters in most of the counties where this tax has been proposed have rejected the option. Currently, the ability to sell any additional tax or fee to the voters of Kings County is questionable, but even a two-cent tax would mean a boost in revenues to upgrade the regional system. For this reason, the "local option fuel tax" could be considered.
3. Amend Apportionment Formulas

Kings County has voiced opposition to paragraph "f" of Section 2104 of the Streets and Highways Code. This law apportions state gas tax revenues among counties and cities. A large portion of Section 2104 dollars are distributed to counties according to the county's portion of the state's registered vehicles. In doing so, the law unfairly awards large payments to 14 urban counties that have a high proportion of registered vehicles to county-maintained road mileage.

4. Local Sales Tax

A county could impose a local sales tax of up to 1% for not longer than 20 years, upon voter approval, to help finance state highway projects, local streets and roads, transit, and non-motorized transportation modes. A sales tax measure could not be placed on the ballot until an expenditure plan has been developed and agreed upon by the county and a majority of the cities with a majority of the county population to show how the acquired funds would be used.

Fresno County was the first within Caltrans District 6 to approve a local sales tax for transportation improvements. Madera County voters passed a ½% sales tax measure for road purposes in 1990. Tulare County voters approved a ½ cent sales tax measure in 2006. Three other San Joaquin Valley Counties have placed sales tax measures before their voters, but none have yet been successful. Each of those counties have scheduled their next attempt at passing a sales tax measure for transportation. It is estimated that a ½% local sales tax increase over a 20 year period could generate $114 million to finance local transportation projects in Kings County.

5. Impact Fees

The City of Hanford currently has a transportation development impact fee for all new developments within the general plan boundary area, as described in the Financial Element of this chapter.

The County of Kings considered the adoption of a transportation impact fee ordinance, but a study conducted to determine the benefit of an impact fee based on projected future growth determined that the fee would not produce an acceptable benefit. The County instead adopted a policy in their General Plan that all development would take place in the urbanized areas of the cities.

Since 1992, the City of Lemoore has maintained Development Impact Fees for City traffic-related infrastructure needs directly attributable to new development. These fees have been indexed in time with the California Construction Cost Index, as costs for the identified project have increased over time. As part of a citywide study in 2005, it was determined that the separate fees should be determined for areas with significantly different existing infrastructure: the mostly-developed portion of the City east of 19 ½ Avenue, and the almost undeveloped western portion of the City. The Eastside Streets and Thoroughfares Fee was adopted in 2006; the Westside Streets and Thoroughfares Fee was approved in November 2010. In keeping with the Mitigation Fee Act, the collected fees are used exclusively for new infrastructure, and never used for maintenance of existing or upgrading of existing deficiencies in the infrastructure level.
IV. ACTION ELEMENT

This section presents outlines for state, county, and city road projects for both long-range (more than ten years) and short-range (up to ten years) implementation. The central features of this section are implementation tables that are broken out for each responsible agency. Costs are shown in year of expenditure dollars where estimates are available. A summary of all proposed regional projects are included in Figures 4-29 through 4-33.

The listed projects have either been considered by Caltrans through its systems planning documents; by KCAG, through its regional road surveys; or through local agency monitoring programs. All local projects are broken out for specific improvements: reconstruction, overlays, and maintenance. Short-range state system projects are presented under several programs, including the State Transportation Improvement Program (STIP) (Figures 4-19 and 4-24) and the State Highway Operation and Protection Program (SHOPP) Figures 4-25 and 4-27).

Caltrans' system planning products include, among others, the Interregional Transportation Improvement Plan, and Transportation Concept Reports for each state highway. Caltrans has identified routes 5, 41, and 198 as significant routes through Kings County. KCAG believes that SR 43 must be included as a significant route when improvement projects are considered for the STIP, particularly since it is considered as an alternative route to SR 99 which has high traffic volumes. A legislative bill was introduced by Assemblywoman Parra in the FY 05-06 session and again by Assemblyman Salas in the 2013-14 session that would have made SR 43 eligible for the Interregional Road System. Parra's bill did not pass the final hurdle in the Senate and Salas' bill is still in the Senate committee structure. KCAG continues to engage local legislators in an effort to realize this goal.

Project implementation will continue to be the responsibility of the individual jurisdictions. This will include planning, preliminary engineering, project environmental studies, citizen review, funding, and construction.

A. LONG-RANGE HIGHWAY PLAN

What follows is a very brief description of what Kings County desires for an efficient highway system. Its time-frame is 2015 and beyond 2035. What is described here provides general direction for short-range planning and shows the end result of having implemented this chapter's policies and objectives.

1. Long-Range Proposals

The long range plan for regional highways is shown on Figures 4-19 and 4-20. It should provide an ample system to serve traffic loads expected before the year 2040. However, funding constraints will delay the actual construction of the needed projects until after 2040. The main features of the plan are:

   a. Expressways linking Hanford and Lemoore with Fresno and Tulare Counties, and with I-5 in western Kings County.

   b. Expressways linking Hanford with Corcoran on SR 43; and expressway status for SR 41, between SR 198 and SR 46 in San Luis Obispo County.

   c. Well-maintained two-lane arterials linking Avenal with northern Kings County and with Coalinga in Fresno County, and linking the major regional routes together.

   d. Widening I-5 to six lanes.
## FIGURE 4-19

**LONG RANGE STATE HIGHWAY PROJECTS**

**2021 - > 2035**

(Unconstrained)

<table>
<thead>
<tr>
<th>STATE ROUTE</th>
<th>POST MILE</th>
<th>LOCATION</th>
<th>PROJECT DESCRIPTION</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>198</td>
<td>R19.7/R20.3</td>
<td>At 9th Avenue</td>
<td>Construct Interchange</td>
<td>a,b,c</td>
</tr>
<tr>
<td>41</td>
<td>R41.6/R45.2</td>
<td>Grangeville Boulevard</td>
<td>Construct Interchange</td>
<td>a,c</td>
</tr>
<tr>
<td>198</td>
<td>9.7</td>
<td>At 13th Avenue / Hanford Armona Road</td>
<td>Reconstruct Interchange</td>
<td>a,c</td>
</tr>
<tr>
<td>43</td>
<td>22.3/27.3</td>
<td>Fresno Co. Line to 10th Avenue</td>
<td>Widen to 4 lane Expressway</td>
<td>a,c</td>
</tr>
<tr>
<td>43</td>
<td>16.3/22.3</td>
<td>10th Avenue to Houston Avenue</td>
<td>Widen to 4 lane Expressway</td>
<td>b,c</td>
</tr>
<tr>
<td>41</td>
<td>R38.5/R37.8</td>
<td>SR 198 to Jackson Avenue</td>
<td>Widen to 4 lanes and Construct Interchange</td>
<td>b,c</td>
</tr>
<tr>
<td>198</td>
<td>12.7</td>
<td>At 16th Avenue</td>
<td>Construct Overcrossing</td>
<td>a,c</td>
</tr>
<tr>
<td>198</td>
<td>7.16</td>
<td>At 21st Avenue Alignment</td>
<td>Construct Interchange</td>
<td>a,c</td>
</tr>
<tr>
<td>41</td>
<td>16.5/38.5</td>
<td>Kettleman City to Jackson Avenue</td>
<td>Widen from 2 to 4 lanes</td>
<td>a,b,c</td>
</tr>
<tr>
<td>41</td>
<td>8.1/16.3</td>
<td>SR 33 to I-5</td>
<td>Widen from 2 to 4 lanes</td>
<td>b</td>
</tr>
<tr>
<td>41</td>
<td>0.0/8.1</td>
<td>Kern Co. Line to SR 33</td>
<td>Widen Shoulders and Construct Passing Lanes</td>
<td>b</td>
</tr>
<tr>
<td>I-5</td>
<td>0.0/26.7</td>
<td>Kern Co. Line to Fresno Co. Line</td>
<td>Widen from 4 to 6 lanes</td>
<td>a</td>
</tr>
<tr>
<td>43</td>
<td>0.0/16.3</td>
<td>Houston Avenue to Tulare Co. Line</td>
<td>Widen to 4 lane Expressway</td>
<td>b,c</td>
</tr>
<tr>
<td>198</td>
<td>0.0/2.8</td>
<td>Fresno Co. Line to LNAS</td>
<td>Construct Passing Lanes</td>
<td>a</td>
</tr>
<tr>
<td>198</td>
<td>23.0</td>
<td>At 6th Avenue</td>
<td>Construct Interchange</td>
<td>b,c</td>
</tr>
<tr>
<td>198</td>
<td>27.0</td>
<td>At 2nd Avenue</td>
<td>Construct Interchange</td>
<td>b,c</td>
</tr>
</tbody>
</table>

**NOTE:** Project cost estimates are not available at this time.

**Project Source Code:**

- (a) Caltrans District 6 Route Concept Report Project
- (b) Locally-Supported Project only
- (c) Requires Local Funding
FIGURE 4-20

KINGS COUNTY
Long Range
Highway Capacity Projects

Source: KCAG
B. REGIONAL FUTURE DEVELOPMENT LIST

A Project Study Report (PSR) is required to be prepared for any capacity-increasing project before it can be included in the STIP. KCAG may prepare a future development list of capacity-increasing state highway projects for the purpose of initiating PSRs. Caltrans has either completed or have scheduled for completion any PSRs that need to be done for the 2014 STIP based on the amount of funds expected to be available for Kings County’s regional share.

The regional future development list, as shown in Figure 4-21, includes each of the prioritized capacity increasing projects that has been scheduled by Caltrans to have the required PSR prepared.

**FIGURE 4-21**

REGIONAL FUTURE DEVELOPMENT LIST OF PROJECT STUDY REPORTS FOR CAPACITY-INCREASING PROJECTS

<table>
<thead>
<tr>
<th>PRIORITY</th>
<th>STATE ROUTE</th>
<th>POST MILE</th>
<th>LOCATION</th>
<th>PROJECT DESCRIPTION</th>
<th>PROJECT COST ($000)</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>41</td>
<td>42.1</td>
<td>At Hanford Armona Road</td>
<td>Construct Interchange</td>
<td>N/A (b)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>198</td>
<td>9.7</td>
<td>At 13th Avenue / Hanford Armona Road</td>
<td>Reconstruct Interchange</td>
<td>N/A (b)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>198</td>
<td>R19.7/R20.3</td>
<td>At 9th Avenue</td>
<td>Construct Interchange</td>
<td>$25,032 (a)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>41</td>
<td>R41.6/R45.2</td>
<td>At Grangeville Boulevard</td>
<td>Construct Interchange</td>
<td>N/A (b)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>41</td>
<td>R37.8/ R38.5</td>
<td>Jackson Avenue to SR 198</td>
<td>Widen to 4 lane Freeway and Construct Interchange</td>
<td>N/A (b)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>43</td>
<td>22.3/27.3</td>
<td>10th Avenue to Fresno Co. Line</td>
<td>Widen to 4 lane Expressway</td>
<td>N/A (b)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>43</td>
<td>16.3/22.3</td>
<td>Houston Avenue to 10th Avenue</td>
<td>Widen to 4 lane Expressway</td>
<td>N/A (b)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>43</td>
<td>0.0/16.3</td>
<td>Tulare Co. Line to Houston Avenue</td>
<td>Widen to 4 lane Expressway</td>
<td>N/A (b)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>198</td>
<td>7.16</td>
<td>At 21st Ave. alignment</td>
<td>Construct Interchange</td>
<td>N/A (b)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>198</td>
<td>12.7</td>
<td>At 16th Avenue</td>
<td>Construct Overcrossing</td>
<td>N/A (c)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>41</td>
<td>27.2/30.6</td>
<td>Newton Avenue to 22nd Avenue</td>
<td>Construct Passing Lanes</td>
<td>N/A (b)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>41</td>
<td>3.8/6.4</td>
<td>Avenal Creek to s/o SR 33</td>
<td>Construct Passing Lanes</td>
<td>N/A (b)</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>41</td>
<td>11.6/16.2</td>
<td>Ulca Avenue to I-5</td>
<td>Construct Passing Lanes</td>
<td>N/A (b)</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>41</td>
<td>18.2/R38.5</td>
<td>Kettleman City to Jackson Avenue</td>
<td>Widen to 4 lane Expressway</td>
<td>N/A (b)</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>I-5</td>
<td>0.0/26.7</td>
<td>Kern Co. Line to Fresno Co. Line</td>
<td>Widen from 4 to 6 lanes</td>
<td>N/A (c)</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>198</td>
<td>0.0/2.8</td>
<td>Fresno Co. Line to LNAS</td>
<td>Construct Passing Lanes</td>
<td>N/A (c)</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>198</td>
<td>10.6</td>
<td>At 18th Avenue</td>
<td>Modify Interchange</td>
<td>N/A (c)</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>198</td>
<td>27.0</td>
<td>At 2nd Avenue</td>
<td>Construct Interchange</td>
<td>N/A (c)</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>198</td>
<td>23.0</td>
<td>At 6th Avenue</td>
<td>Construct Interchange</td>
<td>N/A (c)</td>
<td></td>
</tr>
</tbody>
</table>

Project Source Code:  
a) Project Study Report Completed  
b) Project Study Report Scheduled  
c) Project Study Report Not Scheduled
C. SHORT-RANGE HIGHWAY PLAN

The State Transportation Improvement Program (STIP) is a county-by-county schedule for project delivery of all major projects to be funded from state transportation funds and covers a four year period. The California Transportation Commission (CTC) adopts the STIP biennially by April 1 of every even-numbered year. Projects included in the adopted STIP are limited to those that are included in prior STIPs and projects submitted or recommended from Caltrans' Interregional Transportation Improvement Program (ITIP) and the regional agency's Regional Transportation Improvement Program (RTIP).

Other programs outside the STIP interact with the above mentioned programs. These are the State Highway Operation and Protection Program (SHOPP), Environmental Enhancement and Mitigation (EEM) and the Active Transportation Program (ATP). Each of these programs is briefly described later.

1. Senate Bill 45

Senate Bill 45 (Kopp, 1997) restructured the state transportation improvement program process which provided for more flexible use of state transportation funds, streamlined the process by combining numerous separate programs into one, and limited the State’s involvement in regional project priority setting. Under SB 45, the STIP now consists of two broad programs: a regional program funded from 75% of new STIP funding and an interregional program funded from 25% of new STIP funding.

Under the old system, Caltrans would propose projects for programming in each county based on “county minimums”. Kings County continued to be a deficit county as projects to meet its county minimum funding level were seldom programmed in the STIP. Under the new funding system, the state allocates a set amount of funding to each region in the form of “regional shares” and the regional transportation planning agency then decides how to program the funds for local projects in the Regional Improvement Program.

2. AB 1012

In order to facilitate project development work on needed transportation projects to produce a steady flow of construction projects, AB 1012 (Torlakson, 1999), added an advance project development element (APDE) to the STIP beginning with the 2000 STIP cycle. AB 1012 requires that the STIP Fund Estimate designate an amount to be available for the APDE. Regions may propose projects from their share of APDE funds for any of the STIP’s four years, but can only be used for two project development components: 1) environmental and permits and 2) plans, specifications and estimates. If all or a portion of any county APDE share is not programmed in that STIP cycle, that amount will be available for any project phase in the next STIP cycle. Figure 4-22 below shows the status of Kings County’s STIP regional shares programmed in the 2014 STIP.
FIGURE 4-22

2014 STIP Expected Revenues/Programming
2003/04 - 2017/18
Dollars in $1,000's

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 STIP Programmed at Fund Estimate</td>
<td>$63,212</td>
</tr>
<tr>
<td>2014 STIP Fund Estimate Formula Distribution</td>
<td>$7,084</td>
</tr>
<tr>
<td>2014 STIP Share Balance Advanced</td>
<td>$(17,941)</td>
</tr>
<tr>
<td>2012 STIP Carry-over Programming</td>
<td>$419</td>
</tr>
<tr>
<td><strong>Total County Share June 30, 2014:</strong></td>
<td><strong>$(10,857)</strong></td>
</tr>
</tbody>
</table>

Source: 2014 STIP Shares Report (Orange Book)

2. Regional Transportation Improvement Program

A Regional Transportation Improvement Program (RTIP) must be prepared by transportation planning agencies and county transportation commissions. The RTIP is to be prepared, adopted, and submitted to the CTC on or before December 15 of each odd-numbered year and must be consistent with the RTP, the FTIP, the STIP Fund Estimate, and regional shares. The fund estimates and projections utilized in the RTIP, the FTIP and the (first four years of the) RTP are consistent with the currently adopted STIP.

The RTIP spans a five-year period and is to include a priority list of projects and programs proposed to be funded, in whole or in part with regional share funds. Projects in other programs may be included for informational purposes.

The 2014 Kings County RTIP was prepared and submitted by KCAG. The 2014 RTIP consisted of continuing the existing programmed projects:

- Continue construction of an interchange at 19th Ave. and SR 198.
- Continue reconstruction improvements of the interchange at 12th Ave. and SR 198.
- Converting the Transportation Enhancement Funds to Regional Improvement Program funds for Lemoore’s Bicycle/Pedestrian Facilities Project.
- Programming of Planning, Programming, and Monitoring funds for KCAG.

As a result of advancing the 19th Avenue Interchange project through a program that allows our area to borrow against future shares of STIP funding, Kings County will continue to show a negative total STIP balance until our share amounts exceed our borrowed amount.

Figures 4-23 and 4-24 represent those state highway projects to be considered for future short range regional program funding through 2020.
FIGURE 4-23

KINGS COUNTY
Short-Range
Highway Capacity Projects

Source: KCAG
3. **Interregional Transportation Improvement Program**

Caltrans prepares and submits to the CTC by December 15 of every odd numbered year the Interregional Transportation Improvement Program (ITIP) to propose projects in the STIP from the interregional program funding. Interregional Improvement Program (IIP) funding is available for state highway, intercity rail, grade separation and mass transit guideway improvements. Sixty percent of the IIP funds, or 15% of the total funds available for the STIP, is limited in use for interregional routes outside urbanized areas and intercity rail. No less than fifteen percent of this amount, or 2.25% of the total amount of funds available for the STIP, must be spent on intercity rail. The remaining 40%, or 10% of the total funds available for the STIP, is available for use anywhere on the state highway system, as well as for intercity rail, grade separations, and mass transit guideways.

In 1998, Caltrans prepared the “Interregional Transportation Strategic Plan” as a guide for proposing projects in the Interregional Improvement Program for the STIP. Eligible interregional road system routes and intercity rail routes for this program are identified in Sections 164.10 through 164.20 of the Streets and Highways Code. Within Kings County, Interstate 5 and State Highways 41 and 198 are specified as eligible routes, along with the San Joaquins intercity rail service. These routes are also categorized as high emphasis routes focus routes and gateways, which should be considered a priority for programming improvements in the STIP. Project improvements to meet the concepts of the Strategic Plan for each route are included in the short and long range highway plans.
4. State Highway Operation and Protection Plan

The State Highway Operation and Protection Plan (SHOPP) covers a four year period and includes programming for rehabilitation, safety, and operational improvements on the state highway system. The “Ten-Year State Highway System Rehabilitation Plan” prepared by Caltrans in 1998, to be updated every two years, is used as a basis for programming projects in the SHOPP.

Caltrans develops a biennial SHOPP that is adopted by the CTC prior to April 1 of each even-numbered year. To manage the SHOPP program, Caltrans prepares a comprehensive review and the CTC programs additional projects in a mid-cycle revision every other year.

Figures 4-26 and 4-27 represent the projects for Kings County that are included in the adopted 2010 SHOPP. Figures 4-28 and 4-29 identify the short-range state highway projects that are candidates for future SHOPP programming.

**FIGURE 4-25**

**2014 PROGRAMMED PROJECTS**

**STATE HIGHWAY OPERATIONS AND PROTECTION PROGRAM**

**KINGS COUNTY**

<table>
<thead>
<tr>
<th>SHORT RANGE PROJECTS</th>
<th>STATE ROUTE</th>
<th>LOCATION</th>
<th>PROJECT DESCRIPTION</th>
<th>PROJECT COSTS ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>43</td>
<td>Near Corcoran, at Route 137</td>
<td>Construct intersection improvements</td>
<td>$4,214</td>
</tr>
<tr>
<td>2</td>
<td>198</td>
<td>In and near Lemoore, from 0.5 mile west to 1.2 miles east of 19th Avenue</td>
<td>Construct median barrier</td>
<td>$4,375</td>
</tr>
</tbody>
</table>

**KINGS COUNTY TOTAL** $8,589

Source: http://www.dot.ca.gov/hq/transprog/federal/fedfiles/2014shopp_grppjt.html CTIPS
FIGURE 4-26

KINGS COUNTY
2014 State Highway Operation & Protection Program

Source: KCAG, Caltrans
### FIGURE 4-27

**CANDIDATE PROJECTS**  
**STATE HIGHWAY OPERATIONS AND PROTECTION PROGRAM**  
**KINGS COUNTY**

<table>
<thead>
<tr>
<th>SHORT RANGE PRIORITY</th>
<th>STATE ROUTE</th>
<th>LOCATION</th>
<th>PROJECT DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I-5</td>
<td>Near Kettleman City, from 3.3 miles South of Utica Ave. OC to Jct 41</td>
<td>Overlay</td>
</tr>
<tr>
<td>2</td>
<td>I-5</td>
<td>From PM 21.50 in Kings Co. to PM 2.5 in Fresno Co.</td>
<td>Install High Tension Cable Barrier</td>
</tr>
<tr>
<td>3</td>
<td>198</td>
<td>From Fresno/Kings Co. Line to 0.04 miles East of South Rossi OC</td>
<td>Overlay</td>
</tr>
<tr>
<td>4</td>
<td>198</td>
<td>At Hanford-Armona Rd WB Onramp</td>
<td>Intersection Improvements</td>
</tr>
</tbody>
</table>

FIGURE 4-28

KINGS COUNTY
State Highway Operation & Protection Program
Candidate Projects

Source: KCAG
5. **Environmental Enhancement and Mitigation Program**

Although the Environmental Enhancement and Mitigation Program (EEMP) has been absorbed into the Active Transportation Program (ATP), the program intent remains very much the same. Local, state, federal, and non-profit agencies are eligible to apply for grants under the EEMP for projects that mitigate the environmental impacts of modified or new public transportation facilities. Emphasis of the program is on projects that provide multiple benefits, reduce greenhouse gas emissions, increase water use efficiency, reduce risks from climate change impacts, and demonstrate collaboration with local, state, and community priorities. Grants are awarded for three categories of projects: Urban Forestry, Resource Lands, and Mitigations of environmental impacts beyond the scope of the lead agency. The annual funding level is $7 million.

6. **Active Transportation Program**

The Active Transportation Program was developed in California after the passage of MAP-21. The program absorbs funds from two federal programs (Transportation Alternatives Program and Highway Safety Improvement Program) and three state programs (Safe Routes to Schools, Bicycle Transportation Account, and Environmental Enhancement and Mitigation Program) into a competitive grant program. The program will provide about $129.5 million per year for statewide ATP projects.

The goals of the Active Transportation Program are to:

- Increase the proportion of biking and walking trips.
- Increase safety for nonmotorized users.
- Increase mobility for nonmotorized users.
- Advance the efforts of regional agencies to achieve greenhouse gas reduction goals.
- Enhance public health, including the reduction of childhood obesity through the use of projects eligible for Safe Routes to Schools Program funding.
- Ensure disadvantaged communities fully share in program benefits (25% of program).
- Provide a broad spectrum of projects to benefit many types of active transportation users.

The ATP is a completely competitive program and projects from the Kings County area will have to compete with projects from all other areas. Many of the communities within Kings County can be identified as disadvantaged communities, according to the established program criteria, and can qualify for the Disadvantaged Communities funding requirement in the distribution of funds. The first call for projects for this program has just been released and the first project approval will be after the adoption of the 2014 RTP.

7. **Traffic Congestion Relief Program**

The Traffic Congestion Relief Program (TCRP) was established in 2000 with the enactment of SB 1662 and AB 2928. This program provides more than $5.3 billion in State funds to Caltrans and certain regional and local transportation agencies for projects specifically identified in the legislation; and $1.5 billion over a five year period to cities and counties for street and road maintenance, rehabilitation, and reconstruction.
Specific TCRP projects for Kings County have included $4 million for the Cross Valley Rail rehabilitation project, $1.5 million for Jersey Ave. widening between 17th and 18th Avenues, $14 million for the SR 198 expressway, $25 million to the SJVAPCD for heavy-duty diesel emission reduction incentives, and $10 million for improvements to the San Joaquin corridor. The Cross Valley Rail project, SJVAPCD project, and the San Joaquin project have all been completed. The construction of SR 198 is currently underway.

D. LOCAL ROAD IMPROVEMENT FINANCIAL PLANNING

Figures 4-29 through 4-33 list local road improvement projects for which funding is reasonably expected to be available (constrained) based on historical apportionments. The project costs are escalated to Year of Expenditure (YOE) dollars; calculated based on an estimated 3% increase per year.

Major projects to be considered include reconstruction, rehabilitation and resurfacing of major county and city roads, intersection channelization and signalization, and a significant increase in the amount of non-motorized transportation projects over prior RTP financial plans. The projects listed in the first four years of this RTP are also identified in the Federal Transportation Improvement Program (FTIP) and in the Regional Transportation Improvement Plan (RTIP). These two documents (FTIP and RTIP) are the short term programming documents of this long term plan and are consistent with the project listings and/or policy direction of the RTP.

Lists of Tier 2, or unconstrained projects are included in Appendix II for reference.
## FIGURE 4-29
### COUNTY OF KINGS REGIONAL ROUTE IMPROVEMENTS
#### 2014/15- 2019/20 (Financially Constrained)

<table>
<thead>
<tr>
<th>ROAD</th>
<th>LOCATION</th>
<th>IMPROVEMENT</th>
<th>OPEN TO TRAFFIC</th>
<th>Total Cost ($000)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lacey Blvd.</td>
<td>At 13th Ave.</td>
<td>Signals and bridge work</td>
<td>2014</td>
<td>$500</td>
</tr>
<tr>
<td>10 ½ Ave.</td>
<td>Kansas Ave. to Nevada Ave.</td>
<td>Widen shoulder to 28 feet without increasing number of lanes</td>
<td>2014</td>
<td>$1,308</td>
</tr>
<tr>
<td>Flint Ave.</td>
<td>SR43 to 12th Ave.</td>
<td>Overlay</td>
<td>2014</td>
<td>$425</td>
</tr>
<tr>
<td>11th Ave.</td>
<td>Houston Ave. to Idaho Ave.</td>
<td>Overlay</td>
<td>2014</td>
<td>$392</td>
</tr>
<tr>
<td>Kansas Ave.</td>
<td>4th Ave. to SR43</td>
<td>Overlay</td>
<td>2014</td>
<td>$994</td>
</tr>
<tr>
<td>Kansas Ave.</td>
<td>14th Ave. to 16th Ave.</td>
<td>Overlay</td>
<td>2014</td>
<td>$569</td>
</tr>
<tr>
<td>14th Ave.</td>
<td>School Street to Excelsior Ave.</td>
<td>Overlay</td>
<td>2015</td>
<td>$948</td>
</tr>
<tr>
<td>Avenal Cutoff Rd.</td>
<td>Nevada Ave. to I-5</td>
<td>Install right turn and acceleration lanes</td>
<td>2015</td>
<td>$1,035</td>
</tr>
<tr>
<td>County Intersections</td>
<td>Various Locations</td>
<td>Install right turn lanes and flashing beacons</td>
<td>2015</td>
<td>$326</td>
</tr>
<tr>
<td>10th Ave.</td>
<td>Idaho Ave. to Kansas Ave.</td>
<td>Overlay</td>
<td>2015</td>
<td>$1,262</td>
</tr>
<tr>
<td>Houston Ave.</td>
<td>10th Ave. to 10 1/2 Ave.</td>
<td>Reconstruction</td>
<td>2017</td>
<td>$275</td>
</tr>
<tr>
<td>Grangeville Blvd.</td>
<td>12 ½ Ave. to 15th Ave.</td>
<td>Overlay</td>
<td>2017</td>
<td>$536</td>
</tr>
<tr>
<td>18th Ave.</td>
<td>SR198 to Iona Ave.</td>
<td>Overlay</td>
<td>2017</td>
<td>$183</td>
</tr>
<tr>
<td>Jackson Ave.</td>
<td>SR43 to 11th Ave.</td>
<td>Reconstruct 1.5 miles</td>
<td>2018</td>
<td>$1,062</td>
</tr>
<tr>
<td>Jackson Ave.</td>
<td>11th Ave. to 14th Ave.</td>
<td>Reconstruct 1 mile</td>
<td>2018</td>
<td>$948</td>
</tr>
<tr>
<td>Jackson Ave.</td>
<td>14th Ave. to 17th Ave. (widen to 28 feet)</td>
<td>Overlay</td>
<td>2018</td>
<td>$853</td>
</tr>
<tr>
<td>12th Ave.</td>
<td>Hume Ave. to Idaho Ave.</td>
<td>Overlay</td>
<td>2019</td>
<td>$523</td>
</tr>
<tr>
<td>Excelsior Ave.</td>
<td>0.25 mile west of 12th Ave. to SR 43</td>
<td>Overlay</td>
<td>2019</td>
<td>$451</td>
</tr>
<tr>
<td>Excelsior Ave.</td>
<td>14 1/2 Ave. to Kings River</td>
<td>Overlay</td>
<td>2019</td>
<td>$432</td>
</tr>
<tr>
<td>Various</td>
<td>12th Ave. to 14th Ave.</td>
<td>Overlay</td>
<td>2019</td>
<td>$327</td>
</tr>
<tr>
<td>Grangeville Blvd.</td>
<td>SR41 to 22nd Ave.</td>
<td>Overlay</td>
<td>2020</td>
<td>$569</td>
</tr>
<tr>
<td>Houston Ave.</td>
<td>SR43 to 10th Ave.</td>
<td>Overlay</td>
<td>2020</td>
<td>$303</td>
</tr>
<tr>
<td>Lacey Blvd.</td>
<td>18th Ave. to SR41</td>
<td>Overlay</td>
<td>2020</td>
<td>$345</td>
</tr>
<tr>
<td>6th Ave.</td>
<td>Utica Ave. to Racine Ave.</td>
<td>Reconstruct 1.5 miles</td>
<td>2020</td>
<td>$1,438</td>
</tr>
</tbody>
</table>

* Year of Expenditure (YOE) Dollars
# FIGURE 4-29 CONTINUED

## COUNTY OF KINGS REGIONAL ROUTE IMPROVEMENTS

2020/21- 2028/29

(Financially Constrained)

<table>
<thead>
<tr>
<th>ROAD</th>
<th>LOCATION</th>
<th>IMPROVEMENT</th>
<th>OPEN TO TRAFFIC</th>
<th>($000)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laurel Ave.</td>
<td>SR41 to 18th Ave.</td>
<td>Overlay</td>
<td>2021</td>
<td>$588</td>
</tr>
<tr>
<td>14th Ave.</td>
<td>Houston Ave. to Jersey Ave.</td>
<td>Overlay</td>
<td>2021</td>
<td>$850</td>
</tr>
<tr>
<td>6th Ave.</td>
<td>Kern County Line to ½ mile North</td>
<td>Overlay</td>
<td>2022</td>
<td>$286</td>
</tr>
<tr>
<td>Utica Ave.</td>
<td>20th Ave. to 25th Ave.</td>
<td>Reconstruct 1 mile</td>
<td>2022</td>
<td>$1,197</td>
</tr>
<tr>
<td>18th Ave.</td>
<td>Iona Ave. to Jersey Ave.</td>
<td>Install left turn lane</td>
<td>2023</td>
<td>$1,491</td>
</tr>
<tr>
<td>Front St.</td>
<td>Hanford Armona Rd. to 14th Ave.</td>
<td>Overlay</td>
<td>2023</td>
<td>$157</td>
</tr>
<tr>
<td>6th Ave.</td>
<td>Fargo Ave. to Excelsior Ave.</td>
<td>Overlay</td>
<td>2023</td>
<td>$634</td>
</tr>
<tr>
<td>Houston Ave.</td>
<td>13th Ave. to 14th Ave.</td>
<td>Overlay</td>
<td>2023</td>
<td>$183</td>
</tr>
<tr>
<td>Grangeville Blvd.</td>
<td>SR43 to 6th Ave.</td>
<td>Reconstruct</td>
<td>2024</td>
<td>$435</td>
</tr>
<tr>
<td>Grangeville Blvd.</td>
<td>5th Ave. to 6th Ave.</td>
<td>Overlay</td>
<td>2024</td>
<td>$493</td>
</tr>
<tr>
<td>Grangeville Blvd.</td>
<td>1st Ave. to 2 1/2 Ave.</td>
<td>Overlay</td>
<td>2024</td>
<td>$319</td>
</tr>
<tr>
<td>Grangeville Blvd.</td>
<td>2 1/2 Ave. to Highline Canal</td>
<td>Reconstruct</td>
<td>2024</td>
<td>$493</td>
</tr>
<tr>
<td>Grangeville Blvd.</td>
<td>Highline Canal to 5th Ave.</td>
<td>Overlay</td>
<td>2025</td>
<td>$319</td>
</tr>
<tr>
<td>18th Ave.</td>
<td>Laurel Ave. to Kansas Ave.</td>
<td>Overlay</td>
<td>2025</td>
<td>$341</td>
</tr>
<tr>
<td>10th Ave.</td>
<td>Nevada Ave. to Pueblo Ave.</td>
<td>Overlay</td>
<td>2025</td>
<td>$850</td>
</tr>
<tr>
<td>10th Ave.</td>
<td>Redding Ave. to Seattle Ave.</td>
<td>Overlay</td>
<td>2026</td>
<td>$645</td>
</tr>
<tr>
<td>10th Ave.</td>
<td>Pueblo Ave. to Redding Ave.</td>
<td>Overlay</td>
<td>2026</td>
<td>$850</td>
</tr>
<tr>
<td>10th Ave.</td>
<td>Seattle Ave. to Utica Ave.</td>
<td>Seal Coat</td>
<td>2026</td>
<td>$654</td>
</tr>
<tr>
<td>14th Ave.</td>
<td>Jersey Ave. to Kansas Ave.</td>
<td>Overlay</td>
<td>2026</td>
<td>$445</td>
</tr>
<tr>
<td>Excelsior Ave.</td>
<td>SR 41 to 22nd Ave.</td>
<td>Overlay</td>
<td>2027</td>
<td>$645</td>
</tr>
<tr>
<td>Excelsior Ave.</td>
<td>SR43 to 6th Ave.</td>
<td>Reconstruct 1 mile</td>
<td>2027</td>
<td>$1,268</td>
</tr>
<tr>
<td>Laurel Ave.</td>
<td>Avenal Cut-Off Rd. to SR41</td>
<td>Overlay</td>
<td>2027</td>
<td>$1,177</td>
</tr>
<tr>
<td>Nevada Ave.</td>
<td>Avenal Cut-Off Rd. to SR41</td>
<td>Overlay</td>
<td>2029</td>
<td>$1,360</td>
</tr>
<tr>
<td>Avenal Cut Off Rd.</td>
<td>SR 198 to 25th Ave.</td>
<td>Overlay</td>
<td>2029</td>
<td>$588</td>
</tr>
<tr>
<td>9th Ave.</td>
<td>SR198 to Houston Ave.</td>
<td>Overlay</td>
<td>2029</td>
<td>$218</td>
</tr>
</tbody>
</table>
### FIGURE 4-29
**CONTINUED**

**COUNTY OF KINGS REGIONAL ROUTE IMPROVEMENTS**

2029/30 - 2031/32

(Financially Constrained)

<table>
<thead>
<tr>
<th>ROAD</th>
<th>LOCATION</th>
<th>IMPROVEMENT</th>
<th>OPEN TO TRAFFIC</th>
<th>($000)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utica Ave.</td>
<td>11th Ave. to 16th Ave.</td>
<td>Overlay</td>
<td>2030</td>
<td>$902</td>
</tr>
<tr>
<td>6th Ave.</td>
<td>Utica Ave. to Virginia Ave.</td>
<td>Overlay</td>
<td>2030</td>
<td>$569</td>
</tr>
<tr>
<td>6th Ave.</td>
<td>Virginia Ave. to Xavier Ave</td>
<td>Overlay</td>
<td>2030</td>
<td>$645</td>
</tr>
<tr>
<td>6th Ave.</td>
<td>Kern County Xavier Ave.</td>
<td>Overlay</td>
<td>2031</td>
<td>$739</td>
</tr>
<tr>
<td>Virginia Ave.</td>
<td>4th Ave. to 6th Ave.</td>
<td>Overlay</td>
<td>2031</td>
<td>$850</td>
</tr>
<tr>
<td>Utica Ave.</td>
<td>16th Ave. to 20th Ave.</td>
<td>Overlay</td>
<td>2031</td>
<td>$807</td>
</tr>
<tr>
<td>Utica Ave.</td>
<td>6th Ave. to 11th Ave.</td>
<td>Overlay</td>
<td>2032</td>
<td>$1,125</td>
</tr>
</tbody>
</table>

*Year of Expenditure (YOE) Dollars
Source: County of Kings

### FIGURE 4-30

**CITY OF AVENAL REGIONAL ROUTE IMPROVEMENTS**

2014/15 - 2029/30

(Financially Constrained)

<table>
<thead>
<tr>
<th>ROAD</th>
<th>LOCATION</th>
<th>IMPROVEMENT</th>
<th>OPEN TO TRAFFIC</th>
<th>Total Cost ($000)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third Ave.</td>
<td>San Joaquin St. to SR 33</td>
<td>Overlay and improve curb cuts/ramps</td>
<td>2015</td>
<td>$495</td>
</tr>
<tr>
<td>Mariposa St.</td>
<td>First Ave. to Fifth Ave.</td>
<td>Overlay and improve curb cuts/ramps</td>
<td>2023</td>
<td>$400</td>
</tr>
<tr>
<td>Fifth Ave.</td>
<td>Mariposa St. to SR 269</td>
<td>Overlay and improve curb cuts/ramps</td>
<td>2030</td>
<td>$500</td>
</tr>
</tbody>
</table>

*Year of Expenditure (YOE) Dollars
Source: City of Avenal
FIGURE 4-31
CITY OF CORCORAN REGIONAL ROUTE IMPROVEMENTS
2014/15 - 2038/39
(Financially Constrained)

<table>
<thead>
<tr>
<th>ROAD</th>
<th>LOCATION</th>
<th>IMPROVEMENT</th>
<th>OPEN TO TRAFFIC</th>
<th>($000)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Various Roadways</td>
<td>Various</td>
<td>Pavement Maintenance Program</td>
<td>2015</td>
<td>$222</td>
</tr>
<tr>
<td>Various Roadways</td>
<td>Various</td>
<td>Pavement Maintenance Program</td>
<td>2017</td>
<td>$229</td>
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<tr>
<td>Various Roadways</td>
<td>Various</td>
<td>Pavement Maintenance Program</td>
<td>2019</td>
<td>$235</td>
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<tr>
<td>Various Roadways</td>
<td>Various</td>
<td>Pavement Maintenance Program</td>
<td>2021</td>
<td>$241</td>
</tr>
<tr>
<td>Various Roadways</td>
<td>Various</td>
<td>Pavement Maintenance Program</td>
<td>2023</td>
<td>$248</td>
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<tr>
<td>Various Roadways</td>
<td>Various</td>
<td>Pavement Maintenance Program</td>
<td>2025</td>
<td>$254</td>
</tr>
<tr>
<td>Various Roadways</td>
<td>Various</td>
<td>Pavement Maintenance Program</td>
<td>2027</td>
<td>$261</td>
</tr>
<tr>
<td>Various Roadways</td>
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<td>2029</td>
<td>$267</td>
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<tr>
<td>Various Roadways</td>
<td>Various</td>
<td>Pavement Maintenance Program</td>
<td>2031</td>
<td>$273</td>
</tr>
<tr>
<td>Various Roadways</td>
<td>Various</td>
<td>Pavement Maintenance Program</td>
<td>2033</td>
<td>$280</td>
</tr>
<tr>
<td>Various Roadways</td>
<td>Various</td>
<td>Pavement Maintenance Program</td>
<td>2035</td>
<td>$286</td>
</tr>
<tr>
<td>Various Roadways</td>
<td>Various</td>
<td>Pavement Maintenance Program</td>
<td>2037</td>
<td>$292</td>
</tr>
<tr>
<td>Various Roadways</td>
<td>Various</td>
<td>Pavement Maintenance Program</td>
<td>2039</td>
<td>$298</td>
</tr>
</tbody>
</table>

*Year of Expenditure (YOE)*Dollars
Source: City of Corcoran
### FIGURE 4-32

**CITY OF HANFORD REGIONAL ROUTE IMPROVEMENTS**

*2014/15 - 2022/23*

*(Financially Constrained)*

<table>
<thead>
<tr>
<th>ROAD</th>
<th>LOCATION</th>
<th>IMPROVEMENT</th>
<th>OPEN TO TRAFFIC</th>
<th>Total Cost ($000)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus Dr.</td>
<td>Lacey Blvd. to Glendale Ave.</td>
<td>Extend Roadway, Construct Left Turn Lanes</td>
<td>2014</td>
<td>$750</td>
</tr>
<tr>
<td>W. Lacey Blvd.</td>
<td>Hfd.-Arm Rd. to Mall Dr. (Interchange Project)</td>
<td>Widen from 2 to 6 lanes w/ median</td>
<td>2015</td>
<td>$25,000</td>
</tr>
<tr>
<td>W. Lacey Blvd.</td>
<td>Greenfield Ave. to Mall Dr.</td>
<td>Rehabilitate / Overlay</td>
<td>2015</td>
<td>$800</td>
</tr>
<tr>
<td>13th Ave.</td>
<td>At Grangeville Blvd.</td>
<td>Traffic Signal</td>
<td>2016</td>
<td>$600</td>
</tr>
<tr>
<td>6th St.</td>
<td>Between Harris and Brown Sts.</td>
<td>Construct Park-n-Ride</td>
<td>2016</td>
<td>$425</td>
</tr>
<tr>
<td>Hanford-Armona Rd.</td>
<td>At Irwin St.</td>
<td>Traffic Signal</td>
<td>2016</td>
<td>$425</td>
</tr>
<tr>
<td>Houston Ave.</td>
<td>At 11th Ave.</td>
<td>Traffic Signal</td>
<td>2016</td>
<td>$575</td>
</tr>
<tr>
<td>12th Ave.</td>
<td>Mall Dr. to N. of Lacey Blvd.</td>
<td>Rehabilitate/ Overlay/ Restripe</td>
<td>2016</td>
<td>$800</td>
</tr>
<tr>
<td>City wide</td>
<td>Various</td>
<td>Bike facility improvements</td>
<td>2017</td>
<td>$250</td>
</tr>
<tr>
<td>11th Ave.</td>
<td>Ivy St to Grangeville Blvd.</td>
<td>Rehabilitate / Overlay</td>
<td>2017</td>
<td>$800</td>
</tr>
<tr>
<td>11th Ave.</td>
<td>11th / Grangeville Blvd.</td>
<td>Intersection Improvements/Channelization</td>
<td>2017</td>
<td>$600</td>
</tr>
<tr>
<td>Douty St.</td>
<td>At Sixth St</td>
<td>Traffic Signal</td>
<td>2017</td>
<td>$400</td>
</tr>
<tr>
<td>City wide</td>
<td>PW Corp. Yard</td>
<td>Electric charging station</td>
<td>2018</td>
<td>$500</td>
</tr>
<tr>
<td>12th Ave.</td>
<td>Houston Ave. to Hfd-Armona Rd.</td>
<td>Widen from 2 to 4 lanes w/ median</td>
<td>2018</td>
<td>$2,000</td>
</tr>
<tr>
<td>12th Ave.</td>
<td>12th Ave. / Hume Ave.</td>
<td>Traffic Signal</td>
<td>2018</td>
<td>$500</td>
</tr>
<tr>
<td>E. Lacey Blvd.</td>
<td>10th Ave. to 9th Ave.</td>
<td>Widen from 2 to 4 lanes w/ left turn pockets</td>
<td>2019</td>
<td>$2,500</td>
</tr>
<tr>
<td>E. Lacey Blvd.</td>
<td>At 9th Ave.</td>
<td>Install Traffic Signals</td>
<td>2019</td>
<td>$500</td>
</tr>
<tr>
<td>E. Lacey Blvd.</td>
<td>9th Ave. to Sierra Dr.</td>
<td>Widen from 2 to 4 lanes w/ left turn pockets</td>
<td>2020</td>
<td>$2,000</td>
</tr>
<tr>
<td>E. Lacey Blvd.</td>
<td>At Sierra Dr.</td>
<td>Install Traffic Signals</td>
<td>2020</td>
<td>$500</td>
</tr>
<tr>
<td>Grangeville Blvd.</td>
<td>Douty St. to 10th Ave.</td>
<td>Install Traffic Signals</td>
<td>2020</td>
<td>$600</td>
</tr>
<tr>
<td>W. Lacey Blvd.</td>
<td>12 1/2 Ave. to 13th Ave.</td>
<td>Widen from 2 to 4 lanes w/ median</td>
<td>2021</td>
<td>$1,750</td>
</tr>
<tr>
<td>W. Lacey Blvd.</td>
<td>At 12 1/2 Ave</td>
<td>Install Traffic Signals</td>
<td>2021</td>
<td>$500</td>
</tr>
<tr>
<td>Redington St.</td>
<td>Lacey Blvd. to Grangeville Blvd.</td>
<td>Rehabilitate / Overlay</td>
<td>2022</td>
<td>$600</td>
</tr>
<tr>
<td>Fargo Ave.</td>
<td>BN&amp;SF to 12th Ave.</td>
<td>Widen from 2 to 4 lanes w/ left turn pockets</td>
<td>2022</td>
<td>$1,000</td>
</tr>
<tr>
<td>Grangeville Blvd.</td>
<td>12th Ave. to 13th Ave.</td>
<td>Widen from 2 to 4 lanes w/ left turn pockets</td>
<td>2023</td>
<td>$2,000</td>
</tr>
<tr>
<td>Grangeville Blvd.</td>
<td>12th Ave. to 13th Ave.</td>
<td>Install Traffic Signals and Pedestrian Facilities</td>
<td>2023</td>
<td>$1,000</td>
</tr>
</tbody>
</table>
# FIGURE 4-32
Continued
CITY OF HANFORD REGIONAL ROUTE IMPROVEMENTS
2023/24 - 2037/38
(Financially Constrained)

<table>
<thead>
<tr>
<th>ROAD</th>
<th>LOCATION</th>
<th>IMPROVEMENT</th>
<th>OPEN TO TRAFFIC</th>
<th>Total Cost ($000)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fargo Ave.</td>
<td>12th Ave. to 13th Ave.</td>
<td>Widen from 2 to 4 lanes w/ left turn pockets</td>
<td>2024</td>
<td>$2,000</td>
</tr>
<tr>
<td>Fargo Ave.</td>
<td>12th Ave. to 13th Ave.</td>
<td>Install Traffic Signals and Pedestrian Facilities</td>
<td>2024</td>
<td>$1,000</td>
</tr>
<tr>
<td>Grangeville Blvd.</td>
<td>11th Ave. to 12th Ave.</td>
<td>Rehabilitate / Overlay</td>
<td>2025</td>
<td>$1,000</td>
</tr>
<tr>
<td>Hfd.-Arm Rd.</td>
<td>12th Ave. 13th Ave.</td>
<td>Widen from 2 to 4 lanes w/ left turn pockets</td>
<td>2025</td>
<td>$1,500</td>
</tr>
<tr>
<td>Hfd.-Arm Rd.</td>
<td>At 12th Ave</td>
<td>Install Traffic Signals</td>
<td>2025</td>
<td>$500</td>
</tr>
<tr>
<td>12th Ave.</td>
<td>Fargo Ave. to Flint Ave.</td>
<td>Widen from 2 to 4 lanes w/ median</td>
<td>2026</td>
<td>$2,000</td>
</tr>
<tr>
<td>12th Ave.</td>
<td>Fargo Ave. to Flint Ave.</td>
<td>Install Traffic Signals and Pedestrian Facilities</td>
<td>2026</td>
<td>$1,000</td>
</tr>
<tr>
<td>10th Ave.</td>
<td>SR 198 to Grangeville Blvd.</td>
<td>Rehabilitate / Overlay</td>
<td>2027</td>
<td>$1,000</td>
</tr>
<tr>
<td>Houston Ave.</td>
<td>10th Ave. to 11th Ave.</td>
<td>Widen from 2 to 4 lanes w/median</td>
<td>2028</td>
<td>$2,000</td>
</tr>
<tr>
<td>Houston Ave.</td>
<td>10th Ave. to 11th Ave.</td>
<td>Install Traffic Signals and Pedestrian Facilities</td>
<td>2028</td>
<td>$1,000</td>
</tr>
<tr>
<td>10th Ave.</td>
<td>Grangeville to Hwy 43</td>
<td>Rehabilitate / Overlay</td>
<td>2029</td>
<td>$1,000</td>
</tr>
<tr>
<td>Houston Ave.</td>
<td>11th Ave. to 12th Ave.</td>
<td>Widen from 2 to 4 lanes w/ median</td>
<td>2030</td>
<td>$2,000</td>
</tr>
<tr>
<td>Houston Ave.</td>
<td>11th Ave. to 12th Ave.</td>
<td>Install Traffic Signals and Pedestrian Facilities</td>
<td>2030</td>
<td>$1,000</td>
</tr>
<tr>
<td>Grangeville Blvd.</td>
<td>10th Ave. to 9 1/4 Ave.</td>
<td>Rehabilitate / Overlay</td>
<td>2031</td>
<td>$1,000</td>
</tr>
<tr>
<td>Grangeville Blvd.</td>
<td>9 1/4 Ave. to Hwy 43</td>
<td>Widen from 2 to 4 lanes w/ median</td>
<td>2032</td>
<td>$3,000</td>
</tr>
<tr>
<td>Grangeville Blvd.</td>
<td>9 1/4 Ave. to Hwy 43</td>
<td>Install Traffic Signals and Pedestrian Facilities</td>
<td>2032</td>
<td>$1,000</td>
</tr>
<tr>
<td>Fargo Ave.</td>
<td>11th Ave. to Meadow View Ln.</td>
<td>Rehabilitate / Overlay</td>
<td>2033</td>
<td>$1,000</td>
</tr>
<tr>
<td>11th Ave.</td>
<td>Grangeville Blvd. to Fargo Ave.</td>
<td>Rehabilitate / Overlay</td>
<td>2033</td>
<td>$1,000</td>
</tr>
<tr>
<td>9th Ave.</td>
<td>Lacey Blvd. to Grangeville Blvd.</td>
<td>New arterial roadway -4 lanes w/ median</td>
<td>2034</td>
<td>$3,000</td>
</tr>
<tr>
<td>9th Ave.</td>
<td>Lacey Blvd. to Grangeville Blvd.</td>
<td>Install Traffic Signals and Pedestrian Facilities</td>
<td>2034</td>
<td>$1,500</td>
</tr>
<tr>
<td>11th Ave.</td>
<td>Lacey Blvd. to Grangeville Blvd.</td>
<td>Rehabilitate / Overlay</td>
<td>2035</td>
<td>$1,000</td>
</tr>
<tr>
<td>11th Ave.</td>
<td>Hfd-Arm Rd. to Lacey Blvd.</td>
<td>Rehabilitate / Overlay</td>
<td>2035</td>
<td>$1,000</td>
</tr>
<tr>
<td>9th Ave.</td>
<td>Grangeville Blvd. to Fargo Ave.</td>
<td>New arterial roadway -4 lanes w/ median</td>
<td>2036</td>
<td>$3,000</td>
</tr>
<tr>
<td>9th Ave.</td>
<td>Grangeville Blvd. to Fargo Ave.</td>
<td>Install Traffic Signals and Pedestrian Facilities</td>
<td>2036</td>
<td>$1,500</td>
</tr>
<tr>
<td>11th Ave.</td>
<td>Hfd.-Arm Rd. to Houston Ave.</td>
<td>Rehabilitate / Overlay</td>
<td>2037</td>
<td>$1,000</td>
</tr>
<tr>
<td>11th Ave.</td>
<td>Houston Ave. to Idaho Ave.</td>
<td>Widen from 2 to 4 lanes w/ left turn pockets</td>
<td>2038</td>
<td>$3,000</td>
</tr>
<tr>
<td>11th Ave.</td>
<td>Houston Ave. to Idaho Ave.</td>
<td>Install Traffic Signals and Pedestrian Facilities</td>
<td>2038</td>
<td>$1,500</td>
</tr>
</tbody>
</table>

*Year of Expenditure (YOE) Dollars  
Source: City of Hanford
# FIGURE 4-33
## CITY OF LEMOORE REGIONAL ROUTE IMPROVEMENTS
### 2014/15 - 2034/35
(Financially Constrained)

<table>
<thead>
<tr>
<th>ROAD</th>
<th>LOCATION</th>
<th>IMPROVEMENT</th>
<th>OPEN TO TRAFFIC</th>
<th>Total Cost ($000)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith St.</td>
<td>Magnolia St. to Oleander Dr.</td>
<td>Overlay</td>
<td>2014</td>
<td>$125</td>
</tr>
<tr>
<td>CNG Station</td>
<td>CNG Station</td>
<td>Expansion - Purchase Storage Vessel</td>
<td>2015</td>
<td>$210</td>
</tr>
<tr>
<td>Cinnamon Dr.</td>
<td>19th Ave. to Hill Dr.</td>
<td>Bicycle/Pedestrian Facilities</td>
<td>2015</td>
<td>$419</td>
</tr>
<tr>
<td>Skaggs and Lemoore Ave.</td>
<td>Intersection</td>
<td>Synch Pedestrian Signal</td>
<td>2016</td>
<td>$190</td>
</tr>
<tr>
<td>Bush St. and 19 1/2 Ave.</td>
<td>Intersection</td>
<td>Install Traffic Signal</td>
<td>2016</td>
<td>$350</td>
</tr>
<tr>
<td>Bush St. and Belle Haven Dr.</td>
<td>Intersection</td>
<td>Install Traffic Signal</td>
<td>2016</td>
<td>$300</td>
</tr>
<tr>
<td>19th Ave. and Cedar Ln.</td>
<td>Intersection</td>
<td>Install Traffic Signal</td>
<td>2016</td>
<td>$350</td>
</tr>
<tr>
<td>Hfd-Arm Rd. and Cinnamon Dr.</td>
<td>Intersection</td>
<td>Install Traffic Signal</td>
<td>2017</td>
<td>$400</td>
</tr>
<tr>
<td>Fox St. and Cinnamon Dr.</td>
<td>Intersection</td>
<td>Install Traffic Signal</td>
<td>2017</td>
<td>$400</td>
</tr>
<tr>
<td>19th Ave.</td>
<td>Bush St. to Cedar Ln.</td>
<td>Overlay</td>
<td>2018</td>
<td>$100</td>
</tr>
<tr>
<td>Bush St.</td>
<td>19 1/2 Ave. to 19th Ave.</td>
<td>Overlay</td>
<td>2019</td>
<td>$125</td>
</tr>
<tr>
<td>C St.</td>
<td>Olive St. to Hill St.</td>
<td>Overlay</td>
<td>2020</td>
<td>$56</td>
</tr>
<tr>
<td>Cedar Ln.</td>
<td>19th Ave. to Mallard</td>
<td>Overlay</td>
<td>2020</td>
<td>$75</td>
</tr>
<tr>
<td>Cinnamon Dr.</td>
<td>Basil St. to Daphne Ln.</td>
<td>Overlay</td>
<td>2021</td>
<td>$120</td>
</tr>
<tr>
<td>Vine St.</td>
<td>Bush St. to SR 198</td>
<td>Overlay</td>
<td>2022</td>
<td>$106</td>
</tr>
<tr>
<td>Hickory Dr.</td>
<td>Vine St. to Oakdale Lane</td>
<td>Overlay</td>
<td>2022</td>
<td>$25</td>
</tr>
<tr>
<td>Silverado Dr.</td>
<td>19th Ave. to Marin Dr.</td>
<td>Overlay</td>
<td>2023</td>
<td>$60</td>
</tr>
<tr>
<td>Olive Ave.</td>
<td>B St. to Redwood Ln.</td>
<td>Overlay</td>
<td>2023</td>
<td>$65</td>
</tr>
<tr>
<td>Oakdale Ln.</td>
<td>Vine St. to Lum Ave.</td>
<td>Overlay</td>
<td>2024</td>
<td>$60</td>
</tr>
<tr>
<td>E St.</td>
<td>Fox St. to D St.</td>
<td>Overlay</td>
<td>2024</td>
<td>$60</td>
</tr>
<tr>
<td>W. Deodar Ln.</td>
<td>Spruce Ave. to Glendale Ave.</td>
<td>Overlay</td>
<td>2025</td>
<td>$100</td>
</tr>
<tr>
<td>S Byron Ave.</td>
<td>Bush St. to south end</td>
<td>Overlay</td>
<td>2025</td>
<td>$45</td>
</tr>
<tr>
<td>Cambridge Dr.</td>
<td>Bush St. to Olive St.</td>
<td>Overlay</td>
<td>2026</td>
<td>$75</td>
</tr>
<tr>
<td>E. D St.</td>
<td>Lemoore Ave. to Smith St.</td>
<td>Overlay</td>
<td>2026</td>
<td>$50</td>
</tr>
<tr>
<td>W. Burlwood Ln.</td>
<td>Lemoore Ave. to Juniper Ln.</td>
<td>Overlay</td>
<td>2027</td>
<td>$90</td>
</tr>
<tr>
<td>Bush St.</td>
<td>Lemoore Ave. to D St.</td>
<td>Overlay</td>
<td>2028</td>
<td>$165</td>
</tr>
<tr>
<td>W. D St.</td>
<td>Bush St. to Olive St.</td>
<td>Overlay</td>
<td>2029</td>
<td>$200</td>
</tr>
<tr>
<td>Hanford Armona Rd.</td>
<td>Lemoore Ave. to Liberty Dr.</td>
<td>Overlay</td>
<td>2030</td>
<td>$200</td>
</tr>
<tr>
<td>Hanford Armona Rd.</td>
<td>Liberty Dr. to 19th Ave.</td>
<td>Overlay</td>
<td>2031</td>
<td>$175</td>
</tr>
<tr>
<td>Hanford Armona Rd.</td>
<td>19th Ave. to SR 41</td>
<td>Overlay</td>
<td>2032</td>
<td>$200</td>
</tr>
<tr>
<td>Iona Ave.</td>
<td>Vine St. to 19th Ave.</td>
<td>Overlay</td>
<td>2033</td>
<td>$200</td>
</tr>
<tr>
<td>Lemoore Ave.</td>
<td>SR 198 to Bush St.</td>
<td>Overlay</td>
<td>2034</td>
<td>$200</td>
</tr>
<tr>
<td>Lemoore Avenue</td>
<td>UPRR to Cinnamon Dr.</td>
<td>Overlay</td>
<td>2035</td>
<td>$200</td>
</tr>
</tbody>
</table>

*Year of Expenditure (YOE) Dollars
Source: City of Lemoore
E. PERFORMANCE MEASUREMENT

The RTP Guidelines states that each RTPA should define a set of “program level” transportation system performance measures, which reflect the goals and objectives adopted in the RTP, to be used to evaluate and select plan alternatives. The Guidelines also identify the requirements for “performance-based” planning. KCAG staff reviewed the requirements and prepared an analysis of the following performance measures recommended by the California Transportation Plan 2035 and the Smart Mobility 2010 for capacity-increasing projects. Staff identified the criteria that should be applied to evaluate performance of the transportation system, the “desired outcomes” for the transportation system, to be addressed in the RTP:

- Mobility/Accessibility
- Sustainability
- Safety and Security
- Reliability
- Economic Well Being
- Equity
- Cost-Effectiveness
- Environmental Quality
- Customer Satisfaction

KCAG has developed a system for ranking or prioritizing transportation projects. The system was prepared by staff for assigning priorities to state highway projects and other street and highway projects within the region. It attempts to quantify factors which ordinarily require subjective judgments and provides a checklist for use in reaching decisions on project priorities. The standards and methodology for applying standards to identify priorities for road construction projects in Kings County are described below. The prioritization system includes a comprehensive list of standards, which can be applied to specific roadway projects in order to derive a priority for implementation. Specific standards are identified for each objective, a system of measurements discussed and alternatives proposed. Five objectives and their associated standards were established for the prioritization system.

- Create an Integrated and Balanced Road System Serving Community Needs
- Obtain Maximum Improvement in Traffic Flow and Safety
- Creates Minimum Adverse Environmental Effects
- Minimize the Disruptive Consequences of the Project
- Give a Desirable Benefit to Cost Ratio

A 5-point system was devised to measure the degree to which each standard has been attained. Experience in applying the system may indicate areas where adjustment is required or where precise measures are possible. Evaluation of noise levels by type of land use is to be related to the standards adopted in the Noise Element of the general plan for the local jurisdiction.

As the Kings Region will not receive any STIP funding for highway expansion projects for the first term of the 2014 RTP, the performance evaluation process is being re-evaluated to identify the appropriate candidate RTP projects for funding in the next RTP. Figure 4-34 explains the current performance measures.
## FIGURE 4-34

**PRIORITIZATION SYSTEM FOR HIGHWAY TRANSPORTATION PROJECTS**

<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>STANDARDS</th>
<th>POINT SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create an Integrated and Balanced Road System Serving Community Needs</td>
<td>Consistent with the RTP and transportation elements of the adopted General Plan.</td>
<td>4-5 Pts. – Included in RTP and/or local transportation elements of adopted General Plans. Extra priority given to projects with pedestrian/bicycle facilities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-3 Pts. – Not included in any adopted plan, but is on the local/minor street system or provides “spot” improvement.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Not included in any adopted plan.</td>
</tr>
<tr>
<td></td>
<td>Supports or is consistent with the land use element of the adopted General Plans and the Blueprint Smart Growth Principles.</td>
<td>4-5 Pts. – Provides needed service to areas designated for immediate development.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-3 Pts. – Provides needed service to already developed areas.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Not consistent with adopted General Plans.</td>
</tr>
<tr>
<td></td>
<td>Facilitates transit, truck, aviation, rail, bicycle and pedestrian modes of travel.</td>
<td>4-5 Pts. – Includes provisions for more than one alternative transportation mode.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-3 Pts. – Includes provisions for one alternative transportation mode.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0 Pt. – No provisions for alternate transportation modes.</td>
</tr>
<tr>
<td>Obtain Maximum Improvement in Traffic Flow and Safety</td>
<td>Is constructed to standards commensurate with expected travel demands.</td>
<td>4-5 pts. – Increases level of service from projected levels D, E, and F.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-3 Pts. – Increases level of service from projected levels B and C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Does not increase level of service.</td>
</tr>
<tr>
<td></td>
<td>Accommodates the greatest number of vehicle trips for the money spent.</td>
<td>4-5 Pts. – Highest projected traffic volume per dollar cost of project.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-3 Pts. – Next highest projected traffic volume per dollar cost of project.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Lowest projected traffic volume per dollar cost of project.</td>
</tr>
<tr>
<td></td>
<td>Provides greatest reduction in accident rates.</td>
<td>4-5 Pts. – Accident history greater than 2 times State average.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-3 Pts. – Accident history one to two times State average.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Accident history less than State average or no existing roadway.</td>
</tr>
<tr>
<td></td>
<td>Eliminates potentially hazardous conditions such as inadequate roadway geometrics and poor structural conditions.</td>
<td>4-5 pts. – Existing roadway below minimum geometric and structural standards.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-3 Pts. – Existing roadway below minimum geometric or structural standards.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Existing roadway not below minimum standards.</td>
</tr>
<tr>
<td></td>
<td>Provides relief for other portions of the road system or reduces traffic on residential or minor streets.</td>
<td>4-5 Pts. – Diverts traffic from other streets and highways thereby improving traffic conditions on alternate routes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-3 Pts. – Diverts traffic from other streets and highways without improving traffic conditions on alternate routes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Does not divert traffic.</td>
</tr>
</tbody>
</table>
### FIGURE 4-34
(Continued)

**PRIORITIZATION SYSTEM FOR HIGHWAY TRANSPORTATION PROJECTS**

<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>STANDARDS</th>
<th>POINT SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Promotes Positive Overall Physical Environment.</strong></td>
<td>Minimizes impact on trees, plants, and wildlife.</td>
<td>4-5 Pts. – Greater than 1,000 feet from areas containing rare/endangered plants or wildlife species.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-3 Pts. – Within 1,000-3,000 feet of areas containing rare/endangered plans or wildlife species.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Within 1,000 feet of areas containing rare/endangered plans or wildlife species.</td>
</tr>
<tr>
<td>Minimizes impact on air pollution.</td>
<td>4-5 Pts. – Decreases concentrations of vehicle emissions.</td>
<td>2-3 Pts. – No identifiable impact on vehicle emissions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Increases concentrations of vehicle emissions.</td>
</tr>
<tr>
<td>Minimizes impact of noise pollution.</td>
<td>4-5 Pts. – Produces acceptable noise levels.</td>
<td>2-3 Pts. – Produces somewhat acceptable noise levels.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Produces unacceptable noise levels.</td>
</tr>
<tr>
<td>Minimizes impact of water pollution.</td>
<td>4-5 Pts. – Decreases water pollution levels.</td>
<td>2-3 Pts. – No identifiable impact on water pollution.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Increases water pollution levels.</td>
</tr>
<tr>
<td>Minimizes disruption to natural beauty.</td>
<td>4-5 Pts. – Opens up new vistas or restores natural beauty.</td>
<td>2-3 Pts. – No identifiable impact on natural beauty.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Destroys natural beauty.</td>
</tr>
<tr>
<td><strong>Minimize the Disruptive Consequences of the Project</strong></td>
<td>Minimize number of residential units disrupted.</td>
<td>5 Pts. – No residential dwelling units dislocated.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-4 Pts. – Dislocates between 1 and 10 residential dwelling units.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Dislocates greater than 10 residential dwelling units.</td>
</tr>
<tr>
<td>Minimizes disruption of historical sites, cultural and social characteristics of the community.</td>
<td>4-5 pts. – Does not disrupt or have adverse impact on cultural, historic or social characteristics of special community value.</td>
<td>2-3 pts. – Does not disrupt but has possible adverse impact on cultural, historic or social characteristics of special community value.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Disrupts cultural, historic or social characteristics of special community value.</td>
</tr>
<tr>
<td>Creates minimum adverse economic effect on the community.</td>
<td>5 Pts. – Creates no adverse economic effect. No commercial/industrial buildings dislocated.</td>
<td>2-4 Pts. – Some adverse economic effect. Dislocates between 1 and 10 commercial/industrial buildings.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Substantial adverse economic effect. Dislocates more than 10 commercial/industrial buildings.</td>
</tr>
<tr>
<td><strong>Give a Desirable Benefit to Cost Ratio</strong></td>
<td>Give a benefit-cost ratio greater than 1.0.</td>
<td>5 Pts. – Benefit-Cost ratio greater than 2.0.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-4 Pts. – Benefit-Cost ratio between 1.0 and 2.0.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Pt. – Benefit-Cost ratio less than 1.0.</td>
</tr>
</tbody>
</table>

### F. INTELLIGENT TRANSPORTATION SYSTEMS

Intelligent Transportation Systems (ITS) is the application of advanced information processing, communications, vehicle sensing, and traffic control technologies to the surface transportation system. The objective of ITS is to promote more efficient use of the existing highway and transportation network, increase safety and mobility, and decrease the environmental impacts of congestion.
Intelligent Transportation Systems represent a means of applying new technological breakthroughs in detection, communications, computing, and control technologies to improve the safety and performance of the surface transportation system. This can be done by using the technologies to manage the transportation system to respond to changing operating conditions, congestion or accidents. ITS technology can be applied to arterials, freeways, transit, trucks and private vehicles. ITS includes Advanced Traffic Management Systems (ATMS), Advanced Traveler Information Systems (ATIS), Advanced Public Transportation Systems (APTS), Advanced Vehicle Control Systems (AVCS) and Commercial Vehicle Operations (CVO).

Applications of ITS technologies allow the monitoring of traffic conditions and the dynamic adjustment of traffic signals to reduce unnecessary delay, the automated collection of transit fares and advanced detection and television cameras to detect, assess and respond to traffic accidents and incidents. In the future, ITS technologies will automate transit fare collection and parking payments, use vehicle location systems to track trains and buses to give users “real time” arrival and departure information, as well as use onboard systems to detect and avoid collisions.

Specifically in Kings County, poor visibility due to fog, blowing dust and large percentages of truck traffic 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. Accidents of this nature have closed Interstate 5 and State Route 99 for hours at a time. Blowing dust related directly to seasonal agriculture can cause similar difficulties for travelers.

Kings County has identified several opportunities for deployment of ITS technology including:

- Provide improved safety and mobility along east-west highways such as SR-198 using CMS and other ITS applications.
- Build on City of Hanford’s traffic management capabilities, including coordination with Caltrans.
- Continue to add newly purchased vehicles to the AVL system for Kings Area Rural Transit (KART).
- Improve safety at rural railroad crossings using ITS applications.
- Provide commercial vehicles with improved information in the I-5 corridor related to routes, facilities and parking within the County.
- Enhance the safety and capacity of Highway 43 as an alternate route to SR-99/I-5 using ITS applications.

The 2014 RTP and the projects inclusive are consistent, as to the extent practicable, with the regional ITS architecture.

V. ENVIRONMENTAL JUSTICE

Environmental justice is a term used to help ensure equal protection under the country’s laws. KCAG’s goal is to ensure that all people, regardless of race, color, national origin or income, are protected from disproportionate negative or adverse impacts due to the program of projects listed in the 2014 Regional Transportation Plan.

KCAG’s transportation decision making process has an inclusive approach to consider the human environment and the adverse impacts transportation projects may have. This agency also looks at safety and mobility, which are key elements in achieving environmental justice. KCAG approaches and resolves transportation decision making by:
• Meeting the needs of all people.
• Planning transportation facilities that fit into communities.
• Increasing the involvement with the public.
•Analyzing potential impacts on minority and low-income populations by accessing, monitoring, and improving data collections.
• Connecting with other public and private programs to achieve common vision for communities.
• Preventing high and adverse impacts on minorities and low-income populations.
• Identifying and mitigating concerns that the public might have which benefit or affect communities and/or neighborhoods.

The CalEnviroScreen 1.1 tool is a screening methodology, developed by the California Environmental Protection Agency and the Office of Environmental Health Hazard Assessment, that can be used to help identify communities that are disproportionately burdened by multiple sources of pollution. It is also used as a tool in identifying communities that are eligible for specific funding programs. Using this tool, Figure 4-35 is a map of the results for the highest scoring zip codes within the Kings County area.

FIGURE 4-35

CalEnviroScreen 1.1 Kings County Results: Highest Scoring Zip Codes:

Source: [http://www.oehha.ca.gov/ej/ces11.html](http://www.oehha.ca.gov/ej/ces11.html)

Blue shading = Top 5% of Statewide Zip Codes
Orange shading = Top 6 – 10% of Statewide Zip Codes

Due to the increasing population, the majority of Kings County residents use and/or commute on SR 198, making this a densely populated highway resulting in congestion and accidents. For commuters continuing to use SR 198, changes are needed to reduce the possibilities of congestion and traffic accidents. Two projects are listed in this RTP’s short-range plan shown on Figure 4-23 and 4-24. The purpose for these projects is to alleviate future congestion and to improve safety and traffic operations of these facilities.
A. 19th Avenue Interchange

Caltrans, in cooperation with the City of Lemoore, proposed the construction of an interchange on SR 198 at 19th Avenue. The interchange includes an overcrossing for 19th Avenue with on and off ramps in each direction for access between State Route 198 and 19th Avenue. In addition, on State Route 198, auxiliary lanes will be added east of State Route 41 to 18 ½ (Vine) Avenue and at-grade access at 18 ½ (Vine) Avenue will be eliminated and replaced with cul-de-sacs for turnarounds. Iona Ave., west of 19th Ave., will be modified for right of way access.

In order to comply with the Environmental Justice procedures, Caltrans researched the demographics of the project area to determine and compare those of minority or low-income populations. Caltrans discovered that in the Kings County Census Tracts of 4.02, 4.04, and 4.05 would be the Tracts affected by the 19th Avenue Interchange project.

No minority or low-income populations have been identified within the project limits, therefore, the project would have no adverse effect on minority or low-income populations. Spanish-speaking residents from a low-income housing development located just southeast of the project area on Iona Ave. and 18 ½ Avenue attended the March 2002 Open House/Information Meeting. Their comments expressed concerns for a safer pedestrian crossing over SR 198. As the project is currently designed, sidewalks would be constructed on the 19th Ave. overcrossing. Therefore, this identified minority and low-income population would benefit from the project’s safer pedestrian and bicycle access across State Route 198.

Other permanent impacts that may be associated with the project include:

- The City of Lemoore relocating the BMX Park to the city limits which could be an inconvenience.

- The Alviera Field parking lot, located on 19th Ave. would be reduced and modifications towards sports facility requiring re-alignment of the football/soccer field.

- An increase in traffic and noise stemming from the Alviera Field may be expected although the pedestrians living south of SR 198 would be provided safe access on the 19th Ave. overcrossing bridge.

- Increased in truck traffic entering/exiting an industrial park to the south of SR 198 via the 19th Ave. interchange is expected.
FIGURE 4-36
Lemoore Project

19th Avenue & 198 Interchange Project

Map prepared by
Kings County Association of Governments
March 1, 2004
1400 W. Lacey Boulevard, Hanford, CA 93230 (559) 585-3211 ext. 2670

Legend
- Project Site
- Area of Potential Effects
- City Boundary

Circulation:
- Minor Road
- Minor Arterial
- Interstate
- Freeway
- Expressway
- Collector
- Arterial
- Railroad
B. 12th Avenue Interchange

12th Ave. is a north/south (four lanes north of SR 198 and two lanes south of SR 198) major collector street that serves the rapidly developing community of Hanford. The existing configuration of the 12th Ave. interchange is equipped with signalized intersections and is challenged by the cumulative residential and commercial growth. Land uses in the area include major retail centers, government offices, hospital, high school, and other office and commercial developments. The area is described as a link that ties together the central business district and commercial center with the regional commercial centers of 12th Ave. and Lacey Blvd. The existing 12th Ave. interchange was built in 1985 and traffic operations at the interchange are expected to deteriorate due to the current and planned development in the area.

Four build alternatives would provide two lanes in each direction with additional north bound and south bound right-turn lanes to the on-ramps. The west bound off-ramp would have three lanes: one left, one shared left/right, and one right and the east bound off-ramp would have three lanes: two left and one right. Two of the alternatives would provide a single east bound on-ramp loop in the southwest quadrant to accommodate the projected volume of traffic entering east bound SR 198. The alternative selected includes the east bound on-ramp loop in the southwest quadrant.

The currently programmed cost of the project is $27 million. This project includes additional right-of-way, rail road involvement, post and pre-construction environmental mitigation, and utility relocation. The environmental document for the proposed project is a Negative Declaration/Finding of No Significant Impact (ND/FONSI).
FIGURE 4-37
Hanford Project

12th Avenue & 198 Interchange Project
VI. FINANCIAL ELEMENT

The purpose of this section is to discuss funding sources to implement the highway plans. This section will briefly sketch the financial outlook for transportation projects and develop revenue projections for a twenty-year period.

The financial estimates and projections are consistent with the estimates and projections of state and federal revenues as provided by Caltrans and the Federal Highways Administration.

A. FUNDING SOURCES FOR STREETS AND HIGHWAYS

1. Federal Funds

The Moving Ahead for Progress in the 21st Century (MAP-21) has continued some of the programs created by the Intermodal Surface Transportation Efficiency Act of 1990 and modified or eliminated others for which federal funds are to be apportioned. (See Chapter 11). These include:

a. Regional Surface Transportation Program

The Regional Surface Transportation Program (RSTP) replaced the Federal-Aid Secondary and Federal-Aid Urban programs under the previous Federal Highway Act.

SB 1435 (Chapter 1177, Statutes of 1992) established statutory provisions necessary to pass-through STP funds to regional/local agencies as Regional STP funds by making changes in the Streets and Highways Code. Section 182.6(g) of the Code allows certain regional transportation planning agencies (RTPA) the opportunity to exchange all of their Federal STP funds for State funds. Section 182.6(h)(1) allows the unincorporated county entities, represented by the RTPA, to exchange their suballocation for State funds in the event the RTPA does not elect to do so. Exchanged funds received may be used for any Article XIX purpose including maintenance, equipment purchases, administration and construction.

Projects to be funded from Section 182.6(d)(1) are to be nominated by cities, counties, transit operators and other transportation agencies through a process that directly involves local government representatives. Funds are to be apportioned on a fair and equitable basis based upon an annually updated five-year average of allocations.

All Federal STP allocations received have been exchanged for non-federal State funds and it is expected that the future allocations of STP funds will also be exchanged for State funds.

b. Congestion Mitigation and Air Quality

Congestion Mitigation and Air Quality (CMAQ) program funds are allocated to metropolitan planning organizations (MPO) in designated non-attainment areas such as the San Joaquin Valley Air Basin. These funds are to be directed toward transportation projects that will contribute to meeting air quality standards in non-attainment areas for ozone, carbon monoxide, and particulate matter. Priority is to be given to implementing those projects that have documented emissions reductions associated with them and are included in the approved State Implementation Plan (SIP) for air quality as a transportation control measure (TCM).
CMAQ funds are suballocated by the state based on criteria pollutant rating and population. These funds are programmed by KCAG in the Federal Transportation Improvement Program (FTIP) for transit and roadway eligible projects such as traffic signals to reduce vehicle congestion and vehicle emissions, bicycle and pedestrian facilities, surface treatments to roads for the reduction of particulate matter and the construction of CNG fueling facilities and conversion of public agency fleet vehicles to CNG.

c. Highway Bridge Program

The Highway Bridge Repair (HBP) program is an 80% matching program available to fund local bridge projects on a discretionary basis. Caltrans, through its biennial bridge inspection program, establishes a list for each county of the five worst bridges in need of replacement or rehabilitation. One bridge from this list is selected each year by the local agency to be funded with HBP funds.

d. Highway Safety Improvement Program (HSIP)

This is a formula program to the state, but a competitive program managed by Caltrans for the regions and local agencies. HSIP remains largely as it was under SAFETEA-LU, supporting projects that improve the safety of road infrastructure by correcting hazardous road locations, such as dangerous intersections, or making road improvements. HSIP has also absorbed the High Risk Rural Roads (HRRR) and the Rail-Highway Grade Crossing Program. Funding for this program is based on existing programming.

e. Section 130 Highway/Railroad Grade Crossing Improvement Program

The purpose of this program is to reduce the severity and number of accidents by eliminating hazards at existing railroad crossings. Each year the California Public Utilities Commission is required to furnish a list of railroad/highway projects most urgently in need of separation or alteration. Eligible projects are for the installation of signs and pavement markings, installation or upgrading of active warning devices, and crossing illumination.

The multi-year plan for the administration of the Section 130 Highway/Railroad Grade Crossing Improvement funds includes several projects for Kings County jurisdictions.

f. Transportation Alternatives Program

The Transportation Enhancement (TE) program under ISTEA, TEA-21, and SAFETEA-LU was discontinued under MAP-21 and replaced by the Transportation Alternatives Program (TAP). The TAP absorbed the former federal Safe Routes to Schools (SRTS) and Recreational Trails (RTP). The TAP funds have been completely absorbed by the California Active Transportation Program (ATP) explained below. Under MAP-21 regions the size of KCAG are to receive 10% of the state apportionment. However, there are no guarantees of funding to any region that does not include an urbanized area of 200,000 or more.
2. State Funds

The three main sources of revenue for the State Highway Account, gasoline and diesel taxes, truck weight fees, and driver's license and vehicle registration fees.

a. Gas Tax

In March 2010 the California legislature repealed the sales tax on gasoline and increased the excise tax and required that the tax be indexed annually. The same legislation changed the way the program was administered. Revenues from the state excise tax on gasoline and diesel fuel apportioned to cities and counties for FY 2013/14 will total about $1.8 billion. The remaining funds from the tax swap will be used to pay transportation bond debt service. The State Constitution limits the use of these revenues to specific transportation purposes. These include constructing, maintaining, and operating public streets and highways, acquiring right-of-way and constructing public transit systems. These revenues are also used for mitigating the environmental effects of these facilities.

The annual apportionments from the State Highway Account are codified in the Streets and Highways (S & H) Code, beginning at Section 2101. The annual apportionments will not be consistent across the years due to the requirement for indexing the excise tax annually. The main sections are:

- 2103: Apportionments to counties and cities
- 2104: Annual apportionments among counties
- 2105: Apportionments to counties and cities
- 2106: Apportionments to counties and cities
- 2107: Apportionments to cities
- 2108: To the State Highway Account

The manner in which the gasoline and diesel fuel taxes are distributed is shown in Figure 4-38.

**FIGURE 4-38**

**CALIFORNIA VEHICLE FUEL TAX APPORTIONMENT**

<table>
<thead>
<tr>
<th>STREETS AND HIGHWAY CODES</th>
<th>AGENCY</th>
<th>GASOLINE $</th>
<th>DIESEL $</th>
<th>Total Allocations (1000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2103</td>
<td>Counties</td>
<td>75% Reg Veh/ 25% miles</td>
<td></td>
<td>$439,010</td>
</tr>
<tr>
<td>2103</td>
<td>Cities</td>
<td>Per capita</td>
<td></td>
<td>$439,010</td>
</tr>
<tr>
<td>2104</td>
<td>Counties</td>
<td>2.035</td>
<td>1.80</td>
<td>$308,827</td>
</tr>
<tr>
<td>2105</td>
<td>Counties/Cities</td>
<td>11.5% of tax over 9.0</td>
<td>11.5% of tax over 9.0</td>
<td>$173,000/$173,000</td>
</tr>
<tr>
<td>2106</td>
<td>Counties/Cities</td>
<td>1.040</td>
<td></td>
<td>$33,275/$124,553</td>
</tr>
<tr>
<td>2107</td>
<td>Cities</td>
<td>1.315</td>
<td>2.59</td>
<td>$200,916</td>
</tr>
<tr>
<td>2108</td>
<td>State</td>
<td>4.610</td>
<td>4.61</td>
<td>$954,112/$937,479</td>
</tr>
</tbody>
</table>

**TOTAL**

|                | 17.000 | 17.00 | $954,112/$937,479 |

Section 2103 – Gasoline Sales Tax – Excise Tax Swap

- Repealed the state sales tax on gasoline
- Increased the excise tax on gasoline by 17.322 cents and added an annual indexing requirement
Increased sales tax on diesel by 1.75 percent and allocates 75% to local transit and 25% to state transit programs.

The excise tax on diesel was reduced to 13.6 cents per gallon and redirects all diesel taxes to transit programs.

Section 2104 - An annual apportionment to counties:

- for engineering and administrative costs.
- Snow removal funds (Kings County not eligible).
- for heavy rainfall and storm damage (Kings County not eligible).
- for streets, roads and public mass transit guideways and facilities
- Kings County apportionment for FY 2013/14 is $1,046,636.

Section 2105 - Apportionment of additional revenues to cities and counties:

a. 11.5% of the revenues derived from a per gallon tax over 9 cents per gallon allocated to cities and the same amount to counties based on each county's receipt of funds under Sections 2104 and 2106, based on each county's proportion of registered vehicles in the state, and each county's proportion of maintained road mileage in the state.

b. 11.5% of the revenues derived from a per gallon tax over 9 cents per gallon apportioned to each city and county in proportion to the city's share of the population of all the cities in the state.

Section 2106 - Apportionment to cities and counties.

a. $400 per month to each city and $800 per month to each county.

b. For each calendar year specified, an amount is transferred to the Bicycle Transportation Account: CY 2004 and thereafter - $5,000,000.

c. The balance of the fund is apportioned between the county and cities according to various computations involving population, assessed valuation of tangible property, and apportionments for fee-paid and exempt vehicles.

Section 2107 - Apportionment to cities.

a. Snow removal funds for eligible counties.

b. The balance of the fund is allocated to each city in proportion to the city's share of the population of all the cities in California.

Section 2107.5 - Apportionment to cities.

a. To be used for engineering and administrative expenses only. Annual allotments range from $1,000 for a city of less than 5,000 persons to over $20,000 for a city of over 500,000 persons.
Section 2108 - State Highway Account.

a. The balance of the money after making the apportionments or appropriations pursuant to Sections 2103 to 2107.7, is transferred to the State Highway Account for expenditure on state highways and for exclusive public mass transit guideway projects.

FIGURE 39

HIGHWAY USER TAX: FY 2013/14 Apportionments

<table>
<thead>
<tr>
<th>Agency</th>
<th>Streets and Highways Code Sections</th>
<th>TOTAL Base</th>
<th>Prop 42 Apport.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kings Co.</td>
<td>2104</td>
<td>893,875</td>
<td>199,988</td>
</tr>
<tr>
<td>Avenal</td>
<td>0</td>
<td>80,700</td>
<td>67,608</td>
</tr>
<tr>
<td>Corcoran</td>
<td>0</td>
<td>125,590</td>
<td>102,545</td>
</tr>
<tr>
<td>Hanford</td>
<td>0</td>
<td>265,785</td>
<td>211,656</td>
</tr>
<tr>
<td>Lemoore</td>
<td>0</td>
<td>122,764</td>
<td>100,346</td>
</tr>
</tbody>
</table>

3. Local Funds

a. Transportation Development Act (TDA)

The Transportation Development Act of 1971 instituted a regular funding source for various local transportation programs. Special emphasis is given to local transit systems. TDA funds are derived from the statewide sales tax. One-quarter of one cent of the 7 ¼ cent sales tax collected in Kings County is returned to KCAG for apportionment among eligible recipients through the Local Transportation Fund (LTF).

According to Section 99400 of the Public Utilities Code, LTF funds may be used for streets and roads only after: 1) RTPA planning and administration costs have been deducted; 2) the RTPA conducts public hearings to assess bicycle and pedestrian needs (§99234 P.U.C.); and 3) the TPC conducts public hearings to determine the extend to which LTF funds are needed to meet reasonable unmet public transit needs.

Approximately $3,5000,000 of LTF revenue becomes available each year in Kings County. Of this amount, about 40 percent is normally directed to support the Kings Area Rural Transit (KART) and Corcoran transit services. After deduction for administrative costs, the remaining available dollars are used for local street and road purposes. Apportionment is made according to the latest Department of Finance population estimates.

Remaining TDA funds are distributed back to counties through the State Transit Assistance (STA) Fund. These funds can only be used for transit purposes and are used to support KART and Corcoran Dial-a-Ride.

b. General Fund

Normally, a portion of local street and road revenues are drawn from the jurisdiction's general fund. Typical sources are property taxes, fees, interest, and sales taxes. For counties this could include vehicle "in lieu" registration apportionments from the state, and federal revenue-sharing funds. Another source cities and counties may use are fines and bail forfeitures collected in municipal or justice courts.
Normally, these funds are not restricted in use and may be programmed at the discretion of the local legislative body. Because of competing public service demands, dollars budgeted for roads will vary from year to year. For information on which local agencies receive any of these funds, check with the local agency.

c. Street Assessment Levies

Pursuant to the Improvement Act of 1911 and similar legislation, local agencies are able to provide various public works through the creation of special assessment districts. If benefited residents are willing to attach the cost of improvements to their property taxes, this device can generate needed revenue for improvements. The fact that the landowners are billed exclusively for their improvements generally limits special levies to one-time projects rather than to roads which require continuing maintenance. In Kings County, these districts are normally used to supply water or sewer lines, curbs, gutters, sidewalks, and street lights.

d. Transportation Impact Fees

The City of Hanford passed an ordinance in 1990 that established a transportation development impact improvement fee for all new developments within the city’s General Plan boundary area. This impact fee will help mitigate the transportation, traffic, and air quality impacts caused by new development by financing 70% of the cost of public transportation system facility improvements. The improvements may include right-of-way acquisition, roadway construction, traffic signalization, and street expansion improvements.

The fee was based on determining the cost of improvement projects needed to support the projected population growth and the projected number of new trips per day generated by the growth. The total cost per each new trip per day is applied to the number of trips generated per use, as determined in the Institute of Transportation Engineers (ITE) Trip Generation Manual.

Since 1992, the City of Lemoore has maintained Development Impact Fees for City traffic-related infrastructure needs directly attributable to new development. These fees have been indexed in time with the California Construction Cost Index, as costs for the identified project have increased over time. As part of a citywide study in 2005, it was determined that the separate fees should be determined for areas with significantly different existing infrastructure: the mostly-developed portion of the City east of 19 ½ Avenue, and the almost undeveloped western portion of the City. The Eastside Streets and Thoroughfares Fee was adopted in 2006; the Westside Streets and Thoroughfares Fee is currently the subject of a new study, and was adopted in November 2010. In keeping with the Mitigation Fee Act, the collected fees are used exclusively for new infrastructure, and never used for maintenance of existing or upgrading of existing deficiencies in the infrastructure level.
e. **Local Sales Tax Measure**

Kings County could place a measure on a ballot to impose a local sales tax of up to 1% for not longer than 20 years, to fund projects in an approved expenditure plan for state highway projects, local streets and roads, transit and other transportation related projects. It is estimated that a ½ % local sales tax over a 20 year period could generate $114 million to finance local transportation projects in Kings County. Proposed 1999 state legislation (SCA 3 and SB 1155) would have allowed for a 2000 ballot measure and expenditure plan. Recently, the state legislature has begun considering changing the 2/3 voter-approval requirement for local transportation taxes to a 55% majority vote.

f. **Local Option Fuel Taxes**

As authorized by state legislation, voters in each county have the option of approving a local tax on gasoline and diesel fuel, in one-cent increments per gallon. Such a tax could provide a significant source of revenue in Kings County.

Caltrans estimates that 66,100,000 gallons of motor fuel were consumed in Kings County in 2000. Calculating a two-cent tax per gallon yields about $1,322,000 in revenue.
CHAPTER 5
GOODS MOVEMENT

I. OVERVIEW

This chapter examines ways to ensure that freight and commodities are efficiently transported through Kings County and the region. The two transportation modes of railroads and freight trucks are considered. Special attention is given to the needs of the agricultural industry in moving its products.

II. ASSUMPTIONS AND INVENTORIES

A. Forecasted growth for California is expected to increase the volume of goods moved over the next 20 years by 46%, using trucks, air, rail, pipelines, and seaports. Air cargo is expected to be the fastest growing segment of freight transportation nationwide. Rail intermodal traffic is the second fastest growing segment, and truck transport will also continue to grow, but at a slower rate than air cargo or rail intermodal.

B. Kings County’s agricultural economy will continue to generate a strong demand for adequate truck and rail facilities to move farm products to processing plants, markets, and ports.

FIGURE 5-1
KINGS COUNTY FARM PRODUCT VALUE
2012

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>VALUE IN $ Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livestock Products</td>
<td>$704.9</td>
</tr>
<tr>
<td>Field Crops</td>
<td>$634.9</td>
</tr>
<tr>
<td>Fruit and Nuts</td>
<td>$412.6</td>
</tr>
<tr>
<td>Livestock/ Poultry</td>
<td>$265.5</td>
</tr>
<tr>
<td>Vegetable Crops</td>
<td>$184.2</td>
</tr>
<tr>
<td>Apiary Products</td>
<td>$7.0</td>
</tr>
<tr>
<td>Seed Crops</td>
<td>$5.9</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$2,215.0</strong></td>
</tr>
</tbody>
</table>

Source: 2012 Kings County Agricultural Crop Report

C. Kings County will generate relatively little demand for air cargo transportation.

D. The rail network in Kings County, shown in Figure 5-4, consists of approximately 67 miles of mainline and branchline railroad over which two railroad companies operate. The Burlington Northern Santa Fe (BNSF) mainline runs north-south through the county, and the San Joaquin Valley Railroad runs east-west on the leased Union Pacific Railroad (UP) Coalinga Branchline.
E. Railroad companies will continue to seek abandonment of service on unprofitable rail lines. Once abandoned, railroad companies could salvage track, ties, and other equipment and dispose of the right-of-way. Freight previously shipped by rail would be shipped by trucks, increasing truck vehicle miles traveled (VMT) and emissions.

F. Kings County will have a much higher percentage of trucks on its highways than will most other counties. The majority of these vehicles will be moving agricultural products (see Figures 5-2 and 5-3).

G. Each city has identified local truck routes as part of their road network, and the State has identified oversize truck routes and terminals within Kings County. Figures 5-5 through 5-9 provide maps of local truck routes. Truck routes are specifically designated to carry heavyweight commercial and industrial vehicles through and around the city with a minimum disruption to auto traffic and annoyance to residential areas. Truck routes are generally established on arterial and collector streets that provide direct access from regional routes to industrial areas within each community.

**FIGURE 5-2**

**KINGS COUNTY FARM PRODUCE**  
Percent of Total Value - 2012

- Livestock Products 31.8%
- Field Crops 28.7%
- Fruits and Nuts 18.6%
- Vegetables 8.3%
- Livestock / Poultry 12.0%
- Other 0.6%

Source: 2012 Kings County Agricultural Crop Report
FIGURE 5-3

ESTIMATED TRUCK TRAVEL
Kings County vs. State System
1990 - 2008

Source: Caltrans, Traffic Data Branch Website
http://www.dot.ca.gov/hq/tsip/hpms/datalibrary.php
FIGURE 5-4

KINGS COUNTY RAILROADS

Active
Abandoned
Proposed for Abandonment

Source: KCAG
FIGURE 5-5

KINGS COUNTY
Oversize Truck Routes

Source: KCAG
AVENAL
Truck Routes

Source: City of Avenal
Source: City of Corcoran, County of Kings
FIGURE 5-8

HANFORD Truck Routes

Source: City of Hanford
Source: City of Lemoore
III. SUMMARY OF GOODS MOVEMENT ISSUES

A. DETERIORATION OF HIGHWAYS

Heavy trucks damage roads much faster than do automobiles. Because Kings County experiences such a high level of truck travel, its streets and highways are subject to rapid deterioration and failure. City, county, and state road crews are well aware of this fact; most of their work involves repairing fatigued pavements. Roughly 60 cents out of every local transportation dollar in Kings County goes to road maintenance. Special attention must be given to the regional routes to keep them in a serviceable condition and to avoid major reconstruction costs.

Existing overweight truck fines are not devoted to enforcement of truck weight regulations or the maintenance and rehabilitation of roads needed due to overweight truck damage. Legislation to increase truck weight penalties in order to provide added revenue for funding enforcement and road repair needs should be pursued. The amount of any penalty should relate to the damage done to the road and the cost of the repair.

B. OVERSIZE TRUCKS

The Surface Transportation Assistance Act of 1982 authorized the use of longer, wider trucks on designated highways. In Kings County, I-5, SR 41, SR 137 and SR 198 are designated oversize truck routes. The act also allowed trucking companies to establish terminals off the designated routes. While the law did not change the present 80,000 lb. limit, overloading of the vehicles is expected. The trucks' wider turning radii can lead to congestion problems in urban areas. Local officials have expressed concern over the impact that the trucks will have on state and local roads in Kings County. Policies have been adopted to regulate local access points, routes, terminals, and infrastructure improvements.

C. TRAFFIC CONGESTION

By their very size, trucks lead to reduced capacity on rural highways and to congestion on local streets. The need for rural route improvements has already been addressed in Chapter 4: “The Regional Highway System”. Each local agency has designated important collectors and arterials as "truck routes." Local street systems, however, are highly stressed by trucks because of their thinner pavements and base. Congestion results when large trucks try to maneuver on narrow urban streets with cramped intersections and on-street parking.

Cooperative efforts are needed between the trucking industry, the driving public, and local officials to assess the impacts that trucks have on local street and to create regulatory guidelines for trucks in urban areas. Most of the cities will be phasing out truck routes through residential neighborhoods as the area population increases.

D. HAZARDOUS SPILLS

The Class I waste facility located in Kings County's Kettleman Hills draws trucks carrying hazardous materials from all western states. The presence of these vehicles specifically increases the probability of spills. The Kings County Area Plan for Hazardous Materials and Emergency Response document details the protocols for handling hazardous spills.
E. PORT ACCESS

Because many of Kings County's agricultural products are destined for world markets, efficient freight access at California's export points must be ensured. Private and state officials need to find ways to reduce rail and truck congestion at the ports.

F. RAIL CROSSINGS

Rail grade crossings produce several undesirable consequences: lengthy delays of local traffic at certain times; safety problems where automatic grade protection devices have not been installed; and unnecessary roughness which slows traffic and causes congestion. Ways to correct these problems should be identified, discussed, and solved by the local jurisdiction and the railroad company.

Improving rail crossings has only been addressed for passenger rail grade crossings. The California Transportation Commission adopted guidelines for the development of a statewide inventory and methodologies for prioritizing grade crossing improvements that would enhance public safety. Criteria used to prioritize improvements include such factors as train speed and frequencies, traffic volumes, and accident history. These guidelines would only affect the BNSF rail lines and are currently being implemented.

G. TRANSPORTATION OF HAZARDOUS WASTE

Hazardous waste can be transported by rail, small or large trucks, and possibly by air and pipelines. At present, and for the foreseeable future, the largest volume of hazardous waste is transported by large trucks. Many of the counties within California import hazardous waste to Kings County for treatment, storage, and disposal at the Chemical Waste Management - Kettleman Hills facility. At full operation in 2007, approximately 733,000 tons of hazardous waste was transported to the Kettleman Hills facility. While current transported levels are much lower, it is anticipated that if expansion permits are approved, then shipments of hazardous waste would increase to historical levels.

Potential adverse affects associated with the transportation of hazardous waste can be partially mitigated by restricting roads available for hazardous waste trucking. The Kings County Area Plan for Hazardous Materials and Emergency Response includes a hazardous waste transportation plan that established policies that define preferred major and minor routes which connect to regional, state, and interstate highways and railroad systems.

The transportation of hazardous waste within Kings County is guided by a three-tiered road classification system. Within the first tier are minor roads. The second tier includes selected roads of either arterial or collector class and the third tier are the state and interstate routes. Any routing plan for the transportation of hazardous waste should encourage upward movement through the tiers with a minimum amount of time spent on road segments in the lower tier.

Caltrans recommends that specific hazardous waste sites should be located a minimum of one-half mile away from any state highway and that any access to a facility by county, city, or private road should be improved to provide a left-turn lane and any other improvement to reduce the possibility of an accident. Access to the Kettleman Hills facility is provided with an interchange at Interstate 5/State Route 41 and with turn lanes into the facility from State Route 41. Truck climbing and passing lanes are proposed for future improvements on State Route 41.
H. RAILROAD ABANDONMENTS

Railroad companies have ceased operating freight on several railroad corridors throughout the San Joaquin Valley due to low freight volumes and unprofitable lines.

KCAG prepared a “Rail Right-of-Way Inventory Report” in 1990 for Kings County as part of the statewide Commuter and Intercity Rail Right-of-Way Inventory. The inventory report consisted of a description of each rail line within the county and a listing of which lines may have the potential for future passenger rail or recreational use. However, abandoned rail lines through agricultural production property should not be utilized for general public recreational use, as farm security requirements and proximity to agricultural operation make this option infeasible. The following table lists the rail lines within Kings County and their status.

**FIGURE 5-10**

**RAIL RIGHT-OF-WAY INVENTORY**

<table>
<thead>
<tr>
<th>Railroad</th>
<th>Status</th>
<th>Potential Transportation Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>UP - Coalinga Branchline</td>
<td>Active - Portions abandoned or previously proposed for abandonment</td>
<td>Yes</td>
</tr>
<tr>
<td>UP - Stratford Spurline</td>
<td>Abandoned (1996)</td>
<td>Yes</td>
</tr>
<tr>
<td>BNSF - Mainline</td>
<td>Active</td>
<td>Yes</td>
</tr>
<tr>
<td>BNSF - Visalia Branchline</td>
<td>Abandoned (1994)</td>
<td>Yes</td>
</tr>
<tr>
<td>BNSF - Laton Branchline</td>
<td>Abandoned</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: KCAG

In 1996, the San Joaquin Valley Railroad petitioned the Surface Transportation Board (STB) for an abandonment exemption of an 18.1 mile segment of the Coalinga Branchline between Huron and Rossi. Protests were filed by the California Public Utilities Commission (CPUC) and several shippers, citing rail shipping needs and rail freight potential. Subsequently, the STB denied the abandonment exemption on March 5, 1999. The area shippers continued to negotiate with SJVR to consider increasing freight traffic. The continuation and extension of freight rail on this segment will reduce truck travel and emissions.

IV. ACTION ELEMENT

A. To ensure that regional system operational and maintenance costs are held to a minimum and that safety requirements are met, seek to implement the following:

1. Enforce federal and state truck weight and size regulations.
2. Enforce California Vehicle Code maximum load size and weight regulations.

B. The county and each city should adopt consistent Oversize Truck Ordinances compatible with the state ordinance(s) to identify acceptable oversize truck routes, terminals, and servicing areas and to set fees for infrastructure improvements.
C. To facilitate more efficient movement of goods through California's ports, encourage Caltrans and private entities to carry out the following:
   1. Reduce congestion on port access roads.
   2. Reduce conflicts between port rail traffic and non-port transportation.
   3. Encourage the development and improvement of intermodal freight transfer facilities at ports.

D. Implement the goals and objectives identified in the San Joaquin Valley Interregional Goods Movement Plan to maintain and improve the goods movement transportation system.

E. Any conditional use permit for a hazardous waste facility should include a description of routes to be used and route restrictions to be adopted. Facilities should be located so as to minimize distances to major transportation routes and designed to accommodate heavy trucks.

F. Review and comment on proposed notices of abandonment exemptions filed before the Surface Transportation Board by railroad companies for railroad abandonments to determine if the corridor could be used for other transportation purposes.

G. Support the continuation of freight rail on existing rail lines to preserve rail corridors and to reduce truck travel by encouraging the shipment of goods by rail.

H. Continue to implement various planning strategies to preserve the existing rail corridors for future transportation uses.

I. Participate in statewide and regional Freight Advisory Committees to address inter- and intra-regional goods movement issues.

J. Coordinate with various public and private stakeholders, agencies, and organizations to develop information to better understand the movement of goods within and through the Valley, to assess the efficiency of the transportation network in handling goods movement, and to recommend improvements.

K. Support the programming of capacity, operational, safety, and network improvements on the Interregional Road System (IRRS), as recommended in Caltrans’ most recent October 2013 Interregional Transportation Strategic Plan, and program improvements on the local transportation system that facilitate interregional movement of people and goods in the Transportation Improvement Programs.

L. RECENT PROJECTS
   1. San Joaquin Valley Goods Movement Study

   The San Joaquin Valley is in a strategic geographic location for the flow of statewide, nationwide, and international commodities. The eight RTPAs within the central San Joaquin Valley, in conjunction with Caltrans and the SJVAPCD, have undertaken a study to improve the understanding of truck transportation of commodities within and through the Valley. The first phase of the study, completed in 2000, focused on documenting the freight transportation system and identifying existing issues and problems of regional goods movement planning within the Valley. Farm products account for almost 30% of the tonnage of all commodities shipped from the Valley. About 46% of the farm product tonnage is sent directly out
of the Valley. Almost 87% of the total tonnage is moved out of the Valley by truck, while rail accounts for 11%. Between 1993 and 1997, there was an increase in the tonnage of goods moved by trucks and a decrease by rail. Shipments of higher value products have shifted from rail to trucks.

Freight transportation problems identified by generators within Kings County included a safety issue at the SR 41 and SR 198 interchange, lack of adequate off-street parking and restricted on-street parking, poor connections from loading areas to state highways, and long delays at grade rail crossings.

The second phase of the Study concluded in 2004, described the development of a model tool to forecast truck movement within and through the San Joaquin Valley. The truck model is intended to forecast truck trips and vehicle miles traveled, analyze air quality and emissions from heavy-duty trucks, impacts of congestion on major truck routes, and safety and road maintenance issues associated with truck activity. The third phase of the Study initiated in 2006, provided improvements to the San Joaquin Valley truck model and integration with local models. This model will provide an analytical basis for evaluating the benefits of transportation investments that impact the movement of goods in the San Joaquin Valley.

In response to the State’s Goods Movement Action Plan (GMAP), the San Joaquin Valley RTPAs prepared a Regional Goods Movement Action Plan as a way to leverage the Valley’s abilities and opportunities to improve the goods movement system in the Valley. This Plan identified the regions goods movement system, analyzed the flow of commodities within the system, identified the impacts on air quality, and developed a list of regional projects that strive to relieve the overburdened goods movement infrastructure.

2. **San Joaquin Valley Interregional Goods Movement Plan**

As a continuation of evaluating goods movement in the San Joaquin Valley, in 2011-2013, an additional study was conducted. The San Joaquin Valley Interregional Goods Movement Plan was developed to take the next steps in the progression and implementation of the region’s freight transportation vision. This effort, above and beyond the prior Valleywide good movements planning efforts, was focused on developing actionable project recommendation and implementation plans. This study confirmed that goods movement-dependent industries remain the foundation for many local area economies within the San Joaquin Valley, providing over 44% (564,000) of the region’s jobs in 2010. Projected growth by 2040 estimates over 813,000 new jobs throughout the region. The growing industries and population of the San Joaquin Valley will therefore increase demand for freight services. Freight volumes are projected to grow from 500 million tons in 2007 to almost 800 million tons by 2040. Goods movements will continue to rely heavily on trucks, and it is anticipated that by 2040, roughly 93% of all commodity movement will be transported by truck. The Interregional Goods Movement Plan identified 50 priority projects categorized by regional north-south highway capacity, east-west connectors, local “last mile” connectors, modal capacity for expected flows (rail and air cargo capacity increase or upgrades to support new freight flows), economic development opportunities, inland ports, and strategic programs. The project lists will be provided during statewide and national goods movement planning efforts.
3. **Cross Valley Rail Upgrade**

As discussed in “Chapter 6 - Public Transportation”, the second phase of the Cross Valley Rail Feasibility Study recommended that the UP Coalinga branchline be preserved for future use. In an effort to preserve the rail corridor that was threatened with abandonment, funding for the rehabilitation of the UP Coalinga branchline across the San Joaquin Valley between Huron and Visalia has been obtained from various sources. Rehabilitation of the tracks will improve freight service operated by the San Joaquin Valley Railroad and reduce the amount of truck traffic on regional county roads and highways. Funding for the $15 million project was provided in the state Traffic Congestion Relief Program, federal Economic Development Initiative grant, Congestion Mitigation and Air Quality funds from Fresno, Kings and Tulare Counties, the cities of Huron, Lemoore and Visalia, private agencies, and the SJVRR. Rehabilitation work began in late 2001 and was completed in 2004.
CHAPTER 6
PUBLIC TRANSPORTATION

I. OVERVIEW

Public transit is arguably one of the most important services any municipality can offer its residents. In an increasingly mobile society, the need for all residents to have access to employment, schools, medical services, and recreational activities is necessary to maintain equitable opportunities for all persons.

Rural public transit plays a vital role in providing mobility for those with limited or fixed income. Typically, rural areas contain a higher percentage of lower income persons (per capita) living in smaller cities that are separated by long distances. While urban public transit systems serve a wide cross-section of riders, rural transit patrons have predominantly been the elderly and the physically and developmentally disabled, who in most instances have no other choice of transportation services other than those offered by the local public transit operator. In recent years, these particular transit groups have become a smaller percentage of the total ridership as public transportation continues to grow in services and ridership from the general public.

In Kings County, there are several private and public agencies providing transportation services. Among those providers considered in this chapter, the focus will be on the Kings Area Rural Transit (KART) system, the primary public transit operator in Kings County, Corcoran Area Transit, Amtrak San Joaquins, high speed rail, and commuter rail service. In addition, a section is devoted to the vanpool programs, sponsored by the California Vanpool Authority (CalVans) to provide vanpools to agricultural growers, employers, and students who commute long distances. A separate section addresses other sources of ridesharing and programs designed to reduce single-occupant vehicle commuting within Kings County and the central San Joaquin Valley region.

II. ASSUMPTIONS AND INVENTORIES

A. TRANSIT DEMANDS

1. Although most county residents can rely upon their own means for transportation, transportation needs will continue to exist, especially among elderly, disabled, and low-income groups who are unable to afford to operate motor vehicles. Many households having only one available vehicle are also challenged with transportation needs.

2. As a result of transit's growing public familiarity, KART and Corcoran Area Transit ridership will continue to increase. This will result in a higher farebox return, which can help decrease local public costs to operate the system.

3. The population growth of Kings County, combined with the growth in employment opportunities over the next twenty years will increase ridership and transit demands for services in areas beyond the reach of existing KART routes. KART must remain flexible and responsive to the increasing demands.

4. A significant demand for intercity bus and rail services for the San Joaquin Valley will continue.
5. The Hanford Intermodal Station will continue being a major stop on the Amtrak San Joaquin line by drawing riders from Kings and Tulare counties. A much higher percentage of Kings County residents will ride the train than will residents of any other Valley county.

6. Because many Kings County residents commute long distances to work, ridesharing will continue as a viable alternative to single-occupant vehicle commuting.

7. Public transit, used as a transportation control measure (TCM) for air quality improvement, will help the region to attain both state and federal mandated air quality standards.

FIGURE 6-1
AVAILABLE VEHICLES BY HOUSING UNITS IN KINGS COUNTY
2010-2012

<table>
<thead>
<tr>
<th>NO. OF VEHICLES</th>
<th>HOUSING UNITS</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2,496</td>
<td>6.14%</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>12,135</td>
<td>29.83%</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>16,048</td>
<td>39.44%</td>
<td></td>
</tr>
<tr>
<td>3+</td>
<td>10,005</td>
<td>24.59%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40,684</strong></td>
<td><strong>100.0%</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: 2010-2012 American Community Survey (3-year Estimate)

FIGURE 6-2
PERSONS WITH A DISABILITY IN KINGS COUNTY*
2012

<table>
<thead>
<tr>
<th>JURISDICTION</th>
<th>AGE GROUPS</th>
<th>TOTAL</th>
<th>% POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5-18</td>
<td>18-64</td>
<td>65+</td>
</tr>
<tr>
<td>Avenal</td>
<td>126</td>
<td>621</td>
<td>276</td>
</tr>
<tr>
<td>Corcoran</td>
<td>63</td>
<td>1,106</td>
<td>384</td>
</tr>
<tr>
<td>Hanford</td>
<td>530</td>
<td>3,203</td>
<td>2,025</td>
</tr>
<tr>
<td>Lemoore</td>
<td>225</td>
<td>1,254</td>
<td>673</td>
</tr>
<tr>
<td>Unincorporated</td>
<td>386</td>
<td>1,494</td>
<td>1,244</td>
</tr>
<tr>
<td><strong>Total County</strong></td>
<td><strong>1,330</strong></td>
<td><strong>7,683</strong></td>
<td><strong>4,602</strong></td>
</tr>
</tbody>
</table>

Source: American Community Survey (5-year Estimate)

* Defined as persons having a long lasting condition that substantially limits one or more basic physical activities. Disability status of the civilian non-institutionalized population.
FIGURE 6-3
TRIP-TO-WORK PRIVATE VEHICLE OCCUPANCY
FOR KINGS COUNTY
2009-2010

<table>
<thead>
<tr>
<th>OCCUPANCY</th>
<th>AVENAL</th>
<th>CORCORAN</th>
<th>HANFORD</th>
<th>LEMOORE</th>
<th>KINGS COUNTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive Alone</td>
<td>55.3%</td>
<td>86.1%</td>
<td>84.1%</td>
<td>83.5%</td>
<td>81.2%</td>
</tr>
<tr>
<td>Carpool:</td>
<td>44.7%</td>
<td>13.9%</td>
<td>15.9%</td>
<td>16.5%</td>
<td>18.8%</td>
</tr>
<tr>
<td>2 Persons</td>
<td>34.7%</td>
<td>53.2%</td>
<td>71.7%</td>
<td>75.8%</td>
<td>64.1%</td>
</tr>
<tr>
<td>3 Persons</td>
<td>13.8%</td>
<td>23.1%</td>
<td>14.1%</td>
<td>9.4%</td>
<td>13.9%</td>
</tr>
<tr>
<td>4-6 Persons</td>
<td>21.2%</td>
<td>17.3%</td>
<td>11.5%</td>
<td>12.9%</td>
<td>14.4%</td>
</tr>
<tr>
<td>7 or more</td>
<td>30.3%</td>
<td>6.4%</td>
<td>2.7%</td>
<td>1.9%</td>
<td>7.6%</td>
</tr>
</tbody>
</table>

Source: American Community Survey (5-year Estimate)

B. TRANSIT PROVIDERS

Kings County area transportation providers belong to one of five classes: 1) Public Operators Providing Public Transit; 2) Public Operators Providing Passenger Rail Service; 3) Private Operators Providing Public Transit for Profit; 4) Nonprofit Operators Providing Special-Use Transit; and 5) Nonprofit Vanpools. Kings County prepares an update to its inventory of transportation providers every four years. The "Social Services Transportation Inventory" includes a detailed summary of each agency’s services. The various transportation providers are arranged in five groups in Figure 6-4. Excluded from consideration are public school bus systems, ambulances, and private or nonprofit providers such as churches, private schools, and clubs. Many of the nonprofit special-use providers prefer to maintain their transportation services as they exist now, but are willing to coordinate with other public and private providers as the needs arise. A nonprofit vanpool program serves the County and the region providing transportation to both public and agricultural workers for school and employment purposes.
## FIGURE 6-4

TRANSPORTATION PROVIDERS IN KINGS COUNTY

<table>
<thead>
<tr>
<th>PUBLIC OPERATOR: PUBLIC TRANSIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kings Area Rural Transit</td>
</tr>
<tr>
<td>Corcoran Area Transit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PUBLIC OPERATOR: PASSENGER RAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMTRAK San Joaquins</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRIVATE OPERATOR: FOR PROFIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marathon Cab</td>
</tr>
<tr>
<td>Central Valley Cab</td>
</tr>
<tr>
<td>Mendez Bros</td>
</tr>
<tr>
<td>Lemoore Taxi Cab</td>
</tr>
<tr>
<td>Kings Cab</td>
</tr>
<tr>
<td>Taxi Steve</td>
</tr>
<tr>
<td>Nite Capper Limousine Taxi</td>
</tr>
<tr>
<td>Express Taxi</td>
</tr>
<tr>
<td>Circadian Taxi</td>
</tr>
<tr>
<td>Coach USA Central</td>
</tr>
<tr>
<td>Orange Belt Stages</td>
</tr>
<tr>
<td>Classic Charters</td>
</tr>
<tr>
<td>Kings County Medical Transport</td>
</tr>
<tr>
<td>Employ America Adult Day Care</td>
</tr>
<tr>
<td>Tri-County Medical Transport</td>
</tr>
<tr>
<td>Valley Medical Transportation</td>
</tr>
<tr>
<td>Community Home Care</td>
</tr>
<tr>
<td>Kings Convalescent Center</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NONPROFIT: SPECIAL USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kings Rehabilitation Center</td>
</tr>
<tr>
<td>Kings View Mental Health</td>
</tr>
<tr>
<td>Corcoran Family YMCA</td>
</tr>
<tr>
<td>Kings County YMCA</td>
</tr>
<tr>
<td>Kings Community Action Org. - Head Start</td>
</tr>
<tr>
<td>Kings Community Action Org. - Respite Care</td>
</tr>
<tr>
<td>Kings Community Action Org. - Teen Pregnancy</td>
</tr>
<tr>
<td>Kings Community Action Org. - Emergency Services</td>
</tr>
<tr>
<td>Valley Christian Home</td>
</tr>
<tr>
<td>American Cancer Society</td>
</tr>
<tr>
<td>American Red Cross</td>
</tr>
<tr>
<td>Armona Senior Center</td>
</tr>
<tr>
<td>Best Care Home Health Agency</td>
</tr>
<tr>
<td>Central Valley Regional Center</td>
</tr>
<tr>
<td>Kings County Human Services Agency</td>
</tr>
<tr>
<td>Kings County Job Training Office</td>
</tr>
<tr>
<td>Kings County Mental Health</td>
</tr>
<tr>
<td>Kings County Public Health</td>
</tr>
<tr>
<td>Kings/Tulare Area Agency on Aging</td>
</tr>
<tr>
<td>Cornerstone Recovery</td>
</tr>
<tr>
<td>Santa Rosa Rancheria</td>
</tr>
<tr>
<td>Lemoore Naval Air Station</td>
</tr>
<tr>
<td>Salvation Army</td>
</tr>
<tr>
<td>Corcoran State Prison - Bien Venidos Visitor Shuttle</td>
</tr>
<tr>
<td>Kings County Probation - Victim Witness Program</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NONPROFIT: VANPOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>California Vanpool Authority (CalVans)</td>
</tr>
</tbody>
</table>

Source: KCAG
FIGURE 6-5

KINGS COUNTY TRANSIT SERVICES

Source: KCAPTA, KCAG
III. PUBLIC TRANSIT SERVICES

The services of the two local public transit operators in Kings County are detailed in the “2008 Kings County Transit Development Plan” and will be summarized in this section. The intercity rail and bus services will also be highlighted in this section.

A. KINGS AREA RURAL TRANSIT

The largest single provider of public transportation within Kings County is operated under the auspices of the Kings County Area Public Transit Agency (KCAPTA), a joint powers agency comprised of the County and the cities of Hanford, Lemoore, and Avenal. The City of Corcoran does not participate in the KART system. KCAPTA oversees the operation of the Kings Area Rural Transit (KART) system and establishes the operating policies and defines the services to be provided by KART, including service hours and days, fares, and routes. This organization is shown in Figure 6-6.

KCAPTA operates and manages one transfer facility located adjacent to the Amtrak Station in Hanford. The transit center has 10 bus bays with a supervisory office at the entrance of 7th Street and bus ingress on 8th Street. The day-to-day management and actual operation of the system are carried out under contract with a private firm, MV Transportation, Inc. All KART operating personnel (manager, dispatcher, mechanics, and drivers) are employees of MV Transportation. KCAPTA staff monitors and interfaces with MV Transportation on a daily basis.

KCAPTA’s administrative office is located offsite and staffed with an executive director, an office manager, and a transit coordinator. KCAPTA staff is responsible for design and organization of marketing programs, count and deposit of the farebox receipts, review of invoices and service reports, and preparation of reports for the KCAPTA Board meetings. KCAPTA is also responsible for overseeing accounting functions and seeking all funding and financial sources available to nonprofit public transportation.

KART began operations in June of 1980 and has seen a steady increase in the number of riders and new services over the past 34 years. Since 2000, KART ridership has increased dramatically as services have expanded to meet growing transit needs of the public in Kings County.

Two levels of service are offered by KART: fixed-route and demand response (Dial-a-Ride) service. Demand response service is available daily in Hanford, Lemoore, and Armona. There is daily fixed route service in Hanford, Hanford-Lemoore, Hanford-Avenal, Hanford-Corcoran, Hanford-Visalia, Hanford-Laton, and Hanford-Fresno. In addition to regular fares, KART offers monthly passes and a Value Card for all fixed route and demand-response services. KART also offers disability service to certified Americans with Disabilities Act (ADA) riders with half-priced passes on fixed routes. The KART system has been, and will continue to be, dependable and responsive to its customers needs as stated in its service goal:

“It is the goal of this agency to provide reliable Public Transportation service that is clean and convenient; focused on that portion of the public which is transit dependent; in a proactive manner, resulting in continued improvements and cost effectiveness.”
KCAPTA is committed to clean energy with the fixed route system. KCAPTA operates and manages one Compressed Natural Gas (CNG) fueling station in Hanford, which enables KART to reduce operating costs by using a stable fueling source in lieu of gas or diesel fuel. The site has 14 fueling stations, a slow fuel system, and one compressor. KCAPTA plans to expand the CNG system with an additional compressor and fueling post in the near future. KCAPTA has converted most of its fixed route fleet to CNG, and currently has two buses remaining to convert.

KCAPTA currently has a fleet of 21 fixed route buses, 12 demand response buses, and 2 to 3 support vehicles for maintenance and supervision. All fixed route buses are equipped with radios, automated fare equipment, security cameras, wheelchair lifts, and bike racks. Demand response (DAR) buses are equipped with radios, mobile data terminals, automated fare equipment, and wheelchair lifts.

The fixed route service currently consists of 19 routes and approximately 220 bus stops. Operating hours are 6:30 a.m. to 9:00 p.m., Monday through Friday, excluding holidays, and 9:00 a.m. to 5:00 p.m. on Saturdays. Thirteen (13) buses are operated during peak level service. This schedule results in an annual total of approximately 38,700 vehicle revenue hours, 630,000 vehicle revenue miles, and 780,000 trips based on FY 12-13 data.

The demand response (DAR) service currently consists of 7 buses. Operating hours are aligned with the fixed route service hours. Annual usage totals approximately 14,300 vehicle revenue hours, 102,450 revenue miles, and 32,300 trips based on FY 2012-13 data.

FIGURE 6-6
Kings County Area Public Transit Agency
Organizational Chart
B. **CORCORAN AREA TRANSIT**

The City of Corcoran has provided its own transit service since 1975 for Corcoran residents and for those living in the rural “fringe” area surrounding Corcoran. Initially, the service was only for senior citizens, but in 1989 the service was expanded to include the general public. In addition to Dial-a-Ride, the City of Corcoran made available to residents discounted one-way and round-trip Amtrak tickets and KART bus tickets for intercity travel between Corcoran and Hanford for access to County services.

Corcoran Area Transit (CAT) is operated by the Public Works Department of the City of Corcoran. The Public Works Director acts as the Transit Manager and is responsible for the daily operations and management of the system. The Corcoran City Council is responsible for addressing needs of the community which is acted upon by the transit administrator and staff. The Transit Coordinator and the Senior Transit Assistant oversee the operation of the dispatch for Dial-A-Ride bus service through the multimodal center, where KART tickets are available for purchase. City staff is responsible for monitoring the bus service, for counting and deposit of farebox receipts, reviewing invoices and service reports, and preparing reports for the City Council meetings.

The majority of ridership in Corcoran consists of senior citizens, the disabled, and children who can ride at a reduced rate. The city provides 6 demand response buses equipped with wheelchair lifts that operate from station–to-destination service and not door-to-door or curb-to-curb. The bus service is available Monday through Friday only, excluding holidays. Hours of operation of Dial-A-Ride buses are 6:30 a.m. to 5:30 p.m. The transit center is open Monday through Friday 8:00 a.m. to 5:00 p.m. Annual usage totals approximately 5,250 vehicle revenue hours and 48,400 revenue miles, with 36,700 trips based on FY 12-13 data.
Corcoran Dial-A-Ride has steadily improved its ridership over the years. KART has contributed two routes for commuting between the cities of Hanford and Corcoran, primarily by employees and visitors to the California State Prison and California Substance Abuse Treatment facility located in Corcoran. Corcoran offers its senior citizens discounted rates. In 2013, Corcoran Area Transit commenced a new KART ticket program for the Corcoran-Hanford route to purchase tickets at discounted prices. In the past, Corcoran combined its fares with discounted AMTRAK tickets to meet the revenue threshold. With recent security changes to the AMTRAK ticket program that required individual names on each ticket, Corcoran may no longer offer discounted tickets. The resulting gap in public transportation services between Hanford and Corcoran is currently being addressed by KCAPTA and City of Corcoran to provide an additional bus route between both cities to improve transit service. Corcoran is committed to seeking new strategies to increase farebox return to comply with the Transportation Development Act (TDA) requirements.

**FIGURE 6-8**

**Corcoran Area Transit Organizational Chart**

- Corcoran City Council
- City Manager
- Public Works Director
- City Finance Director
- Transit Coordinator
  - Senior Transit Assistant
  - Transit Operator
C. **AMTRAK**

Of the three Amtrak intercity corridors within California, the San Joaquin rail line ranks the sixth busiest corridor in the United States as of FY 2012-13. The trains (San Joaquins) provide six daily round-trips with stops in Bakersfield, Wasco, Corcoran, Hanford, Fresno, Madera, Merced, Turlock, Modesto, Stockton, Antioch, Martinez, Richmond, Emeryville, and Oakland. Connecting bus service is provided to Los Angeles, Sacramento, San Francisco, and many other points in Northern and Southern California. The trains are accessible to the disabled and provide on-board bicycle racks, checked baggage, and food services.

Because Amtrak is a national enterprise, connecting transit service at the Amtrak stations must be coordinated by the local transit operators. Kings Area Rural Transit (KART), Corcoran Area Transit (CAT), and Orange Belt Stages coordinate their bus service with the San Joaquin train schedules. Amtrak passengers can board feeder bus service provided by Orange Belt Stages as a part of their regular route at Hanford for Santa Maria and other central coast destinations. Hanford has always been one of the most important stops on the San Joaquin route, consistently ranking among the top four or five stations in ridership. Amtrak provides six northbound and six southbound trains that stop in Corcoran. Station rankings shown in Figure 6-11 includes ridership for the San Joaquin corridor service only. Hanford averaged 618 passengers per day in FFY 2012-13 while Corcoran averaged 86 passengers per day.
FIGURE 6-10

AMTRAK
SAN JOAQUINS RIDERSHIP
FY 89/90 - FY 12/13

Caltrans, San Joaquin Route FFY 2012-13 Business Plan
FIGURE 6-11
SAN JOAQUINS RIDERSHIP BY STATION
FFY 2012-13

<table>
<thead>
<tr>
<th>Rank</th>
<th>Station</th>
<th>Total Boardings And Alightings</th>
</tr>
</thead>
<tbody>
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<td><strong>TOTAL</strong></td>
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</table>

Total Ridership: 2,414,815

Source: Amtrak, Amtrak Government Affairs November 2013

* Since each trip contains two endpoints, total ridership is equal to half of total boardings and alightings.

D. ORANGE BELT STAGE LINES

Orange Belt Stages is the only transportation provider that fills the gap between Kings County and connections to Tulare County and the Central Coast via Paso Robles. This nationwide charter service, which has been in business since 1916, has regional fixed routes in Kings County that stop in Hanford, Lemoore, Lemoore Naval Air Station, and Kettleman City on its western route to Santa Maria and provides connective routes from Kings County to Visalia. Orange Belt also connects with Greyhound bus service provided in the San Joaquin Valley.

Increasing operations costs and low ridership figures are problems which Orange Belt Stages must contend with. Efforts to coordinate services with other providers in the future are favorable. The City of Corcoran may obtain intercity bus service at the Corcoran Intermodal Facility in the future. Currently, Orange Belt coordinates with Amtrak for bus connections out of the Hanford Intermodal Station.
E. CALIFORNIA VANPOOL AUTHORITY

In 2001, KCAPTA commenced a vanpool program for riders to the Corcoran and Avenal State Prisons when Caltrans ceased operating vanpools to state facilities. KCAPTA purchased additional vans to implement new vanpools and under the pilot program to include farmworkers, Agricultural Industries Transportation Services (AITS), vanpooling grew to 180 vans in service in 2009 and extended into areas of Tulare, Kings, Kern, Madera, Ventura, Monterey, and Fresno counties. In 2012, the California Vanpool Authority (CalVans) was established as a joint powers agency. As a public transit agency, CalVans is able to provide safe, affordable vans to qualified agricultural farmworkers traveling to the field. Participation in the vanpool program is voluntary with the employer able to assist in the cost of transportation through the use of vouchers. Currently, CalVans provides over 430 vanpools to residents of 17 counties that include: El Dorado, Fresno, Kern, Kings, Madera, Merced, Monterey, Napa, Placer, San Benito, Santa Barbara, Santa Cruz, Sutter, Tulare, Ventura, Yolo, and Yuba.

CalVans also provides vanpools for employment destinations and for students. CalVans' general vanpools show a trend in growth due to work schedule changes at local prisons and the increased funding available from Fresno's Measure C program. As a result, CalVans has increased the number of vans in its fleet. Individuals who use CalVans will commute with co-workers and apply to form a vanpool and provide a driver, who must meet certain conditions and agree to manage and operate the van in a non-profit manner.

CalVans tracks demand for vanpools to allow potential users to express interest and to convert suggested routes to operating routes when sufficient demand exists. CalVans utilizes a webtech program to monitor its fleet of vehicles, to track drivers and vans with GPS systems, accumulate activities, mileage, and driver habit/performance, as well as vehicle performance and efficiency reports.

In contrast to some privately operated vanpool providers, CalVans reports operations data to the National Transit Database (NTD), which qualifies CalVans' member agencies for federal formula funds. CalVans serves multiple Urbanized Areas (UZAs) in California, and service can generate formula funds for member agencies which act as sponsors for CalVans. Members of the Joint Powers Authority governing CalVans include:

- Association of Monterey Bay Area Governments
- Fresno Area Council of Governments
- Kings County Association of Governments
- Madera County Transportation Commission
- Napa County Transportation and Planning Agency
- Santa Barbara County Association of Governments
- Tulare County Association of Governments
- Ventura County Transportation Commission
- Kern Council of Governments
- Merced County Association of Governments
- San Benito County Council of Governments

Reporting to the Federal NTD system includes tracked information regarding the accumulation of all miles travelled by each van, the number of passengers carried, how long they traveled, and the miles they traveled in each van. Between 2011 and 2012, Kings County experienced a low 12% increase in passenger lane miles, reduced by the use of CalVans vanpools by residents within the County, resulting in a positive impact on the disposable income of riders and on roadway congestion and greenhouse gas emissions.
IV. ISSUES

A. PUBLIC TRANSIT

1. Kings Area Rural Transit

   a. Both KCAG and the Kings County Area Public Transit Agency (KCAPTA) must continue to seek out and define transportation needs. It is vital that the KART system remain proactive to transit patrons’ needs, allowing both input and feedback for future transit route adjustments. KART management and the KCAPTA Board must remain accessible to those who need transit service in the community. They must ask themselves and the community: Who in Kings County needs transit services? Where are the needs located? What level of service will reasonably meet those needs? The annual “unmet transit needs” public hearing process conducted by the KCAG Transportation Policy Committee to allocate Local Transportation Fund (LTF) revenues to support KART will assist in determining these questions. Fortunately, there have been sufficient LTF revenues in the past to fund any transit needs identified through this process. However, decreases in other funding sources have occurred.

   b. KART’s cost-sharing formula is based on 50% service hours and 50% population of each member. KCAPTA will continue to review the formula to provide an equitable apportioning of transit costs among the member agencies.

   c. Due to Kings County’s rural nature, County residents have to rely more on their own means for transportation than those living in the more densely populated areas of the state. Public transit services are well patronized by a small segment of the population (primarily by residents of limited means without access to a car and the elderly), yet public transit is generally considered a low-priority public expenditure.

      Although KART’s ridership and fare revenues have increased, it still requires the public to subsidize about 85 percent of its costs. While the intent of the Transportation Development Act is to ensure that all persons have access to transportation for both drivers and non-drivers, some may view the expense to increase limited transit ridership as an inefficient use of public funds.

   d. Over the years, the KART system has improved its farebox return ratio. However, as a result of added cost to implement state and federal requirements such as the Americans with Disabilities Act (ADA) and Welfare-to-Work, the farebox ratio has not been able to increase as steadily as it had in the past. KCAPTA will need to continue working to increase community ridership and adjusting routes to better serve the greatest number of people. Care should be taken to ensure that such adjustments while appearing to be more economical, do not reduce service to the low-mobility groups KART is designed to serve.

   e. Due to budget cuts, some social service agencies are requesting KART to supplement their clients’ transportation needs. Because transit needs of the elderly and disabled are high priorities of KART, it will require additional services at an increased cost. The coordination of transportation services among KART and social service providers should be implemented where feasible.
f. An inter-county transit needs study conducted by the Tulare County Association of Governments (TCAG) found that enough demand for service existed to justify operating a fixed route service between Hanford and Visalia. KCAPTA began providing service to Visalia for educational and employment needs, but Tulare County has not proposed providing complimentary service to Hanford. KCAPTA will need to work together with TCAG to develop, fund, and operate a commuter service that will meet service needs and performance criteria.

g. Federal welfare reform law requires local transit providers to consider giving priority to enhancing services for welfare-to-work purposes. KCAPTA must work with public and private agencies to develop and equitably fund new routes and services that offer welfare recipients the ability to obtain employment and training opportunities.

h. During fiscal year 2008/09, KCAPTA completed construction of the Hanford Transfer Station, located at 504 W. 7th Street in Hanford near the Amtrak station, in response to KART’s growing bus fleet. Additional projects require KCAPTA to investigate all new resources of funding and submit grant applications to obtain the required funds because currently used funding programs available to operators in rural counties are insufficient to meet these needs. KCAPTA recently purchased an Intelligent Transportation System to improve and enhance ridership, and continually upgrades the fixed route buses with additional bus routes, bus stops, and benches as necessary.

i. In 2012, KCAPTA completed construction of a new CNG fueling station. Efforts to establish and follow performance safety measures, properly handle mechanical malfunctions, and repair or replace CNG buses in compliance with federal laws will require KCAPTA to acquire additional sources of funding.

j. New Federal transit laws under Moving Ahead for Progress in the 21st Century – MAP 21, require a comprehensive transit asset management plan for transit operators in rural areas larger than 50,000 in population. KCAPTA will be required to analyze transit system inventories and condition assessments, and to establish performance measures to monitor and report, to ensure the safety and security of the public transportation infrastructure, and assure that planning capital assets remain in a state of good repair.

2. Corcoran Area Transit

a. Corcoran’s Dial-a-Ride service has provided residents with a stable and efficient transit system. The prison and related facilities in Corcoran, along with the Corcoran Intermodal Facility will increase transit demand. The ability of Corcoran Area Transit to meet this demand will require changes in transit routes, equipment, and the need for additional funding.

b. The operation of the Corcoran Intermodal Facility by the city and expanded Dial-a-Ride service within the Corcoran area to meet the needs of local residents have created the need for funding that exceeds what is available to the City of Corcoran from traditional transit funding sources. The City of Corcoran recently subsidized the sale of KART fare tickets for Corcoran-to-Hanford commutes. Although the additional revenue aids Corcoran in reaching TDA farebox requirements, the City of Corcoran will need to seek new funding sources to meet its total transit budget and continually review the fare system.
Corcoran Area Transit offered round-trip tickets on Amtrak between Corcoran and Hanford at a reduced rate to improve its TDA farebox ratio. However, AMTRAK has recently changed its security measures and can no longer offer bulk tickets, therefore, the City of Corcoran will need to consider additional transit service between Corcoran and Hanford to fill the service gap.

3. **AMTRAK**

Kings County is fortunate in that it is linked with other areas of the state by Amtrak San Joaquin trains. Ensuring the continuation of this service is a matter of considerable regional significance.

a. To protect the existing San Joaquin rail service and to promote its improvement, in 2012, local and regional agencies throughout most of the San Joaquin Corridor (Bakersfield-Fresno-Modesto-Stockton-Sacramento-Oakland) sponsored and supported Assembly Bill 1779 (AB 1779). This bill enabled regional government agencies to form the San Joaquin Joint Powers Authority (SJJPA) 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 bi-partisan support, and was signed by Governor Brown on September 29, 2012. The first SJJPA Board meeting was held on March 22, 2013 in Merced. Kings County became a member on April 23, 2013.

b. State costs to support intercity rail operations have increased significantly due to reductions in Amtrak’s federal funding. SB 1118 authorized the former “Steering Committee of the Caltrans Rail Task Force” to continue working with Caltrans to assist in the management and promotion of the service. This committee was renamed the San Joaquin Valley Rail Committee which represents the counties along the route.

c. Like virtually all Amtrak trains, the San Joaquin operates at a loss. With operating expenses exceeding ticket sales, a deficit remains to be shared by Amtrak and Caltrans under the 403(b) agreement begun in 1979. Continued state support was on the condition that a farebox ratio of 55% would be maintained. This requirement could be waived for three years. However, as additional services were provided and changes were made in Amtrak’s cost allocation formula, the previously attained high farebox ratios around 80% were no longer able to be achieved. As a requirement of SB 457, the state developed uniform performance standards for the state-supported rail corridors to control costs and improve efficiency. The performance standards take into account total route ridership, cost efficiency, and quality of service and are no longer based only on farebox ratios. The FFY 2011 farebox ratio attained by the San Joaquin was 54.2%.

d. Feeder buses connecting the Hanford station with the major cities in Tulare County is available as part of the regular route structure of Orange Belt Stages. An opportunity also exists to provide coordinated feeder bus service by the KART and Corcoran Dial-a-Ride systems. The feeder bus network is a very important element of the San Joaquin since more than 60% of all passengers use a feeder bus during their trip.
e. In November of 1988, the Kings County electorate approved a ballot measure which made the county eligible under Article XIX, Section 4 of the California Constitution, for transit guideway funds for capital improvements to the Amtrak San Joaquins line. Each of the counties eligible for Article XIX funds was to receive a county minimum share of budgeted funds based on a percentage of each county’s 1990 Census population to the total eligible county population. The amount of funding available to Kings County through the Transit Capital Improvement (TCI) Program ranged between $88,100 and $225,600. Funds were used for projects to construct the Hanford and Corcoran intermodal facilities and the Cross Valley Rail Feasibility Study.

With the enactment of SB 45 and the elimination of the TCI Program, a minimum of funds is no longer available to Kings County. Intercity rail projects are now programmed through the Interregional Improvement Program (IIP) on a statewide competitive basis.

f. If high speed rail between Los Angeles and the Bay Area is implemented, there would be a limited number of stations within the San Joaquin Valley. The continuation of the San Joaquins must be retained to continue to provide intercity rail service to the Kings County area.

B. HIGH SPEED RAIL

The California High Speed Rail Authority (CAHSRA) is in the process of preparing a plan for the construction and operation of a high-speed rail network serving Sacramento, the San Francisco Bay Area, the Central Valley, Los Angeles, and San Diego. There are significant impacts associated with a high-speed rail system through the San Joaquin Valley.

1. Station Locations

The key issue is the choice between stations located within the existing downtowns and stations located within suburban or newly developing areas. Most of the local governments support service to existing downtowns. Outlying suburban stations may require substantial local costs to provide connecting transit service to key activity centers downtown and may encourage premature development. It is important to note that the 2008 Safe, Reliable High-Speed Train Bond Act for the 21st Century sometimes referred to as Proposition 1A (the “Bond Act” – Streets and Highway Code section 2704, et seq.) indicates that in order to reduce impacts on communities and the environment, the alignment for the high-speed train system shall follow existing transportation or utility corridors to the extent feasible and that “stations shall be located in areas with good access to local mass transit or other modes of transportation.” (St. &Hwy Code §2704.9(g) & (h)). While currently a station is planned for Fresno, a potential station is discussed within the environmental document for the Fresno-Bakersfield section of the overall system. The proposed station is an attempt to serve the growing population of Kings and Tulare Counties and is simply conceptual at this point as there is no funding, design, or details included within the environmental document nor otherwise, except that the High Speed Rail Authority has invited the Kings County Association of Governments to apply to Partnership Program to plan a regional transportation hub at the proposed Kings/Tulare Regional Station. Hanford has an existing train/cab/bus/vanpool/ride-share transportation hub downtown situated on the BNSF rail line. Instead of coming down the BNSF through town, the proposed alignment loops around the City of Hanford within the County of Kings in contradiction to its General Plan that centers on agriculture sustainability and is inconsistent with the City of Hanford’s growth patterns and the Bond Act. The
proposed high speed rail station indicated in the environmental document would be situated one-half mile east of the City of Hanford’s current “Primary” Sphere of Influence in a “Secondary” sphere and away from the existing transportation hub. The “primary” sphere presently extends east to State Route 43 right of way. As the proposed station and alignment are outside the existing Hanford Primary Sphere, they are not eligible for annexation until and unless the City successfully receives LAFCO of Kings County approval of a Sphere amendment to expand the Hanford Primary Sphere of Influence east to encompass this area. In requesting this expansion, the City will be required to complete a detailed Municipal Service Review to comply with LAFCO law under the provisions of the Cortese-Knox-Herzberg Local Government Reorganization Act of 2000 (beginning with Government Code Section 56000).

2. Financing

The Safe, Reliable High-Speed Train Bond Act for the 21st Century (aka “Proposition 1A”) was passed by California voters in 2008. This provides for the sale of $9,950,000,000 in bonds, or so much thereof as is necessary to carry out the purposes expressed in the Bond Act. Recent litigation has resulted in declination by a judge to validate the bond sale based on failure to comply with some of the safeguards and accountability measures within the Bond Act. In 2009, the U.S. Department of Transportation (USDOT) though the American Recovery and Reinvestment Act (ARRA) program made a one-time allocation of $2.25 billion to California High Speed Rail.

3. Farmland Impacts

High speed rail has the potential to accelerate the conversion of farmland to urban uses and will inhibit efficient farming practices adjacent to its alignment due to the restriction of cross movement of farm equipment, goods, and people. Additional residential construction could be induced because people will be able to live farther away from their places of employment in Los Angeles and the Bay Area and commute by high speed rail. While it is thought that improved local government land use policies and planning will be needed to mitigate these impacts, such policies may not be able to mitigate these impacts to a level of insignificance. Additionally, the location of the proposed station are in conflict with the general plans of the City of Hanford and County of Kings and in conflict with the Bond Act.

4. Growth and Economics

If a high speed train comes to the Valley, it must be designed and operated so that it benefits the Valley economy. Benefits could include job creation, improved access to services available in major urban centers, and potentially greater economic output. Although a downtown station could be used as a catalyst to stimulate a comprehensive urban area revitalization program, the CAHSRA has proposed a station outside of the downtown area and in the County of Kings secondary sphere of influence away from an existing transportation hub. This could induce unplanned leap frog development and is contrary to current concentric, agriculture sustaining planning documents, including the Sustainable Communities Strategy element of this document.

5. Level of Service

There is no guarantee of a station in Kings County, it is presently merely “proposed”, not designed and not financed. It therefore has no level of service benefits to the Kings/Tulare region. The conceptual operating plan for high speed
rail proposes different levels of service which include express, suburban express, semi-express, and local. These service levels only provide for half of the trains stopping in two major Valley cities of Fresno and Bakersfield. Kings County will be damaged by a project that is inconsistent with its General Plan and that does not comply with the requirement that the rail project proceed along existing transportation corridors. The uncertainty whether there will ever be a station makes the benefits claimed in the environmental document speculative at best.

6. Public Outreach

Coordination of a project among all affected governmental entities is an important component of success. “Outreach” to inform the public is different than the interaction expected between governments through coordination in order to resolve inconsistencies in planning and to protect the health, safety and welfare of the communities. Both are imperative to success.

C. INTERCITY BUS ISSUES

Orange Belt Stages is the intercity long-haul bus operator that serves Kings County.

D. ELDERLY AND DISABLED TRANSPORTATION ISSUES

1. In 1986-87, KCAG prepared the "Elderly and Disabled Transportation Needs Study," which assessed the transportation needs of these two transit-dependent groups. The study determined that the types of trips most needed by these two transit-dependent groups are those related to medical, shopping, social, and personal business purposes. Access to jobs, health programs, and recreational activities are considered to be the largest transportation needs for these groups. Work-related trips are needed by disabled clients of several social service organizations. Trip requests from elderly and disabled persons in Corcoran are almost exclusively for medical and personal business purposes to Hanford.

2. As required by Section 99238 of the Public Utilities Code, the KCAG Transportation Policy Committee (TPC) appointed representatives of social service providers and transit users to serve as the Social Services Transportation Advisory Council (SSTAC). The SSTAC’s primary role is to advise the RTPA and to provide input in the identification of transit needs of the elderly, disabled, and low income citizens. Members of the SSTAC also evaluate and recommend approval of applications for federal transit grants benefiting elderly and disabled transit users and provide input in the development of transit plans.

3. As shown in the inventory of transportation providers in Kings County, many agencies provide transportation services for the elderly and disabled and are primarily funded with federal and state funds. The Lanterman Developmental Services Act requires agencies to make full use of existing services, such as public transit, whenever possible to meet client needs. Due to federal and state budget cutbacks, many of these agencies are having to reduce or discontinue service and are asking public transit agencies to supplement their clients’ transportation needs. To meet the transportation needs of the elderly and disabled which are of high priority, KART has had to add services at an increased cost.

4. Senior ridership represents approximately 3% of the total KART ridership.

5. Funding for elderly and disabled transit capital projects is available through the Federal Transit Act (FTA) Section 5310 grant program on a statewide competitive
basis. Small agencies that are in need of a bus and/or equipment are not able to compete effectively for funds based on the statewide criteria that are used to score projects. Funds should be allocated on a more equitable funding basis, such as a formula apportionment to each regional transportation planning agency for allocation to area transit providers.

E. RIDESHARING ISSUES

By far, the majority of unused transportation capacity in Kings County is in private automobiles. By doubling up on the number of persons in a car or van, many public benefits result. As is shown by Figure 6-3, many Kings County residents already carpool. According to the American Community Survey (5-year estimate), about 72% of the workforce in Kings County chose to drive alone to work and more people have participated in carpools since 1980. From a consumer’s perspective, ridesharing gives a higher level of convenience for daily commuters, saves money otherwise spent on gas, and reduces wear on owners’ cars. From a regional standpoint, the use and formation of carpools would help to reduce noxious odors which attribute to vehicle emission and poor air quality in the Valley. Ridesharing should be promoted as a demand-regulating practice to reduce automobile congestion, fuel consumption, air pollution, and the need for additional road and parking capacity. Few would argue the value of these effects, though some point out that lower gas sales means less tax money to fix deteriorated roads. Lowering the demand for new facilities, however, will mean that more can be spent on upgrading the existing roads and parking areas. Commute alternatives to improve the carbon footprint include carpooling, vanpooling, public transit, bicycling, walking, alternative work schedules, park-and-ride lots, and the Emergency Guaranteed Ride Home Program. The following programs have been implemented in Kings County to promote ridesharing:

1. Vanpool Programs

Vanpooling is somewhat different than carpooling, though it is based upon the same principle: reducing single-occupant commuting. Vanpooling is defined as 7 to 15 persons who commute together in a van-type vehicle, and who share the operating expenses. The riders typically share in the operations cost of the van, however there are variations of cost and ownership by either the riders or a sponsoring employer. Essentially, vanpooling serves the long distance commute market of over 20 miles to an employer site. In addition to vanpool services provided by CalVans, several private for-profit companies provide vanpool services in Kings County, such as Enterprise Rideshare Services.

2. Valley Rides Program

One of the rideshare programs within the Central San Joaquin Valley region is provided by Valley Rides, a coordinated effort between Council of Fresno County Governments (COFCG) and California State University Fresno. A rideshare coordinator is responsible for developing and implementing the rideshare program which includes services to individuals and employers, public awareness activities, and special studies. These services include the Kings County area, a toll-free telephone number to receive rideshare matching services, and a website. Signs posting the toll-free number have been placed along major highway corridors in Kings County.

3. Emergency Ride Home Program

In 1994, KCAG staff developed and the Kings County Board of Supervisors adopted, an "Emergency Ride Home Program" as a trip reduction measure to
encourage employees to rideshare. Many people are unwilling to try ridesharing because they do not want to be "stranded" at their place of work. This program provides transportation to all Kings County employees who regularly rideshare for a return home in case of certain unexpected emergencies. For those employees who are registered for the program, they have the opportunity to receive an emergency ride home by contacting the Program Coordinator and either have the Program Coordinator call another registered employee for a shared ride, obtain a rental car, schedule transit service, or call a taxi. The service chosen is generally dependent upon the distance to be traveled.

4. Park and Ride Lots

Park and Ride lots provide a meeting place where drivers can safely park and join carpools or vanpools or utilize existing public transit. Park and Ride lots are generally located near community entrances near major highways or local arterials where conveniently scheduled transit service is provided. Lots are designed exclusively for commuters or they can consist of an area of parking spaces in complementary land uses such as shopping centers and churches.

Kings County has two official Park and Ride facilities. One is located at the northeastern entrance of the City of Hanford at 10th Avenue and Highway 43. This location of the lot is ideal for those commuters who meet up with those traveling north and south along Highway 43. Unfortunately, the lot is not used as much as it could be due to vandalism. The Lemoore High School parking lot is the second location. KCAPTA and the City of Lemoore have entered into an agreement for commuter parking at the site located at 18th Street and SR 198 for an annual fee of $16,000.

There are a number of informal Park and Ride lots located in various communities served by KCAPTA vanpools. One of the largest is the old Wal-Mart building located on the northwest corner of 12th Avenue and Lacey Avenue in Hanford. Approximately 30 vanpools use this site resulting in up to 250 vehicles being parked per day.

5. Employer Trip Reduction Programs

The San Joaquin Valley Air Pollution Control District (SJVAPCD) adopted Rule 9410 - Employer Based Trip Reduction in December of 2009 as a requirement for certain employers to develop an Employer Trip Reduction Implementation Plan and create incentives for their employees to reduce single-occupant vehicle trips to work. Employers could choose from some of the options and programs noted above, and any others to meet specific point targets specified in the rule.

V. ACTION ELEMENT

A. RECOMMENDATIONS TO IMPROVE PUBLIC TRANSIT RIDERSHIP AND SERVICE

1. Social Service Transportation Advisory Council (SSTAC)

As required by the Transportation Development Act (TDA), members of the SSTAC consist of representatives of transit dependent groups in Kings County including seniors, the developmentally disabled, low income persons, and representatives of agencies that serve these groups. The SSTAC acts as the advisory body through which transit needs are assessed and brought forward to KCAG, KCAPTA, and the City of Corcoran.
To evaluate the system, the SSTAC uses the following guidelines adopted by KCAG to help identify areas for improvement. These guidelines are also used to evaluate applications for federal grant funds from all eligible transit operators.

- **Dependability** - The transit operator must demonstrate that its service is reliable and it regularly meets its schedule. A dependable backup system must be available so that in normal circumstances only minor delays in the operating schedule will occur and service will not be unreasonably disrupted.

- **Accessibility** - The transit operator must demonstrate that the system is accessible to the elderly and disabled. Each vehicle does not have to be fully accessible, but provisions must be made within the system to provide reasonable service to persons with special needs.

- **Affordability** - The transit operator must demonstrate that the fare structure of the system provides for ridership by persons of limited income. This does not mean a fare cannot be charged, but that the fare may not be excessive in a manner which restricts the access of the poor.

- **Adequacy** - The transit operator must demonstrate that it provides a reasonable level of service with sufficient range and capacity to allow any person who cannot provide their own transportation to have access to opportunities which will support an adequate standard of living. The minimum service should provide travel to medical appointments, shopping areas, social service agencies, and home again.

- **Economy** - The transit operator must demonstrate that it has attempted to provide the most efficient and effective service possible and identify criteria used to establish a service cost limit. When suggested by the Productivity Improvement Committee, the operator should present feasible alternative transit programs with projected costs vs. service levels.

- **Convenience** - The transit operator must demonstrate that the service proposed will be such that it does not discourage use of the service. While service is not expected to be instantaneous or as convenient as travel by private automobile, reasonable headway time should be incorporated into scheduling and capacity considerations.

- **Coordination** - The transit operator must demonstrate how its system is coordinated with other systems and travel modes to enhance, rather than detract from the effectiveness of each system.

- **Monitoring** - The transit operator must have a plan for monitoring its service. Data required from the operator is listed with information on the performance audit.

- **Flexibility** - The transit operator must demonstrate how the system can adjust its schedule and route to accommodate changes in community needs. When the operator has made an adjustment in its service, it will document the basis for the change and improved service which resulted from the change.

- **Responsiveness** - The transit operator must implement a Productivity Improvement Program designed to ensure that the system can anticipate...
demands for new service, expand service, and operate at the most efficient cost.

Requests for adjustments in local transit routes and service levels continue to be made by the SSTAC. The KCAG Technical Advisory Committee also expresses its view on transit service. However, it is the SSTAC which has the opportunity to become the “voice” of transit dependent groups in the county. The SSTAC, by virtue of its membership who represent the actual transit user, is in the unique position of more accurately accessing transit service and uncovering any unmet transit needs. Both KCAG and transit operators will continue to solicit input from the SSTAC for service adjustments based upon the needs of particular ridership groups. In addition, phone calls and petitions are regularly received by KCAPTA from private individuals and groups such as the American Association of Retired Persons. All previous SSTAC recommendations for KART and Corcoran Area Transit service changes have been implemented.

2. Triennial Performance Audits

A performance audit to evaluate the efficiency, effectiveness, and economy of transit operators is required to be completed every three years. Performance audits of KART and Corcoran Area Transit services covering the period of FY 2012-13 through 2014-15 are to be completed in May of 2016. The audits provide constructive and practical recommendations for transit service improvements. The performance audit will provide new recommendations and evaluate the effectiveness and progress of the previous audits recommendations.

3. Transit Development Plans

The “Kings County Transit Development Plan” prepared by KCAG in 2008 provides a comprehensive view of public transit operations in Kings County and is considered the “blueprint” for transit planning for the two public transit providers in Kings County through the year 2013. KCAG is updating the Transit Development Plan to provide a review of transit services to assess the efficiency and effectiveness of the services, to identify capital and operating needs based on data and public outreach, assist the transit operators with development of their comprehensive transit asset management plans required by MAP-21 (Moving Ahead for Progress in the 21st Century) regulations, and to develop a transit marketing plan to provide transit operators with updated strategies to improve service. This Transit Development Plan will cover a five-year period from FY 2014/2015 through FY 2018/2019 and will identify the present transit operations in Kings County, provided by both Kings Area Rural Transit and Corcoran Area Transit, and review the performance of the operators. This review will be used to outline the service changes needed to meet identified transit demand and the finances needed to carry them out.
4. **KART Marketing Plan**

   In 1992, a marketing plan was developed for KART in order to improve public transit awareness and encourage the use of KART in Kings County. Surveys and marketing analyses were accomplished which identified primary KART patrons and targeted those groups which are underrepresented in ridership figures. The plan also identified marketing strategies which included improved graphic and layout design for KART brochures and suggestions for improved media promotions. The largest benefit resulting from the marketing plan appeared to be the redesign of KART’s published bus schedule. Ridership increased as the schedules were easier to read and provided valuable information concerning KART and connections to other transportation providers.

   In 2006, advertising wraps were developed for the side of the buses. Advertisers include local business as well as promoting new services being provided by KART. Advertising provides revenues around $70,000 per year.

   Other promotions which target specific rider groups, such as youth groups, have been implemented by KART management through the on-site promotions of KART service at both businesses and schools, and by KART’s participation in civic events which include free bus rides. In addition, ridership surveys are done annually by KART which include suggestions from riders for improving service and which provide KART a mechanism to develop future marketing and advertising programs.

   KART will utilize the new transit marketing plan developed with the 2014 Transit Development Plan update to employ new marketing strategies targeting transit riders and outreach techniques for underserved populations to increase ridership of transit systems.

5. **Coordination of Transit Systems**

   As part of the “Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users” (SAFETEA-LU) federal transportation act, RTPAs are now required to further assess the transportation coordination efforts in Kings County. In working with local social service providers and the Social Services Transportation Advisory Council, KCAG has developed a plan to address where and how service can be improved and identify any possible areas for coordination. KCAG prepared the “2007 Kings County Human Services Transportation Coordination Plan” to be in compliance with SAFETEA-LU regulations. With the 2014 update to the Transit Development Plan, a progress report will be provided to identify coordination opportunities of transportation services to the elderly, disabled, and persons of limited means, in compliance with SB 826 and an inventory of current social services transportation agencies.

   While service overlaps are rare among the local area transit providers, KART and Corcoran Area Transit could be capable of accommodating those transportation needs which are not fully met. KCAG recommends that any provider that would like to explore full or partial consolidation, should contact the appropriate transit operator. A feasibility study can be undertaken and service contracts negotiated. To prevent duplications, KCAG should closely monitor proposals for new transit system funding through its Areawide Clearinghouse review process. The Social Service Transportation Advisory Council is also responsible for advising KCAG on the coordination and consolidation of specialized transportation services. The biennial update of the Action Plan for the coordination of social service transportation prepared by KCAG also reviews services to identify any coordination opportunities.
6. **Corcoran Intermodal Facility**

The City of Corcoran has experienced an increase in population growth due to the opening of a second prison within the city in late 1997. The new prison added 7,000 new inmates and 2,000 new employees. The increase in Corcoran's workforce and the subsequent housing demand, along with the increase in prison visitors, has resulted in an increase in both Amtrak and Corcoran Area Transit ridership.

The new intermodal facility has provided a more convenient and attractive transportation hub for transit patrons and providers. The facility is being used as a transfer point for KART buses, Corcoran Area Transit, and the Prison shuttle bus. Construction of the Corcoran Intermodal Facility was completed in 2000. The station is owned and maintained by the City of Corcoran. The station was designed similar to the old Santa Fe station, and includes passenger waiting areas and lobby, restrooms, vending machines for Amtrak tickets, and offices for Corcoran Area Transit. It is hoped that another transit provider such as Orange Belt Stages will lease space at the facility and extend service to Corcoran, providing connecting passenger service from Tulare County. The Corcoran Chamber of Commerce also occupies office space within the intermodal facility.

The Corcoran Intermodal Facility allows the City of Corcoran to operate their services more efficiently from a separate office, have full-time and part-time staff persons at the facility, and dispatching services conducted at the facility. The improved dispatching services allows callers to dial directly to the Corcoran Area Transit office, rather than City Hall where the calls could be handled by any number of persons and could result in slow response times.

7. **Corcoran Fixed Route**

The City of Corcoran has discontinued the fixed route service due to its low productivity and cost.

8. **Fleet Expansion**

The expected increase in ridership for Corcoran Area Transit will necessitate the purchase of a replacement bus in the near future and require improved coordination of transit service within the community. Future capital needs through the year 2015 included the purchase of a sixth bus in its fleet, to accommodate increased ridership.

9. **Capital Needs Program**

The short term capital program for KART and Corcoran Area Transit is designed to provide adequate equipment to meet the projected service demands. Figure 6-12 shows the capital program for the next eight years.

10. **Agricultural Industry Transportation Services**

The California Vanpool Authority (CalVans) is the lead agency in the Agricultural Industry Transportation Services (AITS) project. This multi-county partnership has grown to include 18 counties. The project is managed out of the Hanford office with satellite offices in Ventura and Monterey. Approximately 450 vanpools provide transportation to farm workers traveling to one of many agricultural worksites within California and to Yuma and Imperial Valley in Arizona.
Increasing numbers of growers in the Salinas Valley encourage their workers to use vanpools for their winter operations in Arizona. The growers utilize vanpool vouchers for their workers to pass on savings to each rider each season. CalVans anticipates adding up to 50 more vanpools within California during 2014-15. Approximately 185 vanpools impact Kings County for those needing access to and between the major communities within the county.

**Figure 6-12**

**Capital Needs Program**
(2014/15 through 2021/22)

<table>
<thead>
<tr>
<th>Corcoran Area Transit</th>
</tr>
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<tbody>
<tr>
<td>2014/15 Surveillance Cameras and Purchase Replacement Bus</td>
</tr>
<tr>
<td>2015/16 Purchase Replacement Bus</td>
</tr>
<tr>
<td>2016/17 Purchase Replacement Bus</td>
</tr>
<tr>
<td>2017/18 Purchase Replacement Bus</td>
</tr>
<tr>
<td>2018/19 Surveillance Cameras and Purchase Bus</td>
</tr>
<tr>
<td>2019/20 Install Bus Washing Facility, Surveillance Cameras, Purchase Buses</td>
</tr>
<tr>
<td>2020/21 Install Bus Washing Facility, Purchase Buses</td>
</tr>
<tr>
<td>2021/22 Purchase Buses</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Kings Area Rural Transit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014/15 Purchase Buses</td>
</tr>
<tr>
<td>2014/15 Facility Improvements</td>
</tr>
<tr>
<td>2015/16 Purchase Bus and Work Vehicle</td>
</tr>
<tr>
<td>2016/17 Purchase Bus</td>
</tr>
<tr>
<td>2017/18 Purchase Bus</td>
</tr>
<tr>
<td>2018/19 Purchase Bus</td>
</tr>
<tr>
<td>2019/20 Purchase Computers</td>
</tr>
<tr>
<td>2020/21 Purchase Bus</td>
</tr>
<tr>
<td>2021/22 Purchase Bus</td>
</tr>
</tbody>
</table>

### C. SUGGESTED ACTIONS TO IMPROVE SAN JOAQUINS RIDERSHIP

1. **San Joaquin Joint Powers Authority**

   To protect the existing San Joaquin rail service and to promote its improvement, in 2012, local and regional agencies throughout most of the San Joaquin Corridor (Bakersfield-Fresno-Modesto-Stockton-Sacramento-Oakland) sponsored and supported Assembly Bill 1779 (AB 1779). This bill enabled regional government agencies to form the San Joaquin Joint Powers Authority (SJJPA) 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 bi-partisan support, and was signed by Governor Brown on September 29, 2012. The first SJJPA Board meeting was held on March 22, 2013 in Merced.

   AB 1779 defines the composition of the SJJPA, and extends the time for executing an interagency transfer agreement with the Department of Transportation to June 30, 2015. The earliest the governance/management of the San Joaquin rail service can be transferred to the SJJPA is June 30, 2014, and AB 1779 requires that the transfer must result in administrative or operating cost reductions. AB 1779 requires the SJJPA to
protect the existing San Joaquin rail service and facilities and seek to expand service as warranted by ridership and available revenue. Increases in the San Joaquin rail service and ridership will result in more jobs, improved air quality, and will help promote sustainable development in the San Joaquin Corridor. Under the provisions of AB 1779, the state will continue to provide the funding necessary for service operations, administration and marketing. Furthermore, 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. AB 1779 was sponsored by the San Joaquin Regional Rail Commission (SJRRC), Sacramento Regional Transit, the Central Valley Rail Working Group, and the San Joaquin Valley Regional Policy Council.

In addition to more cost effective administration and operations, there will be many benefits to regional governance of San Joaquin rail service. Train riders and San Joaquin Valley residents will have a stronger voice in deciding what happens with the service since local decision-making is more responsive and adaptive to passenger issues. The SJJPA, which is made up of elected officials throughout the San Joaquin Corridor, will be a strong voice in advocating for service improvements and expansions — particularly in Washington D.C. and in Sacramento. The SJJPA will take advantage of joint marketing and partnerships with local agencies throughout the San Joaquin Valley. Since the SJJPA's board members are part of the communities in the San Joaquin Corridor, it will also be better able to engage local communities throughout the corridor to use and support the San Joaquin rail service.

The ten member agencies that make up the SJJPA are: Alameda County, Contra Costa Transportation Authority, Fresno Council of Governments, Kings County Association of Governments, Madera County Transportation Commission, Merced County Association of Governments, Sacramento Regional Transit, San Joaquin Regional Rail Commission, Stanislaus Council of Governments and Tulare County Association of Governments. The SJRRC was selected by the SJJPA Board to be the Managing Agency at the July 26, 2013 SJJPA Board Meeting. As Managing Agency of the SJJPA, the SJRRC will provide all necessary administrative support for the SJJPA. The SJPPA along with its supporters and sponsors are working with other partner agencies to advocate for conventional intercity rail service improvements throughout California.

2. San Joaquin Valley Rail Committee

Amtrak ridership levels have increased over the years since several improvements were made on the San Joaquins that were recommended by the Steering Committee of the Caltrans Rail Task Force, now known as the San Joaquin Valley Rail Committee. These improvements include schedule changes for more convenient departures and arrivals in the San Francisco Bay Area and Bakersfield and additional feeder buses between Bakersfield and Los Angeles; additional feeder bus stops, food and beverage services with dining cars; and checked baggage were implemented; additional round trip trains; and a direct rail connection to Sacramento for one of the roundtrip trains.

This Committee continues to meet on a bimonthly basis and serves as an advisory body to Caltrans and Amtrak on issues pertaining to the service of the San Joaquins.

3. California State Rail Plan

The State of California Department of Transportation Division of Rail issued its “2013 California State Rail Plan”. This Plan is to develop and implement a statewide rail blueprint that will guide future planning and investment decisions in the near and long term. Some key objectives of proposed route improvements identified in the Plan for the San Joaquins Route include:
• Increased passenger train frequencies
• Improving passenger safety systemwide
• Increasing ridership
• Improving multi-modal connectivity
• Increasing the maximum operating speed of conventional passenger trains in all corridor segments from 79 mph to 90 mph
• Installing new infrastructure, such as additional layover or maintenance facilities, to support expansion of future train operations

In order to carry out these objectives, the Plan includes planned investments in four categories:

• Track and Signal / Train Control Improvements. Includes double-tracking, additional mainline track, panelized turnouts, improved sidings to support intercity passenger rail service and service connections to the proposed high speed rail system. Improved and additional track could allow top speeds between 79-90 mph.
• Grade Crossings. There are over 210 grade crossings that may need to be upgraded to allow the San Joaquin route to operate at speeds in excess of 90 mph, although no specific grade crossing projects have yet been developed.
• Bridges. Improvements to existing bridges, increases in bridge capacity, and potentially new bridges.
• Station Improvements. Passenger station improvements include new platforms or extensions, covered shelters, lighting, improved bus circulation, and upgrades to passenger vehicle parking and loading areas.

The key documents describing projects and plans for the corridor are the San Joaquin Corridor Strategic Plan released by Caltrans in 2008 and the San Joaquin Corridor Programmatic Environmental Impact Report – 2035 Vision – Initial Study released November 2012. The remainder of the EIR is in progress. The Initial Study examines expansion from the current 6 daily round trips to 8 or 11 round trips operating at speeds up to 90 mph on the Bakersfield-Stockton segment of the line. To Oakland from 6 to 10 round trips are studied and to Sacramento from 3 to 6 round trips are studied.

4. Passenger Rail Corridor Upgrade Programs

Through the use of state and federal funds, there are a number of programs which have the intent of upgrading rail facilities in order to increase operational speeds and therefore improve the attractiveness of passenger rail service to potential riders. Ultimately, programs to improve or eliminate grade crossings will improve both ridership figures and safety. Track and signal projects, station projects, maintenance facility projects and rolling stock projects for this corridor are proposed for programming in the State Transportation Improvement Program (STIP).

In 2006-07, a major accomplishment was the completion of the Shirley-Hanford double track project which allows increased on-time performance and reliability.

a. ISTEA Section 1010

Under Section 1010 of the Intermodal Surface Transportation Efficiency Act of 1991, the rail corridors linking San Diego - Los Angeles - San Francisco Bay Area - Sacramento have been designated as high-speed rail corridors, with operational upgrading required to achieve passenger rail speeds of 90 to 110 miles per hour. At present, maximum speed on the Amtrak San Joaquin line is 79 miles per hour. There are 20 private and 94 public at-grade crossings along this segment. According to Caltrans, 96 of the 110 miles of track have potential to be upgraded to provide higher speed service.
The focus of the 1996 Section 1010 Program was the closing of private crossings through the Central Valley. There are 95 public and private grade crossings between Bakersfield and Fresno, many of these have no active warning device in place and most are related to agriculture activities. Caltrans has listed 14 projects in this rail segment for grade crossing redesign and the replacement of old gate closing equipment.

b. Section 130 Federal Crossing Improvement Program

This federal program currently provides $10 million per year in federal highway funds for operational improvements at eligible grade crossings. The program funds 90 percent of the cost of upgrading with either the city or county matching 10 percent. These improvements include the reconfiguration of roads at grade crossings and installation of grade crossing equipment, such as flashers and gates. Many projects eligible for Section 130 funding are also eligible for Section 1010 funding under ISTEA.

c. Section 190 State Grade Separation Program

The Section 190 Program provides $15 million annually in state funds. Approved projects come from the priority list that the California Transportation Commission produces annually. Each project can be no more than $5 million, and the state will contribute 80 percent of the funding with 20 percent contributions by others for those projects which will eliminate grade crossing and redesign existing ones. Projects involving the proposed grade separations will be funded at a 50 percent state/local match arrangement.

D. FUTURE PASSENGER RAIL SERVICES

1. Cross Valley Passenger Rail Feasibility Study

KCAG prepared a multi-phased Cross Valley Passenger Rail Feasibility Study, which as its name implies, estimated the feasibility of developing passenger rail service between Huron in western Fresno County, across Kings County, through Visalia in Tulare County, to a southernmost terminus in Porterville. Passenger rail service could connect the most densely populated cities and major employment centers in Kings County, including the Lemoore Naval Air Station (LNAS) and the cities of Lemoore, Hanford, Visalia, and Porterville.

Phase I of the study concluded that passenger rail service, given future estimates of potential ridership, was feasible. However, the costs involved with upgrading the existing Coalinga and Exeter Branch lines for passenger service would be cost prohibitive at this time due to the lack of funding available.

Phase II of the feasibility study identified rail corridor protection strategies that could be implemented by local jurisdictions and businesses to preserve the rail corridor for future public transportation use. About $14 million was spent on improvements completed in 2004 to upgrade the railroad to increase speeds and increase freight use. The Cross Valley Rail Corridor Joint Powers Authority, created to manage the project, hired a consulting firm to complete a new feasibility study of passenger rail service on the corridor now that the rail improvements have been made. The study was completed in 2004. Grants funds were issued, but the project came to an impasse. Alternative options are currently being considered, focusing on right-of-way issues and possible improvements to existing systems.
E. RECOMMENDATIONS FOR PROMOTING RIDESHARING

1. Continue to work with area Councils of Government to manage the joint powers agency established as the California Vanpool Authority (CalVans).

2. Continue working with regional rideshare agencies, and CalVans to maintain rideshare activities in Kings County.

3. Encourage local agencies to participate in the "Rideshare Week" program each year. This annual program provides an opportunity to promote the benefits of ridesharing to employers and their employees.

4. KCAG will continue to develop strategies which further the goals of reduced traffic congestion through development of alternative transportation modes including vanpooling, carpooling, bicycling, and walking, among others.

5. Continue working with CalVans, or other rideshare agencies to obtain Outreach Assistance to contact Kings County area employers on a regular basis. Outreach efforts in Kings County have been a minimal effort due to the lack of staff to serve as outreach assistance. A larger number of employers in Kings County could be contacted and encouraged to assist their employees in participating in rideshare opportunities.

6. Provide assistance through KCAPTA, or CalVans, to employers to help develop employee ridesharing and vanpool participation. Each year federal legislation is introduced which would reinstate tax-free treatment of employer-provided vanpool transportation.

7. Encourage and support the establishment of additional secure Park and Ride lots in Kings County.

8. Publicizing the benefits of carpooling and vanpooling could promote ridesharing. Caltrans has installed signs bearing the toll free ridesharing number along state routes in Kings County.

KCAG has been involved with, and will continue to support, all ridesharing programs put forth by either South Valley Rideshare, Valley Rides, the Commute Options Advisory Committee, or the San Joaquin Valley Air Pollution Control District (SJVAPCD).
VI. FINANCIAL ELEMENT

A. PUBLIC TRANSIT

1. Transportation Development Act

A primary source of revenue for KART and Corcoran Area Transit services originates from the Transportation Development Act (TDA) and is allocated annually by KCAG. TDA funds are generated from California sales tax revenues and are available to KCAPTA and the City of Corcoran under two categories of funding:

a. Local Transportation Fund

The Local Transportation Fund (LTF) is primarily for public transit and secondarily for streets and roads, provided that public transit needs have been met. KCAPTA annually receives LTF money from each member agency. Each member agency’s LTF contribution is their individual share of KART’s annual budget, based on the formula of half (50%) the number of service hours provided to that agency and half (50%) the population. The City of Corcoran is allocated an amount needed to meet the city’s transit operations and services. LTF provides over half of the transit systems’ revenues.

KCAG, as the designated Regional Transportation Planning Agency, monitors the LTF, determines the annual apportionments, notifies the claimants, and approves the apportionments, allocations, and uses of the Fund. This means that KCAG reviews LTF claims by KCAPTA and the City of Corcoran. As required by the Transportation Development Act, KCAG conducts public hearings each year to hear testimony considering transit needs before determining LTF allocations.

According to the TDA, public transit providers have claim to the LTF. However, that amount of the fund not required for public transit may be used for streets and roads. To do so, the TPC must find that there are:

". . .no unmet public transportation needs within the jurisdiction of the claimant which can reasonably be met through expansion of existing transportation systems, by establishing new systems, or by contracting for services. . ."

Section 99401.5(c) of the Public Utilities Code requires that KCAG determine its definitions of two important terms of this Act: Unmet transit needs and Reasonable to meet.

KCAG has defined these terms in the 2008 Kings County Transit Development Plan which are outlined as follows:

- "Unmet transit need", at a minimum, exists where local residents do not have access to private vehicles or other forms of transportation due to age, income, or handicap, for the purpose of traveling to medical care, shopping, social/recreational activities, education/training, and employment.
It is "reasonable to meet" the above needs if the proposed or planned service can be operated while maintaining, on a system wide basis, the adopted service goals for that type of system and meet the following criteria:

- New, expanded, or revised transit service, if implemented or funded, would not cause the operator to incur expenditures in excess of the maximum amount of Transportation Development Act funds available to Kings County.

- The proposed transit service does not duplicate transit services currently provided by either public or private operators.

- The proposed transit service has community support from the general public, community groups, and community leaders.

- The new, expanded, or revised transit service, if implemented or funded, would allow the responsible operator to meet the TDA required rural area farebox and revenue ratio of 10% for the overall system.

- There is supporting data to indicate sufficient ridership potential for the new, expanded, or revised transit service.

- Implementation of the new, expanded, or revised transit service should achieve or be moving toward the goals outlined in the Kings County Transit Development Plan for a comparable type of service. Services not meeting the goals should be evaluated on a yearly basis to determine if modifications or cancellation of service should be implemented.

- The proposed transit service shall have a reasonable expectation of future demand and available funding on a long term basis to maintain the service.

- Is needed by and would benefit either the general public or the elderly and disabled population as a whole.
## FIGURE 6-13

**PERCENT OF TOTAL COUNTY LTF SUPPORTING PUBLIC TRANSIT**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>COUNTYWIDE LTF $</th>
<th>AMOUNT DEVOTED TO TRANSIT $</th>
<th>PERCENT DEVOTED TO TRANSIT %</th>
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<td>2013-14</td>
<td>3,400,000</td>
<td>1,911,105</td>
<td>56.21</td>
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Source: KCAG, Kings County Auditor
b. **State Transit Assistance**

Funds for the State Transit Assistance (STA) program are derived from the statewide sales tax on gasoline and diesel fuel. The funds are apportioned to each regional transportation planning agency by a formula based on population and operator revenues, which then reallocates the funds to transit operators on the same basis. STA funds estimated to be apportioned to Kings County are allocated to KCAPTA and the City of Corcoran for transit operating costs. Originally, due to State budget issues, STA funds were not available for apportionment in FY 2009-10. However, a budget change for an excise tax on fuel restored apportionments to the STA fund.

**FIGURE 6-14**

**STA APPORTIONMENTS FOR PUBLIC TRANSIT**

<table>
<thead>
<tr>
<th>YEAR</th>
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Source: KCAG, Kings County Auditor

Note: Prior to 1991, STA funds could be used for street and road purposes.
2. Federal Grants

a. Federal Transit Act – Section 5314

Caltrans administers the Federal Transit Administration's (FTA) Technical Planning Assistance Program, which funds projects focusing on public and intermodal transportation planning in non-urbanized areas. KCAG has utilized this program to fund on-board surveys of public and social service transit users, a marketing plan for KART, the Kings County Transit Development Plan, and the Inventory of Social Service Transportation Providers.

b. Federal Transit Act - Section 5311

Section 5311 of the Federal Transit Act provides for federal assistance to rural public transportation providers. Grants are awarded for capital and operating purposes to eligible providers. The Section 5311 program is designed to help enhance the access of persons in non-urbanized areas to health care, shopping, education, recreational, public services, and employment. This program provides funds for annual apportionments to counties, state funds programmed on a discretionary basis, and intercity bus projects. Private, non-profit agencies can only apply through a sponsoring public agency.

Kings County's FTA Section 5311 apportionments have been awarded by KCAG to the City of Corcoran and to KCAPTA for operating assistance based on a population formula. Since Kings County became an urbanized area with the 2000 Census, the calculation for the annual apportionment only includes the non-urban population. KCAG's formula for allocating the apportionment was revised to include only the non-urban population.

In order to comply with federal guidelines which strongly suggest that Section 5311 funds be distributed to eligible providers in an equitable manner, the KCAG Transportation Policy Committee (TPC) has adopted 10 criteria to evaluate Section 5311 fund requests. These are:

- The proposed project is consistent with the adopted Regional Transportation Plan.
- The proposed project involves no duplication of existing services. The funds requested will be used to cover a new transit service or the extension of an existing transit service.
- The proposed project can be expected to exhibit a desirable cost-benefit ratio.
- The project will improve traffic flow and safety. It will accommodate the greatest number of passenger trips for the money spent; it will provide the greatest reduction in accident rates.
- The project will cause minimal disruptive environmental effects. It will decrease concentrations of vehicle emissions; it will produce acceptable noise levels.
- The agency's transit system -- not necessarily a particular vehicle for which funding is being requested -- is accessible to the elderly and to the disabled.
• The agency's transit system is satisfying special transit needs of the elderly, disabled, poor, or minorities.

• The fare structure of the agency's transit system permits ridership by persons of limited income.

• The transit service offered by the operator is reliable and regularly meets its schedule.

• Funds available to the agency are being used for the entire area population on a fair and equitable basis.

**FIGURE 6-15**

FTA SECTION 5311 APPORTIONMENTS

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Source: KCAG, Caltrans
Note: *Includes discretionary grant of $72,000
**Includes carryover amount
c. **Federal Transit Act - Section 5311(f)**

Each year the state sets aside at least 15 percent of the state apportionment of FTA Section 5311 funds for projects that develop and support connectivity of intercity bus transportation between non-urbanized areas and urbanized areas. Grants are available to public and private transportation operators for planning, capital, and operating assistance.

d. **Federal Transit Act - Section 5310**

Section 5310 of the Federal Transit Act provides for capital grants for the purpose of helping public and private nonprofit corporations that provide transportation for elderly and disabled persons for whom mass transportation services are generally unavailable, insufficient, or inappropriate. Section 5310 grants are made for up to 80 percent of the cost of vehicles and related equipment. For FFY 2012, $15.05 million was made available to eligible agencies that competed statewide for the funds.

To evaluate project applications for the Section 5310 program, KCAG is required to score projects based on state and regional evaluation criteria. The criteria considers project need, project effectiveness, ability of the applicant to operationally and financially manage the project, and the extent of the applicants participation in the coordination of transportation services with other agencies.

e. **Federal Transit Act - Section 5307**

The Urbanized Area Formula Grants program provides operating assistance and capital funds to operators of small urban-area public transportation services. Funds are apportioned to urbanized areas with a population over 50,000 based on a formula of population and population density. KCAPTA is now eligible to receive an apportionment of these funds since Kings County became an urbanized area after the 2000 Census. Kings County’s FFY 2013 apportionment of FTA Section 5307 funds was $1,202,224.

f. **Congestion Mitigation and Air Quality**

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 created the Congestion Mitigation and Air Quality (CMAQ) program to provide funding for areas designated as nonattainment of air quality standards. MAP-21 continued and expanded this program. The funds are to be used to implement projects or programs that will have air quality benefits. These would include programs for expansion of public transit services, park and ride lots, trip reduction programs, and vanpools. Kings County receives an apportionment that is programmed by KCAG in the Federal Transportation Improvement Program (FTIP).
g. Federal Transit Act- Section 5316

SAFETEA-LU, previously under TEA-21, also created the Job Access & Reverse Commute (JARC) discretionary grant program. In FFY 2013, MAP-21 repealed the JARC program. However, JARC-like projects are eligible for funding under the Section 5311 program to allow more flexibility and discretion. The program is aimed at developing services to transport former welfare recipients and low-income people to and from jobs. Local governments and nonprofit organizations may apply for funding and requires a local match from other than mass transportation funds, necessitating that project sponsors coordinate with nontransportation partners. Funds are allocated on a competitive basis with race neutral requirements.

h. Federal Transit Act- Section 5317

The New Freedom program, previously covered under the SAFETEA-LU program along with JARC, has been consolidated with the Section 5310 program. New Freedom was designed to address the transportation needs beyond the requirements of the Americans with Disabilities Act for seniors and individuals with disabilities. Funds are allocated based on the population of persons with a disability, with 20% going to non-urbanized areas.

i. Federal Transit Act- Section 5339

The Bus and Bus Facilities program, FTA 5339, replaces the Section 5309 program to supplement urban and rural formula grant programs 5307 and 5311, respectively. The program provides capital funding to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities. Funds are allocated based on population, vehicle revenue miles, and passenger miles.

j. Federal Transit Act- Section 5312

To support research activities that improve the safety, reliability, efficiency, and sustainability of public transportation, the Section 5312 program provides funds to Federal, State and local governments, transit operators, private or non-profit organizations, and institutions of higher education by investing in the development, testing, and deployment of innovative technologies and of low-emission and no-emission vehicles to promote clean energy and improve air quality. Funds are subject to requirements of Section 5307 and 80% of projects are funded by federal share.

k. Federal Transit Act- Section 5326

All transit asset management plans by FTA’s grantees are subject to new requirements and new reporting requirements to promote accountability, to implement a strategic approach for assessing needs, and for prioritizing investments for bringing the nation’s public transit systems into a state of good repair in accordance with MAP-21. Under this program, transit operators will be required to include capital asset inventories and condition assessments and investment prioritization, at a minimum, and to report on the condition of their system, any change in condition since the last report, targets set under the performance measures, and progress toward meeting those goals. MPO’s and states are required to coordinate their performance targets with the targets of state of good repair set by the grant recipients.
I. Federal Transit Act- Section 5329

Under the Transit Safety and Oversight program, the State Safety Oversight (SSO) program must be updated by the FTA to ensure that rail transit systems meet basic safety requirements, but also transit operators must comply with new safety performance standards with a new Pass/Fail rating system for bus testing. All FTA fund recipients must develop an agency safety plan with certification. For 5311 recipients, the plan may be drafted and certified by the recipient or the state, and for 5307 recipients, FTA must issue a rule designating the small public transportation providers or systems that may have their safety plans drafted or certified by the state.

m. Federal Transit Act- Section 5304

The Transportation Planning Grant programs under Section 5304 promote a balanced, comprehensive multi-modal transportation system. Caltrans provides the program for distinct categories: Environmental Justice (EJ) and Community-Based Transportation Planning (CBTP), which are State funded; and the Partnership Planning and Transit Planning – Rural or Small Urban Transit Planning Studies, which are Federal funded. In FY 2013-14, KCAG received a Transit Planning grant of $92,957 to complete the update to the 2008 Transit Development Plan.

n. Federal Transit Act- Transit-Oriented Development Planning Pilot

Funding to state and local government agencies is provided to advance planning efforts that support transit-oriented development (TOD) associated with new fixed guideway and core capacity improvement projects, such as transit stations to promote ridership, affordable housing near transit, revitalized downtown centers and neighborhoods, and to encourage local economic development. Funds are awarded competitively.

3. Fares

Fares represent about 15 percent of KART’s and 17 percent of Corcoran Dial-a-Ride’s total revenues. With increasing public familiarity and improved services, ridership increases are expected to boost fare revenues for each of these transit systems. However, due to recent State budget cuts for transit, transit operators are having to reduce services, which could thereby reduce fare revenues.

4. REMOVE II Grants

The San Joaquin Valley Air Pollution Control District (SJVAPCD) provides annual grants through its REMOVE II program to fund projects that reduce motor vehicle emissions. KCAG has received past grants to develop the “Cross Valley Passenger Rail Feasibility Study” and the “Kings County Short Range Transit Development Plan”. Other projects approved for other counties have included transit subsidies, transit bus retrofits, carpool incentives, and park and ride lots. Funds are derived from a $4 vehicle registration fee and projects are selected for funding on a competitive basis.
5. **Active Transportation Program (ATP)**

   This is a competitive program. The program combines two federal programs (Transportation Alternatives Program and Highway Safety Improvement Program) and three state programs (Safe Routes to Schools, Bicycle Transportation Account, and Environmental Enhancement and Mitigation programs) into a competitive grant program.

   The previous Bicycle Transportation Account (BTA) provides local agencies a funding source for projects that improve safety and convenience for bicycle commuters. Cities and counties are eligible to apply for funding for projects that are included in a current bicycle plan.

   In most instances, the funds are used for the development of bicycle lanes or bicycle paths. For transit operators, funds can be used for the purchase of bicycle racks which can be placed either on the inside or outside of transit vehicles. Promoting bicycle usage in the County is an established goal in the Kings County Regional Transportation Plan and the adopted Kings County Regional Bicycle Plan.

6. **Regional Transportation Improvement Program**

   With the enactment of Senate Bill 45 (Chapter 622, Statutes of 1997), projects that have been funded through previous programs, like the Transit Capital Improvement (TCI) program, are now included in the State Transportation Improvement Program (STIP). Eligible projects under the old TCI program that could be programmed through the STIP process include the rehabilitation of transit buses, the development of intermodal facilities, and feasibility studies. Projects are proposed for the STIP through the Regional Transportation Improvement Program (RTIP). The 1998 RTIP for Kings County included funding to complete the Corcoran Intermodal Facility, which is now being used as the base for Corcoran City Transit dispatching services. The 2004 RTIP programmed $400,000 to construct improvements at the KART transfer station. The project was completed in Spring of 2008. No transit projects were proposed for the 2014 RTIP.

7. **Regional Surface Transportation Program**

   The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 established the Surface Transportation Program (STP) and provided funds for capital costs of mass transportation projects, roads, and other projects. MAP-21 continued this program. Annual allocations are made to each county, and the funds are programmed by KCAG through the Federal Transportation Improvement Program (FTIP). Nonurbanized counties may exchange these federal funds with State funds for use on eligible projects. Kings County has elected to exchange each of its annual apportionments, but has not used the funds for transit purposes.

B. **AMTRAK**

1. AB 973 (Chapter 108, Statutes of 1989) authorized the submittal of three $1 billion bond measures to the voters. The first bond measure, Proposition 108, passed in 1990 provided $1 billion in general obligation bonds for capital expenditures for intercity rail, commuter rail, and other rail transit programs. The second and third bond measures in 1992 and 1994 failed to pass, and all funding from the first bond measure has been programmed.
An initiative also passed on the June 1990 ballot was Proposition 116, the Clean Air and Transportation Improvement Act of 1990, provided an additional $1.99 billion for intercity and commuter rail services, and other rail transit programs. Included was an allocation of $100 million to design and acquire new "California Cars" and locomotives which are now in use by the AMTRAK San Joaquins. All Proposition 116 funds have been programmed.

2. The Regional Transportation Improvement Program (RTIP) may propose projects eligible under the discontinued Transit Capital Improvement (TCI) program. Eligible projects for rail include exclusive public mass transit guideway construction and acquisition of rolling stock, intermodal transfer stations, acquisition of abandoned railroad rights-of-way, shortline railroad rehabilitation, grade separations, and bus rehabilitation. Kings County entities applied for and received several grants from the TCI program to fund rail and transit projects. Regional Improvement Program funds were used to finance the parking lot for the new Corcoran Intermodal Facility.

3. Twenty-five percent of the STIP funds available for new programming is allocated to the Interregional Improvement Program (IIP) for which projects are nominated by Caltrans. A minimum of 2.25% of these funds must be programmed for intercity rail.

4. The Public Transportation Account is a trust fund intended for transportation planning and mass transportation projects. Revenues are provided from sales tax on gasoline and diesel fuel, with 50% appropriated to the state for planning purposes and 50% to Caltrans for transportation purposes, including bus and passenger rail services.

C. RIDESHARING

Proposed state and federal legislative bills seek to institute a number of tax incentives for employer-sponsored ridesharing and vanpool programs. With the adoption of the San Joaquin Valley Unified Air Pollution Control District's Rule 9410 - Employer Based Trip Reduction in December of 2009 as a requirement for certain employers to develop an Employer Trip Reduction Implementation Plan and create incentives for their employees to reduce single-occupant vehicle trips to work, employers could choose ridesharing as an option to meet specific point targets specified in the rule.

KCAG will continue to work cooperatively with CalVans, or other rideshare agencies, and the San Joaquin Valley Unified Air Pollution Control District in developing strategies for the reduction of single-occupant commuting and the benefit of improving the region's air quality.

Funding from programs such as the Regional Improvement Program (RIP) and Congestion Mitigation and Air Quality (CMAQ) can be programmed by KCAG for transportation demand management activities.
I. OVERVIEW

General aviation aircraft and airports are essential to the viability and economy of communities and businesses in Kings County. Within Kings County, all public-use and private airports are utilized for General Aviation aircraft (i.e. smaller, recreational or business). There is no commercial airline passenger service within Kings County. Much of the flight activity in Kings County centers on the county's dominant farming economy where chemical application aircraft (crop dusters) make up a sizable portion of all business aircraft.

The majority of aircraft are based at the two largest Kings County facilities, Hanford Municipal Airport and Corcoran Airport, and at a number of privately owned airstrips. Whereas past trends in Kings County have reflected decreased levels of general aviation activity since the 1960's recreational flying "boom", the contribution by general aviation airports to regional growth is expected to increase. The Federal Aviation Administration (FAA) forecasts an average annual growth of 1.5 percent in General Aviation hours flown nationwide over the next 20 years, according to the FAA Aerospace Forecast Fiscal Years 2013-2033. The FAA predicts business usage to increase at a faster pace than that for personal and recreational use and increases in demand for agricultural use due to advancing turboprop aircraft in the industry. The forecast projects "light sport" aircraft (single propeller/two seater lightweight aircraft) used for recreation will impact the market with a 3.2 percent annual growth for 2013 and slow to 2 percent per year thereafter. A potential shift to transient corporate aircraft activities with future industrial and commercial uses and the economics of small plane manufacturers are anticipated to impact future growth in General Aviation activity within Kings County.

According to Kings County assessor’s records and the California Department of Transportation Division of Aeronautics, there were approximately 109 to 114 General Aviation aircraft based in Kings County. Accommodating these aircraft are approximately 40 Basic Utility Airports and landing strips. Except for the Lemoore Naval Air Station (LNAS), these facilities generally belong to one of three classes: 1) publicly-owned airports, open for public use; 2) privately-owned airports, open for public use; and 3) privately-owned airports for private use only. This chapter examines the role of airports in each category, giving special attention to the role of public airports and how they fit into the larger picture of regional and community development.

II. ASSUMPTIONS AND INVENTORIES

A. ASSUMPTIONS

1. The Hanford Municipal Airport will continue to satisfy the largest single portion of General Aviation demand in Kings County. Private airports and airstrips serving the remaining agri-business and recreational aviation demand will continue to support the regional economy, making sustainability of general aviation airports increasingly important. Figure 7-1 indicates airport facilities within Kings County and Figure 7-2 provides descriptive data about several airports and airstrips within the region.
2. The future of General Aviation activity in Kings County will be intricately linked to the expansion of the Hanford Municipal Airport as the principal public-use airport serving the County. Figure 7-3 shows the majority of based airplanes within Kings County at Hanford Municipal Airport.

3. Most commercial air passenger demand by Kings County residents will be satisfied by the Fresno Yosemite International (FYI) Airport served by ten airlines with destinations to thirteen cities, as of July, 2013. The remaining need will be satisfied by the Visalia Municipal Airport, which provides daily service with one airline to Las Vegas, Los Angeles International Airport, and Merced, as well as charter flights to various destinations. The level and dependability of air passenger service from Fresno and Visalia airports have fluctuated as regional airlines end or begin service based on economic changes in the passenger airline industry. As a result, a majority of people are forced to drive to farther cities of Los Angeles or San Francisco to obtain direct air service to both domestic and international major cities. Figure 7-4 shows the number of revenue enplaned passengers for Visalia Municipal Airport over the past 20 years. A decrease in over 2,900 enplanements in 2008 was the result of the city’s change in airline carriers from Air Midwest to Great Lakes Airlines. Enplanements have steadily risen since then. Figure 7-5 shows enplanements for Fresno-Yosemite International Airport over the past 23 years and a more recent record-breaking growth trend positioning the airport to outperform prior record years. This upward trend is the result of strong bookings occurring on each of the ten major airline operators based at the airport.

4. The Lemoore Naval Air Station (LNAS) will continue to play an important role in national defense. LNAS will continue to expand and remain the prominent military air base for the training of light attack aircraft and bomber pilots in the Western United States. An average of 210,000 flight operations occur annually at NAS Lemoore, making it one of the U.S. Navy’s busiest airfields.

B. AIRPORT INVENTORY

1. Public Airports: Public Use

a. Hanford Municipal Airport

The Hanford Municipal Airport is situated one mile southeast of the central business district of the city of Hanford. Serving the majority of aviation demand, the Hanford Municipal Airport is the only city-owned air facility in the County and will remain the most active public use, public airport for the foreseeable future. As of 2013, there is one air charter service available and approximately 40 aircraft are based at the airport. All types of general aviation aircraft use the facility including recreation and business aircraft. Several crop dusters are also based at the airport though these planes cannot land at the airport while carrying chemicals used for agricultural spraying due to environmental restrictions to chemical dumping.

Hanford Municipal Airport is located on 295 acres at 9½ Avenue and Hanford Armona Road. The City of Hanford acquired the site in 1950 by using Hanford general funds and a Federal Aviation Administration (FAA) grant to develop the airport. Today, the facility consists of one runway that is 5,180 feet in length with a 75-foot wide paved taxiway, several conventional hangers and tee shelters, and medium-intensity runway lights. The airport includes a jet fuel facility, aircraft parking and storage areas, aircraft washrack. The airport also serves as a base for the National Weather Service to provide current and forecasted weather conditions.
According to the Hanford Municipal Airport Master Plan (adopted 2010), the average daily aircraft operations projected in 2015 will be 28 with 59% by single-engine propeller aircraft. Approximately 70% of the annual aircraft operations will consist of itinerant operations. Annual operations are forecasted to reach 10,250 by 2015 and 13,800 with 110 based aircraft by the year 2025.

2. **Private Airports: Open to Public Use**

   a. **Avenal Airport**

   Located adjacent to the city off of State Route 33, the Avenal Airport is privately operated by the Central Valley Soaring Club. Prior permission is required for public use of the facility. Avenal Airport encompasses 83 acres which includes one runway consisting of compacted earth with some stabilization in fair condition. Six planes are based at the airport as well as several gliders owned by members of the soaring club. Noise impacts are not considered a problem at Avenal Airport as daily aircraft operations are too infrequent to contribute significantly to any airport noise problems for residents in the area.

3. **Private Airports: Private Use Only**

   There are approximately 21 other aircraft landing facilities in Kings County. The great majority of these smaller landing strips are used by crop dusters, although several are for the sole use of personal aircraft. These facilities range in size from 1,000-foot unnamed and unpaved landing strips, to somewhat larger airfields with asphalt and lighted runways. Among these, the Corcoran Airport is utilized for agricultural crop dusting by private companies. Other privately-owned airports include a few heliports utilized by private farms, local hospitals, and the County fire department for emergency response.

4. **Military Air Facilities**

   a. **Lemoore Naval Air Station**

   Commissioned in 1961, NAS Lemoore is the Navy’s largest and only west coast Master Jet base. NAS Lemoore’s mission is to support the US Navy fleet carrier strike fighter squadrons. The base hosts over 40 aviation tenants, including the Commander Strike Fighter Wing, US Pacific Fleet. NAS Lemoore hosts fifteen F/A-18 operation Strike-Fighter squadrons, one Strike-Fighter Fleet replacement squadron, and all four west coast Carrier Air Wing Commanders and their staffs. NAS Lemoore is home to 294 F/A 18 Hornets and Super Hornets and conducts approximately 210,000 flight operations each year.

   The Installation proposes in 2015 to develop its facilities to support new F-35C aircraft in the Navy Pacific Fleet to replace aging aircraft. The F-35C Lightning II Joint Strike Fighter is a single-engine, technologically advanced, fifth-generation strike fighter designed to operate from conventional runways and nuclear-powered aircraft carriers.
FIGURE 7-1

KINGS COUNTY Airports

Public: Public Use
Private: Public Use
Private: Private Use
Military

Source: KCAG

Chapter 7: Aviation  Page 7-4
### FIGURE 7-2

**KINGS COUNTY AVIATION FACILITIES**

**2013**

<table>
<thead>
<tr>
<th>AIRPORT/OWNER NAME</th>
<th>ASSOCIATED CITY</th>
<th>TYPE OF USE</th>
<th>OPEN TO PUBLIC</th>
<th>RUNWAY DESCRIPTION</th>
<th>BASED PLANES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hanford Municipal</td>
<td>Hanford</td>
<td>Public</td>
<td>Yes</td>
<td>5,180</td>
<td>75</td>
</tr>
<tr>
<td>2. Corcoran (Lakeland Dusters)</td>
<td>Corcoran</td>
<td>Private</td>
<td>No</td>
<td>3,800</td>
<td>50</td>
</tr>
<tr>
<td>3. Salyer Farms (J.G. Boswell)</td>
<td>Corcoran</td>
<td>Private</td>
<td>No</td>
<td>6,815</td>
<td>75</td>
</tr>
<tr>
<td>4. LNAS(Reeves Field)</td>
<td>Lemoore</td>
<td>Private</td>
<td>No</td>
<td>13,500</td>
<td>200</td>
</tr>
<tr>
<td>5. Stone (Jack Stone)</td>
<td>Lemoore</td>
<td>Private</td>
<td>No</td>
<td>2,540</td>
<td>30</td>
</tr>
<tr>
<td>6. Machado Dusters</td>
<td>Lemoore</td>
<td>Private</td>
<td>No</td>
<td>2,600</td>
<td>60</td>
</tr>
<tr>
<td>7. Westlake Farms</td>
<td>Lemoore</td>
<td>Private</td>
<td>No</td>
<td>3,600</td>
<td>50</td>
</tr>
<tr>
<td>8. Blair Strip</td>
<td>Lemoore</td>
<td>Private</td>
<td>No</td>
<td>2,150</td>
<td>45</td>
</tr>
<tr>
<td>9. Avenal</td>
<td>Avenal</td>
<td>Private</td>
<td>No</td>
<td>2,880</td>
<td>100</td>
</tr>
<tr>
<td>10. Jones Farms</td>
<td>Lemoore</td>
<td>Private</td>
<td>No</td>
<td>1,900</td>
<td>50</td>
</tr>
<tr>
<td>11. Others</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: FAA Aeronautical Information Services, Airport Facilities Directory (AFD), AirNav.com

### FIGURE 7-3

**KINGS COUNTY AIRPORTS**

*Percentage of Based Planes: 2013*

- Hanford Muni. 43%
- Corcoran 22%
- Avenal 6%
- Others 29%

Source: Kings County Assessor, KCAG
FIGURE 7-4

Visalia Airport
Revenue Enplaned Passengers
2003 - 2012

Source: FAA, DOT, ACAIS Database

FIGURE 7-5

FRESNO - YOSEMITE INTERNATIONAL AIRPORT
Enplanements
2003 - 2012

Source: FAA, ACAIS Database
III. SUMMARY OF AVIATION ISSUES

A. PUBLIC AIRPORTS: PUBLIC USE

1. Hanford Municipal Airport

Regional Economic Importance. The Central California Aviation System Plan (CCASP) identifies airport system requirements based on forecasted operations and number of based planes, and presents an action plan to implement the system improvements (discussed below in Section IV, Action Element). The improvements to Hanford Municipal Airport facilities are tied to the airport's role as a beneficiary to Kings County's projected population and employment growth. Any improvements for Hanford Municipal Airport should be implemented for Kings County's economic benefit.

Area of Influence. It is the primary responsibility of County Airport Land Use Commissions (ALUCs) to ensure that proposed land uses in the vicinity of airports are compatible with airport operations. The three primary concerns for the ALUC are height restrictions to protect airspace around airports, reducing risk to the public from airport operation and accidents, and minimizing the effects of noise in the surrounding communities. Any project that falls within the boundaries of the airports safety zone must be reviewed and approved by the Commission. The Federal Aviation Administration (FAA) makes determinations regarding potential height and safety violations, and the California Code Regulations (CCR's) contain noise standards governing airports and the operation of aircraft and aircraft engines. Planning airport improvement projects must comply with all regulations in addition to local zoning. With the changing of state law in 1993, county ALUCs were deemed optional, and Kings County decided that local zoning policies could adequately address airport/land use compatibility issues without an ALUC.

Both the City of Hanford and the County of Kings have utilized policies found in the Kings County Airport Land Use Compatibility Plan (KCALUCP) regarding land uses surrounding Hanford Municipal Airport. The KCALUCP provides airport zone designations for compatibility with land use development and establishes Compatibility Zones A, B1, B2, C and D to distinguish definitive zone dimensions and airfield criteria. Compatibility airport policies are used by the City of Hanford as the land use element of the Hanford Municipal Airport master plan to provide guidance for planning purposes. No new residential construction, including schools, churches, libraries, hospitals, or other facilities which accommodate large groups of people are to be developed in Clear Zone A (closest to the runway), no new structures may be built within 300 feet of the center line of the runway or 1,000 feet from the ends of the runway, and height limitations of structures shall be in conformance with federal regulations. Residential lot development is prohibited in Clear Zone B (adjacent and further out from Clear Zone A), however single family homes may be built on existing lots in Clear Zone B once an evaluation of hazard risk is completed.

Kings County and KCAG will continue to coordinate with the City of Hanford in order to promote further consistency in developing City and County land areas potentially affected by the Hanford Municipal Airport operations.
B. PRIVATE AIRPORTS OPEN TO PUBLIC USE

1. Avenal Airport

There are no facility changes or improvements to Avenal Airport planned in the foreseeable future. The privately-owned airport is considered in the City of Avenal General Plan for aircraft noise and public safety. There are scattered residences in the airport sphere of influence, especially in the area immediately south of the runway. This area has been zoned agricultural and very low-density residential uses. However, there is presently no threat to these residences by aircraft operations with very light air traffic and glider activities. The City of Avenal and Kings County will continue to monitor any changes in land uses in the proximity of the airport.

C. PRIVATE AIRPORTS: PRIVATE USE ONLY

1. Corcoran Airport

Public Ownership. Previously under consideration for public ownership, there are no plans by either Lakeland Dusters Aviation Inc. or the City of Corcoran for the public purchase of the Corcoran Airport. Lakeland Dusters operates pistachio groves around the airport which at full growth would interfere with FAA regulations for public use, and Lakeland Dusters has no future plans to open to the public. Nearly all of Corcoran’s airport activity is by agricultural aircraft, and there is no long range master plan that has been prepared regarding future use and development of Corcoran Airport.

Area of Influence. Adopted in 2007, the Corcoran General Plan establishes that residential development within the southeasterly approach zone is to be restricted within a horizontal distance extending approximately 3,000 to 4,000 feet southeast of the end of the runway. The City of Corcoran’s land use element and zoning ordinance restrict potentially hazardous land uses within Compatibility Zones A and B1/B2. Compatibility Zone A (area nearest the airport runway) prohibits new residential construction, new schools, churches or other large group facilities, restricts height of structures, and restricts new structures within 300 feet of the center line of the runway or 1,000 feet from the ends of the runway. The area immediately adjacent to Zone A is Compatibility Zone B1/B2 which prohibits new residential lots, limits new single family residential construction to a case-by-case basis after evaluation for potential hazards, and prohibits new schools, churches, or other large group facilities.

2. Planning Considerations. Kings County’s exceptionally high ratio of aircraft to population is due to the intensive use of aircraft in the agricultural industry for aerial spraying and for business accounts. The land use discussions herein are meant to support local planning efforts and not usurp the authority of local jurisdictions. Land use planning for agricultural airports must be concerned with a number of factors:

   a. The need to prohibit new air facilities where there is a danger to neighboring land uses. In Kings County’s agricultural zone districts, developers of new private airports must obtain Conditional Use Permits. Aircraft crash potential, night operations, and the use of toxic chemicals have constituted the principal issues of debate in county zoning cases.

   b. Noise impacts from crop dusters cannot be measured accurately due to the seasonal and varying nature of chemical application spraying. Noise
impacts are greatest in the vicinity of agricultural fields and not necessarily in the immediate area of airports. These impacts should be considered in local government's land use and public safety planning on a case-by-case basis.

c. Consideration of interference with other air facilities, especially Lemoore Naval Air Station military air operations.

d. The need to provide agricultural airstrips in close proximity to intensive farming areas, such as the Tulare Lake Basin.

D. MILITARY AIR FACILITIES

1. Lemoore Naval Air Station

Area of Influence:

The NAS Lemoore airfield is configured by the Navy into three zones with varying hazardous potential. Extending 3,000 feet immediately beyond the runway is the Clear Zone, which has the highest potential for accidents. The Clear Zone is required for all active runways and should remain undeveloped. The Navy’s policy regarding the Clear Zone is to acquire sufficient real property interests in land within the Clear Zone to prohibit incompatible development with military aircraft operations. Outside of the Clear Zone lies the “accident potential zones” (APZs) and noise zones. The area for flight tracks that experience 5,000 or more annual operations for departures or approaches is designated APZ 1. The area extending 7,000 feet beyond APZ1 or the Clear Zone, with a width of 3,000 feet, is designated APZ 2. APZs extend from the end of the runway in the direction of each flight track if more than one flight track is used by aircraft. Zones APZ 1 and 2 prohibit noise-sensitive land uses (i.e. homes, churches) and high occupance-intensive uses (i.e. food stores, shopping centers).

Air Installations Compatible Use Zones Study:

To help ensure compatible development near its airfields, in 1978, NAS Lemoore prepared its Air Installations Compatible Use Zones Study (AICUZ). In 2010, NAS Lemoore updated its 1993 AICUZ Program to a 2020 Plan to support Federal, State, and local planning efforts seeking smart growth and land use compatibility initiatives, and to consider expected changes in mission, aircraft, operational levels, and other aspects within the ten year horizon. The AICUZ Program is important as it outlines current and foreseeable issues with land use compatibility with the Lemoore naval airfield operations with both Fresno and Kings Counties. The AICUZ offers recommended strategies for land use compatibility pertaining to noise levels, accident potential, and flight clearance requirements associated with military airfield operations. The 2010 update reflects changes in the ground-controlled approach flight track which was lengthened by approximately 1 mile to the south to avoid flights over the community of Stratford. Additionally, NAS Lemoore homebased the F/A-18 E/F Super Hornet in the late 1990’s and may potentially increase squadrons and operations; the Installation anticipates homebasing the F-35C Lightning II Joint Strike Fighter; and the Ground Control Approach flight pattern may change.

The responsibility for land use and air base development decisions is shared between NAS Lemoore and local governments. Historically, military air facilities have attracted development to their surrounding areas, generally housing and service establishments for military personnel and their families, and for civilian employees. Without adequate land-use controls, such development is
incompatible with the mission of the air base with living conditions subject to high noise levels and potential aircraft accidents. Within Kings County, specific current and potential land use compatibility concerns identified by the AICUZ are as follows:

a. Development of West Hills Community College, located west of State Highway 41 and placed under the Ground Control Approach Box Pattern area for flight track 4LG1/2RGI;

b. Large acreage dairy farms located north and northeast of NAS Lemoore within Noise Zone 3;

c. A residential parcel located north of Runway 14L within Noise Zone 3 and APZ 2;


The Navy intends to continue to disseminate relevant material and educate the public, stakeholders, planning agencies, and other local government entities through community outreach and project planning reviews as development occurs, including intergovernmental agency reviews, about the AICUZ Program to help preserve the defense mission while improving the quality of life of those living around the installation.

Joint Land Use Study:

A Final Joint Land Use Study (JLUS), released August 2011, was completed by local government partners in Fresno County, Kings County, and City of Lemoore, including NAS Lemoore, KCAG, and other agencies and interested parties, for use by local governments as a planning document to promote compatible land use around the NAS Lemoore base. Similar to the AICUZ but civilian-based in scope and application, the JLUS identifies current and foreseeable encroachment issues and provides recommendations for consideration and implementation in each jurisdiction’s general plan and the local planning process for land use development to promote compatibility between the civilian community and the military installation.

For Kings County, the JLUS identifies land use objectives in the 2035 Kings County General Plan, Open Space Element, and Health and Safety Element. Primarily, the goal is to maintain open space areas near NAS Lemoore and underlying low level military airspace corridors and ranges to prevent significant impacts to residents by mission activities. Potential impacts of noise, smoke, and dust generated by ground and air operations, and by aircraft crashes or other operational accidents at or near the airfield, exist and can negatively affect the quality of life for people living near an airfield. This goal is met with objectives and policies to maintain a restricted land use buffer around the naval air station to prevent encroachment of incompatible land uses and engage in coordinated efforts to plan for long term operations and safety. By designating, as Exclusive Agriculture, a 3-mile buffer surrounding the NAS Lemoore installation, applied as “Agriculture for Public Safety” territory, the potential risk to public safety is preserved over the long term and limits encroachment concerns. This zoning classification prohibits the creation of homesites on smaller (less than 40 acres) lots, agricultural production is protected, and the operational integrity of the strategic installation is preserved.
The City of Lemoore, located east of the NAS Lemoore installation, has no areas within the 3-mile perimeter of the base installation. There are currently no land use compatibility issues associated with development near the boundary of NAS Lemoore. The city has both Agriculture and Light Industrial zones within the high aircraft noise contour, however both zone designations are compatible with conditions.

NAS Lemoore complies with stringent non-attainment air quality regulations administered by the San Joaquin Valley Air Pollution Control District. The compliance program annually undergoes mandated federal, state, and local air district inspection sin order for NAS Lemoore to continue operations.

NAS Lemoore’s Economic Impact

According to the JLUS, 751 military and contractor/civilian personnel are projected at NAS Lemoore, increasing Lemoore’s population by approximately 2,320 persons by 2028. NAS Lemoore employs approximately 11,700 military and civilian personnel and contributes an estimated $900 million to the local economy.

Additionally, the base generates about 13,500 jobs for the county, which includes military personnel, Department of Defense civilians and contractors, contracts, payroll employees, transient personnel, and retirees/veterans. The naval hospital on base serves over 17,249 active and retired military, military dependents and personnel in the county. The installation feeds about 2,000 students to local college campuses and 1,600 students to the area’s Central Union School District.

The base also contributes to the economy through on-going construction projects, which currently total about $72 million in economic activity. The retirement community associated with NAS Lemoore contributes $176 million to the local economy. Expenditures from 2010 to 2035 by NAS Lemoore are projected to exceed $443 million to the surrounding counties.

E. HELIPORTS

There are five heliport-helipads located in Kings County for private use only, and include the following:

- landing pad at JG Boswell Company in Corcoran;
- helistop at the Hanford Community Hospital;
- heliport at the Adventist Health Medical Center in Hanford;
- landing pad at Westlake Farms airfield in Stratford; and
- heliport for Kings County Fire Department at Houston Avenue.

Hanford Municipal Airport does not have a separate helipad for helicopter operations. However, helicopters are used for chemical applications, air ambulance service, and for private use. The annual aircraft operations of helicopters utilizing Hanford Municipal Airport facilities is currently about 1,240 and projected to be 2,000 in 2025.

There are also three HH-1N type Search and Rescue Helicopters based at Lemoore NAS.
IV. ACTION ELEMENT

A. CENTRAL CALIFORNIA AVIATION SYSTEM PLAN

Kings County participated in a demonstration project to coordinate regional, state and federal aviation system planning with the development of the Central California Aviation System Plan (CCASP) in 2008. This was a departure from previous airport planning that was done primarily between the federal and state aviation authorities and local airports.

The CCASP was developed over a four year period and included several elements. Issues impacting the aviation community and how they impacted each airport were identified; aviation goals, objectives and policies were summarized; aviation funding resources and needs were described; airport profiles were developed to identify existing facilities and the role each airport had in the community or region; forecasts of based planes, flight operations, commercial service passengers and cargo were developed; needs were identified to accommodate the forecasts; and, an action plan was developed to meet those needs. Airport projects included in future Capital Improvement Programs will reflect a more focused and accurate view of the airport's role to the community it serves.

B. HANFORD MUNICIPAL AIRPORT

1. Recent Projects

The City of Hanford has secured federal grants over the last few years for several projects to install runway signs, airport beacons, fencing and gates; rehabilitate the runway, taxiway, and parking areas; and acquire land for runway expansion. The City of Hanford purchased 114 acres for expanding the runway approach protection zone in anticipation of future airport improvements.

2. Airport Master Plan

The Hanford Municipal Airport will continue to upgrade its facilities as outlined in the Airport Master Plan prepared in 1994. An update of the master plan was completed in early 2010. The primary objective of the plan was to provide upgraded aviation facilities in order to reasonably accommodate anticipated increases in aviation demand, improve the airport’s operational efficiency, and enhance safety. The highlight of the 2010 plan was a proposal to maintain the extended existing runway. The runway extension was necessary to upgrade the airport's operational capacity, provide access to more diverse jet aircraft, and provide greater aviation safety by allowing aircraft to more easily execute the right-turn upon departure from Runway 14-32 and to avoid lower flight occurrences over residential and commercial areas within the city and county.

Other improvements included in the plan that have recently been completed are the replacement of the Visual Approach Slope Indicator (VASI) with the Precision Approach Path Indicator (PAPI) to make landing safer, a new Runway End Identifier Light (REIL) placed at the end of the runway, and an Automated Surface Observing System (ASOS) that was installed and commissioned on February 18, 1998 to disseminate weather information. It is recommended that the Master Plan and Layout Plan illustrate land use and surface transportation impacts and changes which may occur as a result. The following table lists the capital improvements proposed in the 2010 Airport Master Plan.
FIGURE 7-6

HANFORD MUNICIPAL AIRPORT MASTER PLAN PROGRAM

<table>
<thead>
<tr>
<th>Short Range (within 5 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underground utility poles at Runway 32 end</td>
</tr>
<tr>
<td>Environmental Assessment (Acquisition 45 acres)</td>
</tr>
<tr>
<td>Land Acquisition (45 Acres and 8 residential properties)</td>
</tr>
<tr>
<td>Appraisal of land and property</td>
</tr>
<tr>
<td>ALP Update</td>
</tr>
<tr>
<td>Install MALSR approach light system</td>
</tr>
<tr>
<td>Environmental Assessment (Acquisition of 108 acres)</td>
</tr>
<tr>
<td>Land acquisition of 108 acres</td>
</tr>
<tr>
<td>Appraisal for purchase of farmland</td>
</tr>
<tr>
<td>FBO site infrastructure</td>
</tr>
<tr>
<td>Rehabilitate runway, aprons and hangar taxi lanes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mid Range (within 6-10 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box Hangar Area (39,000 square feet new pavement)</td>
</tr>
<tr>
<td>Overlay runway and taxiway</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Long Range (within 11-20 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box Hangar Area (38,000 square feet new pavement)</td>
</tr>
<tr>
<td>Slurry seal runway and taxiway, overlay apron</td>
</tr>
</tbody>
</table>

Source: 2010 Hanford Municipal Airport Master Plan

C. LEMOORE NAVAL AIR STATION

Completed projects within the past several years include new housing units, air terminal, offices, veterinary clinic and a car wash, and the assignment of 92 new F/A-18E/F aircraft and 1,550 personnel and their families to LNAS, which necessitated additional operational, training, maintenance, storage, administrative, housing, community, and utility facilities. Because F/A-18s are currently stationed at LNAS, most of the facilities for the additional aircraft were available and required only renovation or adaptation.

New construction or large-scale expansion will be required for some aircraft facilities and for associated personnel buildings with the anticipated homebasing of the F-35C aircraft. Seven Pacific Fleet squadrons (70 total F-18 aircraft) currently based at NAS Lemoore would progressively transition to the new F-35C aircraft beginning in 2015 to be completely transitioned by 2028. Establishing no earlier than 2017, Lemoore NAS would have a F-35C Fleet Replacement Squadron consisting of approx 30 F-35C aircraft to meet the requirements for training Navy pilots, and 100 F-35C aircraft by 2028 (increase of 100 F-35C aircraft and decrease of 70 F-18 aircraft). Homebasing the F-35C at Lemoore NAS will result in an increase of approximately 68,400 operations and approximately 800 offsite operations at the Naval Air Facility El Centro in Imperial County. Additional facilities and infrastructure for training, operations and maintenance, and personnel support would be required at NAS Lemoore. Sixteen projects would be proposed to provide this, including two projects for interior hangar renovations and a Special Access Program Facility. Lemoore NAS’ estimated homebasing the F-35C aircraft would cost approximately $242 million.
D. CAPITAL IMPROVEMENT PROGRAMS

The California Aviation System Plan (CASP) is a multi-element plan prepared by the California Department of Transportation (Caltrans), Division of Aeronautics, to develop and preserve a system of airports responsive to the needs of the State. The Capital Improvement Program (CIP) is a ten-year capital improvement program that serves as a guide for future public-use airport development. The CIP is included as an element of the CASP as required by the State Aeronautics Act. The CIP is required to be based upon each airport’s Master Plan and is to be prepared in cooperation with the airport and the regional transportation planning agency for submittal to Caltrans every two years. Only projects included in the CIP are eligible for state aeronautics funds. Projects are selected by Caltrans based on a priority matrix. Projects included in the CIP are adopted by the California Transportation Commission (CTC) for the upcoming three-year fiscal Aeronautics Program every even year, while the CIP is published every odd year.

The following are projects included in the CIP for the two public use airports, Hanford Municipal Airport and the Corcoran Airport.

FIGURE 7-7
CAPITAL IMPROVEMENT PROGRAM
HANFORD MUNICIPAL AIRPORT
2014-2018

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>COST</th>
<th>STATE</th>
<th>FAA</th>
<th>LOCAL</th>
<th>YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALP Update</td>
<td>$25,000</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>2014</td>
</tr>
<tr>
<td>Rehabilitate Hangar taxilane – design</td>
<td>$142,600</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>2013</td>
</tr>
<tr>
<td>only</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rehabilitate Hangar Taxilane –</td>
<td>$1,640,000</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>2014</td>
</tr>
<tr>
<td>construction only</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rehabilitate Runway Apron – design</td>
<td>$44,000</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>2014</td>
</tr>
<tr>
<td>only</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rehabilitate Runway Apron – construction only</td>
<td>$430,500</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>2015</td>
</tr>
<tr>
<td>Rehabilitate TWA – design only</td>
<td>$18,000</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>2015</td>
</tr>
<tr>
<td>Rehabilitate TWA – construction only</td>
<td>$204,500</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>2016</td>
</tr>
<tr>
<td>Design New Hangars and taxilane</td>
<td>$130,000</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>2017</td>
</tr>
<tr>
<td>Construct New Hangars and taxilane</td>
<td>$1,620,000</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>2018</td>
</tr>
<tr>
<td>Rehabilitate Runway 14-32 – design only</td>
<td>$50,000</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>2018</td>
</tr>
<tr>
<td>Pavement Management Plan Update</td>
<td>$10,000</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>2018</td>
</tr>
<tr>
<td>Replace Existing Fuel Tanks</td>
<td>$150,000</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>2018</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$4,464,600</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Source: City of Hanford, Hanford Municipal Airport

V. FINANCIAL ELEMENT

A. FEDERAL SOURCES

General Aviation airport development grants, known as Airport Improvement Program (AIP) grants, are available through the Federal Aviation Administration (FAA). These grants are derived from aviation fuel taxes, aircraft fees, and air passenger fare surcharges. Congress must approve funding for the grants each year.
The FAA’s AIP has a number of funding categories. Airports near major airports are normally designated “reliever airports” and are funded from the reliever airport funding category. Airports in Kings County are funded from the General Aviation category and do not compete with the larger, urban airports. From 1988 to 1993, primary airports made up the largest segment of those airports receiving AIP grants (54 percent), followed by General Aviation airports (42 percent), and reliever airports (4 percent).

Hanford Municipal Airport qualifies for $150,000 per year in AIP funds that can be used for environmental studies; pavement rehabilitation; installation of signs, beacons, fencing; acquisition of land for the runway protection zone; and extension of the runway.

B. STATE SOURCES

The majority of the revenues for the Aeronautics Program are derived from an 18-cent per gallon tax on aviation gas and a 2-cent per gallon tax on jet fuel. The tax is levied on general aviation aircraft only. Revenues generated from aviation gasoline are expected to gradually decline as the industry moves to jet fuel-powered aircraft. As it stands, the request for funding by General Aviation airports in the CIP is some 30 times greater than funding availability in the California Aid to Airports Program (CAAP).

The California Aid to Airports Program (CAAP) encompasses four categories of state aeronautics funding.

1. **Annual Grants**

   Annual grants of $10,000 are awarded to public-use, publicly-operated airports which are neither Reliever nor Commercial Service Airports, as designated by the FAA. The funds can be accumulated for up to five years. The funds are to be used for airport development, operation, and maintenance and may also be used to match FAA money. No local match is required for an Annual Grant.

2. **AIP Matching Program**

   This program involves state funds used specifically for local matching requirements of the federal AIP grant. The local match rate is currently 5 percent for an AIP grant. The project must be included in the Capital Improvement Program (CIP) to be eligible for match funding. These funds are subject to allocation by the California Transportation Commission.

3. **Acquisition and Development (A&D) Grants**

   Acquisition and Development program grant funds are allocated by the California Transportation Commission (CTC). The CIP is used as the basis for programming these funds. With over 250 publicly operated airports in California desiring a portion of the available funds, competition is keen. The local match requirement can vary from 10 to 50 percent of the project’s total cost as determined by the CTC. However, a 10 percent match percentage has been generally adhered to over the past 10 years of the program. Caltrans uses a rating and ranking system for grant applications which gives priority to those projects that:

   - are requested by airports with high levels of air traffic;
   - enhance the safe operation of the airport;
   - confer environmental benefits;
   - help maintain existing facilities;
   - improve the efficient operation of the airport; and
   - complement the California Aviation System Plan.
4. **California Airport Loan Program**

This local airport loan program provides financial assistance in the form of loans repayable over a period not to exceed 25 years. Interest rates are based on the latest state bonds issued prior to granting the loan. These loans can be used by general aviation airports for most facility improvements and land acquisitions. There are two types of airport loans available: 1) loans for matching FAA grants, and 2) revenue-generating loans for demonstrated project needs.

C. **LOCAL SOURCES**

Local funding has been an increasingly important source of revenues for General Aviation airports. Two categories of local funding are available for airports. One of the most important is lease income from hangar fees from operators of flight service facilities, or fixed-base operators (FBO’s), and from other enterprises located at the airport. The Hanford Flight Center is an FBO providing fuel, aircraft maintenance, services and supplies, generating lease income for the Hanford Municipal Airport. Lease income also includes revenues generated from airport-owned land not relating to aircraft operations. At Hanford Municipal Airport, 60 acres are leased for agricultural production, which generates approximately $2,400 per year. The Hanford City Council establishes charges for the use of specific airport facilities such as tie downs, shelters, and hangar space. Planned increases in hangar spaces will provide additional airport funds. Lease fees in 2013 were increased approximately 5% for aircraft tie-downs, hangar spaces, portable toilets, and ground leases to preserve the airport rate structure and avoid large increases in any single year. The anticipated revenue generated by the fee increases will be approximately $3,500 per year.

The second source of revenues is funds collected in the City of Hanford's general fund. The general fund revenues are normally used to supply matching funds for CAAP grants.

**FIGURE 7-8**

**ANTICIPATED HANFORD MUNICIPAL AIRPORT REVENUES 2014-2025**

<table>
<thead>
<tr>
<th>REVENUE CATEGORY</th>
<th>TOTAL $</th>
</tr>
</thead>
<tbody>
<tr>
<td>HANGAR RENT/TIEDOWNS</td>
<td>$400,000</td>
</tr>
<tr>
<td>BUILDING RENTALS</td>
<td>$586,300</td>
</tr>
<tr>
<td>LAND LEASES</td>
<td>$257,700</td>
</tr>
<tr>
<td>GENERAL FUND</td>
<td>$61,000</td>
</tr>
<tr>
<td>OTHER AIRPORT REVENUES</td>
<td>$5,700</td>
</tr>
<tr>
<td>CAAP</td>
<td>$100,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,410,700</strong></td>
</tr>
</tbody>
</table>

Source: City of Hanford
FIGURE 7-9

ANTICIPATED HANFORD MUNICIPAL AIRPORT EXPENDITURES
2014-2025

<table>
<thead>
<tr>
<th>EXPENSE CATEGORY</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPERATIONS</td>
<td>$350,000</td>
</tr>
<tr>
<td>MAINTENANCE</td>
<td>$490,000</td>
</tr>
<tr>
<td>CAPITAL</td>
<td>$570,700</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$1,410,700</td>
</tr>
</tbody>
</table>

Source: KCAG, City of Hanford
I. OVERVIEW

With an increased focus on green infrastructure at the state, local, and federal levels, non-motorized facilities have been elevated to greater importance as a necessary component of the overall transportation system. Although the current federal transportation authorization, Moving Ahead for Progress in the 21st Century (MAP-21), will be replaced by October 1, 2014, by the next federal authorization or will be extended, KCAG anticipates that the prioritization of green technology will remain a key component of the new legislation whenever it is enacted. While the term "non-motorized" includes pedestrian and equestrian modes, this chapter will primarily focus on the development of pedestrian and bicycle facilities in Kings County.

In addition to bicycle and pedestrian facilities, equestrian trails are generally considered as passive recreational areas. Opportunities for the public to choose bicycling over the automobile for local commuting are a desirable end for local governments to work towards.

Pedestrian facilities are most often the responsibility of local government and are implemented during the normal land use development process. Pedestrian facilities incorporate ADA components in their construction. Recent legislation highlights the role of walkable communities as a means of promoting public health and improving the environment. With these initiatives, pedestrian facilities have gained an increased importance as non-motorized facilities. KCAG appreciates the importance of promoting walkability in future planning endeavors. The development of bicycle and pedestrian programs and facilities provides an alternative to the automobile and results in many public benefits, including the following:

- lessens traffic congestion
- does not emit air pollutants
- is energy efficient as it uses no fuels
- does not lead to deterioration of roadways
- is virtually silent in its operation, reducing noise pollution
- reduces space needed for on-street parking and parking lots
- is an inexpensive form of transportation available to all able-bodied persons
- provides convenient, non-destructive, door-to-door transportation, and
- has health benefits for regular users.

II. RECENT PLANNING EFFORTS

The 2011 Kings County Regional Bicycle Plan was adopted by the KCAG Transportation Policy Committee on October 26, 2011, and has been certified by the Caltrans Bicycle Facilities Unit as being consistent with the Regional Transportation Plan and the California Bikeways Act. This Plan was prepared under the guidance of a Bicycle Advisory Committee. Membership of this committee is comprised of stakeholders with an understanding of the diverse needs of the various bicycling community in Kings County. In addition, the City of Lemoore prepares and adopts its own Lemoore Bikeways Plan that is also certified by Caltrans. For more detailed information, reference can be made to these bicycle plans on the KCAG and City of Lemoore websites.
The Kings County Regional Bicycle Plan provides a coordinated and comprehensive bicycle plan that integrates the facilities in the unincorporated county area with those in each of the four cities within the county. The Plan is also prepared to provide a “stand-alone” bicycle plan for each jurisdiction, which can be used by each agency to secure funding to implement their individual bicycle programs and projects. This Plan provides a blueprint for a bikeway system that will make bicycling safer, more convenient, and more enjoyable for all bicyclists.

Recent legislation in California such as Senate Bill 375 provide incentives for local governments to implement multi-modal transportation projects in their jurisdictions. The 2011 Regional Bicycle Plan has taken recent legislation into account and discussed its impacts on member agencies for future bicycle planning endeavors.

### III. ASSUMPTIONS

A. The Kings County Regional Bicycle Plan and the Lemoore Bikeways Plan will be used as the basis for implementing future bicycle facilities within Kings County.

B. The active participation of local interest groups to focus public support for bicycle improvements can assist local agencies in determining the need for bicycling facilities in the effort to implement the Kings County Regional Bicycle Plan and the Lemoore Bikeways Plan.

C. The construction of an integrated system of safely and conveniently connected bike lanes, bike routes, and bicycle parking facilities will lead to greater use of the bicycle for local commuting.

D. Bicycling should be promoted as a transportation control measure to reduce single-occupant vehicle commuting in an effort to reduce vehicle emissions.

E. Most bicycle travel has and will continue to occur on roads in a shared-use fashion. Bicyclists are encouraged to use designated bicycle routes.

F. Bicycle accidents are most effectively avoided by teaching cyclists and drivers to safely share roadways. Bicycle lanes and routes do not prevent bike-auto accidents.

### IV. SUMMARY OF NON-MOTORIZED ISSUES

A. A great deal of bicycle commuting is done by children traveling to and from school. Children often ride in a haphazard manner and may not properly use bike lanes if they are provided. Young people who will properly use bike lanes have a small political voice. They depend on their parents and school officials to speak out for bicycle improvements.

B. While a number of individuals now commute on bicycles in this county, most riding by adults is done for recreational and health reasons. Without designated bicycle routes, such riders will continue to use shared roadways and utilize their own preferred circuits. Generally, use of undesignated shared-use routes may present a greater safety risk.

C. Local governments have been caught between rising road construction and maintenance costs and limited revenues for several years. Although there is funding for construction of bicycle and pedestrian facilities, there is no funding to maintain the facilities once constructed. Therefore, local agencies resist devoting scarce capital improvement dollars to construct bicycle facilities.
D. Local police departments should continue to conduct bicycle training seminars at elementary schools and community centers to promote bicycle safety and reduce the number of bicycle riders who ride against traffic or violate other traffic laws should be cited.

E. Secure bicycle parking is lacking throughout Kings County. Investment in bicycle parking facilities near shopping areas and other high-use destinations is needed.

F. Pavement quality conditions need improvement throughout Kings County. Improvements such as the widening of shoulders and the repaving of rough areas will benefit both motorists and bicycle riders.

G. Most federal, state, and regional funding sources available for non-motorized facilities are for commuter, rather than recreational, purposes.

H. From a liability perspective, Class II and III bikeways are treated similar to roadways and sidewalks, meaning that the City becomes liable only if the facility is improperly designed, constructed, or maintained. Deteriorating conditions that develop over time represent potential liability concerns. A regular maintenance and monitoring program will help reduce this liability and should be adopted by each jurisdiction to ensure that the pedestrian facilities and bikeways are being adequately maintained. However, improper maintenance due to funding shortfalls generally does not put the City at risk.

V. ACTION ELEMENT

A. IMPLEMENTATION STRATEGIES

1. Carry out the recommendations of the Kings County Regional Bicycle Plan and the Lemoore Bikeways Plan until KCAG develops an Active Transportation Plan to access the Active Transportation Program funding. For example, the City of Lemoore has revised its zoning ordinance so that large commercial and industrial employer sites are required to integrate bicycle racks and lockers into the overall site and building design.

2. On designated shared-use roads, provide adequate shoulder space, place bike route indicator signs, and maintain a good riding surface.

3. Ensure that public and private sectors provide adequate bicycle parking. This can be done by amending each jurisdiction’s zoning ordinance. The ordinances could be written to allow installation of secure bicycle parking “in lieu” of a portion of automobile parking normally required.

4. Utilize existing private and public bicycle safety seminars. Seminars can be scheduled at schools, adult education programs, local retailing outlets, and public workshops. Funding opportunities should be explored in the private sector (retailers, social service clubs, recreational clubs, etc.) and in public/private partnerships. Additional funds could be drawn from state traffic safety grants.

5. Local police departments should conduct regular campaigns and enforce traffic laws regarding riding against traffic, disregarding traffic signals and signs, and the appropriate use of working bicycle lights in the evening or early morning as well as efforts to educate motorists concerning the rights of cyclists on the roadway.

6. Each city should have an active bicycle registration program.
7. KCAG should join with other counties to petition the State Department of Motor Vehicles to require knowledge of bicycle traffic laws in licensing tests. DMV should be held responsible for making motorists aware of bicyclists' rights and responsibilities.

8. Seek all available state, federal, and private grant funds to install and maintain bicycle facilities and to conduct educational programs.

9. Local agencies should consider bicycle issues in all phases of planning for transportation. This includes local land use, air quality, zoning and circulation elements of general plans, capital improvement plans, and recreational programs.

10. KCAG should consider bicycle issues in its Regional Transportation Plan, Federal Transportation Improvement Program, and Regional Transportation Improvement Plan. KCAG should also ensure that bicycle issues are represented at annual Local Transportation Fund (LTF) allocation discussions and public hearings.

11. Better coordination in developing and implementing bicycle plans can be achieved by:
   a. Designating a single individual within each jurisdiction to ensure that bicycle issues are represented in that agency's various functions.
   b. Encouraging bicycle advisory and support groups to work closely with local officials in identifying and seeking solutions to bicycle problems. These groups should assume the responsibility of keeping bicycle issues before decision-makers.

12. The rehabilitation of roads will benefit bicycle users. As roads are repaved, wider shoulders should be provided to upgrade the riding surface for bicyclists.

13. Bicycle parking facilities should be installed at transit stops, park-and-ride lots, and intermodal stations to effect the first-last mile connectivity concept, providing a seamless transition with other transportation modes. Transit buses should continue to be equipped with bicycle transporting racks.

14. Encourage newly developing areas to incorporate bicycle facilities along appropriate roadways and off-road systems as part of open space and recreational amenities.

15. Continue to develop and maintain a safe sidewalk system that facilitates pedestrian and ADA access to public transit for commuting, recreation, or other purposes.

16. The abandonment of rail lines provides an opportunity to establish trails for non-motorized, recreational, or open space uses. Converting abandoned rail corridors into trails also preserves the right-of-ways for any future transit use. However, abandoned rail lines through agricultural production property should not be utilized for general public recreational use, as farm security requirements and proximity to agricultural operation make this option infeasible.

B. BIKE ROUTE DESIGNATIONS

The Kings County Regional Bicycle Plan identifies several categories of street improvements classified as bicycle facilities that are described as:

1. **Class I Bikeways (Bike Path)** are separated from vehicular traffic and used exclusively by bicyclists and pedestrians.
2. **Class II Bikeways (Bike Lane)** are designated bike lanes adjacent to vehicular travel lanes. These can be installed on existing streets that are most heavily used by bicyclists. Bike lanes are usually four or six-foot wide rights-of-way assigned to bicycles, and are delineated by a six-inch painted stripe. A good riding surface should be provided.

3. **Class III Bikeways (Bike Route)** are designated routes on roadways that are shared with motorists. Only signage is provided and there are no pavement stripes or bicycle lane designation markers. This is a shared right-of-way along a commuter corridor that either links Class II bikeways or routes. A good riding surface should be provided.

4. **Touring.** This designation has been given to those routes that are often narrow, without adequate shoulders, or carry high speed traffic and/or heavy traffic volumes, but which are known to be used by the more experienced bicyclist. Touring routes are not for the casual, less experienced bicyclist.

5. **Sidewalk.** This type of bikeway is basically a wide sidewalk that is intended to be shared by both bicyclists and pedestrians. These are usually only found in tourist areas that host large numbers of bicyclists and pedestrians.

7. **Shared-Use Roadway (No Bikeway Designation).** KCAG recognizes that most bicycle travel occurs on roads that are not bikeways, even in communities where bikeways are provided. The shared-use designation shows recommended bicycle commuter routes. The development of a high-quality road and shoulder surface with a standard four-inch fog stripe in rural areas will enhance bicyclists’ safety and will benefit motorists as well. Shared-use roadways can be considered for reclassification as a Class II or III bikeway, if warranted by bicycle usage.

C. **BICYCLE PARKING FACILITIES**

Bicycle parking facilities are often overlooked. The lack of adequate and theft-resistant parking will continue to be an obstacle to bicycling commuting. There are three types of bicycle parking facilities that could be considered to increase bicycle use.

1. **Class I - High Security**

   These parking facilities include bicycle lockers and/or locked enclosures in supervised areas that provide weather and vandalism protection. These types of facilities are located in areas where day long or longer storage is needed on a regular basis. Bike lockers are generally rented or reserved and require some type of management program.

2. **Class II - Medium Security**

   These parking facilities are stands or racks that allow a user to secure a bicycle frame and one or both wheels with a U-lock or cable. This type of rack supports the entire bike frame rather than a wheel only. Class II parking facilities should be located near commercial areas, places of employment, schools, and any other areas where there is a need to store bicycles for several hours or more with minimum supervision.
3. **Class III - Low Security**

These parking facilities are traditional stands that support the bicycle by the front wheel only. These stands do not support or secure the frame, and are difficult to use with high-security U-locks. Although common in use, this type of facility is not recommended, especially with the growing popularity of fat-tire mountain bikes which are incompatible with many Class III racks and quick-release bicycle wheels which make theft easy if the frame is not secured to the parking facility. For these reasons, existing Class III stands should be phased out and replaced with Class II racks.

D. **PROJECTS**

1. **Bicycle Facilities**

Figures 8-1 through 8-10 provide the list and maps of the bike routes recommended by each jurisdiction in the *Kings County Regional Bicycle Plan*.

   a. **Recent Projects**

   City of Corcoran (2012) received $686,000 in Congestion Mitigation Air Quality funds to add shoulders with Class II Bicycle Lanes of recently annexed roadways.

   City of Hanford (2013) received $66,000 in Congestion Mitigation Air Quality funds to add Class II Bicycle Lanes and Pedestrian Facilities in various locations throughout Hanford.

2. **Pedestrian Facilities**

In recent years, our local agencies have been successful in receiving State and federal grant funds through the Safe Routes to Schools Programs.

In 2011, KCAG Staff collaborated with Kings County Staff in writing two proposals for Kettleman City (awarded $453,600 federal funds) and Armona (awarded $320,900 in state funds) for sidewalks, curbs, gutters, lighted crosswalks, and drainage.

Kings County also received a grant for Home Garden (awarded $628,670 in state funds in 2010) for construction of pedestrian facilities.

The City of Avenal received $53,430 in state funds for in-pavement lighted crosswalks in 2011.
### FIGURE 8-1

Kings County
Bicycle Project List

<table>
<thead>
<tr>
<th>Street</th>
<th>From</th>
<th>To</th>
<th>Facility Type</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>10th Ave.</td>
<td>Houston Ave.</td>
<td>Kansas Ave.</td>
<td>Class III</td>
<td>$19,598</td>
</tr>
<tr>
<td>10 1/2 Ave.</td>
<td>Kansas Ave.</td>
<td>Nevada Ave.</td>
<td>Class III</td>
<td>$16,332</td>
</tr>
<tr>
<td>10th Ave.</td>
<td>Nevada Ave.</td>
<td>Whitley Ave.</td>
<td>Class III</td>
<td>$8,982</td>
</tr>
<tr>
<td>Whitley Ave.</td>
<td>10th Ave.</td>
<td>7th Ave.</td>
<td>Class III</td>
<td>$9,898</td>
</tr>
<tr>
<td>18th Ave.</td>
<td>Jackson Ave.</td>
<td>Lemoore City Limit</td>
<td>Class II</td>
<td>$13,104</td>
</tr>
<tr>
<td>Flint Ave.</td>
<td>Hickey Park</td>
<td>6th Ave.</td>
<td>Class III</td>
<td>$35,880</td>
</tr>
<tr>
<td>Jackson Ave.</td>
<td>Avenal Cutoff</td>
<td>18th Ave.</td>
<td>Class III</td>
<td>$16,703</td>
</tr>
<tr>
<td>Fargo Ave.</td>
<td>14th Ave.</td>
<td>BNF. RR</td>
<td>Class III</td>
<td>$8,351</td>
</tr>
<tr>
<td>12 3/4 Ave.</td>
<td>Excelsior Ave.</td>
<td>Fresno Co. Line</td>
<td>Class III</td>
<td>$5,877</td>
</tr>
<tr>
<td>Nevada Ave.</td>
<td>Avenal Cutoff</td>
<td>State Route 41</td>
<td>Class III</td>
<td>$24,745</td>
</tr>
<tr>
<td>6th Ave.</td>
<td>Flint Ave.</td>
<td>Burris Park</td>
<td>Class III</td>
<td>$20,415</td>
</tr>
</tbody>
</table>

Source: 2011 Kings County Regional Bicycle Plan
FIGURE 8-2

KINGS COUNTY
BICYCLE ROUTES

Legend

- Touring
- Planned Bikeway
- Existing Bikeway
- Railroad Tracks
- School
- Bicycle Parking
- Hill Terrain
- xx,xxx Daily Traffic Counts

Source: KCAG
FIGURE 8-3

Avenal
Bicycle Project List

<table>
<thead>
<tr>
<th>Street</th>
<th>From</th>
<th>To</th>
<th>Facility Type</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park Ave.</td>
<td>Monterey St.</td>
<td>San Joaquin St.</td>
<td>Class III</td>
<td>$2,080</td>
</tr>
<tr>
<td>Third Ave.</td>
<td>Alpine St.</td>
<td>Orange St.</td>
<td>Class III</td>
<td>$2,997</td>
</tr>
<tr>
<td>Union Ave.</td>
<td>Skyline St.</td>
<td>Kern St.</td>
<td>Class II</td>
<td>$9,000</td>
</tr>
<tr>
<td>State Route 269</td>
<td>Avenal Cutoff</td>
<td>San Joaquin St.</td>
<td>Touring</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Source: 2011 Kings County Regional Bicycle Plan
FIGURE 8-4

AVENAL BICYCLE ROUTES

Legend

- Existing Bikeway
- Planned Bikeway
- Touring
- Bicycle Parking
- Daily Traffic Counts

Source: KCAG
## FIGURE 8-5

Corcoran
Bicycle Project List

<table>
<thead>
<tr>
<th>Street</th>
<th>From</th>
<th>To</th>
<th>Facility Type</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Ave.</td>
<td>6 1/2 Ave.</td>
<td>Otis Ave.</td>
<td>Class III</td>
<td>$3,279</td>
</tr>
<tr>
<td>Whitley Ave.</td>
<td>6 1/2 Ave.</td>
<td>Corcoran Airport</td>
<td>Class III</td>
<td>$800</td>
</tr>
<tr>
<td>King Ave.</td>
<td>Banium Ave.</td>
<td>Corcoran Prison</td>
<td>Class III</td>
<td>$7,918</td>
</tr>
</tbody>
</table>

Source: 2011 Kings County Regional Bicycle Plan
### FIGURE 8-7

**Hanford**

**Bicycle Project List**

<table>
<thead>
<tr>
<th>Street</th>
<th>From</th>
<th>To</th>
<th>Facility Type</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>11th Ave.</td>
<td>Elm St.</td>
<td>Mulberry St.</td>
<td>Class III</td>
<td>$3,155</td>
</tr>
<tr>
<td>Elm St.</td>
<td>Greenfield Ave.</td>
<td>11th Ave.</td>
<td>Class III</td>
<td>$464</td>
</tr>
<tr>
<td>Centennial Dr.</td>
<td>Grangeville Bl.</td>
<td>Berkshire Ln.</td>
<td>Class II</td>
<td>$1,237</td>
</tr>
<tr>
<td>Cortner St.</td>
<td>Glacial St.</td>
<td>Douty St.</td>
<td>Class III</td>
<td>$2,696</td>
</tr>
</tbody>
</table>

Source: 2011 Kings County Regional Bicycle Plan
FIGURE 8-8

HANFORD
BICYCLE ROUTES

Legend
- Existing Bikeway
- Planned Bikeway
- Railroad Tracks
- School
- Bicycle Parking
- Daily Traffic Counts

Source: KCAG

Chapter 8: Non-Motorized Facilities
### FIGURE 8-9

Lemoore
Bicycle Project List

<table>
<thead>
<tr>
<th>Street</th>
<th>From</th>
<th>To</th>
<th>Facility Type</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. Bush St. (south side)</td>
<td>SR 41</td>
<td>College Dr.</td>
<td>Class I</td>
<td>$154,656</td>
</tr>
<tr>
<td>E. Bush St. (both sides)</td>
<td>Lemoore Ave.</td>
<td>Barcelona St</td>
<td>Class III</td>
<td>$1,792</td>
</tr>
<tr>
<td>E. Bush St. (East side)</td>
<td>Barcelona St.</td>
<td>E. D St.</td>
<td>Class II</td>
<td>$1,619</td>
</tr>
<tr>
<td>Cinnamon Dr. (south side)</td>
<td>Lemoore Ave.</td>
<td>Hanford Armona Rd.</td>
<td>Class II</td>
<td>$3,217</td>
</tr>
<tr>
<td>Cinnamon Dr. (south side)</td>
<td>Hill St.</td>
<td>Lemoore Ave.</td>
<td>Class II</td>
<td>$2,969</td>
</tr>
<tr>
<td>Cedar Ln. (north side)</td>
<td>19 Ave.</td>
<td>Lum Dr.</td>
<td>Class II</td>
<td>$1,485</td>
</tr>
<tr>
<td>Cedar Ln. (north side)</td>
<td>19½ Ave.</td>
<td>19th Ave.</td>
<td>Class II</td>
<td>$3,217</td>
</tr>
<tr>
<td>19th Ave. (both sides)</td>
<td>Cherry Ln.</td>
<td>Atlantic Ave.</td>
<td>Class II</td>
<td>$8,413</td>
</tr>
<tr>
<td>Silverado Dr. (south side)</td>
<td>19 1/2 Ave.</td>
<td>S. 19th Ave.</td>
<td>Class II</td>
<td>$3,217</td>
</tr>
<tr>
<td>Hill St. (east side)</td>
<td>E St.</td>
<td>W. Bush St.</td>
<td>Class II</td>
<td>$1,856</td>
</tr>
<tr>
<td>Follett St. (both sides)</td>
<td>Cinnamon Dr.</td>
<td>Railroad Tracks</td>
<td>Class II</td>
<td>$2,969</td>
</tr>
<tr>
<td>Follett St. (both sides)</td>
<td>W. D St.</td>
<td>W. Bush St.</td>
<td>Class II</td>
<td>$1,608</td>
</tr>
<tr>
<td>Follett St. (both sides)</td>
<td>Railroad Tracks</td>
<td>W. D St.</td>
<td>Class III</td>
<td>$1,619</td>
</tr>
</tbody>
</table>

Source: 2011 Kings County Regional Bicycle Plan
VI. FINANCIAL ELEMENT

A. FEDERAL SOURCES

1. Surface Transportation Program

This program provides funds that can be used for construction, rehabilitation, and operational improvements for highways and bridges. This would include projects that are necessary to accommodate other transportation modes and for bicycle transportation and pedestrian walkways principally for transportation, rather than recreation purposes, and for carrying out non-construction projects related to safe bicycle use. Funds are payable up to 80% of the total project cost. Project selection is made by local jurisdictions from their annual apportionments and programmed through the Federal Transportation Improvement Program (FTIP). RSTP funds that are exchanged can also be used for non-motorized projects.

2. Congestion Mitigation and Air Quality

This program provides funds for projects that help achieve air quality standards under the 1990 Clean Air Act. Like the Surface Transportation Program, these funds can be used for construction of pedestrian walkways, bicycle transportation facilities, and for carrying out non-construction projects related to safe bicycle use payable up to 80%. CMAQ projects are locally programmed by each jurisdiction through the Federal Transportation Improvement Program (FTIP).

3. Highway Safety Improvement Program (HSIP)

This program was developed to reduce motor vehicle fatalities and injuries through a national highway safety program. Bicycle and pedestrian safety is eligible for funding, but it is not considered a priority program.

4. Federal Transit Act

This act provides funds to non-urbanized areas for various transit operating and capital assistance projects. Eligible projects include those that provide access to mass transit facilities or to install racks or other equipment for transporting bicycles on mass transit.

5. Transportation Alternatives Program (TAP)

The Transportation Enhancement (TE) program under ISTEA, TEA-21, and SAFETEA-LU was discontinued under MAP-21 and replaced by the Transportation Alternatives Program (TAP). The TAP absorbed the former federal Safe Routes to Schools (SRTS) and Recreational Trails (RTP). The TAP funds have been completely absorbed by the State Active Transportation Program (ATP) explained below. Under MAP-21, regions the size of Kings are to receive 10% of the state apportionment.

B. STATE SOURCES

1. Gas Tax

Funds from the State gas tax are based on the historical apportionments provided to Kings County jurisdictions. Projected increases are based on Caltrans' estimates of fuel consumption through 2040.
2. **State Transportation Improvement Program (STIP)**

STIP revenues are based on actual regional share dollars available to Kings County in the 2014 STIP Fund Estimate.

3. **Active Transportation Program (ATP)**

This is a competitive program. The program combines two federal programs (Transportation Alternatives Program and Highway Safety Improvement Program) and three state programs (Safe Routes to Schools, Bicycle Transportation Account, and Environmental Enhancement and Mitigation programs) into a competitive grant program. No funding is projected for this program.

4. **Office of Traffic Safety**

Comprehensive bicycle safety programs that involve enforcement, education, public health, driver education, transportation engineering, and public communication are eligible project types under this program. Communities from throughout the state are invited to submit annual applications for program grants.

5. **Land and Water Conservation Fund Program**

This program provides grants to plan, acquire, and develop recreation parks and facilities including bikeway and pedestrian trails. The California Parks and Recreation provides reimbursement grant funds of 50% of the total projects costs. Grants for local agencies are divided, with 40% of the total funding going to Northern California and 60% to Southern California.

6. **Mello-Roos Community Facilities District Act of 1982**

This program allows a sponsoring agency to issue a special tax bond for a community facilities district to finance public facilities and services such as parks, recreation areas, parkways, and open spaces. Bicycle and pedestrian projects could be included in any proposed public facility.

C. **LOCAL SOURCES**

1. **Local Transportation Fund**

Up to two percent of each county's Local Transportation Fund (LTF) can be claimed annually by local jurisdictions to be used for installing or maintaining bicycle and pedestrian facilities (Public Utilities Code, Section 99233.3). This amount would provide around $70,000 each year for bicycle and pedestrian projects.

The RTPA may also reserve an amount so designated, up to 2% of the LTF, each year for later allocation to claimants for pedestrian and bicycle facilities or bicycle safety programs. If the RTPA finds that all or any portion of the amount reserved could be used more appropriately for other purposes, that amount can be added to the total apportionment available the following year.

Generally, local jurisdictions prefer to use LTF allocations claimed for street and road purposes for bicycle and pedestrian projects in order to minimize administrative costs. KCAG could apportion an amount of LTF to provide a bicycle facilities maintenance fund. If the funds are not needed for bicycle facility maintenance, the funds can be returned to the following fiscal year's estimated LTF for reapportionment.
2. **REMOVE II PROGRAM**

This program is sponsored by the San Joaquin Valley Air Pollution Control District (SJVAPCD) to fund vehicle emission reduction projects, such as the development of comprehensive bicycle networks through the expansion of bicycle transportation facilities. Funding for this competitive first-come, first-serve program is derived from a $4 vehicle registration fee. Projects serving commuters, rather than recreational users, are given higher priority for funding. The maximum incentive for a Class I bicycle path and a Class II bicycle lane is $150,000 and $100,000.

3. **General Fund**

As with any public improvement, local general fund revenues can be used to build and maintain bicycle facilities, or to provide a match for State and Federal grants.

4. **Private Money**

Funds from private sources can be used to provide secure bicycle parking at high-use destinations. Such facilities can be required as part of the zoning review processes used by each of the local agencies.

5. **Developer Fees**

Development fees could be levied and administered by local jurisdictions to provide improvements to accommodate new development.

6. **Development Agreements**

Agreements can stipulate that developers provide portions of bikeway facilities where the construction becomes a part of the development.

7. **Other Local Programs**

Local agencies may implement other local programs to provide bikeways and bicycle facilities including "adopt-a-trail", symbolic shares in trail right-of-way, and memorials. These programs require that private individuals or groups donate money, property, or time for the design, acquisition, and construction of bikeway facilities.
CHAPTER 9
TRANSPORTATION SYSTEM MANAGEMENT

I. OVERVIEW

KCAG developed a Transportation System Management (TSM) Program in 1983. The intent of this Program is to apply various low cost transportation measures that can by themselves, or in association with other measures, help to increase the operational efficiency, safety, and utility of Kings County’s existing regional transportation system. In conformance with State guidelines, it is intended to help accomplish the following:

1. Foster the safe and efficient flow of passenger vehicles and trucks along heavily traveled corridors;
2. Minimize the costs of improving the existing transportation system;
3. Reduce dependency on the automobile for individual commuting;
4. Minimize environmental impacts of the existing transportation system; and
5. Improve transit system ridership.

II. PURPOSE

The central themes of Transportation System Management (TSM) are conservation and efficiency. Persons conducting TSM studies are looking for ways to optimize the efficiency of the existing transportation system, while alleviating the need for costly construction projects. When these goals are realized, public tax dollars are conserved, as are natural resources such as energy, air quality, land, and materials. KCAG’s TSM program provides a way to let decision-makers weigh lower-cost measures against more expensive options when transportation improvements are being considered.

TSM is an administrative process carried out to select improvements for the existing transportation system. Already in Kings County, TSM-like studies are routinely conducted as a part of local traffic and parking management programs, and by the Kings County Area Public Transit Agency (KCAPTA) to assess the performance of the Kings Area Rural Transit (KART) bus system. These agencies continually evaluate their transportation systems using various surveillance procedures, such as transit ridership counts, traffic counts, accident reports, field reconnaissance, etc.

KCAG’s program was undertaken to foster countywide coordination and to define the extent that TSM should be formalized as a planning activity. In doing so, the program: 1) sets goals and objectives for countywide TSM planning; 2) assigns KCAG as coordinator of TSM planning for the regional system; 3) provides an "idea book" or "shopping list" describing alternative TSM measures; and 4) suggests methods to monitor the effectiveness of TSM implemented projects.
III. ASSUMPTIONS

A. The physical transportation system in Kings County is largely in place, but the system has critical deficiencies, and improvements are needed if it is to fulfill its intended function.

B. The existing system represents a very large investment of public money and natural resources. It should be maintained and upgraded.

C. Transportation improvement revenues to state and local agencies are limited. Unless new monies are made available, there will probably not be enough to cover the expense of alleviating system deficiencies.

D. Transportation improvements are not limited to road construction and parking projects. Public transit improvement measures, non-motorized facilities, carpooling, and strategies to manage travel demand can be considered transportation improvements.

IV. ROLES AND RESPONSIBILITIES

In order to have a coordinated TSM planning program in Kings County, the participation of individual entities in carrying out TSM should be understood.

A. KCAG fills the most important TSM role as coordinator of the TSM review process in the region. KCAG is also responsible for setting region-wide TSM goals and policies, and for documenting the TSM process.

   1. Coordinator. KCAG will continue acting as regional forum for the exchange of information between the county and cities. In addition, KCAG will use its responsibility as preparer of the RTP, the Regional and Federal Transportation Improvement Programs, and the Overall Work Program to ensure that TSM considerations are given to projects and needs of regional significance. This can be easily carried out as KCAG biennially reviews the programs of individual entities to ensure conformance to the goals and objectives of the RTP.

B. Caltrans should assure that TSM considerations are given to State Transportation System improvements in Kings County. They could train and make staff available to provide technical assistance to local agencies that wish to conduct TSM studies.

C. Cities and the County have the best knowledge of their own transportation systems. Therefore, project evaluations can be carried out locally and scaled to the urgency of particular problems.

D. Transit Operators oversee the operation of their transit system and is in the best position to carry out the roles listed above under "Cities and the County" in reference to transit operations.

E. Private Businesses can initiate many TSM actions with their own employees and business associates.

V. TSM PROGRAM DESIGN

A. Set Goals and Objectives. The Federal Highway Administration suggests several goals and objectives for TSM efforts. Many of these are examined for their applicability to the problems and needs in Kings County.
B. Identify Problems and Issues. Each local agency is asked to list and rank specific problems that hinder the efficient transportation of people and goods in their areas. Such lists can be used in addition to other regional system data compiled by KCAG.

C. Select and Evaluate Alternative Measures. Many different actions can be taken to meet the transportation needs of an area. These can be either low or high cost alternatives. Fifty-eight measures are reviewed, and a method to evaluate their relationship to TSM goals and objectives, as well as their impacts and effectiveness, is developed.

D. Document TSM Actions in the RTP.

FIGURE 9-1

TSM PROGRAM DESIGN

Identify Transportation Problems

Regional Land Use Characteristics and Growth Trends

Identify Transportation TSM Objectives and Policies

Regional Transportation System Characteristics

Possible Transportation Solutions

Assess Institutional Considerations

Estimate Outcomes of Chosen Solutions (Costs and Effects)

Select and Program TSM Measures

Evaluate Effectiveness of TSM Measures and Document TSM Process
VI. ACTION ELEMENT

A. TSM STRATEGIES

State planning guidelines suggest that TSM objectives be time-specific and quantified. This is to allow year-by-year analysis of progress toward TSM targets. Contrary to this suggestion, the objectives in KCAG's program are not themselves quantified or time-specific. Staff acknowledges that Kings County is very rural, and its transportation improvements are small in scale compared to those of urbanized areas. While Kings County's size does not preclude TSM planning, it does make it hard to set realistic or meaningful target figures. The attainment of TSM objectives can be documented by periodic studies of the effectiveness of TSM measures in future RTPs.

FIGURE 9-2
TSM STRATEGIES AND ACTIONS

<table>
<thead>
<tr>
<th>STRATEGY</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Traffic Flow through Road Improvements</td>
<td>Pavement Management Techniques</td>
</tr>
<tr>
<td></td>
<td>Road Reconstruction</td>
</tr>
<tr>
<td></td>
<td>Intersection / Street Widening</td>
</tr>
<tr>
<td></td>
<td>Install Turn Lanes</td>
</tr>
<tr>
<td></td>
<td>Turning Movement and Lane Use Restrictions</td>
</tr>
<tr>
<td></td>
<td>One-Way Streets</td>
</tr>
<tr>
<td></td>
<td>Speed Restrictions</td>
</tr>
<tr>
<td>Improve Traffic Flow through Traffic Signalization</td>
<td>Signal Installation</td>
</tr>
<tr>
<td></td>
<td>Left Turn Signal Installation</td>
</tr>
<tr>
<td></td>
<td>Signal Timing/Computerized Signal Controls</td>
</tr>
<tr>
<td></td>
<td>Eliminate Unnecessary Traffic Control Signs</td>
</tr>
<tr>
<td></td>
<td>Install Traffic Control Signs</td>
</tr>
<tr>
<td>Improve Traffic Flow through Parking Management</td>
<td>Curb Parking Restrictions</td>
</tr>
<tr>
<td></td>
<td>Off-Street Parking Areas</td>
</tr>
<tr>
<td></td>
<td>Parking Duration Restrictions</td>
</tr>
<tr>
<td></td>
<td>Residential Parking Controls</td>
</tr>
<tr>
<td></td>
<td>Carpool Preferential Parking</td>
</tr>
<tr>
<td>Facilitate Non-Motorized Transportation</td>
<td>Pedestrian Activated Traffic Signals</td>
</tr>
<tr>
<td></td>
<td>Install / Widen Sidewalks</td>
</tr>
<tr>
<td></td>
<td>Shoulder Area for Bicycles</td>
</tr>
<tr>
<td></td>
<td>Provide Bicycle Lanes and Routes</td>
</tr>
<tr>
<td></td>
<td>Install Secure Bicycle Parking</td>
</tr>
<tr>
<td></td>
<td>Transit Connectivity</td>
</tr>
<tr>
<td>Divert Traffic Away from Sensitive or Congested Areas</td>
<td>Auto-Restricted Zones</td>
</tr>
<tr>
<td></td>
<td>Residential Traffic Controls</td>
</tr>
<tr>
<td>Improve Transit Patronage</td>
<td>Route and Schedule Modification</td>
</tr>
<tr>
<td></td>
<td>Express Bus Service</td>
</tr>
<tr>
<td></td>
<td>Park-and-Ride and Express Bus Service</td>
</tr>
<tr>
<td></td>
<td>Subscription Bus Service</td>
</tr>
<tr>
<td></td>
<td>Dial-a-Ride Service</td>
</tr>
<tr>
<td></td>
<td>Substitute Dial-a-Ride Service for Fixed Route</td>
</tr>
<tr>
<td></td>
<td>Service in Selected Time Periods</td>
</tr>
<tr>
<td></td>
<td>Transit Marketing Program</td>
</tr>
<tr>
<td></td>
<td>Operations Monitoring Program</td>
</tr>
<tr>
<td></td>
<td>Maintenance Improvements</td>
</tr>
<tr>
<td></td>
<td>Vehicle Fleet Improvements</td>
</tr>
<tr>
<td>STRATEGY</td>
<td>ACTION</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Increase Car and Van Occupancy (Paratransit)</td>
<td>Carpool Matching Service</td>
</tr>
<tr>
<td></td>
<td>Vanpool Programs (Employer)</td>
</tr>
<tr>
<td></td>
<td>Jitney Service</td>
</tr>
<tr>
<td></td>
<td>Paratransit Subsidies</td>
</tr>
<tr>
<td></td>
<td>Youth, Elderly and Handicapped Van Services</td>
</tr>
<tr>
<td>Encourage Transit, Non-Motorized and Paratransit Use by Providing Intermodal Facilities</td>
<td>Park-and-Ride Lots</td>
</tr>
<tr>
<td></td>
<td>Covered Bus Stops</td>
</tr>
<tr>
<td></td>
<td>Bus Stop Benches</td>
</tr>
<tr>
<td></td>
<td>Bus Loading Bays</td>
</tr>
<tr>
<td></td>
<td>Bicycle Racks at Bus Stops and Park-and-Ride Lots</td>
</tr>
<tr>
<td></td>
<td>Bicycle Racks on Buses</td>
</tr>
<tr>
<td>Reduce the Need to Travel</td>
<td>Flex Time / Staggered Work Hours (Employer)</td>
</tr>
<tr>
<td></td>
<td>Compressed Work Week (Employer)</td>
</tr>
<tr>
<td></td>
<td>Use Telecommunications Instead of Travel</td>
</tr>
<tr>
<td></td>
<td>Land Use Planning Policies</td>
</tr>
<tr>
<td>Transportation Pricing Measures</td>
<td>Gasoline Tax</td>
</tr>
<tr>
<td></td>
<td>Parking Fees</td>
</tr>
<tr>
<td></td>
<td>Reduce Transit Fares</td>
</tr>
<tr>
<td>Information Services</td>
<td>Widespread Distribution of Transit Schedules</td>
</tr>
<tr>
<td></td>
<td>Install Road Signs Bearing Rideshare Phone Number</td>
</tr>
<tr>
<td></td>
<td>Carpool / Non-Motorized / Transit Promotional Campaigns</td>
</tr>
<tr>
<td></td>
<td>Bicycle Safety / Education Seminars</td>
</tr>
<tr>
<td></td>
<td>RTPA to Inform Local Employers of Paratransit Subsidies</td>
</tr>
</tbody>
</table>
B. TSM STUDY PROJECTS

Several problem areas on the state highway system have been subjected to TSM review. The process used to evaluate these areas is generally the same as that process used to develop projects for the STIP: identify problems; coordinate among governmental entities; consider solutions; recommend and seek to implement projects. The product of this research is the highway inventory presented in the Appendix. TSM review adds two additional tasks: relating TSM objectives and policies to alternative solutions; and project monitoring.

The adopted TSM program suggests a way to document the TSM evaluation process. The method is encapsulated in the following project evaluation worksheets. The worksheets briefly described problems and needs, and weigh TSM objectives and policies against selected improvement strategies. The sheets are most helpful in organizing one’s thinking about the trade-offs in benefits and costs associated with alternative actions.

Worksheet documentation is provided for the following project areas:

- SR 43 between 10th Avenue and Fresno County
- SR 198 at 19th Avenue
- SR 41 near Lemoore
- SR 198 from SR 43 to Tulare County

Of these project areas, the SR 41 project near Lemoore and the SR 198 project from SR 43 to the Tulare County line have been completed and the SR 198 at 19th Avenue Interchange is under construction.
## FIGURE 9-3

**TSM EVALUATION WORKSHEET**

**Area:** SR 43 North of Hanford  
**Location:** 10th Avenue to Fresno County Line

<table>
<thead>
<tr>
<th>Objective</th>
<th>Problem Description</th>
<th>Policies</th>
<th>Possible TSM Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>Rapidly increasing traffic loads on 2-lane road. Operates at LOS C</td>
<td>Do nothing</td>
<td>Add passing lanes Widen to 4 lanes</td>
</tr>
<tr>
<td>Quality</td>
<td>High percentage of trucks limits capacity</td>
<td>Shorten travel time Increase safety Comfort and convenience Enhance reliability</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Large number of commuters in a.m. and p.m.</td>
<td>Reduce auto dependency Increase transit use Facilitates bicycles</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Environmental</td>
<td>Commuter traffic uses excess fuel and causes air and noise pollution</td>
<td>Reduce noise Improve air quality Reduce energy use</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Social / Economic</td>
<td>Is main road from Corcoran and Hanford to Fresno area</td>
<td>Complement general plans</td>
<td>- 0 0</td>
</tr>
</tbody>
</table>

| Cost to implement | $0 Unknown Unknown Unknown |
| Overall Recommendation | Not recommended Recommended Implement for short term Implement for long term |

**Code:**  
+ Positive Impact  
0 No Impact  
- Negative Impact
### FIGURE 9-4

**TSM EVALUATION WORKSHEET**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Problem Description</th>
<th>Policies</th>
<th>Possible TSM Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Do nothing</td>
<td>Restrict access</td>
</tr>
<tr>
<td><strong>At-grade intersection.</strong></td>
<td>Serves rapidly growing sector of Lemoore.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Quality</strong></td>
<td>High accident rate. Long wait / idle periods for cross-traffic.</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Shorten travel time. Increase safety.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Comfort and convenience. Enhance reliability.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Efficiency</strong></td>
<td>Major access point on SR 198 for LNAS commuters.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Reduce auto dependency. Increase transit use. Facilitates bicycles and pedestrians.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Environmental</strong></td>
<td>Excess idle time uses fuel and causes air pollution.</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Improve air quality. Reduce energy use.</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td><strong>Social / Economic</strong></td>
<td>General plans show vicinity for residential and commercial development.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Complement general plans.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Cost to implement</strong></td>
<td></td>
<td>$0</td>
<td>Unknown</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td></td>
<td>Not recommended</td>
<td>Not recommended</td>
</tr>
</tbody>
</table>

Code:  
- Positive Impact  
0 No Impact  
- Negative Impact
FIGURE 9-5

TSM EVALUATION WORKSHEET

Area: SR 41 near Lemoore
Location: SR 198 to Hanford-Armona Road

<table>
<thead>
<tr>
<th>Objective</th>
<th>Problem Description</th>
<th>Policies</th>
<th>Possible TSM Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency</td>
<td>Major commuter corridor for LNAS and statewide traffic.</td>
<td>Reduce auto dependency. Facilitates bicycles. Use transit system.</td>
<td></td>
</tr>
<tr>
<td>Environmental</td>
<td>Idling vehicles use gas; generate noise on acceleration.</td>
<td>Reduce noise. Improve air quality. Reduce energy use.</td>
<td></td>
</tr>
<tr>
<td>Social / Economic</td>
<td>Limits Lemoore area traffic flow.</td>
<td>Minimize neighborhood impacts. Complement general plans.</td>
<td></td>
</tr>
</tbody>
</table>

| Cost to implement | $0 | Unknown | Unknown | Unknown |
| Overall Recommendation | Recommended | Recommended | Recommended; short term only | Implement |

Code: + Positive Impact
0 No Impact
- Negative Impact
### FIGURE 9-6

**TSM EVALUATION WORKSHEET**

**Area:** SR 198  
**Location:** SR 43 to Tulare County Line

<table>
<thead>
<tr>
<th>Objective</th>
<th>Problem Description</th>
<th>Policies</th>
<th>Possible TSM Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>Congestion at commute hours. High truck traffic. Safety problem.</td>
<td>Shorten travel time. Lower travel costs. Increase safety. Comfort and convenience. Enhance reliability.</td>
<td>0 0 0 0 0</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Carries more commuters than any road in Kings County.</td>
<td>Reduce auto dependency. Facilitates bicycles. Use transit system.</td>
<td>+ 0 + 0</td>
</tr>
<tr>
<td>Environmental</td>
<td>Single-occupant commuting uses excess gas and causes noise and air pollution.</td>
<td>Reduce noise. Improve air quality. Reduce energy use.</td>
<td>+ + + 0</td>
</tr>
<tr>
<td>Social / Economic</td>
<td>2-lane road hinders social / economic interchange with Tulare County.</td>
<td>Complement general plans.</td>
<td>0 0 0 0</td>
</tr>
</tbody>
</table>

| Cost to implement | Unknown | $85,000/yr. | Unknown | $80 mil. |
| Overall Recommendation | Recommended | Recommended | Temporary measure | Implement |

**Code:**  
+ Positive Impact  
0 No Impact  
- Negative Impact
C. MEASURING THE EFFECTIVENESS OF TSM ACTIONS

Once a project has been selected and implemented, it should be periodically evaluated to ensure that it is fulfilling its intended purpose. The following is a listing of research and monitoring projects that are now or could be used to assess the effectiveness of TSM projects. Such assessments could be done by formal evaluations, with the aid of specially designed evaluation worksheets or through various analyses using a microcomputer and appropriate software. Several possible methods are listed below under individual TSM objectives.

Shorten Travel Time

- Total point-to-point travel time in person minutes.
- Total point-to-point average speed per mode.
- Total point-to-point time delay during rush vs. non-rush hours.

Lower Travel Costs

- Estimated travel costs per person mile.
- Estimated travel costs per person trip.
- Annual user costs per capita.
- Average annual user costs.

Safety

- Total number of motor vehicle accidents.
- Total number of injuries and fatalities.
- Accidents, injuries, and fatalities per million vehicle miles.
- Total number of pedestrian and bicycle injuries or fatalities.

Security

- Total number of crimes (by classification) for each type of mode or facility.

Reliability

- Variance of individual travel times between selected points.
- Percentage of scheduled travel times (transit) within "on-time" tolerance limits.

Reduce Auto Dependency, Increase Transit and Paratransit Ridership

- Total number of transit riders.
- Mode-split percentages (people who use both automobiles and transit or paratransit on their journeys).
- Estimated number of seat miles of transit or paratransit in service.
- Percentage of population within walking distance of scheduled transit service.
- Total number of "matched" carpools.

Pedestrian and Bicycle

- Total miles of improved, shared-use bike routes.
- Total miles of bike lanes.
- Number of bicyclists using bike routes and lanes.
- Total number of secure bicycle parking racks at public buildings and other destinations.
2014 Kings County Regional Transportation Plan

Capacity/Productivity/Freight Movement

- Vehicle capacity (passenger car/bicycle/truck, etc.) on facilities in units per hour.
- Passenger capacity on facilities in persons per hour.
- Freight capacity on facilities in tons per hour.

Cost Effectiveness

- Specialized cost/benefit studies on case-by-case basis.
- Transit system self-support ratio (operating costs vs. farebox return).
- Net annual cost to provide transportation facilities (by mode).
- Percentage of LTF expenditures on transit versus streets and roads.
- Transit system cost per vehicle mile/hour.
- Transit system passengers per vehicle mile/hour.

Noise and Vibration

- Noise and vibration measurements at different distances from transportation source.
- Number of residents exposed to noise levels exceeding tolerance limits.

Air Pollution

- Grams of carbon monoxide, hydrocarbons, lead, and nitrogen oxide in air samples taken at different distances from transportation facilities.
- Areawide air pollution concentrations.

Energy Use

- Gas and diesel sold in county per month/year.
- Estimated average fuel economy in vehicle miles per gallon.
- Estimated average fuel economy in person miles per gallon.

Service to Disadvantaged/Affordability

- Percentage of special group population to who transit services are available.
- Percentage of special group disposable income devoted to public transit services.
- Routing and scheduling through low-income areas.
VII. FINANCIAL ELEMENT

In earlier chapters of the 2014 RTP, funds available through federal, state, regional, and local sources for street and road, transit, non-motorized, and air quality are discussed. Many of these funding sources may be used for TSM projects.

A. CONGESTION MITIGATION AND AIR QUALITY

Congestion Mitigation and Air Quality (CMAQ) program funds are allocated to Metropolitan Planning Organizations (MPO) in designated non-attainment areas such as the San Joaquin Valley Air Basin. These funds are to be directed toward transportation projects that will contribute to meeting air quality standards in non-attainment areas for ozone, carbon monoxide, PM-10 and PM-2.5. Priority is to be given to implementing those projects that have documented emissions reductions associated with them and are included in the approved State Implementation Plan (SIP) for air quality as a TCM.

B. REGIONAL SURFACE TRANSPORATION PROGRAM

The Regional Surface Transportation Program (RSTP) funds are the most flexible funds that are provided through the federal government. They can be used for a wide variety of transportation related projects, including TSM projects. As a small county, we are permitted to exchange our federal funding on a dollar-for-dollar basis for State Highway Account funds, which expedites the use of the funding for the local agencies by avoiding the federal aid process.

C. REGIONAL IMPROVEMENT PROGRAM

Transportation System Management projects are eligible for funding through the Regional Improvement Program (RIP) in the State Transportation Improvement Program (STIP) process. All STIP transportation system management projects are to be capital projects, except that non-capital projects are eligible if they are a cost-effective substitute for capital expenditures.
I. OVERVIEW

The San Joaquin Valley Air Basin (SJVAB) experiences some of the poorest air quality in the nation. The Valley’s long and narrow 250-mile bowl shape collects and holds emissions from vehicles, industry, agriculture, and various other sources. The long hot summers, ideal for agriculture production and stagnant foggy winters, contribute to the region’s ability to produce and retain harmful air pollutants. The San Joaquin Valley Air Pollution Control District (SJVAPCD) was created as an agency with authority to regulate sources of air pollution and develop plans that will achieve and maintain air quality standards.

The SJVAB exceeds many of the health-based standards set by both the United States Environmental Protection Agency (EPA) and California’s Air Resources Board (CARB) for criteria pollutants such as ozone, carbon monoxide, nitrogen dioxide, and particulate matter 10 microns or less (PM 10) and particulate matter 2.5 microns or less (PM 2.5). Specifically, the Valley is designated as a nonattainment area for meeting federal and state 1-hour and 8-hour ground level ozone and nonattainment area for PM 2.5. Announced in October 2006 by the U.S. EPA, the previous status of Serious nonattainment for PM-10 has improved to the attainment level for the standard. The SJVAB will continue to work towards achieving and maintaining the attainment status of all criteria pollutants.

For designated areas that do not meet established air quality standards including the SJVAB, the 1990 Federal Clean Air Act Amendments (FCAA) and the California Clean Air Act (CCAA) of 1988 required the implementation of transportation control measures (TCM). The goal of a TCM is to bring a region into compliance with state and federal air quality standards. TCMs are defined as any strategy to reduce vehicle trips, vehicle use, vehicle miles traveled, vehicle idling or traffic congestion for the purpose of reducing motor vehicle emissions. The remainder of this section will be devoted to TCMs that the San Joaquin Valley has identified.

II. ASSUMPTIONS AND INVENTORIES

The Regional Transportation Plan must provide for the expeditious implementation of TCMs included in the State Implementation Plan (SIP). Opportunities to support federal and statewide goals concerning air quality in transportation plans must also be identified. As a Regional Transportation Planning Agency (RTPA) and Metropolitan Planning Organization (MPO), KCAG will continue to fulfill its responsibility in developing, funding, and implementing transportation control strategies that will collectively improve the Valley’s air.

A. TRANSPORTATION CONTROL MEASURES

The FCAA defines a TCM as including, but not limited to: programs for improved public transit; high occupancy vehicle lanes; employer-based transportation management plans; trip reduction ordinances; traffic flow improvements; park-and-ride lots; programs to restrict vehicle use during peak periods; rideshare services; bicycle and pedestrian programs; programs to control vehicle idling; flexible work schedules; programs and ordinances to facilitate non-automobile travel; and programs to encourage the voluntary removal of pre-1980 light duty vehicles and trucks. Best available control measures (BACM) are an example of a transportation control measure.
B. AIR QUALITY ATTAINMENT PLANS

1. **1979 Kings County Air Quality Plan**

Following the Federal Clean Air Act Amendments of 1977, the Kings County Air Pollution Control Board prepared and adopted the “Nonattainment Area Plan for Ozone”. This air quality plan made several findings and requests, and recommended several actions in an attempt to meet attainment by 1982. No specific TCMs were identified beyond the request to the California Legislature to authorize and fund the implementation of an annual motor vehicle inspection and maintenance program in Kings County.

Since attainment was not expected before the December 31, 1982 deadline, the air quality plan identified additional measures necessary for attainment before December 31, 1987. The air quality plan recommended nine actions, including the analysis of emissions and the development of TCMs to reduce reactive organic gas (ROG) emissions.

2. **1991 Air Quality Attainment Plan**

The SJVAPCD prepared and adopted the “1991 Air Quality Attainment Plan” to satisfy the requirements of the CCAA to reach ozone attainment standards by December 31, 1997. The strategy outlined in this Plan included all feasible control measures to reduce emissions and specifically included TCMs to address mobile source emissions.

This Plan identified the TCMs recommended for implementation by applicable areas, including: traffic flow improvements; public transit; passenger rail and support facilities; rideshare; park-and-ride lots; bicycling programs; trip reduction programs; parking management programs; telecommunications; alternative work schedules; alternative fuels; and rapid rail and support facilities.

3. **San Joaquin Valley Transportation Control Measure Program**

The TCMs identified in the “1991 Air Quality Attainment Plan” were further evaluated for their effectiveness, implementation, funding, monitoring, and enforcement with the preparation of the “San Joaquin Valley Transportation Control Measure Program”. This document was prepared for the SJVAPCD and the eight regional transportation planning agencies in the Valley to provide guidance for jurisdictions to develop and implement local TCMs.

4. **Rate of Progress Plans**

As required by the FCAAA, the SJVAPCD adopted the “1993 Rate of Progress Plan” to provide a base year inventory of volatile organic compound (VOC) emissions and to show how the District would achieve a 15% reduction in these emissions between 1990 and 1996 through the adoption of rules and contingency measures. The “1993 Rate of Progress Plan” included as contingency measures, Rule 9001 - Commute Based Trip Reduction and the Auto Buy-Back program.

The SJVAPCD was also required to prepare and submit a “Post 1996 Rate of Progress Plan” to demonstrate how the District would achieve a 9% reduction in VOC emissions between 1996 and 1999. Applicable TCMs included in the San Joaquin Valley Transportation Control Measure Program were identified in the “Post 1996 Rate of Progress Plan” as a means to meet this mandate.
5. **Ozone Attainment Demonstration Plans**

**1-Hour Ozone**

The 1990 Federal Clean Air Act Amendments required the SJVAPCD to develop a plan to show how it would achieve attainment of the federal ozone standard by November 15, 1999. The “Ozone Attainment Demonstration Plan” was prepared and adopted in 1994. The plan showed how it would demonstrate attainment and included TCMs as Rules 9001 - Commute Based Trip Reduction; Rule 9010 - Fleet Inventory; and Rule 9011 - Light and Medium Duty Low Emission Fleet Vehicles, in addition to contingency measures identified as TCM projects already programmed and funded by the RTPAs.

The San Joaquin Valley Basin (SJVAB) did not attain the federal air quality standard for ozone by November 15, 1999. As a result, in November 2001, the Environmental Protection Agency (USEPA) reclassified the SJVAB from Serious to Severe. The USEPA at this time also required implementation of six emission control measures from the 1994 Ozone Plan and established a May 31, 2002 deadline for a Severe ozone nonattainment plan. This plan was to document attainment of the federal 1-hour ozone standard by November 15, 2005.

The SJVAPCD was not able to demonstrate the federal 1-hour ozone standard by the May 2002 target. In October 2002, the USEPA issued Severe area requirements which included the outstanding 1-hour ozone attainment plan by November 15, 2005, creditable emission reductions, Reasonably Available Control Technology for lime kilns, an emissions inventory, and contingency measures. In addition, the EPA’s 2002 action triggered both 18- and 24-month timetables or “clocks” for imposing emissions and highway funding sanctions, respectfully. A Federal Implementation Plan was also to be prepared within a 24-month period from October 2002. The 1-hour ozone attainment was required to be submitted by March 18, 2004. Failure to put forth this document by the extension would trigger sanctions. All of the USEPA requirements were submitted in 2003, except the plan demonstrating the federal 1-hour ozone standard.

In preparation for the federal 1-hour ozone plan, computer modeling illustrated that reductions from the SJVAB alone would not be enough to attain the ozone standard. For the SJVAB to show attainment, the SJVAPCD and CARB would have to implement rules for emission reductions. As many of CARB’s upcoming rules were scheduled for enactment after November 15, 2005, other options had to be explored. On December 18, 2003 after much research and discussion with applicable parties, USEPA was asked by the SJVAPCD and CARB to reclassify the SJVAB from Severe to Extreme nonattainment for the federal 1-hour ozone standard. This designation reflects a more serious air quality problem for the ozone health-based standard, but allows for more time to demonstrate attainment.

The reclassification to Extreme nonattainment for the federal 1-hour ozone standard became final on May 17, 2004. The attainment date for the SJVAB is now November 15, 2010. Any previously imposed sanctions or the Federal Implementation Plan have been superseded by the Extreme nonattainment classification. The “Extreme Ozone Attainment Demonstration Plan” was adopted on October 8, 2004 and amended in October 2005.
On May 6, 2014, the SJVAPCD submitted a formal request that the USEPA determine that the SJVAB has attained the federal 1-hour ozone standard. Per federal requirements, the SJVAPCD’s submittal includes a clean data finding and a finding that attainment is due to permanent and enforceable emissions reductions. For the first time in recorded history, in 2013, the SJVAB had zero violations of the 1-hour ozone standard established by USEPA under the federal Clean Air Act. The SJVAB now meets the 1-hour ozone standard based on the most recent three year period air monitoring data (2011-2013). While not approved by the USEPA, the SJVAPCD has formally made the request.

8-Hour Ozone

On April 15, 2004, the EPA designated and classified the SJVAB as Serious nonattainment for the federal 8-hour ozone standard. As of June 15, 2004, the Valley officially became a Serious nonattainment area and had until June 15, 2013 to show that it can achieve the 8-hour ozone standard. The initial 8-hour ozone plan for the Valley, 2007 Ozone Plan, was due to EPA by June 15, 2007. This plan is the first step in the Valley’s path towards attainment to be followed by subsequent plans, rules, and programs that reduce emission to bring the area into attainment.

While many areas of the SJVAB currently meet this standard, several areas, including Arvin and northwest Fresno, would not reach attainment by June 2013. Based on the evidence, it was necessary to reclassify the SJVAB to an Extreme nonattainment classification. On April 30, 2007 the governing board of the SJVAPCD approved an 8-hour ozone plan that would extend the attainment date from June 15, 2013 to June 15, 2024. The SJVAB must reduce 75% of nitrogen oxides, which come from such sources as motor vehicles. Under an Extreme classification, an 8-hour ozone plan can take advantage of future advancements in technology in regards to emission reduction.

The SJV was reclassified from a Serious nonattainment area for the 8-hour ozone standard to Extreme effective June 4, 2010. The SIP has identified subarea budgets for each MPO in the nonattainment area. For this Conformity Analysis, the SJV will continue to conduct determinations for subarea emission budgets as established in the applicable implementation plan. The 2007 Ozone Plan (as revised in 2011) was approved by EPA on March 1, 2012 (effective April 30, 2012).

6. PM-10 Nonattainment Area Plan of 1991

The FCAAA classified the San Joaquin Valley as a Moderate PM-10 nonattainment area, thus requiring the adoption and implementation of a “PM-10 Nonattainment Area Plan” to reach attainment by 1994.

On-road mobile sources of emissions do not contribute greatly to the problem of primary PM-10. However, mobile sources do contribute to the oxides of nitrogen (NOx) and reactive organic gases (ROG), which are considered to be significant precursors affecting the creation of PM-10. Therefore, the implementation of TCMs to reduce VMT and increase vehicle occupancy can aid in the attainment of PM-10 standards.

The SJVAPCD submitted a plan that contained reasonable available control measures as required for Moderate nonattainment areas, but was unable to demonstrate attainment by the December 31, 1994 deadline. Due to the magnitude of the PM-10 problem, it was determined that SJVAB could not feasibly achieve the standard, and therefore was reclassified as a Serious nonattainment area effective February 8, 1993.
7. **1994 Serious Area PM-10 Plan**

Classification as a Serious nonattainment area mandated the SJVAPCD to adopt a plan that contains more stringent strategies and rules which would enable attainment of the PM-10 standard by December 31, 2001. Specifically the plan was to include implementable best available control measures (BACM).

The SJVAPCD adopted the “1994 Serious Area PM-10 Plan” on September 13, 1994 which identified the only TCM considered to provide measurable benefits for PM-10 reductions as the Trip Reduction Ordinance. Individual TCMs would provide insignificant reductions in PM-10 emissions. Since several TCMs are included as part of any trip reduction program, their cumulative effect would produce favorable results.

8. **PM-10 Attainment Demonstration Plan**

Because the SJVAPCD could not show that the air basin could reach attainment by 2001, a “PM-10 Attainment Demonstration Plan” was prepared to describe existing and future efforts pursued by the District to attain the standard by December 31, 2006. The plan was finally submitted by the SJVAPCD on May 15, 1997 and requested an extension until 2006 to attain the 24-hour standard at all monitoring sites.

The EPA indicated that it intended to disapprove this Plan, because it did not include an adequate BACM demonstration and a “most stringent measures” demonstration required for an extension. Realizing that there was insufficient time to correct the deficiencies, the SJVAPCD withdrew the Plan.

9. **2003 PM-10 Plan**

Because of the failure to submit the previously required PM-10 Plan, the SJVAPCD adopted the “2003 PM-10 Plan” on June 19, 2003 and approved amendments on December 18, 2003. The EPA approved the plan effective June 25, 2004 under the condition that the SJVAPCD would submit a SIP revision. This was required to evaluate if the identified emission reductions in the 2003 Plan would be enough to obtain the air quality standards for PM-10.

10. **2006 PM-10 Plan**

The “2006 PM-10 Plan” includes the SIP revision as stipulated for approval of the “2003 PM-10 Plan”. The SIP revision is to specifically include from the *California Regional Particulate Air Quality Study* an inventory, the latest technical information, monitoring data, and modeling evaluation. The SJVAPCD was to submit the plan to the EPA by March 31, 2006. The EPA has six months to determine if the plan was complete and one year to find the plan in compliance within finding it complete. The plan was adopted by the SJVAPCD on February 16, 2006.

In May of 2006, it was requested by California that the EPA consider the SJVAB in attainment of the PM-10 standards. This request of attainment was based on the air quality data from the years 2003-2005. The EPA concluded on October 17, 2006 that indeed the Valley had reached attainment and that the related contingency measures would be suspended. The SJVAB’s maintenance plan was approved by the EPA and subsequently published in the November 12, 2008 Federal Register.
California Air Resources Board and the San Joaquin Valley Air Pollution Control District will continue with their commitment to keep the SJVAB in attainment of the PM-10 standard and work towards the attainment of all other identified air quality standards.

11. 2007 PM-10 Maintenance Plan

The 2007 PM-10 Maintenance Plan was approved (with minor technical corrections to the conformity budgets) by EPA on November 12, 2008, which contains motor vehicle emission budgets for PM-10 and NOx, as well as a trading mechanism. Motor vehicle emission budgets are established based on average annual daily emissions. The motor vehicle emissions budget for PM-10 includes regional reentrained dust from travel on paved roads, vehicular exhaust, travel on unpaved roads, and road construction.

III. ACTION ELEMENT

A. KINGS COUNTY TCM PROGRAMS

KCAG and each local jurisdiction have undertaken TCM programs and projects to implement the SJVAPCD air quality plans at the local level. The following is a summary of those efforts.

1. Traffic Flow Improvements

Traffic flow improvements will ease congestion and reduce pollutants. New signals, signal synchronization, addition of turn lanes, smoother railroad crossings, and construction of interchanges are being carried out to facilitate smooth, uncongested traffic flow. The process of widening road shoulders will also decrease the amount of dust in the air that cars and trucks produce as they travel on roads.

Local jurisdictions have sought to improve traffic operating conditions by replacing four-way stop signs with traffic-actuated signals or by upgrading existing traffic signals. Other improvements that have been implemented include adding turn lanes and pockets, median barriers, and other channelization techniques.

Actions to improve vehicle traffic flow should be carefully evaluated because they may become counterproductive to other methods in reducing air pollution by encouraging more VMT. Traffic flow improvements should be accompanied by actions to improve and encourage the use of transit and rideshare services.

2. Public Transit

Public transit is an alternative to the private automobile to reduce pollution. It is also an essential service that provides transportation to those of low mobility so that they may be able to take advantage of what the county offers in commercial, business, medical, educational, employment, and social/recreational opportunities. Increasing the ridership of local transit systems to reduce the use of single-occupant autos can be accomplished through monitoring transit routes and making changes where indications suggest they be made: adding routes, providing better passenger information systems, increasing marketing efforts, and integrating transit modes for improved convenience.
Public transit improvements by the Kings Area Rural Transit (KART) and Corcoran Area Transit (CAT) systems have been implemented and are ongoing as a result of increased ridership from past successful improvements. Expanded fixed routes, changes in route schedules, addition of commuter routes, acquisition of newer and larger buses, and the placement of passenger amenities at bus stops have all made a positive impact on ridership. Both the Kings County Area Public Transit Agency (KCAPTA) and the city of Corcoran have integrated multimodal transit facilities with Amtrak service to provide centralized transportation services, thereby encouraging public use of transit while reducing potential air pollutants in the region. The city of Lemoore completed the construction of a transit center in 2004, located in the central business district next to the SJVRR tracks, which also serves as a multipurpose facility where community events are often held.

Contributions from the private sector can be utilized to reduce government cost in providing public transit. While new developments have traditionally provided parking facilities to accommodate vehicle trips, such developments have also provided facilities that encourage and accommodate transit as a means of mitigating increased vehicle traffic produced by their development.

3. Rideshare Programs

Ridesharing is an alternative and compliment to local public transit for reducing single-occupant vehicle travel. Ridesharing reduces air pollution, automobile congestion, fuel consumption, and the need for additional road and parking capacity by increasing the vehicle occupancy rate.

Kings County residents can utilize the convenient online ridesharing services through either the Valley Rides or CalVans services. These programs provide computerized commuter matching, employer outreach, and public awareness through marketing efforts. Signs along major highways provide the toll-free phone number for commuters to request rideshare information. KCAG staff takes part in various special events to promote ridesharing and is involved in committees to develop commuter options. More information can be found online at www.valleyrides.com or www.calvans.org.

Kings County has implemented an "Emergency Ride Home Program" to encourage ridesharing by its employees. Often times people are not willing to carpool for fear that they could be stranded at their workplace and be unable to return home for an emergency. This program offers a sense of security to potential rideshare participants by offering a choice of options for a return home for unexpected emergencies.

Employer-sponsored vanpools with tax incentives for vehicle purchase is another form of ridesharing. Local governments could make employers aware of these programs through their local development regulations. Where a large employer proposes a new plant or land use, part of the traffic and circulation concerns could be addressed through ridesharing and vanpool programs supported by the employer. KCAPTA implemented a vanpool program in 2001 that grew to over 200 employer vans and 150 farm worker vans in California and neighboring states, now known as the CalVans program and operated by the California Vanpool Authority.
Two studies, the South Valley Rideshare Study and the San Joaquin Valley Express Transit Study, were completed in 2009 to evaluate future transit needs and better coordinate vanpooling efforts throughout the San Joaquin Valley. These studies pointed to vanpooling as a means of reducing greenhouse gas emissions and increasing inter-county transportation choices with lower operating costs than traditional transit options.

4. California Vanpool Authority (CalVans)

As a result of the rideshare studies and the continued popularity of vanpooling, a new joint powers agency (JPA), the California Vanpool Authority (CalVans), was formed with several councils of government (COG) throughout the Valley and the state, creating a regional agency for vanpool services. CalVans started by providing vanpool services to transport workers from throughout the Central Valley to job sites. Most of the job sites of vanpool participants include the California State prisons in Avenal, Corcoran, Kern County, and Coalinga. However, due to the success of the program, it has now extended beyond the San Joaquin Valley and into several California counties. Currently, the following agencies are members of the JPA for CalVans:

- Kings County Association of Governments
- Madera County Transportation Commission
- Fresno Council of Governments
- Kern Council of Governments
- Merced County Association of Governments
- Tulare County Association of Governments
- Association of Monterey Bay Area Governments
- Napa County Transportation and Planning Agency
- Santa Barbara County Association of Governments
- Southern California Association of Governments
- Ventura County Transportation Commission

5. Bicycles

Bicycle use can be promoted for commuter and recreational travel that has the primary benefits of reducing traffic congestion and providing a non-polluting transportation mode.

Bicycle facilities in the unincorporated county area consist mainly of bike routes on a shared-use basis with automobiles. Within the urban areas, Class II facilities have been provided, along with shared-use routes. Generally, road resurfacing improvements and the provision of wider road shoulders offer a good riding surface that benefits both the motorist and the cyclist.

The Kings County Bicyclists is a local bicycling group organized to encourage the implementation of bicycle facilities in Kings County. With their assistance, bicycle plans have been prepared for the region that guide the development and installation of bicycle facilities throughout the county and each city.

Since bicycles must use the roadway with automobiles, safety is imperative in bicycle use. Promoting bicycle safety is generally carried out by local police departments within Kings County. For example, each year the Hanford Police Department presents the “Stop on a Dime” Program to elementary schools in Hanford. Many police departments also provide bicycle registration programs on a continual basis with no fee charged. Bicycle safety programs are also offered at the request of local schools.
Measures to encourage the use of bicycle and walk modes along with measures to increase transit ridership mutually assist each other because the modes are often complimentary.

6. Alternative Fuels

Although it does not impact travel behavior, decreases in vehicle emissions can be achieved through the use of cleaner burning fuels. Until recently, the developing technology and lack of a network of alternative fueling facilities has made it difficult to implement the use of alternative fuels in Kings County. A significant number of alternative fuel projects have been funded by KCAG, our local agencies, the SJVAPCD, and utility companies which have made it possible to further the implementation of alternative fuels throughout the Valley.

Kings County has constructed a compressed natural gas (CNG) fueling facility at its corporate yard and has converted a major portion of its vehicle fleet to CNG. KART has also converted its fleet to CNG use. Additionally, the City of Lemoore, in conjunction with the Lemoore Union High School District, Lemoore Union Elementary School District, Central Unified School District, and Island Union Elementary School District, has constructed a CNG fueling facility for multiple agency use, which is also available to the public. Other public agencies and school districts within Kings County have also constructed alternative fueling stations and are in the process of converting their vehicle fleets.

7. Passenger Rail and Support Facilities

Passenger rail and support facilities are provided to give travelers an alternative to the automobile for longer trips. Amtrak intercity passenger rail service is available with the San Joaquin. This service provides an ideal opportunity for inter-modal connections in support of other regional public and private transportation providers at station locations.

Two stations are located within Kings County at Hanford and Corcoran. These stations have been upgraded into intermodal facilities that include options to transfer to other transportation providers for increased transit efficiency. Caltrans has implemented new rail and signal projects to speed up the trains to reduce travel time in an effort to increase ridership. The new "California Cars" have been placed in service on the San Joaquin, which includes more modern passenger amenities. Over time, trains have been added to the service to provide six daily round trips between Bakersfield and Oakland/Sacramento. Marketing campaigns are used to promote the San Joaquins trains through television and radio advertisements. Fare promotions have also contributed to increased ridership.

Assembly Bill 1779 (AB 1779) authorized regional government agencies' ability to form the San Joaquin Joint Powers Authority (SJJPA), which will move the governance/management of the existing San Joaquin intercity rail service to a interregional control. The Hanford station has the fourth highest ridership on the San Joaquin rail corridor. The importance of keeping this corridor intact and available to Kings County and our neighbor counties prompted the participation of KCAG in the recently formed SJJPA. The intent of the SJJPA is to bring the decision-making for the corridor closer to the actual riders and to focus improvements where they will best benefit the riders.
8. **Park-and-Ride Lots**

To help promote ridesharing, designated park-and-ride lots provide a meeting place for commuters to form carpools for the majority of their trip. Park-and-ride lots are best located near major highways and arterials and are most effective on corridors of sufficient length serving metropolitan areas or specific employment designations.

Most park-and-ride lots are constructed and designated with signs and used exclusively for that purpose, while others spring up in underused parking lots. Existing parking areas used by carpoolers should be located and plans made to designate these areas as park-and-ride lots with the Caltrans dispatch number posted. This may encourage others to carpool if they are aware that these lots exist.

A formal park-and-ride lot has been constructed at the intersection of State Highway 43 and 10th Avenue on the north end of Hanford for commuters traveling to Fresno and Corcoran, and another lot is programmed on 6th Street in Hanford.

9. **Telecommunications**

The availability of a telecommunication system or center enables commuters to eliminate or reduce the length of their trips to work. Telecommunications generally include both teleconferencing and telecommuting.

A trip to attend a meeting could be eliminated by the use of teleconferencing equipment by an employee to participate in the meeting from the current employment site. Telecommuting could also eliminate a trip to work altogether by allowing an employee to use a personal computer to conduct work activities at home.

Caltrans and the SJVAPCD have developed telecommunications systems that may be used by other agencies to reduce the need for trips to meetings of a regional nature.

The eight Regional Transportation Planning Agencies worked to purchase teleconferencing equipment in 2009, with the assistance of a grant from the SJVAPCD. This system is used by each agency to conduct meetings of a regional nature to reduce the amount of vehicle travel that would otherwise be made to physically attend meetings. KCAG also allows use of its teleconferencing equipment by member agencies and outside agencies who request the service for other meetings.

10. **Alternative Work Schedules**

To encourage employee travel to and from work outside the peak period, employers can offer alternative work schedules. The effect could be reduced congestion and smooth traffic flow during peak commuting hours by spreading the period over a greater range of time.

Efforts should be made to maintain existing carpools and to encourage new carpools to increase the effectiveness of alternative work schedules.
B. VALLEYWIDE TCM PROGRAMS

1. Smoking Vehicle Program

To encourage vehicle operators to maintain their vehicles and improve tailpipe emissions, the SJVAPCD has implemented a program that will notify owners that their vehicle is visibly emitting excessive tailpipe smoke. A toll-free number is available for people to call and report "smoking vehicles". The SJVAPCD then contacts the vehicle owner and asks them to voluntarily have the vehicle checked or repaired. This program is districtwide and includes Kings County. Since 1993, there have been more than 32,000 reports of smoking vehicles. About 50% of vehicle owners who respond to a notification sent to them say they have repaired their vehicles.

2. Employer Trip Reduction Programs

The SJVAPCD adopted Rule 9410 - Employer Based Trip Reduction in December of 2009 as a requirement for certain employers to develop an Employer Trip Reduction Implementation Plan and create incentives for their employees to reduce single-occupant vehicle trips to work. Employers could choose from some of the options and programs noted above, and any others to meet specific point targets specified in the rule.

3. Spare the Air Program

The SJVAPCD developed an educational program to notify the public when unhealthy levels of air pollution are forecasted during the summer months. On these days, the public is encouraged to reduce emissions by avoiding the use of gas-powered garden equipment, aerosol spray cans, charcoal lighter fluid for barbecue grills, oil-based paint, and non-essential automobile use. The public is notified by radio and television and through employers who sign up to participate and notify their employees. There are nearly 700 employers, representing 300,000 employees that are participating in the Spare the Air Program within the Valley.

In the winter months, particulate matter pollution from lighting a fireplace or stove that burns wood, pellets, or manufactured logs contributes to unhealthy air quality. The "Check Before You Burn" Program is initiated between November and February each year. This program helps to discourage or prohibit the use of burning when the air quality is expected to be unhealthy. Residents who disregard the program may receive a Notice of Violation and be subject to fines. Fines for first-time violations start at $50. There are several exemptions to this program including homes in areas without natural gas service or homes above 3,000 feet elevation. More information on any program sponsored by the SJVAPCD can be found online at www.valleyair.org.

IV. FINANCIAL ELEMENT

To finance the implementation of TCMs, various local, regional, state, and federal funding programs are available.
A. FEDERAL SOURCES

1. MAP-21

The Moving Ahead for Progress in the 21st Century (MAP-21), two-year surface transportation authorization bill, was signed into law on July 6, 2012. MAP-21 made major changes in the programmatic structure for both highways and public transportation and included initiatives intended to increase program efficiency through performance-based planning and the streamlining of project development. It is the most significant reformation of the surface transportation program since the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991.

2. Congestion Mitigation and Air Quality

Congestion Mitigation and Air Quality (CMAQ) program funds are allocated to a Metropolitan Planning Organization (MPO) in designated nonattainment areas such as the San Joaquin Valley Air Basin. These funds are to be directed toward transportation projects that will contribute to meeting air quality standards in non-attainment areas for ozone, carbon monoxide, PM-10, and PM 2.5. Priority is to be given to implementing those projects that have documented emissions reductions associated with them and are included in the approved State Implementation Plan (SIP) for air quality as a TCM.

3. Federal Transit Act

This act provides funds to non-urbanized areas for various transit operating and capital assistance projects. Funds are available on a competitive basis or by regional apportionments under several programs for public and private non-profit transit providers, elderly and handicapped transit services, and intercity bus services. Eligible projects include those that provide access to mass transit facilities or to install racks or other equipment for transporting bicycles on mass transit.

4. Surface Transportation Program

This program provides funds that can be used for construction, rehabilitation and operational improvements for highways and bridges. This would include projects that are necessary to accommodate other transportation modes like transit and for bicycle transportation and pedestrian walkways principally for transportation, and for carrying out non-construction projects related to safe bicycle use. Funds could also be used to support transportation demand management or rideshare programs.

B. STATE SOURCES

Active Transportation Program (ATP)

The Active Transportation Program was created by Senate Bill 99 (Chapter 359, Statutes of 2013) and Assembly Bill 101 (Chapter 354, Statutes of 2013) to encourage increased use of active modes of transportation, such as biking and walking. The Active Transportation Program is funded from various federal and state funds appropriated in the annual Budget Act. These are:

- 100% of the federal Transportation Alternative Program funds, except for federal Recreation Trail Program funds appropriated to the Department of Parks and Recreation.
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- $21 million of federal Highway Safety Improvement Program funds or other federal funds.
- State Highway Account funds (Bicycle Transportation Account, Safe Routes to Schools, and Environmental Enhancement and Mitigation programs).

Pursuant to statute, the goals of the Active Transportation Program are to achieve the following:

- Increase the proportion of trips accomplished by biking and walking.
- Increase the safety and mobility of non-motorized users.
- Advance the active transportation efforts of regional agencies to achieve greenhouse gas reduction goals as established pursuant to Senate Bill 375 (Chapter 728, Statutes of 2008) and Senate Bill 391 (Chapter 585, Statutes of 2009).
- Enhance public health, including reduction of childhood obesity through the use of programs including, but not limited to, projects eligible for Safe Routes to School Program funding.
- Ensure that disadvantaged communities fully share in the benefits of the program.
- Provide a broad spectrum of projects to benefit many types of active transportation users.

C. REGIONAL SOURCES

The SJVAPCD has developed programs for governmental entities, private businesses, residents, and technology improvements that have been implemented valleywide to affect emission reductions in Kings County. The following are some of the highlighted programs. More information on SJVAPCD programs that can help improve the air is available online at www.valleyair.org.

1. Truck Voucher Program

The Truck Voucher Program allows participants to apply through SJVAPCD-certified dealerships to replace old, high-polluting, heavy-duty diesel trucks. Eligibility of pre-1996 model year engines is limited due to fast approaching compliance dates. All Pre-1996 engines will be evaluated on a case-by-case basis.

2. Polluting Automobile Scrap & Salvage (PASS) Program

The PASS Repair Component offers a FREE car emissions test at Tune In, Tune Up events throughout the San Joaquin Valley. Since its adoption, the PASS Replacement and Retirement components have purchased more than 700 polluting vehicles. Although funding for the existing program has been exhausted, the program has been so successful that the SJVAPCD has initiated another program in spring of 2014.

3. Lower Emission School Bus Program

Funding is available to replace pre-1977 and the oldest 1977-1986 school buses with a retrofit of 1987 and newer buses with an ARB Level 3 verified emission control device.
4. **Carl Moyer Program**

The SJVAPCD and the Great Basin Unified Air Pollution Control District jointly administer the Carl Moyer Program. The program provides incentive funds for the implementation of new reduced emission technology. Categories include heavy duty on-road vehicles, off-road vehicles, and stationary agricultural irrigation pump engines.

5. **REMOVE II**

The Reduce Motor Vehicle Emissions (REMOVE II) funds are administered by the SJVAPCD to fund projects in the region that reduce emissions from motor vehicles. Funds are derived from a $4 vehicle registration fee and are selected for funding on a competitive basis.

D. **LOCAL SOURCES**

1. **Transportation Development Act (TDA)**

The Transportation Development Act of 1971 instituted a regular funding source for various local transportation programs. Special emphasis is given to local transit systems through the Local Transportation Fund (LTF) and the State Transit Assistance (STA) fund.

Of the LTF revenue that becomes available each year in Kings County, about 40 percent is normally directed to support local transit services. Up to two percent of each county's annual LTF can also be claimed by local jurisdictions to be used for installing or maintaining bicycle and pedestrian facilities and bicycle safety programs. STA funds can only be used for transit.
CHAPTER 11
FINANCIAL ELEMENT

I. OVERVIEW

Previous chapters of this 2014 RTP provided a description of each funding program by source and transportation mode. This Financial Element is intended to provide a summary table of the revenues available from specific federal, state, and local governmental funding programs to fund the costs of implementing the Regional Transportation Plan. These resources are constrained to what is expected to be reasonably available during the 25-year planning period of the RTP.

II. ASSUMPTIONS

The assumptions used for each of the various federal, state, and local revenue projections are based upon the best available data provided for KCAG and Caltrans. These assumptions are based upon current information and do not reflect any attempt to predict future federal, state, or local actions or to resolve currently pending issues.

Kings County is an urbanized area and is eligible for funding from additional programs not available to rural areas.

In developing the revenue projections for the RTP in the corresponding tables, the following assumptions were used:

A. FEDERAL FUNDS

The Moving Ahead for Progress in the 21st Century (MAP-21) two-year surface transportation authorization bill, was signed into law on July 6, 2012. MAP-21 made major changes in the programmatic structure for both highways and public transportation and included initiatives intended to increase program efficiency through performance-based planning and the streamlining of project development. It is the most significant reformation of the surface transportation program since the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. Among its major provisions, MAP-21 included:

- for the federal-aid highway program, research, and education, authorizations for FY 2013 of $40.96 billion and for FY 2014 of $41.03 billion;
- for public transportation, authorizations for FY 2013 of $10.58 billion and for FY 2014 of $10.7 billion;
- for the Transportation Infrastructure Financing and Innovation Act (TIFIA), which provides credit assistance for surface transportation projects, a significant expansion that could provide credit support of up to $690 million for FY 2013 and $9.2 billion for FY 2014;
- major program restructuring, which reduced the number of highway programs by two-thirds and consolidated public transportation programs as well;
• more distribution of funding via apportionment to the states and less discretionary funding via the Department of Transportation (DOT) to individual projects;

• no project earmarks;

• no equity program, instead basing the distribution of highway funding on the FY 2012 distribution such that each state will likely receive as much federal highway funding as its highway users paid to the highway account of the Highway Trust Fund; and

• changes in the National Environmental Policy Act (NEPA) compliance process intended to accelerate project delivery.

1. Core Highway Formula Programs

   a. Regional Surface Transportation Program (RSTP)

      This program is continued as a core program under MAP-21. The program absorbs the former Highway Bridge Program (HBP) off-system component. Funds from the federal Regional Surface Transportation program are based on the historical apportionment provided to Kings County in ISTEA, TEA-21, SAFETEA-LU, and MAP-21. Estimates beyond the life of MAP-21 are assumed to be equal to those currently available.

   b. National Highway Performance Program (NHPP)

      NHPP has become the largest of the restructured federal-aid highway programs. The program supports improvement of the condition and performance of the National Highway System, combining the former Interstate Maintenance (IM) Program, the National Highway System (NHS) Program, and the Highway Bridge Program’s (HBP) on-system component. NHPP includes projects to achieve national performance goals for improving infrastructure condition, safety, mobility, or freight movement. There are no projections for this fund.

   c. Congestion Mitigation and Air Quality (CMAQ)

      Funds from the CMAQ program are based on the fund estimates received from Caltrans through FY 2017/18. Estimates beyond FY 2017/18 are established by a regression formula for fund projection based on the historical apportionment of CMAQ funds provided to Kings County. Estimates beyond the life of MAP-21 are assumed to be equal/progressive to those currently available.

   d. Highway Safety Improvement Program (HSIP)

      This is a formula program to the state, but a competitive program managed by Caltrans for the regions and local agencies. HSIP remains largely as it was under SAFETEA-LU, supporting projects that improve the safety of road infrastructure by correcting hazardous road locations, such as dangerous intersections, or making road improvements. HSIP has also absorbed the High Risk Rural Roads (HRRR) and the Rail-Highway Grade Crossing Program. Funding for this program is based on existing programming.
e. Highway Bridge Program (HBP)

The state-managed program for projects in cooperation with local jurisdictions for bridges on the statewide bridge improvement list. There is no guarantee that funding will be received. Fund projects are based on current programming.

f. Transportation Alternatives Program (TAP)

The Transportation Enhancement (TE) program under ISTEA, TEA-21, and SAFETEA-LU was discontinued under MAP-21 and replaced by the Transportation Alternatives Program (TAP). The TAP absorbed the former federal Safe Routes to Schools (SRTS) and Recreational Trails (RTP) programs. The TAP funds have been completely absorbed by the State Alternative Transportation Program (ATP) explained below. Under MAP-21, regions the size of Kings are to receive 10% of the state apportionment. The program does not guarantee any funding to any RTPA or MPO of less than 200,000 population.

2. Public Transportation (Transit) Programs

a. Federal Transit Administration - Section 5307

Transit funding for Urbanized Areas. Kings County is expected to continue to receive annual apportionments based on historical amounts. Funding is expected to be used for operating and capital assistance for the Kings County Area Public Transit Agency (KCAPTA).

b. Federal Transit Administration - Section 5310

The Mobility for Seniors and People with Disabilities is a competitive program. Applications must compete statewide for limited funding. There are no funding projections for competitive programs.

c. Federal Transit Administration - Section 5311

Transit funding for Rural Areas. Kings County is expected to continue to receive annual apportionments based on historical amounts. Funding is expected to be used for operating assistance.

d. Federal Transit Administration - Bus and Bus Facilities – Section 5339

Grants are awarded to eligible providers for financing capital projects - to replace, rehabilitate, and purchase buses and related equipment; and to construct bus-related facilities. No funding is projected for this fund.

B. STATE FUNDS

1. Gas Tax

Funds from the State gas tax are based on the historical apportionments provided to Kings County jurisdictions. Projected increases are based on Caltrans’ estimates of fuel consumption through 2040.
2. **State Transportation Improvement Program**

STIP revenues are based on actual regional share dollars available to Kings County in the 2014 STIP Fund Estimate.

3. **California Aid to Airports**

It is expected that the annual $10,000 grants will continue to be available to the Hanford Municipal Airport. Projected revenues from the Acquisition and Development Grant program are based on historical programmed amounts and are assumed to be lower.

4. **Active Transportation Program (ATP)**

This is a competitive program. The program combines two federal programs (Transportation Alternatives Program and Highway Safety Improvement Program) and three state programs (Safe Routes to Schools, Bicycle Transportation Account, and Environmental Enhancement and Mitigation programs) into a competitive grant program. No funding is projected for this fund.

B. **LOCAL FUNDS**

1. **Transportation Development Act**

Projected revenues are based on the most recent apportionments and are expected to increase at a rate of 1% per year over the RTP planning period.

2. **General Fund**

Projected revenues are based on historical amounts received by each jurisdiction and are expected to decrease over the RTP planning period.

3. **Transportation Impact Fees**

The City of Hanford is expected to continue receiving revenues as development occurs. The City of Lemoore has instituted an impact fee program since the prior RTP and will be receiving revenues as development continues. No traffic impact fees for other jurisdictions are proposed at this time.

Since 1992, the City of Lemoore has maintained Development Impact Fees for municipal traffic-related infrastructure needs directly attributable to new development. These fees have been indexed in time with the California Construction Cost Index, as costs for identified projects have increased over time. As part of a citywide study in 2005, it was determined that the separate fees should be determined for areas with significantly different existing infrastructure: the mostly-developed portion of the City east of 19½ Avenue, and the almost undeveloped western portion of the City. The Eastside Streets and Thoroughfares Fee was adopted in 2006; the Westside Streets and Thoroughfares Fee is currently the subject of a new study, and will likely be set in late 2010. In keeping with the Mitigation Fee Act, the collected fees are used exclusively for new infrastructure, and never used for maintenance of existing or upgrading of existing deficiencies in the infrastructure level.
4. **Passenger Fares**

Projected revenues are based on historical amounts received and are expected to increase over the RTP planning period.

5. **Air District Grants**

These are competitive programs, and there are no projected revenues for these funds.
III. SUMMARY OF REVENUES AND EXPENDITURES

**FIGURE 11-1**

**SUMMARY OF REVENUES**
(In Millions of $)

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>APPLICABLE USES</th>
<th>2014 - 2018</th>
<th>2019 - 2040</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FEDERAL FUNDS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional Surface Transportation Program</td>
<td>Highways, Roads, Transit, Non-Motorized, TDM, TCM</td>
<td>$11.84</td>
<td>$37.83</td>
<td>$49.67</td>
</tr>
<tr>
<td>Congestion Mitigation and Air Quality</td>
<td>Roads, Transit, Non-Motorized, TDM, TCM</td>
<td>$11.97</td>
<td>$38.59</td>
<td>$50.56</td>
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<tr>
<td>Highway Safety Improvement Program (HSIP)</td>
<td>Highways, Roads</td>
<td>$0.768</td>
<td>$0.919</td>
<td>$1.69</td>
</tr>
<tr>
<td>Highway Bridge Program (HBP)</td>
<td>Bridges</td>
<td>$1.08</td>
<td>$8.38</td>
<td>$9.46</td>
</tr>
<tr>
<td>Federal Transit Act</td>
<td>Transit</td>
<td>$0.6</td>
<td>$1.8</td>
<td>$2.4</td>
</tr>
<tr>
<td>Airport Improvement Program</td>
<td>Aviation</td>
<td>$3.5</td>
<td>$10.0</td>
<td>$13.5</td>
</tr>
<tr>
<td>Transportation Alternatives Program (TAP)</td>
<td>Highways, Non-Motorized</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>TOTAL FEDERAL FUNDS</strong></td>
<td></td>
<td>$29.76</td>
<td>$97.53</td>
<td>$127.28</td>
</tr>
<tr>
<td><strong>STATE FUNDS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas Tax</td>
<td>Highways, Roads, Transit</td>
<td>$24.0</td>
<td>$98.8</td>
<td>$122.8</td>
</tr>
<tr>
<td>State Transportation Improvement Program</td>
<td>Highways, Roads</td>
<td>$7.0</td>
<td>$90.0</td>
<td>$97.0</td>
</tr>
<tr>
<td>California Aid to Airports Program</td>
<td>Aviation</td>
<td>$0.5</td>
<td>$2.1</td>
<td>$2.6</td>
</tr>
<tr>
<td>Active Transportation Program</td>
<td>Non-Motorized</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$0.0</td>
</tr>
<tr>
<td><strong>TOTAL STATE FUNDS</strong></td>
<td></td>
<td>$41.50</td>
<td>$190.90</td>
<td>$232.40</td>
</tr>
<tr>
<td><strong>LOCAL FUNDS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation Development Act</td>
<td>Roads, Transit, Non-Motorized</td>
<td>$9.69</td>
<td>$40.8</td>
<td>$50.49</td>
</tr>
<tr>
<td>General Fund</td>
<td>Highways, Roads, Transit, Non-Motorized, Aviation, TDM, TCM</td>
<td>$23.0</td>
<td>$96.7</td>
<td>$119.7</td>
</tr>
<tr>
<td>Transportation Impact Fees</td>
<td>Roads, Transit, Non-Motorized</td>
<td>$2.0</td>
<td>$8.4</td>
<td>$10.4</td>
</tr>
<tr>
<td>Passenger Fares</td>
<td>Transit</td>
<td>$1.9</td>
<td>$8.3</td>
<td>$10.2</td>
</tr>
<tr>
<td>Air District Programs</td>
<td>Transit, Non-Motorized, TDM, TCM</td>
<td>$0.2</td>
<td>$0.8</td>
<td>$1.0</td>
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<tr>
<td><strong>TOTAL LOCAL FUNDS</strong></td>
<td></td>
<td>$36.79</td>
<td>$155.00</td>
<td>$191.79</td>
</tr>
<tr>
<td><strong>TOTAL ALL FUNDS</strong></td>
<td></td>
<td>$98.05</td>
<td>$443.42</td>
<td>$541.47</td>
</tr>
</tbody>
</table>
FIGURE 11-2

SUMMARY OF EXPENDITURES
(In Millions of $)

<table>
<thead>
<tr>
<th>MODE</th>
<th>AMOUNT</th>
<th>PERCENT OF TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations and Maintenance</td>
<td>$280.9</td>
<td>52.0</td>
</tr>
<tr>
<td>Safety</td>
<td>$55.6</td>
<td>10.0</td>
</tr>
<tr>
<td>Bike-Pedestrian</td>
<td>$8.7</td>
<td>2.0</td>
</tr>
<tr>
<td>Transit</td>
<td>$82.5</td>
<td>14.9</td>
</tr>
<tr>
<td>Airports</td>
<td>$13.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Rail</td>
<td>$0.80</td>
<td>0.1</td>
</tr>
<tr>
<td>Highways</td>
<td>$97.0</td>
<td>17.5</td>
</tr>
<tr>
<td>Other</td>
<td>$2.5</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$541.5</td>
<td>100%</td>
</tr>
</tbody>
</table>

FIGURE 11-3

TRANSPORTATION INVESTMENTS

Source: KCAG
CHAPTER 12
SUSTAINABLE COMMUNITIES STRATEGY

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1.0 Introduction

1.1 History

The Regional Transportation Plan (RTP) is a planning document that partners local land use decisions, transportation planning, and housing into a comprehensive long range transportation plan. The RTP has been a requirement of federal law since the 1970's and as of 2008 is now a requirement of California state law. This document is the foundation for all transportation planning and programming in the Kings region and is the justification to the federal and state governments for any and all transportation funds.

1.2 Legislation

The Moving Ahead for Progress in the 21st Century (MAP-21) two-year surface transportation authorization bill was signed into law on July 6, 2012. It made major changes in the programmatic structure for both highways and public transportation, and included initiatives intended to increase program efficiency through performance-based planning and the streamlining of project development. It is the most significant reformati on of the surface transportation program since the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991.

In 2001, in their publication EPA Guidance: Improving Air Quality Through Land Use Activities, the EPA proposed five land use form features that can affect travel activity and air quality. The five factors are density, land use mix (near amenities and connectivity), transit availability, pedestrian environment (including bicycling), and regional development patterns (development within metropolitan areas).

The recommendations of the EPA guidance have been substantiated in California law with the adoption of Senate Bill 375 (SB 375) (Steinberg, 2008). SB 375 builds on the existing regional transportation planning process (which is overseen by local elected officials with land use responsibilities) to connect the reduction of greenhouse gas (GHG) emissions from passenger cars and light duty trucks to land use and transportation policy.

Accordingly, SB 375 has three goals: 1) to use the regional transportation planning process to help achieve Assembly Bill 32 (AB 32) goals; 2) to use CEQA streamlining as an incentive to encourage residential projects which help achieve AB 32 goals to reduce GHG; and 3) to coordinate the regional housing needs allocation process with the regional transportation planning process.

AB 32 enlists cities and counties to participate in the statewide reductions of GHG by accomplishing eight requirements. Two of the requirements are associated with transportation: 1) utilize more fuel efficient vehicles and lower carbon fuels, and 2) implement land use strategies to reduce vehicle miles traveled (VMT). The AB 32 scoping plan relies on regional planning as required by SB 375 to help achieve necessary reductions from the transportation sector.

SB 375 requires actions primarily by state agencies and metropolitan planning organizations (MPOs). The following is a summary of the required actions:

State Actions:

1. The California Transportation Commission (CTC) will maintain Guidelines for travel demand models used in the development of Regional Transportation Plans (RTP).
2. The CTC will form an advisory committee and hold at least two public workshops before revising these guidelines.
3. The California Air Resources Board (ARB) will appoint a Regional Targets Advisory Committee (RTAC) to recommend factors and methodologies for setting GHG Reduction Targets. The RTAC will present their recommendations to ARB by December 31, 2009.
4. The ARB will exchange information on technical methodology with each MPO, Caltrans, and local air districts and respond with written comments prior to setting reduction targets. (See #1 MPO Actions).
5. ARB will take into account reductions in GHG from improved vehicle and fuel standards.
6. ARB will provide each MPO with GHG reduction targets for 2020 and 2035 by September 2010.
7. ARB is to review all MPO SCS (and the Alternative Planning Strategy (APS), if necessary) to determine if targets are achieved. A response is required within 60 days and the response is limited to “acceptance” or “rejection”.
8. ARB/RTAC will update targets every 8 years consistent with RTP updates until 2050.

Metropolitan Planning Organizations (MPO) Actions:

1. The MPO, prior to beginning the public participation for the SCS, will submit a description to ARB of the technical methodology it intends to use to estimate the greenhouse gas emissions from its SCS. (See #4 State Actions).
2. The MPO will hold at least two informational meetings within the region after the RTAC makes its recommendation to ARB to solicit and consider input of local elected officials on the SCS.
3. The MPO will adopt a Public Participation Plan for development of the SCS with workshops and public hearings. (Number of each depends on size of region).
4. The MPO may recommend an alternative reduction target (from the RTAC target) to ARB.
5. MPOs will adopt a Sustainable Communities Strategy (SCS) to meet Regional GHG reduction targets as part of RTP update.
6. The MPO will quantify the reductions in GHG from the SCS and establish the difference from the ARB target.
7. To the extent that the SCS cannot meet the targets, an MPO will adopt an Alternative Planning Strategy (APS) showing how it would meet the targets. APS shall be a separate document from the RTP.
8. MPOs submit their SCS (and if necessary APS) to ARB for review.
9. MPO may consider financial incentives for cities and counties that have resource areas or farmland and, in counties with policies to direct new growth towards cities, for counties to address countywide service responsibilities.
10. Any combination of the eight MPOs in the San Joaquin Valley may work together to develop and adopt a multi-regional SCS.
11. MPOs will disseminate the methodology, results, and key assumptions of whichever travel demand models they use in a way that would be useable and understandable to the public.
12. Councils of Governments (COGs) will provide State Housing and Community Development Department (HCD) with data assumptions about the relationship between jobs and housing in the region, if available, and requires that HCD's determination of the aggregate regional RHNA reflect the achievement of a feasible balance between jobs and housing within the region.
13. COGs may request that HCD use population and household forecast assumptions from the region's RTP.
14. COGs allocation of the RHNA to individual cities and counties should be consistent with the SCS, provided that the aggregate regional RHNA is maintained and that every jurisdiction receives an allocation of housing need for very low- and low-income households.

Specific to the SCS, SB 375 requires that the SCS:

- Identifies future land use patterns;
- Identifies areas to accommodate long-term housing needs as well as 8-year housing needs;
- Considers resource areas and farmland;
- Identifies transportation needs and the planned transportation network;
- Sets forth a future land use pattern to meet GHG emissions reduction targets.

Although SB 375 requires consideration of land uses, transportation, and housing in concert, SB 375 does not infringe on the land use jurisdiction of the cities and counties. SB 375 states:
“Neither a sustainable communities strategy nor an alternative planning strategy regulates the use of land, nor, except as provided by subparagraph (J), shall either one be subject to any state approval. Nothing in a sustainable community’s strategy shall be interpreted as superseding the exercise of land use authority of cities and counties within the region”. (Government Code Section 65080(b)(2)(K))

“In preparing a sustainable communities strategy, the metropolitan planning organization shall consider spheres of influence that have been adopted by the local agency formation commissions within its region.” (Government Code Section 65080(b)(2)(G))

2.0 Setting

2.1 The Kings County Region

Kings County is one of eight counties that comprise the San Joaquin Valley, which is bounded on the west by the Coastal Range; the Sierra Nevada Mountain range to the east; the Tehachapi’s to the south; and Sacramento to the north. Kings County is located in the south-central portion of the Valley bordered by Fresno County to the north; Kern County to the south; Tulare County to the east; and Monterey County and San Luis Obispo County to the southwest. This geography creates the "inversion layer effect" that traps GHG and other air quality pollutants in the Valley.

Although KCAG is a metropolitan planning organization, having one urbanized area with a population of 50,000 or more, Kings County is a predominantly rural, agriculture-based County. The county covers 1,391 square miles with more than 90 percent of all land devoted to agricultural uses. Kings County population is 152,982 including the populations of two state prisons, the Native American Tribal Lands, and the Lemoore Naval Air Station (LNAS). Kings County has the highest percentage of land enrolled in the protected farm lands programs in California.

Kings County is comprised of four incorporated cities Avenal, Corcoran, Hanford and Lemoore, and four unincorporated communities Armona, Home Garden, Kettleman City, and Stratford. The county and four cities have coincidental restrictions on growth outside the primary urban boundaries of the cities.

In 1996, the U.S. Environmental Protection Agency joined with several non-profit and government organizations to form the Smart Growth Network (SGN). Their 2010 report, "Putting Smart Growth to Work in Rural Communities", states that rural areas, like the urban and suburban areas, want to achieve the best possible economic, social, environmental, and public health outcomes. In working toward that goal, the publication recommends three measures:

1. Support the rural landscape by creating an economic climate that enhances the viability of working lands and conserves natural lands;
2. Help existing places thrive by taking care of assets and investments such as downtowns, Main Streets, existing infrastructure, and places that the community values; and
3. Create great new places by building vibrant, enduring neighborhoods and communities that people, especially young people, don’t want to leave.

The American Farmland Trust (AFT) is a nonprofit organization established in 1980 to conserve the nation’s agricultural land and water resources. Its planners, policy experts, and agricultural specialists work cooperatively with the farm communities and government decision-makers to encourage better planning and land use policies – the kind that will minimize the loss of farmland and help maintain the economic viability of agriculture. In their report "Saving Farmland Growing Cities", January 2013, they make six recommendations for sustainability and the preservation of farmland, as follows:

1. Avoid development of high quality farmland.
2. Minimize farmland loss with more efficient development.
3. Ensure stability at the urban edge.
4. Minimize rural residential development.
5. Mitigate the loss of farmland with conservation easements.
6. Encourage a favorable agricultural business climate.

KCAG and the RTP Stakeholder Working Group, in developing the 2014 RTP/SCS, considered the land use decisions of our local agencies as the foundation for sustainable development in our region, the direction of SB 375 to consider farmland transportation investments and farm to market transportation needs, and the recommendations of the reports noted above in developing the recommended scenarios through the public, our respective elected officials, and cities and county.

2.2 Existing Framework

KCAG started our work on the Sustainable Communities Strategy with the same approach used for the Regional Transportation Plan since the 1970’s. KCAG first sought out the information from the general plans of our member agencies. The policies and land use decisions in these plans form the foundation for our transportation planning. The information from the general plans becomes the latest planning assumptions (LPA) for our region. Of our five member agencies, three are involved in general plan updates and one is involved in an amendment to their general plan for zoning changes.

KCAG reviewed the general plans with our cities for consistent policy direction and land use patterns. The most striking policy that is consistent throughout the general plans of all of the agencies is that the primary goal is the preservation of farmland through minimizing its conversion to residential or even commercial development. The direction that all development occurs within the primary spheres of influence of the established urbanized areas was stated in slightly different manner, but was present in each of the plans.

Other themes that were found to be consistently represented in each of the general plans of the cities were: incentivizing infill development; providing amenities such as shopping and transit access; preserving open spaces near housing, particularly high density developments; encouragement of using a good housing mix with emphasis on higher density residential development near existing employment centers, commercial development and parks; and connectivity of neighborhoods to services and facilities.

The LPAs are fully discussed in Chapter 2. They include history and projections of population, the economic environment (also see RTP Chapter 5 for Goods Movement), and the principal land use policies (summarized above). For the existing transportation system, Chapter 4 explains the highways system, and Appendices 1A – 1F describe the transportation systems within each of the local agency jurisdictions.

For information on the non-motorized system, please see RTP Chapter 8 of this document and the KCAG 2011 Regional Bicycle Plan, available on our website at: http://www.kingscog.org/planning.html.

For information on the public transportation system, please see RTP Chapter 6 of this document and the Short Range Transit Plan, available on the KCAG website at http://www.kingscog.org/transit.html.

Both of these documents are included in the 2014 RTP by reference.

2.3 Blueprint

The multi-jurisdictional Kings County Blueprint effort was initiated in September of 2005, when the KCAG Commission agreed to move forward with a joint grant application with the seven Councils of Governments (COGs) in the San Joaquin Valley. The grant was successfully awarded and an
unprecedented planning effort began. With both a regional Valleywide perspective and a local county focus, the Blueprint was the first significant land use planning effort to consider the future vision and important quality of life characteristics for 2050.

The Kings County Blueprint was spearheaded by KCAG staff who worked closely with the Cities of Avenal, Corcoran, Hanford, and Lemoore and the County of Kings. Naval Air Station (NAS) Lemoore also became a close partner in the latter part of the effort. The Blueprint effort was divided into several phases, each focusing on a specific aspect of the planning effort. The goal of Phase I was to identify the vision and values of Kings County residents and was driven by public participation. Phase II focused on the technical elements and featured land use modeling. Planning Directors from the member agencies were key in providing historical land use trends to define the "business as usual" and alternative land use growth scenarios. Phase III again looked to the public to provide guidance on how Kings County should aspire to grow through the year 2050. Throughout the development of the Blueprint growth scenarios, it was emphasized that these would in no uncertain terms supersede our member agencies’ local land use authority.

Two elements of the success from the Blueprint collaboration stand out above all others and include the extensive public outreach efforts and the adopted Kings County Blueprint Principles or smart growth strategies. KCAG conducted the most extensive local outreach effort to date in order to gather and subsequently integrate citizen feedback into our Kings County Blueprint products. The Kings County Blueprint Summary Document dated June 1, 2011 features in specific details the larger outreach effort that included meetings, workshops, multiple committees, and various presentations throughout the Kings County Region during this multi-year planning effort. The Kings County Blueprint Principles were developed by planners from the member agencies and NAS Lemoore that built upon and reflect the values of Kings County residents. The principles were adopted by the KCAG Commission on August 27, 2008 and include the following:

1. The cities and the County of Kings will retain local land use authority.
2. Direct future growth to existing urbanized areas within Kings County to ensure orderly and sufficient provision of services and infrastructure.
3. Concentrate urban growth within the Blueprint Urban Growth Boundaries for cities and Community Service Districts to minimize outward expansion into important farmlands.
4. Preservation of agricultural lands surrounding cities and communities shall serve as open space buffers that separate and maintain the individual identities and uniqueness of the cities and communities within Kings County.
5. Balance the countywide need for urban growth and economic development with reinforced preservation of the County’s prioritized agricultural resources.
6. Enhance economic development connectivity through transportation highway infrastructure improvements that focus on expanding State Route 198 and State Route 43 to four lanes through Kings County.
7. Improve air quality through enhanced commuter connectivity by implementing alternative transportation modes and enhancing existing modes, and supporting the continuation of Amtrak passenger rail service through Kings County on the existing BNSF alignment.
8. Create a range of housing alternatives and minimum and maximum densities that meet the changing needs of Kings County residents.
9. Protect the many natural resources and sensitive environmental habitats, such as the Kings River corridor and wetlands, from urban encroachment.
10. Provide for an encroachment-free operating environment for Naval Air Station Lemoore in coordination with the City of Lemoore and the County of Kings.
Since adoption of these Blueprint principles in 2008, several of our member agencies have either already successfully integrated many of these smart growth principles into their most recent General Plan updates or are now involved in an update process as noted below.

City of Avenal: Will begin an update process in FY 2014/15
City of Corcoran: General Plan “Enhancement” to be completed July 2014
City of Hanford: Currently in an update process
City of Lemoore: Adopted May 2008
County of Kings: Adopted January 2010

In recognition of the positive Blueprint related achievements to further demonstrate a forward progression in land use, Kings County jurisdictions received San Joaquin Valley Blueprint Awards. The County of Kings received an award for Achievement for Community Plans – Unincorporated Community “Kings County General Plan – 4 Community Plans” and a separate Award of Merit for Sustainable Development Policies “Kings County General Plan – Land Use and Resource Conservation Elements”. The City of Avenal received an Award of Merit for Downtown Revitalization Projects - Public Infrastructure - Small Jurisdiction City of Avenal Street Improvements, and an Award of Achievement for Historic Preservation Avenal – Theater Restoration Project. The Kings region will continue to benefit from the proactive and smart growth planning policies of our member agencies and collaborative planning efforts such as the Kings County Blueprint.

2.3 Naval Air Station Lemoore Joint Land Use Study

The Naval Air Station Lemoore Joint Land Use Study (JLUS) is another example of a multi-jurisdictional planning collaboration in the Kings region. The JLUS grant program encourages cooperative land use planning between military installations and the adjacent communities so that future community growth and development are compatible with the training and operational missions of the installation. For this JLUS planning effort, the study examined the existing and future planned land uses in the area surrounding Naval Air Station Lemoore, including the military training area. The study was designed to identify strategies to protect public health, safety, and the overall welfare while safeguarding the ability of the military installation to carry out services and necessary training.

Kings County Association of Governments (KCAG) was the JLUS study sponsor on behalf of the City of Lemoore and the Counties of Fresno and Kings, working in close partnership with the Naval Air Station Lemoore. KCAG was responsible for the leadership, coordination, and management of the overall grant as provided by the Department of Defense Office of Economic Adjustment.

The Naval Air Station Lemoore JLUS included fourteen public meetings and the development of two committees: a multi-jurisdictional Policy Committee consisting of elected officials from the City of Lemoore and the Counties of Fresno and Kings and ex-officio representation from Naval Air Station Lemoore; and a Technical Working Group consisting of stakeholders and community members. As detailed in the Final Report dated August 30, 2011, each jurisdiction has its own respective sub-section discussing the specific land use planning issues and concerns that were brought forward by the stakeholders or community members. The Final Report also includes recommendations for each jurisdiction that focus on addressing the areas of concern identified by the study analyses.

2.4 Regional Housing Needs Allocation

SB 375 requires the SCS to “identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region”. The regional housing need projection is determined by the California Department of Housing and Community Development (HCD). The SCS preferred scenario meets this requirement and supplies enough residential housing capacity by jurisdiction to meet the housing need of 10,220 units projected for the 1/1/2014 to 1/31/2024
period for the KCAG region by HCD. According to state housing requirements, the KCAG Commission adopted the RHNA methodology on April 23, 2014. On June 26, 2014, KCAG distributed a draft allocation of regional housing needs to each local government in the region based on the methodology adopted. The draft allocation includes the underlying data and methodology on which the allocation is based. Available housing capacity in each KCAG member jurisdiction is anticipated to be adequate to accommodate each jurisdiction’s respective share of housing need as allocated by KCAG’s adopted RHNA methodology.

KCAG is currently in the process of preparing the 2014 RHNA Plan, scheduled for adoption by January 2015. Available residential capacity in each jurisdiction must be sufficient to accommodate at minimum that jurisdiction’s share of the regional housing need and KCAG’s RHNA allocation plan will need to allocate housing units within the region consistent with the development pattern of the SCS. Figure 12-1 shows the identified housing need by jurisdiction, including very low and low income categories, in the draft RHNA allocation.

**FIGURE 12-1**
DRAFT REGIONAL HOUSING NEEDS ALLOCATION DISTRIBUTION

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Very Low(2) % of Total</th>
<th>Low(3) % of Total</th>
<th>Moderate(4) % of Total</th>
<th>Above Moderate(5) % of Total</th>
<th>Total Housing Need %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avenal</td>
<td>145 22.70%</td>
<td>108 17.00%</td>
<td>115 17.90%</td>
<td>271 42.40%</td>
<td>639 100%</td>
</tr>
<tr>
<td>Corcoran</td>
<td>215 22.70%</td>
<td>161 17.00%</td>
<td>169 17.90%</td>
<td>401 42.40%</td>
<td>946 100%</td>
</tr>
<tr>
<td>Hanford</td>
<td>1097 22.70%</td>
<td>821 17.00%</td>
<td>865 17.90%</td>
<td>2049 42.40%</td>
<td>4,832 100%</td>
</tr>
<tr>
<td>Lemoore</td>
<td>677 22.70%</td>
<td>507 17.00%</td>
<td>534 17.90%</td>
<td>1267 42.40%</td>
<td>2,985 100%</td>
</tr>
<tr>
<td>Uninc. County</td>
<td>186 22.70%</td>
<td>138 17.00%</td>
<td>147 17.90%</td>
<td>347 42.40%</td>
<td>818 100%</td>
</tr>
<tr>
<td>Total County</td>
<td>2,320 22.70%</td>
<td>1,735 17.00%</td>
<td>1,830 17.90%</td>
<td>4,335 42.40%</td>
<td>10,220 100%</td>
</tr>
</tbody>
</table>

2011 Inflation-Adjusted Dollars Kings County Median Household Income = $48,838

(2) Very Low = 50% of Maximum County Median Income ($14,652 to $24,419)
(3) Low = 80% of Maximum County Median Income ($24,420 to $39,070)
(4) Moderate = 120% of Maximum County Median Income ($39,071 to $58,606)
(5) Above Moderate = County Median Income ($58,607 and above)
(6) Regional Housing Needs Determination dated January 22, 2014, Department of Housing and Community Development.

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3.0 Public Outreach

3.1 SB 375 Requirements for Public Outreach

SB 375 requires the preparation of a public participation plan specifically for the SCS outreach prior to the development of the SCS. This requirement may be met by amending the existing federally required participation plan or by creating a supplemental participation plan. KCAG chose to adopt a supplemental document to our existing participation plan. The Supplemental Public Participation Plan (PPP) was adopted in June, 2013. A copy of the 2013 Supplemental Public Participation Plan is posted online at www.KingsRegionalVision.com.

The 2013 Supplemental PPP established strategies for public outreach to encourage the active participation of a broad range of stakeholder groups in the planning process including, but not limited to, affordable housing advocates, transportation advocates, neighborhood and community groups, environmental advocates, representatives from the home building industry, broad-based business organizations, landowners, commercial property interests, all population sectors, and homeowner associations. These stakeholder groups were not only solicited to participate in our public workshops, but were the foundation for the membership of the RTP Stakeholder Work Group.

KCAG participated in the Valley wide SCS public outreach program, Valley Visions, a collaborative effort among the eight metropolitan planning organizations (MPOs) located in the San Joaquin Valley. The Valley Visions outreach program received funding assistance from a Proposition 84 grant that was used to support a regional modeling effort as well as enhanced outreach. KCAG customized the Valley Visions materials developing a locally branded Kings Regional Vision outreach program.

SB 375 requires counties with a population of 500,000 or more to hold at least three workshops. Though our population is substantially smaller, KCAG held three public workshops in the cities of Hanford, Lemoore, and Kettleman City during the first phase of the outreach effort and an additional three workshops following the release of the draft RTP and SCS, in the cities of Corcoran, Hanford/Lemoore, and Avenal. Public hearings will also be held at two KCAG Commission meetings prior to the adoption of the RTP and SCS.

3.2 Technical Advisory Committee

The KCAG Technical Advisory Committee (TAC) membership consists of: county and city public works and planning directors, city managers, county administrative officer, Caltrans District 6 staff, a Kings County Area Public Transit Agency (KCAPTA) representative, a Lemoore NAS representative, a San Joaquin Valley Air Pollution Control District representative, a Santa Rosa Rancheria Tachi Yokut Tribe representative, Kings County Environmental Health Department representative, and a California Highway Patrol representative. All meetings are open to the public and provide an opportunity for public comment. The TAC provided valuable information regarding land use policies and insight into the local needs of KCAG member agencies that were used to develop the RTP and SCS.

To ensure compliance with state law, the TAC was provided informational updates regarding the requirements of SB 375 at all meetings beginning in January of 2011. In addition, the group was also made aware of the requirements of AB 32, specifically the transportation sector contributions to green house gas emissions specified in AB 32 and SB 375. The TAC was regularly provided with monthly updates and information regarding KCAG’s ongoing public outreach effort and the development of the scenarios for the 2014 RTP and SCS element.

The TAC provided guidance and input regarding the scheduling of the development of the RTP, SCS, and Regional Housing Needs Assessment (RHNA) documents and the core components of each. The group received monthly updates on the progress of the outreach efforts with the general public and the RTP Stakeholder Work Group.
KCAG requested meetings with each of the cities’ and the county’s planning departments to review their current general plans and supplementary land use documents. Each jurisdiction, having been influenced by the regional Blueprint process, displayed promotion and facilitation of smart growth concepts appropriate for a rural agrarian area. The general plans reflect the recommendations of the Smart Growth Network and the American Farmland Trust. The RTP and SCS are intended to support the development of a transportation network that complements the local land use planning decisions.

Each jurisdiction was invited to provide an overview of their general plan to the RTP Stakeholder Working Group during the scenario development process. Following the development of the proposed scenarios, KCAG requested meetings with each jurisdiction again to review and compare the recommendations for compatibility with the local general plans.

### 3.3 Stakeholder Working Group

KCAG formed a Stakeholder Working Group that included representation from 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. KCAG also invited representatives of other segments of the population of Kings County, such as our agricultural community, goods movement, Native American Tribe, senior citizens, bicyclists, economic development interests, public health, elected representatives (at the local, state, and federal level), education, and the Lemoore Naval Air Station to help develop the alternative scenarios for the RTP - SCS. (The complete membership list is included in the introductory pages of the RTP).

The Stakeholder Working Group held seven publicly noticed and open meetings to develop the scenario inputs. The stakeholder-provided inputs and guidance for the development of the alternative scenarios were then reviewed by agency staff for consistency with existing and evolving general plans and finally incorporated into the RTP itself for public review. The Stakeholder Working Group then held two meetings to review the SCS after the modeling and writing had been completed and the results from the public workshops were available.

For the development phase, the RTP Stakeholder Working Group was provided with information about the RTP, SB 375, general plan and land use information (provided by local agencies), information obtained through the public workshops, visualization of growth applications and how they can be implemented with the current local agency general plans, and of their mission (as outlined by SB 375). ARB also provided the Stakeholder Working Group with a presentation on the ARB role in the development of the targets, some advice and recommendations, and the SCS evaluation process that ARB conducts.

For the review phase, the Stakeholder Working Group was presented with the completed SCS chapter and the modeling information. The group was also presented with statistical information (including the preferences) resulting from the public workshops.
3.4 Public Outreach Program

KCAG developed and implemented a comprehensive outreach program to support the development of the RTP and SCS. The program built on the Valley Visions effort by customizing materials and then enhancing the program to meet the Kings County region’s unique needs.

Branding

KCAG established Kings Regional Vision as the overall brand for the RTP and SCS effort. A complete graphic suite was developed and used throughout the outreach process to identify this effort as a unique planning process.

City Council and Board Presentations

Presentations were made to the Avenal, Corcoran, Hanford, and Lemoore City Councils and the Kings County Board of Supervisors in December of 2013 to outline the proposed RTP and SCS planning process and outreach program, and again in May of 2014 to present the four alternative scenarios. In all cases, PowerPoint presentations and support materials were made available at the meetings and online for public review. Elected officials were given opportunities to make comments and ask questions. There were also opportunities for public comment.

Community Presentations

A substantial number of Kings County residents do not regularly attend City Council, Board of Supervisors, or other public meetings and workshops. KCAG took its workshop program(s) on the road and made a series of more than a dozen interactive presentations at local Rotary Clubs, Lions Clubs, local Chambers of Commerce, and other community groups as part of this process. The consultant team also reached out to a broad spectrum of local groups and stakeholders, giving each the opportunity to schedule presentations for their members. This included the Kings County Farm Bureau, West Hills College, and the Tachi Indian Tribe among others.

Website and eBlasts

Given the high number of residents, businesses, and stakeholders that utilize the internet and social media, KCAG created a project website, www.KingsRegionalVision.com, where information about the RTP and SCS process was readily available. The site has had more than 1,500 visits since its launch in December of 2013. It contains all meeting materials and background on the planning process and provided opportunities for public comments and questions.

KCAG compiled a comprehensive email database of stakeholders and high propensity voters. More than 6,000 people from all four cities and the County regularly received emails regarding upcoming presentations, workshops and engagement opportunities. The list was monitored and revised throughout the outreach process.
Collateral Materials

Bilingual collateral materials included project overview and frequently asked questions handouts in addition to presentation materials. Copies of the materials were made available at all public workshops and presentations and could be accessed from the project website.

Intercept Interviews

Members of the KCAG consultant team visited senior centers, transit stations, and other locations to solicit feedback on regional transportation needs and priorities throughout the county. This included visits to local farmers markets.

Media Relations

News media received a series of press releases at key milestones to promote meetings and engagement opportunities. The media list included all local newspapers, radio stations, and ethnic media.

Outreach to Hispanic, Senior and Youth Populations

Kings County is home to a large Hispanic population. As part of its outreach program, KCAG provide several opportunities for Hispanic participation including special workshops and presentations at the Kettleman City Family Resource Center, Valley LEAP, and local Catholic churches.

Members of the consultant team also reached out to local school districts and made site visits to talk with seniors at the Armona Senior Center, the Avenal Nutrition Center, the Lemoore Senior Center, and the Corcoran Nutrition Center.

Workshops

As noted above, two rounds of workshops were held as part of the development of the RTP and SCS; the first to establish regional priorities and vision and the second to review the proposed scenario alternatives. All workshops were publicly noticed and then promoted through email blasts to more than 6,000 stakeholders and local residents, news releases, verbal notices at the KCAG Technical Advisory Committee meetings and Stakeholder meetings, and at local City Council, Board of Supervisors, and KCAG Commission meetings. In addition, workshop information and materials were posted on the Kings Regional Vision website.

All workshops included PowerPoint presentations explaining the planning effort, live interactive click polling to engage the audience, appropriate maps, displays and other materials as needed. All presentations were provided in both English and Spanish.
3.5 **Member Agency Coordination**

The SCS builds on existing land use plans from KCAG’s member agencies and as per SB 375, may not supersede local land use decisions. KCAG worked closely with member agencies to incorporate current and evolving land use plans into the SCS document. This included coordination with tribal lands via the Tachi Indian Tribe and federally controlled land at the Lemoore Naval Air Station. Public agencies were also invited to provide baseline planning and land use information to the RTP Stakeholder Working Group as previously noted and were given the opportunity to analyze how the recommendations of the public and Stakeholder Working Group fit with their general plans and would affect future land use decisions.

3.6 **Equity**

**Setting**

Kings County as an agricultural area consists of a mix of population types (with 11.7% senior citizen, 65.8% self-identified as minority, and 42.6% with a primary language other than English). The average annual income is more than 20% below the statewide median, with 19.3% of the population earning below the poverty line, and unemployment figures are consistently double that of the state level. These facts make any analysis of the distribution of benefits and burdens of the transportation investments in Kings County difficult.

**Definition**

Environmental Justice (EJ) is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. It is the identification and assessment of adverse effects of programs, policies, or activities on minority and low-income population groups. KCAG’s goal is to ensure that all people, regardless of race, color, national origin or income, are protected from disproportionate negative or adverse impacts of transportation projects and that all populations share in the benefits of transportation improvements in Kings County.

**Analysis**

For our purposes, environmental justice refers to equity in the distribution of benefits and costs arising from transportation policies, programs and projects included in the 2014 Regional Transportation Plan (RTP) and the 2015 Federal Transportation Improvement Program (FTIP).

KCAG adopted a Public Participation Plan (PPP) in FY 2007-08, to include the practices of environmental justice. KCAG updated the program in 2011, and created a supplement to the 2011 update for the development of the 2014 RTP/SCS. The PPPs include enhanced outreach approaches to Environmental Justice populations to meet state and federal principles and to eliminate participation barriers to active participation in all populations.

KCAG’s transportation decision making process has an inclusive approach to consider the human environment and the adverse impacts that transportation projects may have. This agency also looks at safety and mobility, which are key elements in achieving environmental justice.

The environmental justice impacts analyzed include: human health and safety, economic development, society and culture, and natural environment. The projects and programs included in the RTP and FTIP will not have a disproportionately adverse affect on the low-income or minority populations of Kings County.

In response to Title VI and Environmental Justice requirements, KCAG has placed an increased emphasis on reaching out to and soliciting input from the historically underserved populations in...
Kings County (i.e. low-income, minority, Native American, elderly, and persons with disabilities), as detailed in the Environmental Justice chapter of this document.

4.0 Development of the SCS

In developing the SCS, KCAG first reviewed and applied the legislative requirements to our process. Consideration of the setting and priorities of our region followed next; primarily, preserving productive farmland and taking advantage of the smart growth advances made by the local agencies in their planning processes as a result of the Blueprint effort.

The SCS outreach plan was implemented as detailed by the Supplemental PPP and to the KCAG Technical Advisory Committee. KCAG obtained land use information from the local agency general plans and from meetings with those agencies that afforded meeting opportunities.

KCAG implemented the Supplemental PPP in regards to public outreach, holding three public workshops and establishing a holistic RTP Stakeholder Working Group. The Stakeholder Working Group was provided with all of the SB 375 legislative requirements, land use information, and polling results from the public workshops prior to beginning their work of developing the scenarios. The Stakeholder Working Group was provided with maps, lists, and visualizations of how the elements could work together to develop scenarios that meet the GHG reduction targets and would be compatible with the work that the local agencies have done in advancing their local planning.

The Scenarios:

A. Scenario No. 1: Historical Trend – No changes from the 2008 SB 375 base year

This scenario is based on the land use planning, transportation programs, and projects from 2008. This scenario does not include the advances made through the Blueprint Principles that individual local agencies have or are in the process of integrating into their respective general plan documents.

B. Scenario No. 2: The RTP/SCS Scenario with 10-15% transit investment

This scenario is based on the scenario recommendations of the RTP Stakeholder Working Group. The recommendations take into account local agency general plan updates and future updates that integrate the San Joaquin Valley Blueprint Principles and are consistent with general plans that integrate changes after the 2008 base year. The recommendations are shown in two different categories for Land Use and Transportation, as follows:

Land Use recommendations

I. Increased connectivity of housing to commercial and community facilities

This recommendation called for the cities to use development designs and standards that open residential areas to walkability and bikeability to facilities. Suggestions for this recommendation included open-ended cul-de-sacs.

II. Encourage a mix of housing types in the urban centers (infill) with increased densities

The inclusion of varied housing types in the same development to effectively use all of the land and to provide housing options in different areas for different family types is the foundation of this recommendation.
III. **Encourage mixed use development**

In addition to placing different housing types in the same development, this recommendation suggests that the urbanized areas also consider mixed-use zoning in order to allow residences and business to occupy the same area or building.

IV. **Create a jobs/housing balance and/or proximity**

The Stakeholder Working Group recommended focusing development either near job clusters or along transit commuter routes to improve the travel options and access particularly for low income workers.

**Transportation recommendations**

V. **Increased investment in bicycle and pedestrian facilities with a concentration around schools and businesses**

The benefits provided by walking or riding a bicycle are realized in increased physical activity, improved health, and improved air quality. The Stakeholder Working Group focused on providing more bicycle and pedestrian facilities around schools and between residential neighborhoods and frequented destinations such as community and commercial facilities.

VI. **Increased investment in public transportation with concentrations and connectivity, and rural transit centers**

The focus of the recommended investment is directed to the transit dependent population, particularly in the outlying unincorporated communities and the City of Avenal – away from the urbanized centers of the county.

VII. **Encourage/incentivize the development of infrastructure for and the implementation of alternative fuel vehicles in government and private business**

In some cases, such as the provision of public safety and public services, a reduction in vehicle miles traveled is just not available as an option. In these situations the use of fuel and vehicle technology to reduce the emissions from passenger cars and light duty trucks is the best alternative. The Stakeholder Working Group recommended establishing charging stations at all governmental facilities and finding funding that would permit incentivizing the same infrastructure at the locations of private business for electric vehicles. The Stakeholder Working Group also encourages the continuation of the conversion process for government fleet cars and light duty trucks to Compressed Natural Gas (CNG) with the appropriate refueling infrastructure developed.

VIII. **Intelligent Transportation Systems such as traffic light synchronization on arterials and channelization to reduce and avoid congestion**

The occurrence of non-productive vehicle idle (stop-and-go or congested traffic) results in the highest level of emissions on the emissions-speed charts. In order to reduce vehicle idle time at intersections, the Stakeholder Working Group recommended a program of intelligent transportation technologies such as synchronized traffic lights that will keep vehicles moving at a more productive/steady pace and reduce emissions.

C. **Scenario No. 3: Intensified Transit - with 30% investment**

This scenario includes all of the land use and transportation recommendations of the previous scenario with a higher level of investment in transit.
D. Scenario No. 4: No-build - All transportation development and construction stops

This scenario assumes that there will be zero transportation investments through the year 2040. This is commonly used as a scenario option during this sort of planning process.

These scenario recommendations were returned to the local agencies to evaluate in reference to their general plans. All agencies responded that these recommendations were consistent with their general plan policies.

Additionally, KCAG received information from the City of Lemoore Planning/Public Works that there had been a shift of intended land use in the western edge of the city. An area (around the western terminus of Bush St.) was a planned development of 270 single family residences and 29 multifamily units. As a result of the Joint Land Use Study, the city made an agreement with NAS Lemoore to relinquish a portion of this land as resource land. While 50 of the single family homes would remain, 29 multifamily units and the remaining 220 single family homes would be relocated to other areas within the city’s primary sphere. Per direction by the City of Lemoore, the 29 multifamily units would become part of an ongoing development at the southwest corner of Industry and 19 1/2 Ave. and the single family homes would become part of a revised planned development in the northeast area west of 17th Ave. As a result of changing the zoning in this area, increasing the density of the development by reducing the lot size from 10,000 square feet to 6,000 square feet each, 42 additional homes will be added to this development. Two other areas around the Lemoore Ave. and Cinnamon Dr. intersection have been rezoned from light industrial and office to mixed use and will absorb the remaining relocated single family homes. Because these homes are being relocated to areas closer to commercial and community facilities, they provide reductions in vehicle miles traveled and a corresponding reduction of GHG emissions. This change in housing locations can be shown in the model.

4.1 Scenario Selection

The SCS inputs were provided to the travel demand model consultants for processing. The results of the data with the draft of this chapter were presented in three public workshops and two Stakeholder Working Group meetings. After an explanation of the SCS, the data, and the chapter content, the attendees of each meeting were asked to rank the four scenarios (Historical Trend, Moderate Transit Investments, Substantial Transit Investment, and No Investment) in their ability to achieve the goals of the RTP (Mobility and Accessibility, Environmental Quality, Safety and Health, Sustainable Development Pattern, and System Preservation) and also to rank the scenarios in order of their preference.

For the goals of Mobility and Accessibility, a Sustainable Development Pattern, and System Preservation, Scenario No. 2 was a clear preference. For the Safety and Health goal, Scenarios No. 2 and No. 3 were equally preferred and for the goal of Environmental Quality, Scenario No. 3 was preferred. When asked to take all of the information (ability to meet the ARB reduction targets, pattern of investment, ability to best meet the goals, and compatibility with their own priorities), Scenarios No. 2 and No. 3 were equally selected by the attendees.

Due primarily to the impact that the Scenario No. 3 investment pattern would have on system preservation, the KCAG Transportation Policy Committee chose Scenario No. 2 (10-15% transit investment with the associated land use recommendations) as the preferred Scenario for the final Sustainable Communities Strategy.
5.0 Coordination and Consultation with State Agencies

5.1 Strategic Growth Council (SGC)

Created by Senate Bill 732, the Strategic Growth Council (SGC) is a cabinet-level committee representing Business, Consumer Services and Housing, Transportation, Natural Resources, Health and Human Services, Food and Agriculture, and Environmental Protection, combined with the Governor’s Office of Planning and Research to coordinate activities that support sustainable communities emphasizing strong economies, social equity, and environmental stewardship.

The SGC manages several grant programs within the state. The SJV MPOs and local agencies have benefited from the grant programs that the SGC manages, such as:

Urban Greening Grant Program -
Hanford, East Downtown Streetscape Project, $73,597

Model Incentives Grant Program –
San Joaquin Valley MPOs Model Improvement Program: $2,500,000

Sustainable Communities Program -
San Joaquin Valley Blueprint Roadmap Program: $1,000,000

San Joaquin Valley Greenprint, Modeling, and SCS Completion Project $1.0 million

Kings County Association of Governments – County-wide Climate Action Plan $385,000

These grant funds have helped the San Joaquin Valley and our local Kings Region agencies accomplish projects or plans that will ultimately improve the ability of the areas to grow smarter and with less expense to the local governments for the future population growth projected in our region.

5.2 Air Resources Board (ARB)

Collaboration with the ARB began before SB 375 was signed into law. SB 375 required the formation of the Regional Targets Advisory Committee (RTAC) that included a representative chosen from the MPO Directors Committee of the Regional Policy Board. The first coordination meeting between KCAG and the ARB was held in December of 2009. At this meeting both KCAG and ARB expressed the desire to work collaboratively throughout this new and challenging process.

This collaboration continued throughout the process, with an ARB Staff member included on the KCAG RTP Stakeholder Working Group. Frequent exchanges of information to establish the methodologies that would be used to measure the GHG reductions also took place between the Valley MPOs and ARB. These coordination and consultation efforts culminated in the final “San Joaquin Valley GHG Quantification Technical Methodology” submitted to ARB February, 2014 on behalf of the eight SJV MPOs.

ARB Staff took the time needed to understand the unique travel pattern characteristics in the San Joaquin Valley. The first step of this process was to develop new travel models for each of the Valley MPOs that better capture interregional and intraregional trips. The Model Improvement Program (MIP) funded by Proposition 84 funds was completed in 2012 and will be further detailed in the subsequent section. In addition, the San Joaquin Valley planning and technical staffs have developed a consistent emission modeling methodology with ARB’s emission modeling software EMFAC2011 to complete all of the SB 375-related emissions analyses.
5.3 Tools and Methods

Modeling

Beginning in 2010, the eight Valley MPOs undertook a joint process to improve their travel demand modeling capabilities to help meet SB 375 requirements. This process was known as the San Joaquin Valley Model Improvement Program (MIP). Between 2010 and 2012, staff from each of the eight MPOs participated in monthly meetings with a team of technical consultants to upgrade the models and modeling processes. To enhance coordination efforts, staff from the Air Resources Board and the University of California Berkeley listened in on the monthly MIP meetings of the MPOs and technical consultants.

KCAG will utilize three main tools to estimate GHG emissions for their 2014 RTP/SCS:

1. Scenario Modeling – Land Use Model (varies by MPO);
2. MIP transportation model; and
3. EMFAC 2011 emissions factor model.

In the simplest terms, the scenario inputs and the local agency land use information are fed into the modeling software (1 and 2). The resulting data related to the interaction of land use and transportation and its effect on vehicle miles traveled is then provided as an output. This new output is subsequently entered into the EMFAC 2011 air quality modeling software, which measures the actual GHG reductions.

KCAG utilizes a four-step model for the size of our region. However, due to the capabilities of the model, the only measures that will show in the modeling data are changes in land use that move housing units out of one area and into another or the frequency of transit stops on a given route.

The GHG reductions that KCAG has been able to show from the modeling of the four scenarios are:

FIGURE 12-2
GREENHOUSE GAS EMISSION REDUCTION SCENARIO RESULTS

<table>
<thead>
<tr>
<th>Scenario</th>
<th>GHG Reductions</th>
<th>VMT Reductions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2020</td>
<td>2030</td>
</tr>
<tr>
<td>ARB GHG Targets</td>
<td>5.00%</td>
<td>10.00%</td>
</tr>
<tr>
<td>Business as Usual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15% Transit Scenario 2</td>
<td>5.13%</td>
<td>12.02%</td>
</tr>
<tr>
<td>30% Transit Scenario 3</td>
<td>5.16%</td>
<td>12.07%</td>
</tr>
<tr>
<td>No-build</td>
<td>5.22%</td>
<td>12.09%</td>
</tr>
<tr>
<td>No value</td>
<td>No value</td>
<td>No value</td>
</tr>
</tbody>
</table>

Off-Model Adjustments

Similar to other traditional four-step travel demand models, the KCAG model is not sensitive to the impacts of land use changes that do not shift housing from one area to another, transit changes that do not affect frequency but may affect ridership, transit hubs, Transportation Demand Management/Transportation Systems Management (TDM/TSM) projects such as Intelligent Transportation Systems (ITS), bike and pedestrian projects, and rideshare programs. In these instances, KCAG will rely on “off-model” techniques based on literature reviews, collaboration with other MPOs, and consultation with ARB’s Policies and Practices Guidelines.
Examples of professional tools for estimating travel and GHG reductions based on transportation and land uses have been provided by the Washington State Department of Transportation, USEPA, and FHWA. These sources identify tools for estimating GHG reductions based on land use and development, vehicle technologies, commuting patterns, and non-motorized travel.

For transportation projects in California, the ARB has developed the "Methods to find the Cost-Effectiveness of funding Air Quality Projects". The reductions in vehicle miles traveled and reductions in congestion (VMT equivalents) from investments in transportation improvements using the calculations established in this guidance then can be directly translated into reductions in GHG. For the four year cycle of the 2015 FTIP, the number of vehicle miles traveled reduced through programmed bicycle/pedestrian projects will be more than 100,000/year, VMT equivalents reduced through TDM/TSM will be more than 4.0 million/year, and the number of miles reduced through transit improvements are more than 2.0 million/year. These transportation-specific reductions that result in more than 6.4 million miles/year of the more than 473 million miles/year that are estimated to be driven by year 2020 can be translated into GHG reductions.

Additional reductions of GHG can be shown through the other tools such as changes in density only (i.e. from low density to low-medium or medium density, from commercial to mixed use), for changes in zoning (i.e. adding mixed use zones, or increasing density in existing zones), changes in land use connectivity (walkability/bikeability in neighborhoods and to nearby facilities), additional pedestrian or bicycle facilities (i.e. new facilities, bike facilities in industrial areas), additional transit routes (i.e. new routes, additional stops at existing routes, circulation routes within a city), and other transit improvements such as first-last mile connectivity for transit (i.e. bike racks on buses and at stops).

The Kings region will continue to benefit from the proactive and smart growth planning policies of our member agencies and collaborative planning efforts such as the Kings Regional Blueprint. The Blueprint Principles are an excellent example of the local planning that allows the base case to show the level of GHG emission reductions.

### 6.0 Performance Measures

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preservation of Agricultural and Resource Lands</td>
<td>The agricultural component of Kings County is part of America’s best producing farmland and part of the culture of the San Joaquin Valley. It is the desire and the goal of every decision making body to preserve it.</td>
</tr>
<tr>
<td>Environmental, Economic Opportunities, and Equity in access</td>
<td>The basic components of Sustainability.</td>
</tr>
<tr>
<td>Reduce Emissions</td>
<td>Meet not only the GHG reduction targets, but also the air quality improvement requirements of the state and federal air quality acts.</td>
</tr>
<tr>
<td>Improve Public Health</td>
<td>Increased active transportation options, improved community health outcomes through a decrease in obesity and diabetes and an improvement in cardiovascular health.</td>
</tr>
<tr>
<td>System Preservation</td>
<td>Maintain system pavement and bridges, improve system reliability, mobility, and safety. Implement appropriate elements of “fix-it-first” approach. Consider Jobs/housing balance and proximity, commercial corridors and clusters, commute patterns, transit corridors, and highway access improvements</td>
</tr>
<tr>
<td>Economic Development</td>
<td></td>
</tr>
</tbody>
</table>
6.1 Goals and Benefits

Provisions in SB 375 include opportunities for the CEQA process, when certain conditions are met, as an incentive for implementing projects that are consistent with this SCS. Generally, there are two types of projects for which CEQA requirements can be streamlined, once the MPO adopts an RTP and SCS that meet the greenhouse gas targets established by the California Air Resources Board:

- Residential/mixed use projects streamlining (Public Resources Code Section 21159.28)
- Transit priority projects streamlining (Public Resources Code Sections 21155-21155.3)

KCAG will continue to work with our member agencies to seek CEQA streamlining benefits as applicable to the specific projects.

7.0 Next Steps

Implementation of the RTP/SCS will carry on in the form of delivering transportation projects designed and selected in the RTP to achieve, to the extent practicable, the modeled and off-model improvements in air quality and reductions in GHG emissions from passenger cars and light duty trucks. This SCS chapter will be subject to all future RTP updates as mandated every four years. KCAG looks forward to improving the RTP/SCS process and prolonging the stakeholder communication exchange for future updates.