

**CHAPTER 12**  
**SUSTAINABLE COMMUNITIES STRATEGY**

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## **1.0 Introduction**

### **1.1 Legislation**

California's Senate Bill 375 requires Metropolitan Planning Organizations (MPOs) to prepare Sustainable Communities Strategy (SCS) as an integrated component of the Regional Transportation Plan.

Assembly Bill 32 (AB 32), California's Global Warming Solutions Act of 2006, establishes the statewide target for greenhouse emission reduction. Transportation accounts for approximately 40 percent of greenhouse gas emissions. In support to achieve the goal established by AB 32, Senate Bill 375 (SB 375) (Steinberg, 2008), which was enacted in September 2008, directs the Air Resources Board (ARB) to set regional targets for the greenhouse gas emission reduction for passenger vehicles and light duty trucks.

To help achieve necessary reductions from transportation sector, AB 32 scoping plan relies on regional planning as required by SB 375, which has three major components: 1) to use the regional transportation planning process to help achieve 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. 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.

Building on the existing regional transportation planning landscape, SB 375 requires MPOs to develop a "Sustainable Communities Strategy" incorporated to the regional transportation plan that demonstrates how the region will meet the greenhouse gas emission targets by integrating transportation, land use and housing in the planning process. Specifically, SB 375 requires that the SCS:

- Identify the general location of uses, residential densities, and building intensities within the region;
- Identify areas within the region sufficient to house all the population of the region, including all economic segments of the population, over the course of the planning period of the regional transportation plan;
- Identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region;
- Identify a transportation network to service the transportation needs of the region;
- Gather and consider the best practically available scientific information regarding resource areas and farmland in the region;
- Set forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce greenhouse gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emissions reductions target approved by the state board; and
- Quantify the reduction in greenhouse gas emissions projected to be achieved by the SCS and, if the SCS does not achieve the targeted reductions in greenhouse gas emissions, set forth the difference between the amount that the SCS would reduce greenhouse gas emissions and the target for the region.

## 1.2 Background

Kings County is comprised of four incorporated cities Avenal, Corcoran, Hanford and Lemoore, and four unincorporated communities Armona, Home Garden, Kettleman City, and Stratford. 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, with the highest percentage of land enrolled in the protected farm lands programs in California. 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). The county and four cities have coincidental restrictions on growth outside the primary urban boundaries of the cities.

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 Advisory Group, in developing the 2018 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.

As the new SCS develops, KCAG reviewed the general plans with our member agencies on policy direction and land use patterns, which serve as the foundation for our transportation planning and the latest planning assumptions (LPA) for the RTP/SCS update, and found consistence throughout all the general plans that the primary goal of preserving farmland through minimizing its conversion to residential or even commercial development.

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. Detailed information on the active transportation facilities is provided in the Chapter 8 and the public transportation system in the Chapter 6.

### **1.3 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 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.

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.

### **1.4 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.

### **1.5 Regional Housing Needs Allocation**

SB 375 reinforces the linkage between Regional Housing Need Allocation (RHNA) and the RTP process to better integrate housing, land use, and transportation planning. The regional housing need projection determination was received from the California Department of Housing and Community Development (HCD) in January 2014. Based on the allocation determination by HCD, KCAG prepared the Kings County Regional Housing Need Assessment Plan, which was adopted in January 2015, to allocate each jurisdiction's fair share of new housing units that are projected to be needed from January 1, 2014 to January 31, 2024. Given that the Housing Element cycle is eight years, the Kings County RHNA Plan, prepared concurrently with the development of 2014 RTP/SCS, is still applicable to the 2018 RTP/SCS development cycle.

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". SB 375 also requires consistency between the RHNA and the development pattern of the SCS. The Kings County RHNA and SCS are consistent in both development pattern and quantity of housing units. 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 January 1, 2014 to January 31, 2024 period for the KCAG region.

Available housing capacity in each KCAG member jurisdiction in the SCS preferred scenario is adequate to accommodate each jurisdiction's respective share of housing need as allocated by KCAG's adopted RHNA methodology. Available residential capacity in each jurisdiction is therefore sufficient to accommodate at minimum that jurisdiction's share of the regional housing need and KCAG's RHNA allocation plan allocates 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 adopted RHNA allocation. Figure 12-2 shows the Land Inventory Summary by jurisdiction and income category from the adopted Kings County 2016-2024 Housing Element.

**FIGURE 12-1**

**ADOPTED REGIONAL HOUSING NEEDS ALLOCATION DISTRIBUTION**

<b>REGIONAL HOUSING NEED ALLOCATION PHASE 2: BY INCOME DISTRIBUTION</b>										
Jurisdiction	Very Low <sup>(2)</sup>	% of Total	Low <sup>(3)</sup>	% of Total	Moderate <sup>(4)</sup>	% of Total	Above Moderate <sup>(5)</sup>	% of Total	Total Housing Need	%
Avenal	145	22.70%	108	17.00%	115	17.90%	271	42.40%	<b>639</b>	100%
Corcoran	215	22.70%	161	17.00%	169	17.90%	401	42.40%	<b>946</b>	100%
Hanford	1,097	22.70%	821	17.00%	865	17.90%	2,049	42.40%	<b>4,832</b>	100%
Lemoore	677	22.70%	507	17.00%	534	17.90%	1,267	42.40%	<b>2,985</b>	100%
Uninc. County.	186	22.70%	138	17.00%	147	17.90%	347	42.40%	<b>818</b>	100%
<b>Total County<sup>(6)</sup></b>	<b>2,320</b>	<b>22.70%</b>	<b>1,735</b>	<b>17.00%</b>	<b>1,830</b>	<b>17.90%</b>	<b>4,335</b>	<b>42.40%</b>	<b>10,220</b>	<b>100%</b>
2011 (Inflation Adjusted Dollars) Kings County Household Median Income - \$48,838 <sup>(1)</sup>										
<sup>(1)</sup> U.S. Bureau of the Census, 2007-2011 American Community Survey, S1901, Income in Past 12 Months (2011 Inflation Adjusted) <sup>(2)</sup> Very Low = 50% of County Median Income (\$24,419 and below) <sup>(3)</sup> Low = 50% to 80% of County Median Income (\$24,420 to \$39,070) <sup>(4)</sup> Moderate = 80% to 120% of County Median Income (\$39,071 to \$58,606) <sup>(5)</sup> Above Moderate = 120% of County Median Income (\$58,607 and above) <sup>(6)</sup> Regional Housing Needs Determination dated January 22, 2014, Department of Housing and Community Development										

Source: 2014 Kings County Regional Housing Needs Assessment Plan

## FIGURE 12-2

### HOUSING ELEMENT LAND INVENTORY SUMMARY

Jurisdiction	Income Category				Total
	EL / VL	Low	Mod	Above Mod	
<b>Avenal</b>					
RHNA Units	145	108	115	271	639
Units completed or permitted	40	-	4		44
Net Remaining RHNA	213		111	271	595
Housing Sites	580		2,145	2,049	4,474
Adequate Capacity?	Yes		Yes	Yes	Yes
<b>Corcoran</b>					
RHNA Units	215	161	169	401	946
Units completed or permitted					
Net Remaining RHNA	376		169	401	946
Housing Sites	477		1,198	1,000	2,675
Adequate Capacity?	Yes		Yes	Yes	Yes
<b>Hanford</b>					
RHNA Units	1,097	821	865	2,049	4,832
Units completed or permitted	9	1	63	64	137
Net Remaining RHNA	1,908		802	1,985	4,695
Housing Sites	2,067		3,394	41	5,502
Adequate Capacity?	Yes		Yes	Yes	Yes
<b>Lemoore</b>					
RHNA Units	677	507	534	1,267	2,985
Units completed or permitted	-	28	184	-	212
Net Remaining RHNA	1,156		350	1,267	2,773
Housing Sites	1,523		1,181	1,121	3,825
Adequate Capacity?	Yes		Yes	Yes	Yes
<b>Kings County Unincorporated</b>					
RHNA Units	186	138	147	347	818
Units completed or permitted	9		22	13	44
Net Remaining RHNA	315		131	334	774
Housing Sites	354		845	906	2,105
Adequate Capacity?	Yes		Yes	Yes	Yes

Source: 2016-2024 Kings County Housing Element

Notes: Only deed-restricted units have been counted toward the lower-income RHNA.

## **2.0 Public Outreach**

### **2.1 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. A Supplemental Public Participation Plan (PPP) for the 2018 RTP/SCS effort was adopted on February 22, 2017.

The 2018 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 Advisory Group.

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 two public workshops in the cities of Avenal and Hanford/Lemoore during the first phase of the outreach effort and an additional three workshops following the development of proposed SCS scenarios in the cities of Avenal, Corcoran, and Hanford/Lemoore. Spanish service was provided for locations where large share of Spanish population resides. Public hearings will also be held at two KCAG Commission meetings prior to the adoption of the RTP and SCS.

### **2.2 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 was provided regular updates on the progress of the outreach efforts with the general public and the RTP/SCS Stakeholder Advisory Group. The monthly TAC meeting ensured regular communication with local member agencies and other stakeholders that questions and concerns raised during the RTP/SCS development process were addressed in time. The TAC provided valuable information regarding land use policies and insight into the local needs of KCAG member agencies to inform the RTP/SCS development.

### **2.3 Stakeholder Advisory Group**

KCAG formed a Stakeholder Advisory Group that included representative 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 role of the Stakeholder Advisory Group was to inform the entire RTP/SCS development process on SCS scenario development and selection. The Stakeholder Advisory Group held three



publicly noticed and open meetings to develop the scenario inputs and select preferred SCS scenario for the 2018 RTP/SCS. On the early phase, the Group initiated the discussion on not only the integrated land use/transportation planning approaches, but the off-model strategies that include active transportation and alternative fuel vehicles to help the region reduce GHG emissions. Following the completion of public outreach activities and modeling calculation, the Group had a thorough discussion and reached consensus on preferred scenario, incorporating considerations of the outreach feedback, modeling outcome, development priorities of jurisdictions and the level of GHG emission reduction target attainment.

## 2.4 Public Outreach Program

KCAG designed and implemented a comprehensive outreach program to support the development of the 2018 RTP/SCS.

### 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.



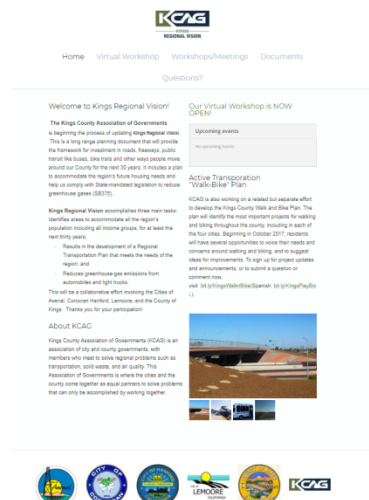
### City Council and Board Presentations

Presentations were made to the Avenal, Corcoran, Hanford, and Lemoore City Councils and the Kings County Board of Supervisors in March and April of 2018 to outline the proposed RTP and SCS planning process and 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.



### 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](http://www.KingsRegionalVision.com), where information about the RTP and SCS process was readily available. The site has had an average of 250-350 unique visits per month since its launch in early 2017. All meeting materials, web-based engagement channels and surveys were available in the planning process to solicit public comments. The total of seven eBlasts was sent to our stakeholder lists.



### 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 accessible from the project website.

### 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 news papers, radio stations, and ethnic media.



### 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 interactive presentations at Lemoore Rotary Clubs, Senior Centers at various cities, Kettleman City Family Resource Center and Avenal/Corcoran Rotary as part of this process.

### Virtual Workshops

Virtual workshops were made available with a narrated version of the presentations and opportunities to take the survey online. The scenario workshop closed in June 2018.

### 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 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.



## **2.5 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.

## 2.6 Social Equity in the SCS

### 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 2018 Regional Transportation Plan (RTP) and the 2019 Federal Transportation Improvement Program (FTIP).

KCAG Public Participation Plan (PPP), which was adopted in December 2011, includes the practices of environmental justice. A Supplemental PPP was developed and adopted in February 2017 for the 2018 RTP/SCS efforts. 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.

### 3.0 SCS Implementation and Achievement

California has established ambitious climate change goals to reduce greenhouse gas emissions 40% below 1990 levels by 2030 and 80% under 1990 levels by 2050. KCAG has been collaborating with local agencies to ensure that the region is working toward the State's 2030 and 2050 climate change goals by encouraging land use and transportation decisions that minimize greenhouse gas emissions. The adopted scenario within the 2014 RTP/SCS incorporated land use policies from recently updated general plans and transportation policies that were included in the Transit Development Plan. KCAG plans to build upon these ongoing efforts in the upcoming 2018 RTP/SCS. As for KCAG in this 2018 RTP/SCS cycle, the greenhouse gas emission reduction targets remain at 5% for 2020 and 10% for 2035. The ARB adopted new targets on March 22, 2018 that will take effect for the 2022 RTP/SCS cycle. For KCAG, the new targets will be 5% for 2020 and 13% for 2035.

Many of the projects listed in the 2014 RTP/SCS under the preferred scenario have been successfully completed, or are currently in the process of implementation. In fact, transit projects included in the enhanced alternative scenario have also been implemented. The following projects highlight the efforts that Kings County is pursuing as part of the SCS implementation that clearly demonstrates how state visions and goals are realized on a local and regional level.

#### Transit

- *KART Service improvements*

*Additional Fixed Routes:* Additional transit service and operational improvements were implemented for the Kings Area Rural Transit (KART) system as part of the 2014 RTP/SCS. An additional morning route for the Hanford to Avenal fixed route was added in 2014, an additional morning route was added to the Hanford to Corcoran fixed route. In June of 2016 a new fixed route within the City of Lemoore was implemented. Existing fixed routes within the City of Hanford will be modified in early 2017 to accommodate service to a new commercial development and a new courthouse, which will also provide service to several environmental justice communities. As with all new transit services, they are being evaluated to determine if the services are cost effective and if any modifications are necessary.

*Operation Improvement:* A bus intelligence system was deployed that provides transit location and schedule information through a mobile app to increase operational efficiency and increase ridership

*Transit Marketing Plan:* In September 2016, a KART Marketing Plan was adopted to increase transit ridership using measures that are actively being implemented.

*ADA Transit Design Standards Manual:* KCAG provided support for KCAPTA to complete the ADA Transit Design Standard Manual that serves as a comprehensive reference for the region as the transit system grows to identify and prevent potential ADA compliance or service issues with transit development within both urban and rural service areas.

#### Intercity Rail

- *Additional Trains:* The Amtrak San Joaquin inaugurated their 7th Daily Round-Trip on June 20, 2016. The additional 8th daily round-trip train service began on May 7, 2018 between Bakersfield and Oakland and deploying the "Early Morning" schedule, making it more convenient for passengers to travel between the Bay Area, San Joaquin Valley cities, and other destinations throughout California. This is the first expansion of train service on the San Joaquin in over 14 years. Providing increased frequency of service is essential to the continued growth of ridership and revenue for the San Joaquin.

### Mobility Enhancements

- *SR 198/12th Avenue:* The purpose of this project was to improve traffic operations and safety at an existing interchange on SR 198 at 12th Ave., a major north/south collector street within the City of Hanford. This interchange was previously a modified partial diamond configuration with ramps controlled by signals. The completed project modified the interchange to a partial cloverleaf configuration including a loop on-ramp. The project was completed and opened to traffic in 2016.
- *SR 198/19th Avenue:* The SR 198/19th Ave. interchange project in the City of Lemoore provides route continuity, increases capacity, improves local access to the regional highway system, and improves safety on SR 198 by upgrading a segment of expressway to freeway between the SR 41/198 separation and the Lemoore Ave. interchange and eliminated two uncontrolled at-grade crossings within the project limits where accident rates are above the expected levels. The project included the conversion of an at-grade access to SR 198 at 19th Ave. to a partial cloverleaf interchange and was completed in 2015.
- *Traffic Signalization:* KCAG continuously works with local jurisdiction to identify and address the local needs for traffic mitigation. Several traffic signal projects have been programmed in the FTIP and implemented by the local jurisdictions in various locations throughout the Kings region.
- *Roundabouts:* To facilitate traffic mitigation and improve safety on various locations in the region, two roundabout projects have been completed, including the construction of the SR 43/Lacey Boulevard Roundabout and SR 43/Whitley Avenue Roundabout. A third roundabout is to begin construction in 2018 at SR 198/Hanford Armona Road.

### Vanpools

- *CalVans Growth:* In 2012, the California Vanpool Authority (CalVans) was established as a joint powers agency, of which KCAG is a member, and currently operates within 17 counties. CalVans is able to provide safe, affordable vans to eligible agricultural farmworkers traveling to the field and general vanpools for employment destinations and for students. CalVans' general and agricultural vanpools show a trend in growth over a 5 year period, and as a result, CalVans is planning to increase the number of available vans in its fleet.

The California Vanpool Authority (CalVans) was awarded a \$3 million Affordable Housing and Sustainable Communities (AHSC) grant for the Agricultural Worker vanpool expansion project for agricultural workers in the San Joaquin Valley's disadvantaged communities. A total of 80 vehicles were purchased in 2015 using the award and are being placed into service. In FY 15-16 there were approximately 150 vanpools operating within Kings County with a reported 368,358 vanpool passengers that drove a total of 1.6 million miles annually. The expansion of CalVans has resulted in a significant amount of GHG emission reductions.

- *AQIP Grants:* ARB has committed \$3 million each year for 3 years in funding from the Air Quality Improvement Program's (AQIP) Low Carbon Transportation allocation in support of additional vehicles for the agricultural worker vanpool program in the San Joaquin Valley. The funds will be used to purchase zero-emission, plug-in hybrid, or hybrid passenger vans and installation of electric charging equipment at multiunit dwellings and other appropriate locations in disadvantaged communities, providing increased access for lower-income consumers to clean transportation.

### Active Transportation

- *Cinnamon Drive Bicycle/Pedestrian Project:* Cinnamon Drive is a busy collector roadway that is a common route used to access schools, parks, and a major city community recreational facility. The area attracts all ages of pedestrians and bicycle riders that previously had no

designated areas to travel on. This project constructed a Class 2 bicycle facility in the roadway and ADA compliant pedestrian facilities off the roadway. The project was completed in 2016.

- **Safe Routes to Schools Projects:** The County of Kings received Safe Routes to Schools grants for the unincorporated disadvantaged community of Kettleman City and Home Garden. The goal of the projects was to increase the safety of students. Both completed projects involved improving pedestrian and bicycle facilities in order to provide children with safe access to school.
- **Active Transportation Plans:** KCAG's local member agencies have been actively planning to enable better walking and biking environment. The city of Hanford recently adopted its Active Transportation Plan with a principal goal to provide the means to support bicycling and walking as an alternative mode of transportation for work, daily activities, and recreational trips. The Plan includes a prioritized list of bicycle and pedestrian projects on numerous streets and in close proximity to various local school sites. KCAG has programmed over \$800,000 from the Congestion Mitigation and Air Quality Program to these projects which are currently in the implementation phase.

The City of Avenal adopted their Active Transportation Plan and Safe Routes to School Plan in December 2016. These plans are intended to promote Avenal to become a more sustainable community. The goals of the Active Transportation Plan and Safe Routes to School Plan are to 1) encourage Avenal residents to walk and bike more; 2) create a safer walking and biking environment that results in lower pedestrian- and bicyclist-related collision rates; and 3) reduce automobile use and consequently reduce air pollution.

KCAG is in the process of developing the Kings County Regional Active Transportation Plan which is expected to be adopted in 2018. The Plan will investigate needs and concerns from local communities on walking and biking through a variety of outreach approaches, propose improvement suggestions and identify prioritized projects for each of the local jurisdictions within the county. The plan will also be utilized in support of local jurisdictions for active transportation related grant applications.

#### Electric Vehicle Infrastructure

- **Local Agency Implementation:** KCAG supports the development of infrastructure for the use of alternative fuel vehicles in government and private business. Local agencies have applied for and received grant funds from the San Joaquin Valley Air Pollution Control District and Southern California Edison to purchase electric vehicles and install electric vehicle charging stations. The County of Kings will be installing 9 electric vehicle charging stations at the County Motor Pool for their electric vehicle fleet of which they will be purchasing 6 electric vehicles in FY 2016-17. The City of Hanford installed electric vehicle charging stations at two city locations with one that is open to the public, purchased 5 electric vehicles and will soon be purchasing more. The City of Corcoran purchased 2 electric vehicles in FY 2016-17 and participates in the HERO program that will enable property owners to finance electric vehicle charging infrastructure on their properties.
- **Regional Electric Vehicle Readiness Plan:** KCAG will be preparing a Regional Electric Vehicle Readiness Plan in FY 2018-19 to facilitate additional implementation of electric vehicle charging stations to enable and encourage the continuing growth of electric vehicle use throughout the County.

#### Efficient and Equitable Development

- **City of Hanford General Plan Update:** The City of Hanford has completed their general plan update process and adopted the 2035 Hanford General Plan in April 2017. The latest general plan update includes many proactive smart growth strategies that encourage both compact and infill development designed to minimize resource consumption and reduce automobile

dependency. A lower growth rate is being projected and the average housing units per acre has increased resulting in increased densities. The Hanford General Plan directs growth toward walkable and mixed-use areas that are planned to integrate housing with regional transit, employment, service, and amenities.

In addition, several new community design policies have been developed that propose to increase mixed use within residential zoning, and transit oriented development within the central business district and mixed use corridors. Two targeted transportation corridor planning areas have been identified that will be revitalized to accommodate a mix of nonresidential and residential uses. Four new growth areas have been established which will be guided by policies that will encourage higher density residential uses, decrease automobile dependency and allow more people to walk, bike, or take transit for daily trips by encouraging new growth within compact, walkable neighborhoods.

- *City of Lemoore General Plan Update:* The City of Lemoore is undergoing the general plan update process. The ongoing efforts include hosting community meetings and focus group sessions designed to provide visioning for how the citizens want the city to develop in the future. It is assumed that the 2040 Lemoore General Plan will continue and expand upon the many smart growth principles adopted within the current General Plan that were utilized in the 2014 RTP/SCS.
- *City of Avenal General Plan Update:* The City of Avenal has completed their general plan update process and adopted the 2018 General Plan Update in March 2018. Avenal previously received a Sustainable Communities Planning grant to develop a series of “Sustainability Implementation Programs” that will facilitate the implementation of the General Plan goals and policies and allow Avenal to become a more sustainable community. The Sustainability Implementation Programs include two planning documents, an Active Transportation Plan and a Safe Routes to School Plan.
- *Climate Action Plan (CAP):* The cities of Avenal and Hanford collaborated to develop a Regional Climate Action Plan (CAP) in 2014 that identifies voluntary, cost effective measures to reduce GHG emissions. It includes measures to encourage low carbon and alternative fuel vehicles, electric vehicle readiness, and employer-based transportation demand management. Elements of the CAP are being incorporated into the Avenal and Hanford General Plan updates.
- *Public Health Partnership:* KCAG, in collaboration with other Kings County organizations, is involved in the Kings Partnership for Prevention efforts to develop a County Nutrition Action Plan in a way to achieve health equity through climate action. The goals are to promote active transportation, prioritizing infill and transit-oriented development, encourage local food systems and healthy diets, and green the built environment to provide access to trees, parks, and open spaces. Surveys during the community needs assessment process identified the lack of transportation as a barrier to eating healthy foods, participating in active living, access to health care, and having a healthy environment.

## **4.0 2018 SCS Development**

### **4.1 Scenario Development Process**

KCAG staff initiated the SCS development process in early 2017. In collaboration with the RTP/SCS Stakeholder Advisory Group members, KCAG explored various strategies that not only contribute to reducing GHG emission, but also are practical to be deployed, given the highly rural setting in Kings County. The strategies were summarized into five categories: Land use, mobility improvement, operational improvement, active transportation and alternative fuel vehicles. SCS scenarios were created consisting of a combination of strategies, each with varying level of investment. Based on the in-depth analysis on the development direction of all the jurisdictions and the insight and perspective from the Stakeholder Advisory Group members, the approach of developing the SCS scenarios tailored to the needs of the region is encouraged to encompass all strategies with different degree of investment, other than choosing one over the other. The main five strategies which constitute the SCS scenarios are illustrated below.

#### Land Use

Low investment in land use strategy was proposed in all the scenarios as they intend to honor the jurisdictions' current land use policies in their general plans. Although Kings County is relatively rural area, mixed-use infill development and higher density development are already seen in part of the urbanized areas. In addition, the mixed use and infill development projects are encouraged in the latest Hanford general plan update. Land use changes that were modeled in the scenarios above the base incorporated infill development projects within the cities of Lemoore and Hanford.

#### Active Transportation

Active transportation strategy is to encourage the construction of bicycle and pedestrian facilities. Altering people's travel behavior from driving to walking and biking not only is beneficial for their health, but also contributes to the efforts in mitigating greenhouse gas emissions. KCAG is in the process of preparing the Kings County Regional Active Transportation Plan which will identify prioritized bicycle and pedestrian projects and provide support for local jurisdictions to apply for active transportation related grants. KCAG will continuously collaborate with local jurisdiction to prepare active transportation related grant application and implement projects in timely manner. More projects to install construction of bicycle and pedestrian facilities at various locations within the region will be funded through Congestion Mitigation Air Quality Program.

#### Alternative Fuel Vehicles

The deployment of alternative fuel vehicles and the readiness of supporting infrastructures available throughout the region are critical to reduce greenhouse gases. In the past few years, our local member agencies have been active in applying for and successful to secure funds for alternative fuel vehicle purchase, including Compressed Natural Gas vehicles and Plug-in Electric vehicles. To echo the state's ambitious action to promote zero emission vehicles, KCAG prepares to develop the Regional EV Readiness Plan to identify effective strategies to encourage the adoption of electric vehicles. In the meantime, local agencies will keep up the efforts to secure funds to purchase alternative vehicles for the public fleet and install supporting facilities, moving towards a cleaner energy future.

#### Mobility Improvement

Mobility improvement comprises transit system and ridesharing program. Pilot Flex Route Program for Hanford and Lemoore is expected to provide evening services for students and residents to request transportation between bus stop locations only. This will greatly improve connectivity with direct trips and ride times between destinations. Ridership is expected to increase by serving areas more frequently to meet growing needs while balance operational costs. A passenger mobile app will be available to enable better public's transit experience. Ridesharing programs



include CalVans Vanpool Expansion program and Agricultural Vanpool program to help reduce the single occupancy vehicle travels. Transit changes that were able to be modeled in the scenarios above the base incorporated increased transit stop coverage within the Lemoore Naval Air Station and service to the Santa Rosa Rancheria and Tachi Palace.

#### Operational Improvement

Operational improvement comprises traffic signal installation, signal synchronization and roundabout construction to mitigate traffic congestion. More traffic signalization projects are programmed and expected to be implemented to relieve traffic congestion in the region.

### **4.2 SCS Scenario Alternatives**

#### A. Active Transportation Focused

- High Investment – encourage the construction of bicycle and pedestrian facilities.
- Medium Investment– encourage the development of infrastructure for and the implementation of alternative fuel vehicles.
- Low Investment –
  - (a) Mobility improvements: encourage transit + ridesharing
  - (b) Operational improvements: encourage the installation of traffic signal and signal synchronization
  - (c) Land use: encourage mixed-use, high-density and infill new development in existing communities

#### B. Alternative Fuel Focused

- High Investment – encourage the development of infrastructure for and the implementation of alternative fuel vehicles.
- Medium Investment – encourage transit + ridesharing
- Low Investment –
  - (a) Active transportation: encourage the installation of bicycle and pedestrian facilities.
  - (b) Operational improvements: encourage the installation of traffic signal and signal synchronization
  - (c) Land use: encourage mixed-use, high-density and infill new development in existing communities

#### C. Aggressive Green

- High Investment –
  - (a) Encourage the installation of bike and pedestrian facilities.
  - (b) Encourage the usage of Alternative fuel vehicle/electric vehicle (Alt/EV) for public transit vehicle fleet
- Low Investment –
  - (a) Mobility improvements: encourage transit + ridesharing
  - (b) Operational improvements: encourage the installation of traffic signal and signal synchronization

- (c) Land use: encourage mixed-use, high-density and infill new development in existing communities

D. Balanced Solution

- Medium Investment –
  - (a) Encourage the construction of bicycle and pedestrian facilities
  - (b) Encourage the development of infrastructure for and the implementation of alternative fuel vehicles
  - (c) Mobility improvements: transit + ridesharing
- Low Investment –
  - (a) Operational improvements: encourage the installation of traffic signal and signal synchronization
  - (b) Land use: encourage mixed-use, high density and infill new development in existing communities

### **4.3 Scenario Selection**

The four proposed scenarios were presented in public workshops, with visualized tools to showcase the completed, ongoing and future projects to demonstrate the effectiveness of each of the strategies incorporated into the 2018 RTP/SCS. Participants were profoundly involved in the workshop discussion with KCAG staff to share their needs and visions for the community's transportation planning. Each of the scenarios has their supporters, but Scenario A and Scenario D have the similarly high rating based on the voting result from the workshops.

The feedback of the workshops and the modeling results were presented to inform the decision making process of the Stakeholder Advisory Group members to select the preferred scenario for the 2018 RTP/SCS. Representative from different agencies have their own priority to achieve and particular concerns to address. While some expressed strong tendency towards the active transportation strategy, others favor the balanced approach to allow a greater degree of flexibility and possibility for all of the options.

Group members had a thorough discussion on the preference between Scenario A and Scenario D from multiple perspectives including the assurance of achieving the GHG target, the difference in transportation needs of all local jurisdictions and the collaborative vision of sustainable development for the region. Taking all input into careful consideration, the group reached consensus to select Scenario D as the preferred scenario for the final Sustainable Communities Strategy.

## 5.0 Tools and Methods

### 5.1 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 four main tools to estimate GHG emissions for their 2018 RTP/SCS:

1. Scenario Modeling – Land Use Model (varies by MPO);
2. MIP transportation model; and
3. EMFAC 2014 emissions factor model;
4. Off-Model Adjustments.

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 2014 air quality modeling software, which measures the actual GHG reductions. Since the 2014 RTP/SCS, the KCAG MIP model has been updated to a 2015 base year with the new 2015 population information, employment data, traffic counts, travel data, transit coverage, including updated land use information from recent General Plan updates and amendments for local agencies.

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.

### 5.2 Off-Model Adjustments

Similar to other traditional four-step travel demand models, the KCAG model is not sensitive to the impacts of Transportation Demand Management/Transportation Systems Management (TDM/TSM) projects such as Intelligent Transportation Systems (ITS), bike and pedestrian projects, and rideshare programs, nor electrical vehicle penetration. In these instances, KCAG will rely on “off-model” strategies using methodologies commonly used in literature, previously approved or cited by ARB, and consistent with the other California MPOs.

Examples of off-model strategy sources include *Moving Cooler*, which is a study commissioned by the Urban Land Institute and conducted by Cambridge Systematics in 2009 to analyze the effective of transportation strategies for reducing GHG emissions. This source has been widely used by other California MPOs in support of SCS GHG reduction analysis. Other ARB approved off-model strategies were also used to account for GHG reductions not captures by the KCAG model.

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.

The GHG reductions that KCAG has been able to show from modeling and off-model adjustments are:

### FIGURE 12-3

#### GREENHOUSE GAS EMISSION REDUCTION OF PREFERRED SCENARIO RESULTS

Scenario	GHG Reductions	
	2020	2030
ARB GHG Targets	5.00%	10.00%
Baseline Scenario*	7.6%	7.8%
Balanced Solution** D	10.77%	11.77%

\*Baseline Scenario does not include off-model strategies.

\*\*Balanced Solution includes off-model strategies.

## 6.0 Performance Measures

Performance Measure	Description
Preservation of Agricultural and Resource Lands	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.
Environmental, Economic Opportunities, and Equity in access	The basic components of Sustainability.
Reduce Emissions	Meet not only the GHG reduction targets, but also the air quality improvement requirements of the state and federal air quality acts.
Improve Public Health	Increased active transportation options, improved community health outcomes through a decrease in obesity and diabetes and an improvement in cardiovascular health.
System Preservation	Maintain system pavement and bridges; improve system reliability, mobility, and safety. Implement appropriate elements of “fix-it-first” approach.
Economic Development	Consider Jobs/housing balance and proximity, commercial corridors and clusters, commute patterns, transit corridors, and highway access improvements

### 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.